# 2016 Reynolds Grantee Annual Meeting

**Monday, October 24 – Wednesday, October 26, 2016**  
**Ritz-Carlton • New Orleans, LO**

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<tr>
<td>7:00 – 8:00 am</td>
<td>Breakfast</td>
<td>Lafayette Ballroom</td>
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<td>8:00 – 8:30 am</td>
<td>Introductions and Overview</td>
<td>Grand Ballroom</td>
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<tr>
<td></td>
<td>Rosanne M. Leipzig, MD, PhD, Icahn School of Medicine at Mount Sinai</td>
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<tr>
<td>8:30 – 10:00 am</td>
<td>Keynote Address</td>
<td>Grand Ballroom</td>
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<tr>
<td></td>
<td>Where is Medical Education going in the New World of Value Based Compensation?</td>
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<td></td>
<td>Eric Holmboe, MD, Senior Vice President, Accreditation Council for Graduate Medical Education</td>
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<tr>
<td>10:00 – 10:15 am</td>
<td>Break</td>
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<tr>
<td>10:15 – 11:45 am</td>
<td>Faculty Development Workshop Session A</td>
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<td></td>
<td>Please see last pages of the agenda for session descriptions.</td>
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</table>

**Carrollton**

“But I've never done this before…” - Strategies to get your Faculty up to Speed to Teach Interprofessional Learners
Elizabeth Eckstrom, MD, MPH, Oregon Health & Science University; Josette Rivera, MD, UC San Francisco; Elizabeth Tanner, PhD, RN, Johns Hopkins University

**Broadmoor**

Developing Order Sets Necessary for a Geriatric Orthopedic Co-Management Program
Lynn McNicoll, MD, Brown University; Daniel Mendelson, MD, University of Rochester; Laurence M. Solberg, MD, University of Florida; Kencee Graves, MD, University of Utah; Jennifer Ouellette, MD, Yale University.
For participants who are actively working on either geriatric surgery order sets or a business case at their institution, please bring 8 copies of the draft order sets or business case to discuss, share with your table and get constructive feedback.

**Fountainbleau**

Improving Resident Training in Care of the Hospitalized Older Adult: Best Practices in Development of Sustainable Curricula
Ugochi Ohuabunwa, MD, Emory University; Thomas Dalton, MD, University of Texas Southwestern; Kathryn Callahan MD, Wake Forest; Katrina Booth, MD, University of Alabama-Birmingham; Maureen Dale, MD, and Lindsay Wilson, MD, University of North Carolina
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<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>11:45 am – 1:00 pm</td>
<td>Lunch</td>
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<tr>
<td>1:00 – 2:00 pm</td>
<td>Plenary Session</td>
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**A National Geriatrics Curriculum: Web-GEMs and MedU**  
*Rosanne M. Leipzig, MD, PhD; Cynthia Howlett-Willis, Chief Operating Officer, MedU; Kathryn Callahan, MD, Editor-in-Chief; Amit Shah, MD, web-GEMs*  

Web-GEMs will outlive Reynolds Foundation funding due to our new partnership with MedU. This session will focus on using tools like web-GEMs for self-paced learning and flipped classrooms (where the student views the content at home and comes to the classroom prepared for practical application, exercises, discussions and individualized attention). In educational environments that emphasize clinical productivity, these tools
can free faculty time for more high value teaching and allow students to learn at their own pace.

2:00 – 2:15 pm  Move Along Break

2:15 – 4:00 pm  Concurrent Workshops

Concurrent Deep Dives into Hot Topics in Geriatrics
These interactive workshops will be led by faculty with experience in each of the areas and are designed to be consultative opportunities to explore topics related to sustaining geriatrics and geriatric careers. The themes of the concurrent deep dive sessions will be:

<table>
<thead>
<tr>
<th>ROOM</th>
<th>SESSION TITLE</th>
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</table>
| Carrollton    | **Identifying and Working with Mentors** Mentorship is crucial to professional success in academic medicine. There are challenges to being a thoughtful and effective mentor and to being an engaged mentee, including difficulty finding time to build and foster mentoring relationships, given demanding workloads and competing time commitments. Identifying a good mentor may be particularly challenging for academic geriatricians who have difficulty finding mentors that share their professional interests and career goals. This interactive session will provide practical guidance for clinician educators about issues in mentorship.  
  *Kathryn E. Callahan, MD; Suzanne Gillespie, MD; Annette Medina-Walpole, MD; Zaldy Tan, MD* |
| Broadmoor     | **Business Skills for Value Based Care** Demonstrating how geriatric care creates value in health systems is becoming key to sustaining geriatrics in academic medical centers. This session will explore ways to demonstrate geriatrics’ value era of population health transformations.  
  *Thomas Fairchild, PhD; Kellie Flood, MD; Mark Supiano, MD* |
| Fountainbleau | **Succession Planning for your Division/Dept.** An exploration of what geriatrics administrative leaders think about, and how they think about it, when considering succession within an institution, a department/division, or a project. Ways to plan for program hand-offs, ways to identify and test potential successors, ways to move beyond yourself when thinking about what is next for you and your institution. And a look at some of the unanticipated ways things can turn out.  
  *Harvey Cohen, MD; William Hall, MD; Jeff Williamson, MD* |
| Evangeline    | **Developing Interprofessional Education at Your Institution** The best way to prepare for interprofessional care is to offer interprofessional training. This session will help you think about ways to lay the groundwork (stakeholders) and build the collaborations that can make IPE succeed even without Reynolds funding.  
  *Anna Chang, MD; Tom Dalton, MD; Janice Knebl, MD; Jane Potter, MD; Dan Swagerty, MD* |
4:00 – 5:15 pm  Marketplace A (Best of Reynolds)  Room: Audubon  (w/POGOe, web-GEMs, MedU and AGS/ADGAP booths)
During this time, participants will showcase the educational materials that they have created. Use your worksheet (to be handed out at the marketplace) to take notes on your favorite products. Voting for Product of the Decade will be held on Wednesday via www.PollEverywhere.com. Instructions on how to vote are available at the Registration desk.

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<thead>
<tr>
<th>SCHOOLS SHOWCASING AT THE MARKETPLACE</th>
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<td>Albert Einstein College of Medicine</td>
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<td>Brown University</td>
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<tr>
<td>Emory University</td>
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<tr>
<td>Florida State University</td>
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<tr>
<td>Icahn School of Medicine at Mount Sinai</td>
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<td>Medical College of Wisconsin with Aurora Health</td>
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<tr>
<td>Rowan School of Osteopathic Medicine</td>
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<td>University of Arizona</td>
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<td>University of California, San Francisco</td>
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<td>University of Cincinnati</td>
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<td>University of Hawaii</td>
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<td>University of Kansas</td>
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</tbody>
</table>

[Refreshments will be available at the Marketplace.]

5:15 – 6:15 pm  Networking & Cocktails  Room: Lafayette Ballroom
[Dinner on your own in New Orleans – have fun!]

DAY 2: Tuesday, October 25, 2016
7:00 – 7:40 am  Breakfast  Room: Lafayette Ballroom

7:40 – 8:15 am  Plenary Reflection  Room: Grand Ballroom
Rani Snyder, Program Director, The John A. Hartford Foundation, former Program Director, Health Care Programs, Donald W. Reynolds Foundation
8:15 – 10:15 am  Plenary Session  
Mastery Learning  

Room: Grand Ballroom

Mastery learning groups are pre-assigned, please refer to chart in the plenary room

*Diane Wayne, MD, and Sara Bradley, MD, Northwestern University Feinberg School of Medicine*

Mastery learning is a strict form of competency-based achievement where learning *time* varies but *outcomes* are uniform. After completing deliberate practice and receiving individualized feedback, trainees must meet or exceed a predetermined minimum standard on individual units before moving on to the next area. This interactive plenary will explore developing mastery learning for important skills and competencies in geriatrics.

10:15 – 10:30 am  Morning Break

10:30 – 11:45 am  Plenary Session  
*JAGS and the Clinician-Educator: What’s Needed?*

*William Applegate, MD, MPH, Wake Forest University School of Medicine and new Editor-in-Chief of the Journal of the American Geriatrics Society (JAGS)*

Dr. Applegate will share JAGS’ strategic vision and explore ways JAGS can enhance its education and clinical content and platforms to meet the needs of clinicians and educators. Break out workgroups will develop suggestions on ways JAGS can best meet the needs of clinician-educators, what is best about JAGS, and ways the Journal can be improved.

11:45 am – 1:00 pm  Meet the Professors Lunch  
*(box lunches in foyer outside Grand Ballroom)*

A listing of participants for the session will be provided at registration, based on the results of the survey completed by interested participants. The purpose of this session is to have informal discussions with a senior faculty member from another institution about their career, your career, and anything else you would like (within reason!).

<table>
<thead>
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<th>PROFESSORS</th>
<th>ROOM</th>
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<td>William Applegate, MD, and Jane Potter, MD</td>
<td>LaSalle</td>
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<td>Hal Atkinson, MD, MS, and Annette Medina-Walpole, MD</td>
<td>Fountainbleau</td>
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<tr>
<td>Mindy Fain, MD, and David Reuben, MD</td>
<td>Lakeview</td>
</tr>
<tr>
<td>Rosanne Leipzig, MD, PhD, and Valerie Lang, MD</td>
<td>Broadmoor</td>
</tr>
<tr>
<td>Harvey Cohen, MD, and Eric Widera, MD</td>
<td>Carrollton</td>
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<tr>
<td>Jan Busby-Whitehead, MD, and William Hall, MD</td>
<td>Acadia</td>
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<tr>
<td>Kellie Flood, MD, and Deb Simpson, PhD</td>
<td>Evangeline</td>
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<tr>
<td>Mark Supiano, MD, and Lynn Kirk, MD</td>
<td>Vermillion</td>
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<tr>
<td>Continuing Work on Implementing Mastery Learning, Diane Wayne, MD, and Sara Bradley, MD</td>
<td>Orleans</td>
</tr>
</tbody>
</table>
### 1:00 – 3:15 pm
#### Plenary Session

**Room:** Grand Ballroom

**Key Features Exams** with work groups in the room

*Valerie J. Lang, MD, University of Rochester School of Medicine, and Cynthia Howlett-Willis, Chief Operating Officer, MedU*

Key features exams test case-specific decision-making skills in the resolution of a clinical problem; they are concerned with the application of knowledge and not knowledge recall. KFEs start with a clinical problem scenario and expect the test taker to focus on the unique challenges, the key features, in the resolution of each problem. This session will explore ways to create and use KFEs in geriatrics for assessment of clinical reasoning.

### 3:15 – 3:30 pm
#### Afternoon Break

### 3:30 – 5:00 pm
#### Faculty Development Workshop Session B

Please see last pages of the agenda for session descriptions.

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<th>ROOM</th>
<th>SESSION TITLE</th>
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<tr>
<td>LaSalle</td>
<td><strong>Service Learning: An Educational Activity to Promote Interprofessional</strong></td>
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<td></td>
<td><strong>Training in Geriatrics</strong></td>
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<td></td>
<td><em>Lisa Strano-Paul, MD, Stony Brook; Lindsay Wilson, MD, MPH,</em></td>
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<td></td>
<td><em>University of North Carolina; Stephanie Rennke, MD, and Michi Yukawa, MD,</em></td>
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<td><em>UC San Francisco; Niharika Suchak, MBBS, MHS, and Lisa Granville, MD,</em></td>
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<td><em>Florida State University</em></td>
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<td>Fountainbleau</td>
<td><strong>Developing a Business Case for a Geriatric Orthopedic Co-</strong></td>
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<td><strong>Management Program at Your Institution</strong></td>
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<td></td>
<td><em>Lynn McNicoll, MD, Brown University; Daniel Mendelson, MD, University</em></td>
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<td><em>of Rochester; Laurence M. Solberg, MD, University of Florida; Kencee</em></td>
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<td><em>Graves, MD, University of Utah; Stefan Gravenstein, MD, Case Western</em></td>
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<td><em>Reserve University</em></td>
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<td>For participants who are actively working on either geriatric surgery order*</td>
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<td><em>sets or a business case at their institution, please bring 8 copies of the</em></td>
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<td><em>draft order sets or business case to discuss, share with your table and</em></td>
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<td></td>
<td><em>get constructive feedback.</em></td>
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<tr>
<td>Lakeview</td>
<td><strong>Harnessing the Electronic Health Record (EHR) for Rich Simulation</strong></td>
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<td><strong>Experiences</strong></td>
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<td></td>
<td><em>Thomas Dalton, MD, UT Southwestern; Sarah Hobgood, MD, Virginia</em></td>
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<td><em>Commonwealth University; Tochukwu Iloabuchi, MBBS, Indiana</em></td>
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<td><em>University</em></td>
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<td>Broadmoor</td>
<td><strong>Beyond PSDA: New Tools for Teaching QI and Patient Safety</strong></td>
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<td><em>Helen Fernandez, MD, MPH, and Brijen Shah, MD, Icahn School of</em></td>
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<td><em>Medicine at Mount Sinai; Kathryn Callahan, MD, MS, Wake Forest</em></td>
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<td></td>
<td><em>University</em></td>
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</table>
5:00 – 6:00 pm

**Marketplace B**  
**Room: Audubon**  
(w/POGOe, web-GEMs, MedU and AGS/ADGAP booths)

During this time, participants will showcase the educational materials that they have created. Use your worksheet (to be handed out at the marketplace) to take notes on your favorite products. Voting for Product of the Decade will be held on Wednesday via [www.PollEverywhere.com](http://www.PollEverywhere.com).

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### SCHOOLS SHOWCASING AT THE MARKETPLACE

- University of Massachusetts
- University of Miami Miller School of Medicine
- University of Missouri
- University of New Mexico
- University of North Texas Health Science Center (UNTHSC) / Texas College of Osteopathic Medicine (TCOM)
- University of Oklahoma
- University of Rochester
- University of Texas Southwestern
- University of Utah
- Virginia Commonwealth University
- Wake Forest University School of Medicine
- Yale University

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**Carrollton**

Thanks for the Worst Feedback Ever!!!: Eliciting and Receiving Feedback Well  
*Paul Tatum, MD, University of Missouri; Stacie Levine, MD, University of Chicago; Shaida Talebreza, MD, University of Utah; Eric Widera, MD, UC San Francisco*

**Acadia**

Integrating Geriatrics into Primary Care: Fulfilling the GWEP Education Focus Area  
*Zaldy Tan, MD, UCLA; Mindy Fain, MD, and Jane Mohler, NP, MPH, PhD, University of Arizona; Lisa M. Walke, MD, MSHA, AGSF, Yale University*

**Evangeline**

How to Run and Sustain a Successful AGS Student or Resident Chapter Interest Group  
*Megan Young, MD, Ryan Chippendale, MD, and Sharon Levine, MD, Boston University; Mandi Sehgal, MD, Florida Atlantic University; Kristen Thornton, MD, and Suzanne Gillespie, MD, University of Rochester*

**Vermillion**

A Geriatric Competency- and Milestone-Based Approach to Developing an ACE Unit Learning Model for IM Residents  
*Mariu Duggan, MD, James Powers, MD, and Parul Goyal, MD, Vanderbilt University; Chandrika Kumar, Yale University*
6:00 – 7:00 pm  Reception  Room: Foyer Adjacent to Grand Ballroom

7:00 – 10:30 pm  Dinner  Room: Lafayette Ballroom

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**DAY 3: Wednesday, October 26, 2016**

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<tr>
<th>Time</th>
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<tr>
<td>7:00 – 8:00 am</td>
<td>Breakfast</td>
<td>Lafayette Ballroom</td>
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<tr>
<td>7:00 – 10:00 am</td>
<td>Product of the Decade Voting</td>
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<tr>
<td>8:00 – 8:45 am</td>
<td>Plenary Session</td>
<td>Grand Ballroom</td>
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<tr>
<td></td>
<td>What Does the Future Hold?</td>
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<td>Developing a Job Description</td>
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<td>for the 2025 Geriatrician</td>
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<td><em>Panelists: Deb Simpson, PhD;</em></td>
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<td></td>
<td>*Eric Holmboe, MD, PhD; Jeff</td>
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<td><em>Williamson, MD; Eric Widera, MD</em></td>
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Disruptive innovations are changing health care systems and academic medicine—and we do know some of the “hard trends” that will impact geriatrics (e.g., population is aging, decision support). Panelists will act as “futurists” and “provocateurs” briefly highlighting a few trends that are certain to materialize in 2025 in our patients (consumerism), our systems of health care (technology, big data), focus of care (prevention, precision medicine, populations) and other trends that WILL affect the geriatricians’ responsibilities and expectations. After the panelists throw down the gauntlet, participants will envision what roles geriatricians will need to assume in 2025 and what training they will need to be ready for these changes.

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<tr>
<td>8:45 – 9:30 am</td>
<td>Diving Deeper: Table Work</td>
<td>Grand Ballroom</td>
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<td></td>
<td><em>Deb Simpson, PhD, and team (list in formation)</em></td>
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</tbody>
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Facilitated table work will engage participants as “futurists” and focus on generating the key elements of a 2025 geriatrician job description (and thus what geriatric fellows– if we still need them – will need to learn). Tables will keep structured notes and will report key findings back to the large group.

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<th>Time</th>
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<tr>
<td>9:30 – 10:00 am</td>
<td>Report Out and Ponders</td>
<td>Grand Ballroom</td>
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<td><em>(Round Robin Style)</em></td>
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Table Facilitators will provide brief report out of 1-2 key 2025 Geriatrician job features. *(Note: Table notes will be collected, compiled, and share).*
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<thead>
<tr>
<th>Time</th>
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<th>Location</th>
<th>Speakers</th>
</tr>
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<tbody>
<tr>
<td>10:00 – 10:20 am</td>
<td>Implications for Geriatric Fellow Education from Cross-Cutting Themes</td>
<td>Grand Ballroom</td>
<td>Moderators: Deb Simpson, PhD; Rosanne Leipzig, MD, PhD; Eric Holmboe, MD</td>
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<td>Output: We will videotape the session so it can be edited and shared. We hope to develop a Perspectives paper for JAGS or JGME on the thinking that emerged. We will seek to sustain the initiative via an enduring blog (think “geripal) or a thread in the Hartford ChangAGEnts project, or something else (ideas are welcome).</td>
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<tr>
<td>10:20 – 10:30 am</td>
<td>Wrap Up</td>
<td>Grand Ballroom</td>
<td>Rosanne M. Leipzig, MD, PhD, Icahn School of Medicine at Mount Sinai</td>
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<tr>
<td>10:30 am</td>
<td>Box Lunch</td>
<td>box lunches in foyer outside Grand Ballroom</td>
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<tr>
<td>FACULTY DEVELOPMENT SESSIONS DESCRIPTIONS</td>
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<td><strong>Monday, October 24, 10:15 am to 11:45 am</strong></td>
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**“But I’ve never done this before...” - Strategies to get your Faculty up to Speed to Teach Interprofessional Learners**
*Elizabeth Eckstrom, MD, MPH, Oregon Health & Science University; Josette Rivera, MD, UC San Francisco; Elizabeth Tanner, PhD, RN, Johns Hopkins University*

Workshop utilizes an interactive approach to explore challenges, successes and opportunities for improved communication and teamwork in an interprofessional classroom, and in ambulatory and inpatient clinical settings. Using trigger tapes, small group discussion and an interprofessional communication evaluation tool, participants will enhance skills to improve interprofessional team communication.

**Developing Order Sets Necessary for a Geriatric Orthopedic Co-Management Program**
*Lynn McNicoll, MD, Brown University; Daniel Mendelson, MD, University of Rochester; Laurence M. Solberg, MD, University of Florida; Kencee Graves, MD, University of Utah; Jennifer Ouellette, MD, Yale University*

This session will help participants develop pre-operative and post-operative order sets for a Geriatric Orthopedic Co-Management (GOC). Geriatrics and hospitalist experts in co-management will share templates, ideas, and strategies for approaching institutions for support and cooperation. This 1 of a 2-part workshop on the tools, strategies, and skills to begin a GOC project. Part 1 will discuss order sets and Part 2 will discuss the business case in GOC. For participants who are actively working on either geriatric surgery order sets or a business case at their institution, please bring 8 copies of the draft order sets or business case to discuss, share with your table and get constructive feedback.

**Improving Resident Training in Care of the Hospitalized Older Adult: Best Practices in Development of Sustainable Curricula**
*Ugochi Ohuabunwa, MD, Emory University; Thomas Dalton, MD, University of Texas Southwestern; Kathryn Callahan, MD, Wake Forest; Katrina Booth MD, University of Alabama-Birmingham; Maureen Dale, MD, and Lindsay Wilson, MD, University of North Carolina*

Session explores innovative ways to improve resident knowledge and practice of geriatric competencies for IM and FM residents in order to produce physicians equipped to care for hospitalized older adults. The session uses evidence-based approach of incorporating geriatric education into training programs, utilizing best practices demonstrated to show improvement in residents’ knowledge, attitudes, or skills and high levels of resident satisfaction. These principles are based upon the 3 elements of sustainable and valued geriatric curricula: provision of model geriatric care, focus on patient care across transitions, and reliance on interdisciplinary teamwork. Participants will gain tools and resources to improve curricula design, implementation, and evaluation of outcomes.
Expanding The Reach of Geriatrics Education for Trainees and Patients Through Technology
Tia Kostas, MD, Megan Huisingh-Scheetz, MD, MPH, and Katherine Thompson, MD, University of Chicago; Kate Bennett, MD, University of Washington
Session will (1) identify specific technology tools to use to expand the reach of geriatrics education to a large population of trainees or patients, (2) compare the advantages and disadvantages of various technologies to use in geriatrics education and clinical practice, and (3) identify barriers to utilization of technology to teach geriatrics to trainees and patients, and brainstorm strategies to address these challenges. Participants will discuss the advantages and disadvantages of various technologies, along with potential barriers and strategies to overcome them. Participants will be invited to share and discuss educational and clinical technologies currently in use in their institutions.

Innovative IPE and Practice Instructional Method for the Seniors Assisting in Geriatric Education (SAGE) Program
Sandra Marquez-Hall, PhD, and Janice A Knebl, DO, MBA, University of North Texas; D. Lynn Jackson, PhD, LCSW, Lyn Dart PhD, RD, and Diane A. Hawley, PhD, RN, Texas Christian University
This interactive session will provide attendees with a copy of the curriculum including assignments and rubrics for a collaborative interdisciplinary experiential course. In the course students from seven different medical professions participate in team based learning with a senior adult during home visits over 3 semesters. A panel of IPE/P faculty will present their perspective on lessons learned from participation in the program. Small group break-outs with presenters will be integrated into the session so attendees can discuss how to adapt, modify or implement this type of model at their own institution.

Addressing the Gap: Teaching Transitions of Care Across a Spectrum of Learners
Anita Vanka, MD, and Grace Farris, MD, Beth Israel Deaconess; Tochukwu Iloabuchi, MBBS, Indiana University; Cherie Brunker, MD, University of Utah
Workshop will explore care transitions and common adverse events after hospital discharge for older adults and identify key components of an effective transition from the hospital with recognition of existing barriers. Participants will learn ways to educate different levels of learners about the risks of care transitions through a systematic approach using various modalities of teaching.

Be a Hero: Making Preclinical Curriculum Change Work for Older Adults
Elizabeth Harlow, MD, University of Nebraska; Anna Chang, MD, UCSF; Jonathan M. Flacker, MD, Emory University; Chandrika Kumar, MD, Yale
Workshop will provide participants with examples of strategic approaches to embed geriatrics education in the context of on-going curricular change. This workshop will describe and demonstrate aspects of four different schools’ approaches to geriatric pre-clerkship medical education in the context of current or recent curriculum reform. The workshop focuses on tools that can be applied at any institution and learner level to infuse geriatrics education during curricular change.
**POGOe & webGEMs & MedU**

*Ravishankar Ramaswamy, MD, Rosanne Leipzig, MD, PhD, Rainier Soriano, MD, and Karen Sauvigné, MA, Icahn School of Medicine at Mount Sinai; Josh Denny, MD, and Peter Speltz, Vanderbilt University; Amit Shah, MD, Mayo-Phoenix; Cynthia Howlett-Willis, MedU*

Session will showcase ways to use POGOe to be a quicker, better teacher of geriatrics and to efficiently and effectively infuse geriatric content into any course or teaching situation and ways to use POGOe to teach the geriatrics competencies. Hands-on interaction with POGOe content and exploration of its resources, including ways to teach using the geriatric teaching modules, web-GEMs and web-GEMs’ new collaboration with MedU.

**Teaching the Reluctant Learner in Interprofessional Geriatric Education: Strengthening Your Teaching Toolbox**

*Mandi Sehgal, MD, Florida Atlantic University; Shelley Bhattacharya, DO, MPH, Dory Sabata, OTRD, OTR/L, and Crystal Burkhardt, PharmD, MBA, University of Kansas*

Workshop will discuss a range of teaching methodologies for reaching different types of learners; in particular learners who appear disinterested in geriatric Interprofessional (IP) education. Drawing from “Strengthen Your Teaching Toolbox” (MedEdPortal) session uses case-based learning to explore application of various teaching methods and ways to better engage IP geriatric education learners before, during, and after an IP clinical encounter.

**FACULTY DEVELOPMENT SESSIONS DESCRIPTIONS**

**Tuesday, October 25, 3:30 pm to 5:00 pm**

**Service Learning: An Educational Activity to Promote Interprofessional Training in Geriatrics**

*Lisa Strano-Paul, MD, Stony Brook; Lindsay Wilson, MD, MPH, University of North Carolina; Stephanie Rennke, MD, and Michi Yukawa, MD, UC San Francisco; Niharika Suchak, MBBS, MHS, and Lisa Granville, MD, Florida State University*

Workshop will review the core tenets of Service Learning, describe successful models of service learning in three institutions and explain reciprocal benefit of a student team-based curriculum for the learner and community. Participants will work with practical tips for development, implementation and evaluation of service learning programs. Materials will be presented and sample resources distributed to support development of a service-learning curriculum at participant’s institution. A worksheet exercise assists participants to design and develop a plan for Service Learning curriculum implementation under the guidance of experience service-learning educators. The workshop is designed for educators who want to implement curricular or co-curricular activities in interprofessional geriatric education.
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Description</th>
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<tr>
<td>Developing a Business Case for a Geriatric Orthopedic Co-Management</td>
<td>Lynn McNicoll, MD, Brown University; Daniel Mendelson, MD, University of</td>
<td>Session will help participants develop a business plan for implementation or expansion of Geriatric Orthopedic Co-Management Program (GOC) at their institutions. Geriatrics and hospitalist experts in co-management will share templates, ideas, and strategies for approaching institutions for support. This will be part 2 of a 2-part workshop on GOC. For participants who are actively working on either geriatric surgery order sets or a business case at their institution, please bring 8 copies of the draft order sets or business case to discuss, share with your table and get constructive feedback.</td>
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<tr>
<td>Program at Your Institution</td>
<td>Rochester; Laurence M. Solberg, MD, University of Florida; Kensee Graves, MD, University of Utah; Stefan Gravenstein, MD, Case Western Reserve University</td>
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<tr>
<td>Harnessing the Electronic Health Record (EHR) for Rich Simulation Experiences</td>
<td>Thomas Dalton, MD, UT Southwestern; Sarah Hobgood, MD, Virginia Commonwealth University; Tochukwu Iloabuchi, MBBS, Indiana University</td>
<td>Workshop will highlight experience of three institutions that have used different approaches to developing geriatric medicine-themed simulation experiences in an EHR. Will provide participants an opportunity to explore their own curricular needs and whether or not a simulated experience in an EHR would provide a rich experience for their learners. Participants will work in groups to identify potential barriers they might face and how such barriers could be overcome, will explore opportunities to develop rich simulation experiences for their students to meet their own learning objectives, particularly objectives involving interprofessional communication and complex geriatric care, and will be able to anticipate barriers to the development and implementation of electronic health record simulation experiences and learn from institutions that have experience with such programs about how to overcome these barriers.</td>
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<tr>
<td>Beyond PSDA: New Tools for Teaching QI and Patient Safety</td>
<td>Helen Fernandez, MD, MPH, and Brijen Shah, MD, Icahn School of Medicine at Mount Sinai; Kathryn Callahan, MD, IMS, Wake Forest University</td>
<td>Workshop will highlight quality improvement (QI) and patient safety (PS), tools that can be adapted to teach medical students, residents and fellows and achieve the teaching and assessment of milestones in GME learners and provide the foundation for medical students. Process Mapping and the Model for Improvement, QI/PS tools that can be taught as foundational learning, will be examined and curricular implementation at two different institutions discussed. Participants will develop action steps to facilitate implementation of QI and PS at their home institution.</td>
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| Thanks for the Worst Feedback Ever!!!: Eliciting and Receiving Feedback Well | Paul Tatum, MD, University of Missouri; Stacie Levine, MD, University of Chicago; Shoida Talebreza, MD, University of Utah; Eric Widera, MD, UC San Francisco | Workshop will present the work of Stone and Heen of the Harvard Negotiation Project’s focus on educating feedback receivers. Session will highlight teaching points in Thanks for the Feedback, by explaining how receiving feedback is **
crucial, yet challenging, and offer a framework in how to take off-handed comments, written evaluations, and unsolicited advice with dignity and grace; and will also describe and practice methods for successfully eliciting the right type of feedback we want to improve ourselves professionally and personally in the workplace.

**Integrating Geriatrics into Primary Care: Filling the GWEP Education Focus Area**

**Zaldy Tan, MD, UCLA; Mindy Fain, MD, and Jane Mohler, NP, MPH, PhD, University of Arizona; Lisa M. Walke, MD, MSHA, AGSF, Yale University**

Workshop presents a general overview of 3 Geriatric Workforce Enhancement Program (GWEP) programs and provides specific detail on different models of fulfilling the program to develop the health care workforce and improve health outcomes for older Americans by integrating geriatrics with primary care, maximizing patient and family engagement and transforming the healthcare system. One of primary focus of the GWEP is the transformation of clinical training environments into integrated geriatrics and primary care delivery systems. This interactive workshop will seek participation from other GWEP/Reynolds awardees to explore novel ways of geriatric training in primary care settings and discuss potential synergies between Reynolds and GWEP programs as a means to extend the accomplishments and lessons learned from the Reynolds program.

**How to Run and Sustain a Successful AGS Student or Resident Chapter Interest Group**

**Megan Young, MD, Ryan Chippendale, MD, and Sharon Levine, MD, Boston University; Mandi Sehgal, MD, Florida Atlantic University; Kristen Thornton, MD, and Suzanne Gillespie, MD, University of Rochester**

Workshop will provide ideas and concrete strategies for success in starting and sustaining an active AGS student or resident interest group. Specific examples of types of programs that are traditionally run out of a student group (talks, workshops, book groups, film screenings, companion programs, clinical shadowing and family meetings) will be reviewed. Session will (1) identify characteristics of high functioning student and resident groups, (2) review creative strategies, concrete ideas and funding sources for student or resident groups and obtaining salary support for faculty advisors, and develop action plans for starting a new group or taking an existing student or resident group to the next level and sustaining it.

**A Geriatric Competency- and Milestone-Based Approach to Developing an ACE Unit Learning Model for IM Residents**

**Mariu Duggan, MD, James Powers, MD, and Parul Goyal, MD, Vanderbilt University; Chandrika Kumar, Yale University**

Workshop will explore different pedagogies that will help participants learn to use a geriatric competency- and milestone-based approach to develop an ACE Unit learning model for Internal Medicine residents. Will briefly review geriatric and ACGME competencies applicable to the inpatient setting for IM residents. After showcasing 2 ACE Unit learning models, will break into small groups to
discuss web-based, competency-centered tools that can facilitate effective and efficient needs assessments, the development and implementation of curricula, and methods for incorporating competencies and milestones into evaluation strategies, and faculty development on how to use milestones to evaluate residents.
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<th>TIME</th>
<th>DAY 1: MONDAY, OCTOBER 24</th>
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<th>DAY 2: TUESDAY, OCTOBER 25</th>
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<th>DAY 3: WEDNESDAY, OCTOBER 26</th>
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<td>7:00 - 8:00 am</td>
<td>Breakfast</td>
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<td>8:00 - 8:30 am</td>
<td><strong>Introductions and Overview</strong></td>
<td>8:00 - 8:15 am</td>
<td><strong>Plenary Reflection</strong></td>
<td>8:00 - 8:45 am</td>
<td><strong>Plenary Session: What Does the Future Hold? Developing a Job Description for the 2025 Geriatrician</strong></td>
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<td></td>
<td>Rosanne M. Leipzig, MD, PhD, Icahn School of Medicine at Mount Sinai</td>
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<td>Rani Snyder, Program Director, The John A. Hartford Foundation, former Program Director, Health Care Programs, Donald W. Reynolds Foundation</td>
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<td>Panelists: Deb Simpson, PhD; Eric Holmboe, MD; Jeff Williamson, MD; Eric Widera, MD</td>
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<td>8:30 - 10:00 am</td>
<td><strong>KEYNOTE ADDRESS</strong></td>
<td>8:15 - 10:15 am</td>
<td><strong>Plenary Session: Mastery Learner</strong></td>
<td>8:45 - 9:30 am</td>
<td>Diving Deeper: Table Work</td>
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<td></td>
<td>Where is Medical Education Going in the New World of Value Based Compensation? Eric Holmboe, MD, Senior Vice President, Accreditation Council for Graduate Medical Education</td>
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<td>Diane Wayne, MD, and Sara Bradley, MD, Northwestern University Feinberg School of Medicine</td>
<td>9:30 - 10:00 am</td>
<td>Report Out</td>
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<td>10:00 - 10:15 am</td>
<td>Move Along Break</td>
<td>10:15 - 10:30 am</td>
<td>Move Along Break</td>
<td>10:00 - 10:20 am</td>
<td>Implications for Geriatric Fellow Education from Cross-Cutting Themes</td>
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<td>10:15 - 11:45 am</td>
<td>Faculty Development Workshop Session A</td>
<td>10:30 - 11:45 am</td>
<td><strong>Plenary Session: JAGS and Medical Education Scholarship: What’s Needed?</strong> William Applegate, MD, MPH, Wake Forest University School of Medicine and new Editor-in-Chief of the Journal of the American Geriatrics Society (JAGS)</td>
<td>10:20 - 10:30 am</td>
<td><strong>WRAP UP</strong> Rosanne M. Leipzig, MD, PhD, Icahn School of Medicine at Mount Sinai</td>
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<td>11:45 am - 1:00 pm</td>
<td>Lunch</td>
<td>11:45 am - 1:00pm</td>
<td>Meet the Professors Lunch</td>
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<td>Box Lunch</td>
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<td>1:00 - 2:00 pm</td>
<td><strong>PLENARY SESSION: INVENTING YOUR ACADEMIC CAREER</strong></td>
<td>1:00-3:15 pm</td>
<td><strong>Plenary Session: Key Features Exam</strong></td>
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<td>A National Geriatrics Curriculum: Web-GEMs and MedU</td>
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<td>Valerie J. Lang, MD, University of Rochester School of Medicine, and Cynthia Howlett-Willis, Chief Operating Officer, MedU</td>
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<td></td>
<td>Rosanne M. Leipzig, MD, PhD, Cynthia Howlett-Willis, Chief Operating Officer, MedU; Kathryn Callahan, MD, Editor-in-Chief; Amit Shah, MD, web-GEMs</td>
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<td>2:00 - 2:15 pm</td>
<td>Move Along Break</td>
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<td><strong>Afternoon Break</strong></td>
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<td>2:15 - 4:00 pm</td>
<td>Concurrent Workshops: Concurrent Deep Dives into Hot Topics in Geriatrics</td>
<td>3:30 - 5:00 pm</td>
<td><strong>Faculty Development Workshop Session B</strong></td>
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<td>4:00 - 5:15 pm</td>
<td>Marketplace A</td>
<td>5:00 - 6:00 pm</td>
<td><strong>Marketplace B</strong></td>
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<td>5:15 - 6:15 pm</td>
<td>Networking &amp; Cocktails</td>
<td>6:00 - 7:00 pm</td>
<td><strong>Reception</strong></td>
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<td>7:00 - 10:30 pm</td>
<td><strong>Dinner</strong></td>
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<td>Name</td>
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<td>Richard Besdine, MD</td>
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<td>Shelley Bhattacharya, DO, MPH</td>
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<td>Peter Boling, MD</td>
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<td>Giulia Bonaminio, PhD</td>
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<td>Sara Bradley, MD</td>
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<td>Cherie Brunker, MD, CMD, FACP</td>
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### Alphabetical Listing of 2016 Meeting Attendees

<table>
<thead>
<tr>
<th>John Burton, MD</th>
<th>Jan Busby-Whitehead, MD</th>
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<tbody>
<tr>
<td>Professor of Medicine</td>
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<td>Johns Hopkins</td>
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<td>T: 410-435-1017</td>
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<tr>
<td>Email: <a href="mailto:jburton4@jhmi.edu">jburton4@jhmi.edu</a></td>
<td></td>
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<tr>
<td>Professor &amp; Chief, Division of Geriatrics, Director, Center for Aging and Health</td>
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<tr>
<td>The University of North Carolina at Chapel Hill</td>
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<tr>
<td>T: 919-966-5945</td>
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<tr>
<td>Email: <a href="mailto:marigold@med.unc.edu">marigold@med.unc.edu</a></td>
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<thead>
<tr>
<th>Laura Byerly, MD</th>
<th>Kathryn Callahan, MD, MS</th>
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<td>Fellow, Geriatrics Division</td>
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<td>UCSF</td>
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<td>T: 415-476-0234</td>
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<td>Email: <a href="mailto:laura.byerly@ucsf.edu">laura.byerly@ucsf.edu</a></td>
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<td>Email: <a href="mailto:kcallah@wakehealth.edu">kcallah@wakehealth.edu</a></td>
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<tr>
<th>Maria Cantu</th>
<th>Emily Chai, MD</th>
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<td>Geriatrics and Palliative Care Fellow</td>
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<td>Mount Sinai Hospital</td>
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<td>T: 956-279-9953</td>
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<td>Email: <a href="mailto:maria.cantu@mssm.edu">maria.cantu@mssm.edu</a></td>
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<td>Associate Professor</td>
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**Alphabetical Listing of 2016 Meeting Attendees**

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## Alphabetical Listing of 2016 Meeting Attendees

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<td>Assistant Professor</td>
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<td>Bruce Troen, MD</td>
<td>Professor and Chief, Division of Geriatrics and Palliative Medicine</td>
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<td>Daniel Trucil, MA, MPH</td>
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<td>Malissa Turner, MEd</td>
<td>Academic Program Specialist</td>
<td>UNT Health Science Center</td>
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<td>Rose Maria van Zuilen, PhD</td>
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<td>Belinda Vicioso, MD</td>
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<td>Caroline Vitale</td>
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<td>Lisa Walke, MD, MSHA, AGSF</td>
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<td>Louise Walter, MD</td>
<td>Professor, Chief of Geriatrics</td>
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<td>Franklin Watkins, MD</td>
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<td>Diane Wayne, MD</td>
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<td>Jeanne Wei, MD, PhD</td>
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<td>Nancy Weintraub, MD</td>
<td>Fellowship Director</td>
<td>UCLA</td>
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<td>Kara Wheeler, PhD Student, MS, RD, LD</td>
<td>Registered Dietetian</td>
<td>University of Kansas School of Medicine</td>
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<td>Eric Widera, MD</td>
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<td>Lindsay Wilson, MD, MPH</td>
<td>Assistant Clinical Professor of Medicine</td>
<td>The University of North Carolina at Chapel Hill</td>
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<td>Mia Yang, MD</td>
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<td>Misty Yee, MS</td>
<td>Educational Specialist</td>
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<td>Robert Young, MD</td>
<td>Clinical Assistant Professor</td>
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<tr>
<td>Kelly Zarifa, PhD.</td>
<td>3rd Year PhD Student in Speech-Language Pathology</td>
<td>University of Kansas School of Medicine</td>
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## 2016 Reynolds Grantee Meeting
### Speakers, Session Leaders, and Moderators

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<tr>
<td>William Applegate, MD, MPH</td>
<td>Wake Forest University School of Medicine</td>
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<td>Journal of the American Geriatrics Society (JAGS)</td>
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<tr>
<td>John Beilenson, MA</td>
<td>Strategic Communications &amp; Planning</td>
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<tr>
<td>Kate Bennett, MD</td>
<td>University of Washington</td>
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<td>Katrina Booth MD</td>
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<td>Rosanne M. Leipzig, MD, PhD</td>
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<td>Dory Sabata, OTD, OTR/L</td>
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<td>Rani Snyder, MPA</td>
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<td>Lisa Strano-Paul, MD</td>
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<td>Niharika Suchak, MBBS, MHS</td>
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<td>Zaldy Tan, MD</td>
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<td>Elizabeth Tanner, PhD, RN</td>
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<td>Michi Yukawa, MD</td>
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Katherine Bennett, MD
Katherine Bennett MD is a clinician-educator geriatrician and Assistant Professor of Medicine at the University of Washington. As the Education Lead of the Northwest Geriatrics Workforce Enhancement Center, Dr. Bennett utilizes technology to teach geriatrics to remote trainees. She serves as the founding medical director of Project ECHO Geriatrics, and took a lead role in developing a Quality Improvement Curriculum to teach QI principles and geriatrics to remote trainees in the UW Family Medicine Residency Network. She has extensive experience and training in medical education and has developed geriatrics curricula and evaluation tools for medical students, residents, and fellows. She serves as the Program Director for the University of Washington Geriatric Medicine Fellowship.

Shelley Bhattacharya, DO, MPH
Dr. Shelley Bhattacharya is an Associate Professor in the Division of Geriatrics, Department of Family Medicine, at the University of Kansas Medical Center. She is the Geriatrics content lead for the Year 1-Year 2 medical school curriculum. She is also the lead medical faculty for the Geriatric Interprofessional Teaching Clinic (GiTC). The GiTC is a collaborative geriatrics clinic incorporating learners from pharmacy, physical therapy, occupational therapy, social work, medicine and dietetics. She is also the faculty advisor for the student and resident geriatrics interest group. She received her medical degree from Oklahoma State University College of Osteopathic Medicine. She completed her residency in Family Medicine, her fellowship in Geriatrics and her MPH degree at the University of Pittsburgh Medical Center. She lives in Kansas City, KS with her husband and two daughters.

Cherie P. Brunker, MD, CMD, FACP
Cherie P. Brunker is an associate professor in the University of Utah Geriatrics Division and Chief of Geriatrics at Intermountain Healthcare. Her work has focused on care of seniors who have complex medical conditions. She served as Co-PI for the John A. Hartford Foundation project: Dissemination of Care Management Plus (CM+): Information Technology Tools for the Care of Seniors, educating nurse care managers and physicians at over 500 implementing sites across the country. In addition, she has worked with both University of Utah Reynolds projects, first helping develop AGE-QI, a quality improvement CME program for primary care physicians caring for seniors and with the current project: “Physicians’ Training in Geriatrics: Quality, Safety and Value, What Utah GME Trainees Will Learn from Geriatrics.”

Kathryn Callahan, MD, MS
Dr. Callahan is an Assistant Professor of Internal Medicine, Gerontology and Geriatric Medicine at Wake Forest School of Medicine. She completed her medical degree at Mount Sinai School of Medicine, followed by residency in Internal Medicine and Primary Care at Brigham and Women's Hospital, before returning to Mount Sinai for geriatrics fellowship. She holds a MS in Clinical and Population Translational Science. Her scholarly work focuses on education and training in improving quality care of older adults across primary care and specialties, and specifically on the implementation of functional measurements into primary care practices, including academic training practices. She serves as the Geriatrics Fellowship Program Director at Wake Forest.

Harvey Jay Cohen, MD
Harvey Jay Cohen, MD is the Walter Kempner Professor of Medicine and Professor in the School of Nursing, Director of the Center for the Study of Aging and Human Development, Principal Investigator of the Duke Claude Pepper Older Americans Independence Center, and Chair Emeritus, Department of
Medicine. He received his medical degree from Downstate Medical College of the State University of New York (SUNY), served his internship in medicine at Duke University Medical Center, where he was later a resident and a Fellow in Hematology-Oncology. He was also a staff associate for the National Institutes of Health, and has been a Duke Faculty member since 1971. He served on the academic Council for over 10 years in the 1980s-1990s and on the first committee on black faculty at that time, and has now returned to academic council service for the past two years.

Dr. Cohen chairs the Cancer in the Elderly Committee for The Alliance for Clinical Trials in Oncology. He is President of the American Federation for Aging Research and a past President of the American Geriatrics Society, the Gerontological Society of America and the International Society of Geriatric Oncology. Dr. Cohen serves on numerous editorial boards and has published extensively with more than 350 peer reviewed papers, as well as book chapters on topics in geriatrics and hematology/oncology, with special emphasis on aspects of cancer and immunologic disorders in the elderly, functional decline, geriatric assessment and anemia in the elderly. He is author of the book Taking Care After 50, and co-editor of The Link Between Religion and Health: Psychoneuroimmunology and the Faith Factor; Geriatric Medicine, 4th Edition; and Practical Geriatric Oncology.

Dr. Cohen is listed in Who’s Who in America, Who’s Who Among American’s Teachers, Who’s Who in Frontiers of Science and Technology, Who’s Who in Science, International Who’s Who in Medicine, American Men and Women of Science and Biography International. He has been named one of the “Best Doctors” in America continuously since 1992. He has received the Kent Award from the Gerontological Society of America, the Joseph T. Freeman Award, and the Jahnigen Memorial Award from the American Geriatrics Society, the B.J. Kennedy Award from the American Society of Clinical Oncology, the Paul Calabresi Award from the International Society of Geriatric Oncology and the Clinically-Based Research Mentoring Award from Duke University and continues as an active teacher and mentor for medical students, housestaff, and junior faculty.

Lyn Dart PhD, RD, LD
Lyn Dart PhD, RD, LD is an Associate Professor in the Department of Nutritional Sciences at Texas Christian University (TCU). She is also a Registered and Licensed Dietitian and a member of the Academy of Nutrition and Dietetics, Texas Academy of Nutrition and Dietetics, Tarrant Area Academy of Nutrition and Dietetics, and the Dallas Academy of Nutrition and Dietetics. Dr. Dart joined the Department of Nutritional Sciences faculty in 2001. Dr. Dart has served as a consultant for the Tarrant Area Food Bank, Meals on Wheels, Inc. of Tarrant County, Senior Citizen Services of Tarrant County, Texas AgriLife Extension Services, and the University of North Texas Health Science Center. Over the past 12 years she has supervised students in grant funded nutrition programs, including Cooking Matters/Operation Frontline (Tarrant Area Food Bank), Balancing Food and Play (Texas AgriLife Extension Services), Healthy Weigh /El Camino Saludable – Obesity Prevention and Intervention (TCU Nursing and Nutritional Sciences), and the Healthy Aging and Independent Living (HAIL) initiative (Meals on Wheels, Inc. of Tarrant County). She is also instrumental in co-developing an interprofessional program involving TCU dietetics students and health professions students, and partnered with TCU Harris College of Nursing and Health Sciences, Texas College of Osteopathic Medicine, and the University of North Texas Health Science Center in two community-engaged grant funded projects – Reynolds Interprofessional Geriatrics Education and Training in Texas (IGET-IT) and Workforce Enhancement Healthy Aging and Independent Living (WE HAIL).

Elizabeth Eckstrom, MD, MPH
Elizabeth Eckstrom, MD, MPH, is Associate Professor and Director of Geriatrics in the Division of General Internal Medicine & Geriatrics at Oregon Health & Science University (OHSU). She is part of the OHSU Interprofessional Initiative, developing evaluation tools and leading interprofessional faculty development. Her research focuses on promoting a healthy lifestyle in older adults, with an emphasis on tai chi for falls prevention, and tools to enhance the evaluation of interprofessional collaborative practice. She also conducts studies to enhance interprofessional teamwork in falls prevention and has developed and tested electronic health record tools to facilitate uptake of evidence-based practices.

Grace Farris, MD
Dr. Grace Farris graduated from Brown Medical School and completed her internal medicine residency at Beth Israel Deaconess Medical Center in Boston, Massachusetts. During her residency she developed an interest in using narrative medicine and elements from the medical humanities to teach clinical medicine and piloted a literature and medicine workshop at the Boston VA Hospital for medical students and residents that used war literature to frame discussions around caring for veterans with Agent Orange exposure and PTSD.

Following residency Dr. Farris joined the hospitalist group at BIDMC. As an academic hospitalist she has continued to combine medical humanities with her wards-based teaching. Dr. Farris is currently the co-course director of the Harvard Medical School Aging: Bench to Bedside fourth year elective. She has introduced narrative medicine into her educational efforts via a Reynolds-supported curriculum that she implemented in fall 2015 for the core clerkship and sub-internship students that uses narrative medicine to explore care transitions and the care of the hospitalized elderly. She also co-directs the ECHO Care Transitions program and research study at BIDMC, where she leads a novel videoconferencing multidisciplinary clinic that connects hospital-based teams with providers at nearby post-acute care sites in order to enhance communication and patient outcomes for older adults who are discharged to skilled nursing facilities.

Suzanne M. Gillespie MD, RD
Suzanne M. Gillespie MD, RD, CMD is Associate Professor of Medicine in the Division of Geriatrics/Aging and Associate Professor of Emergency Medicine at the University of Rochester School of Medicine and Dentistry. She is board-certified in Internal Medicine, Geriatric Medicine and Hospice & Palliative Medicine. She completed her undergraduate degree with honors in Nutritional Science at Cornell University and began her career in health care as a Registered Dietitian! She went on to graduate from the University of Virginia School of Medicine and to complete residency and fellowship training at the University of Rochester Medical Center.

Dr. Gillespie is a two-time recipient of the competitive Geriatric Academic Career Award from the Department of Health and Human Resources for her work in geriatric education related to quality improvement in long term care. Dr. Gillespie serves as the Director of Education in the Greater Rochester Nursing Home Quality Consortium, a quality consortium of 28 nursing homes in the greater Rochester region and was Co-director of the Integrated Aging Curriculum for the Rochester’s School of Medicine and Dentistry for 6 years. Dr. Gillespie is Chairman of the House of Delegates of AMDA The Society for Post Acute and Long Term Care Medicine and serves on the Society’s Board of Directors.

Dr. Gillespie is Associate Chief of Staff for Geriatrics Extended Care & Rehabilitation and Medical Director of the Community Living Center of the Canandaigua VA Medical Center. She is also a Lead Physician of their Palliative Medicine and Hospice Care program and Lead Physician for Patient safety.
Lisa J. Granville, MD
Dr. Lisa J. Granville is Professor of Geriatrics and Associate Chair of the Department of Geriatrics at Florida State University College of Medicine in Tallahassee. Dr. Granville is a clinician educator with decades of experience educating learners at all levels (students to practicing clinicians) and multiple disciplines including medicine, nursing, pharmacy and social work. She has been an active leader in the development of national geriatrics competencies. Presently she is the lead faculty for three Geriatric Workforce Enhancement Program projects that address education of caregivers, community based seniors and Continuing Care Retirement Community nursing staff. Dr. Granville is a Fellow of the American College of Physicians and the American Geriatrics Society and served two terms as chair of the American Geriatrics Society Education Committee.

Kencee K. Graves, MD
Kencee K. Graves, MD is a graduate of the University of Utah School of Medicine. Following medical school, she trained in internal medicine at the University of Utah and was chosen to serve as a Chief Medical Resident. She joined the University of Utah faculty as an academic hospitalist in 2014.

Dr. Graves’ clinical practice includes caring for patients with both acute and chronic illness who are admitted to the hospital with a variety of diagnoses. Her academic interests include sepsis, quality improvement, medical education, thrombosis, and palliative care. She is an Assistant Professor of Medicine, the Associate Program Director for Quality & Patient Safety for the Internal Medicine residency program and is a fellow in the American College of Physicians.

Sandra Marquez Hall, PhD
Sandra Marquez Hall, PhD is the Director of the Reynolds Interprofessional Geriatric Education and Training in Texas Program and has 20+ years of experience as a faculty member, academic program and student services administrator, and leadership in research, assessment and evaluation at the university level. Dr. Marquez Hall is currently a faculty member and director for geriatric education at the University of North Texas Health Science Center (UNTHSC) Texas College of Osteopathic Medical Education. She is a fellow of the Academy of Medical Educators and presents research and curricular improvements for geriatric education at the American Association of Colleges of Osteopathic Medicine, American Geriatrics Society and Donald W Reynolds Foundation Annual and Scientific Meetings. Her background includes a baccalaureate degree in American Studies from California State University, Fullerton; Teaching Certification from University of California, Riverside; Master’s Degree in Education from California State University, San Bernardino; and a PhD in Family and Consumer Sciences Education from Texas Tech University. She has received recognition and awards for scholarly contributions to academic programs, research, and leadership at the local, state and national levels.

Diane Ackall Hawley, PhD, RN, CCNS, CNE
Diane Ackall Hawley, PhD, RN, CCNS, CNE is an Associate Professor of Professional Practice at Texas Christian University (TCU), Harris College of Nursing and Health Sciences Fort Worth, Texas. Dr. Hawley received her undergraduate degree in Nursing at Texas Christian University. Her Masters of Science Degree in Nursing was earned at Texas Woman’s University with emphasis in nursing education and as a clinical nurse specialist in critical care. Dr. Hawley holds a PhD in Curriculum and Instruction from New Mexico State University. She worked as a critical care nurse for many years in Fort Worth, San Antonio and El Paso, and as faculty at the University of Texas San Antonio Health Science Center and the University of Texas at El Paso. For the past 18 years she has been with TCU were she has taught a variety of undergraduate and graduate courses usually all focusing on the critically ill adult with a special emphasis on geriatric nursing, leadership and interprofessional education. Dr. Hawley is certified as a
critical care clinical nurse specialist with the American Association of Critical Care Nurses, and holds certification as a nurse educator with the National League for Nurses. Dr. Hawley was honored with the prestigious Wassenich Award for Mentoring at TCU in 2013.

Megan Huisingh-Scheetz, MD, MPH
Dr. Megan Huisingh-Scheetz, MD, MPH is a Geriatrician and clinical investigator, who has focused her clinical and research career on studying frailty and understanding the role of activity, sedentary behavior, and energy expenditure in the pathophysiology of aging. As a clinician and co-Director of the Successful Aging and Frailty Evaluation clinic, she routinely conducts structured frailty assessments in daily practice, using this information as a framework for treatment recommendations. With the support of an NIA K23 Mentored Patient-Oriented Research Career Development Award, she will explore the relationships between energy expenditure and frailty while developing a clinical tool to help reduce or delay frailty in the community.

Tochukwu C. Iloabuchi, MD, MS, CMD, FACP
Dr. Iloabuchi is a clinician educator and faculty member at Indiana University (IU) School of Medicine, he joined the IU School of Medicine after completing two years in the IU Geriatric Medicine Fellowship Program and his interests include disseminating best geriatrics practices through clinical education and care of complex older adults.

He has completed multiple education and teaching programs including the Indiana University Academy of Teaching Scholars Program and two Duke University Mini-Fellowships. He has developed several innovative curricula including a discharge planning and care transitions curriculum for interns which has been presented at national meetings.

Dr. Iloabuchi is part of the Indiana University School of Medicine (IUSM) team developing a new curriculum on teaching electronic medical records and quality healthcare delivery to improve medical students’ understanding of the care of complex patients and quality healthcare delivery. He is also on the IU GWEP grant primary care core team that has successfully developed and implemented a professional development and process improvement curriculum to integrate geriatrics and primary care at their primary care clinics.

Dr. Iloabuchi is a recipient of the 2012-2013 and 2013-2014 John A. Hartford Foundation’s Center of Excellence in Geriatric Medicine and Training National Program Award. He is interested in supporting older adults’ especially lower income or socioeconomically disadvantaged older adults and has a publication in the Journal of American Geriatrics Society (JAGS) on the Risk Factors for Early Hospital Readmission in Low-Income Elderly Adults.

Dr. Lynn Jackson, PhD, LCSW, ACSW
Dr. Lynn Jackson, PhD, LCSW, ACSW is an Associate Professor of Professional Practice and the Director of Field Education for Texas Christian University Department of Social Work. She oversees the Bachelors and Masters of Social Work internships for the program and leads the interprofessional activities for the social work programs at TCU. Additionally, she teaches Group Practice in the undergraduate and graduate program and a policy class, in addition to the internship seminar. Recently her research has focused on abortion policy at the state and federal level. With over 30 years of professional social work practice experience and licensed as a clinical social worker, Dr. Jackson has worked on numerous interprofessional teams in health, mental health, and criminal justice organizations. Her practice
experience includes substance abuse treatment, mental health inpatient treatment, and home health and long-term care social work services.

Janice Knebl, DO, MBA
Dr. Knebl received her medical degree at the Philadelphia College of Osteopathic Medicine. After earning her degree, she completed a rotating internship at Parkview Hospital in Philadelphia, then an Internal Medicine Residency at Geisinger Medical Center in Danville, Pennsylvania and followed by a Geriatrics Medicine Fellowship at the Philadelphia Geriatrics Center. She participated in an international Geriatrics Fellowship at St George’s Hospital in London, UK as part of her Geriatrics Medicine Fellowship. Dr. Knebl also received an MBA from Texas Christian University in 2002. She is a tenured Professor of Medicine and the Dallas Southwest Osteopathic Physicians Endowed Chair in Geriatrics at the UNT Health Science Center. She is the Director of the Center for Geriatrics/Institute for Healthy Aging at UNTSHC where she has been faculty for 28 years. She is the PI for the HRSA Geriatrics Workforce Enhancement Program entitled “Workforce Enhancement in Healthy Aging and Independent Living (WE HAIL) Program “. She teaches medical students, residents and geriatrics and palliative medicine and hospice fellows along with Interprofessional health care students through the Reynolds Interprofessional Geriatrics Education and Training in Texas Program, which she directs. Dr. Knebl is the Medical Director of the James L. West Center, Silverado Care Assisted Living and the Stayton Retirement Community. She has been named annually as a Fort Worth Top Doc, a Texas Super Doc, received the distinguished “Internist of the Year” Award from the American College of Osteopathic Internists and has been awarded the 2013 TCOM Deans Research Award. Dr. Knebl provides numerous presentations for the local community, state, national and international audiences in geriatric medicine and Alzheimer’s disease. She is the Clinical Medical Director for the Texas Alzheimer’s Research and Care Consortium (TARCC) and is involved in numerous clinical trials for new therapeutics for Alzheimer’s disease. She has been the past Chair of the National Board of Osteopathic Medical Examiners and currently is the Vice Chair of the American Osteopathic Associations Commission on Osteopathic Colleges Accreditation. Dr. Knebl is passionate about medical education, research in Alzheimer’s disease and care for older adults.

Tia Kostas, MD
Tia Kostas, MD is a clinician educator in geriatrics and an Assistant Professor of Medicine at the University of Chicago. She is the Director of the Preclinical Longitudinal Program for first-year medical students at the Pritzker School of Medicine. Her educational interests include interprofessional education, and she has worked to partner with the pharmacy program to create several pharmacy student-medical student educational opportunities. Clinically, she specializes in polypharmacy, reviewing complex medication lists--looking for drug interactions, side effects, and complexity. She partners with the advanced practice nurses at South Shore Senior Clinic to provide “PILL visits” devoted to closely reviewing patients’ medication lists to keep them on the safest medication regimen possible. She also has special clinical interests in caring for elderly patients with dementia and maximizing their independence and function.

Valerie J. Lang, MD, MHPE
Dr. Valerie Lang has been an internal medicine hospitalist at the University of Rochester since 2000. She completed her Masters of Health Professions Education at the University of Illinois at Chicago in 2015, where her thesis focused on the multi-institutional validation of a key features examination for the third year medicine clerkship. She directed the 3rd year Medicine Clerkship at the University of Rochester for 13 years and still directs the Medicine Sub-Internship and the hospital medicine faculty development program. She is currently the Senior Associate Division Chief of Hospital Medicine. Val co-led the development of three on-line interactive virtual patient courses, including SIMPLE, which is used in the
medicine clerkship at over 120 institutions, High Value Care, and Dx: Diagnostic Excellence, a program designed to reduce diagnostic error. She is Academic Director of Curriculum and Courses at MedU, a nonprofit medical education organization that develops on-line courses in collaboration with national organizations. Her research interests focus on the teaching and assessment of clinical reasoning and the use of virtual patients. She is married to Alex, a medical oncologist, and mother to Charlie, a 9 year old who is also an avid on-line learner.

**Rosanne M. Leipzig MD, PhD**

Rosanne M. Leipzig, MD, PhD is the Gerald and May Ellen Ritter Professor (tenured) and the Vice Chair for Education of the Brookdale Department of Geriatrics and Palliative Medicine at the Icahn School of Medicine at Mount Sinai in New York. Dr. Leipzig is an internationally recognized leader in Geriatrics and Evidence-Based Medicine, and has received numerous awards for her work including the American College of Physicians Richard and Hinda Rosenthal Foundation Award, a Joy McCann Scholar award recognizing her expertise in mentoring and medical education, the 2008 Dennis W. Jahnigen Memorial award from the American Geriatrics Society, a Brookdale National Fellowship in Geriatric Medicine and in 2014 received the Paula Ettelbrick Community Service Award from Services & Advocacy for GLBT Elders (SAGE).

She is the editor-in-chief of Focus on Healthy Aging, a monthly newsletter for consumers, and past chair of the Geriatrics Working Group the United States Preventive Services Task Force and the American Board of Internal Medicine’s Subspecialty Board on Geriatric Medicine.

**Nancy E. Lundebjerg, MPA**

Nancy Lundebjerg is Chief Operating Officer of the American Geriatrics Society (AGS) and incoming Chief Executive Officer, effective April 2015.

Ms. Lundebjerg oversees public policy, internal and external communications, professional and public education, membership, governance, and grant-funded projects supporting the work of a society that represents more than 6,000 health professionals specializing in geriatric care. She is the senior staff lead for the Association of Directors of Geriatric Academic Programs, a supporting foundation of the AGS.

She also is lead staff member for the Geriatrics-for-Specialists Initiative, a multi-specialty effort funded by the John A. Hartford Foundation and Atlantic Philanthropies designed to increase awareness of and knowledge in the care of older adults among surgical and related medical specialties. She is an ex officio member of the Council of the Section for Enhancing Geriatric Understanding and Expertise among Surgical and Related Medical Specialties (SEGUE), which works to advance integration of geriatrics principles into surgical care.

Ms. Lundebjerg represents AGS in a variety of venues, most notably serving as Co-Convener of the Eldercare Workforce Alliance, a coalition focused on the workforce shortage of health professionals, direct-care workers, and supports for family caregivers catering to the needs of older adults.

Ms. Lundebjerg holds a BA in English Literature from Connecticut College and a Master of Public Administration degree from the University of Hartford, where she was a Woodruff Scholar.

**Lynn McNicoll, MD, AGSF, FRCPC**

Dr. Lynn McNicoll is a medical graduate of McGill University and completed her residency in Internal Medicine at Northwestern University in Chicago. After completing a fellowship in Geriatric Medicine and Clinical Epidemiology at Yale University in 2002, Dr. McNicoll joined the faculty of Medicine at the Warren Alpert Medical School of Brown University. She is now Associate Professor of Medicine. At
Brown, she has won several awards for her implementation of a geriatric friendly program at The Miriam Hospital. She specializes in quality improvement initiatives in the hospital setting and improving care for hospitalized older persons. She is Director of Education for the Division of Geriatrics and oversees most geriatric education programs for residents and medical students at Brown. She is also the Director of Quality Management and Outcomes for the Department of Medicine and Director of the Scholarly Concentration Program overall as well as the Scholarly Concentration in Aging. She has been a consultant to Healthcentric Advisors, the Quality Improvement Organization of Rhode Island, since 2004 specifically in hospital- and nursing home-related matters. She was on the leadership team of the RI ICU Collaborative from 2005 to 2013. She has been medical director at 2 nursing homes and has been caring for patients in all settings (including nursing homes) for 13 years.

Daniel Ari Mendelson, MS, MD, FACP, AGSF, CMD
Mendelson is a geriatrician and researcher internationally known for his innovative work in caring for geriatric fracture patients. He is co-founder and co-director of the Geriatric Fracture Center at Highland Hospital, lectures worldwide about topics related to fragility fractures, and is the author of numerous publications in this area. Mendelson is co-principal investigator for a pilot grant from the Hartford Foundation to disseminate Highland’s highly successful care model, which integrates geriatrics with orthopaedic surgery. He came to Highland Hospital in 1999 during the second year of his fellowship training to develop the inpatient Acute Geriatrics Service and later established the Palliative Care Consultation Service. Mendelson has won several teaching awards and has earned international recognition for his work. A member of the New York American College of Physicians Ethics Committee, Mendelson also serves on the American Geriatrics Society Quality and Performance Measures Committee. He has an undergraduate degree in Chemistry from Rochester Institute of Technology. Mendelson received his M.S. in biophysics and an M.D. from the University of Rochester School of Medicine and Dentistry, where he also completed residency in primary care internal medicine and fellowship in geriatrics.

Annette Medina-Walpole, MD
Dr. Annette Medina-Walpole is Professor of Medicine and Chief of the Division of Geriatrics & Aging at University of Rochester. She also serves as medical director of Monroe Community Hospital, a 566-bed County owned long term care facility, which remains one of the premier teaching nursing homes in the country, largely due to the affiliation with University of Rochester since 1966. Dr. Medina-Walpole has been certified as a Medical Director for Long-Term Care by the American Medical Directors Association / American Board of Post-Acute and Long-Term Care Medicine since 2003. Dr. Medina-Walpole is the recipient of several national and local research and teaching awards including a Hartford Center of Excellence Young Investigator Award, the New Investigator Award from American Geriatrics Society, and a Geriatric Academic Career Award from the Bureau of Health Professions. She is the 2016 recipient of the American Geriatrics Society’s Dennis W. Jahnigen Memorial Public Service Award for her work in furthering geriatric education and her commitment to addressing workforce shortage among geriatric health professionals.

Dr. Medina-Walpole was a Lawrence A. Kohn Senior Teaching Fellow and a Dean's Teaching Fellow and is now co-directing the Dean's Teaching Fellowship at URMC. She directed the Aging Theme at the University of Rochester School of Medicine from 1999 – 2014 and directed a course for first year students, Skills in Complete Patient Evaluation from 2010-15. Dr. Medina-Walpole was the principal investigator on the Chief Resident Immersion Training Grant and co-principal investigator on Donald W. Reynolds Foundation grant to train hospitalists and subspecialists in geriatrics. She currently serves as
Director of Education for the Geriatric Workforce Enhancement Program grant. She completed the new two-year URMC Senior Leadership and Education Development Program.

Dr. Medina-Walpole is also active nationally in the American Geriatrics Society (AGS) as member of the Board of Directors and several committees. Prior AGS positions include Co-Editor in Chief of the Geriatric Review Syllabus 9, Co-Chair of the Junior Faculty Task Force, Chair of the Teacher’s Section and Chair of the 2008 Annual Scientific Meeting. Dr. Medina-Walpole will represent University of Rochester as a fellow in the 2016-17 Hedwig van Ameringen Executive Leadership in Academic Medicine® (ELAM) program. Her career interests include geriatric education, faculty development and the academic career development of clinician educators in geriatric medicine.

Ugochi Ohuabunwa MD
Ugochi Ohuabunwa MD is an Associate Professor at the Emory University, Division of General Medicine and Geriatrics. She is the Geriatrics Service Line Chief, at Grady Memorial Hospital, where she is also the Medical Director of the Acute Care for the Elderly Service. She has been instrumental in curricula design for medical students, residents, fellows and hospital staff including Nursing, Pharmacy, Social Work, Rehabilitation Services on the care of the hospitalized older adult which focuses on best practices during hospitalization to transitions across care settings for the hospitalized older adult. Her research has focused predominantly on health services and health disparities research in care transitions.

Jennifer Ouellet, MD
Jennifer Ouellet is a currently a senior geriatrics fellow at Yale University. She completed her medical school training at the University of Rochester School of Medicine and Dentistry in 2012. During her medical school training she was given the Hoffman Award for research in geriatrics, honoring her work in geriatric oncology completed during an NIH funded year of research. She then moved to New Haven, CT to start Internal Medicine Residency in the Yale University Traditional Residency Program. During her first year of residency, Jennifer was selected for the Southeast Center of Excellence in Geriatric Medicine (SCEGM) Resident Award, a program which provided advanced training for physicians preparing for academic careers in geriatric medicine. At the conclusion of her first year of residency, she was honored with the Samuel Kushlan award, given to the intern who contributed the most to patient care. She attended the UCSF Bechtel Award Summit in the June of her second year of residency. During her third year of internal medicine residency she received the Stephen R Shell and Frederick L Sachs awards, honoring a third year resident for possessing an uncompromising commitment to General Internal Medicine and the best interest of patients, and for possessing those attributes of heart and mind that best exemplify the dedication to learning and empathy toward patients. In July of 2015 she began her fellowship in geriatric medicine at Yale University. She is currently completing an advanced fellowship year in geriatric medicine through the Yale HRSA GWEP award, with a focus on clinical education. Her research and education interests include development and assessment of novel educational interventions for medical students and residents, curriculum design, communication among medical providers and co-management of patients.

Claire Peel, PhD, PT, FAPTA
Dr. Peel joins the Health Science Center from the University of Alabama at Birmingham (UAB), where she served in a variety of challenging roles, including six years as Associate Dean for the School of Health Professions and four years as Associate Provost for Faculty Development and Faculty Affairs. Dr. Peel began her career at The Institute for Rehabilitation and Research in Houston and, after working clinically for several years in neurological rehabilitation, returned to graduate school for an MS in Physical Therapy at the University of Southern California followed by a PhD in Exercise Science and
Cardiopulmonary Rehabilitation from the University of Iowa. She is also a graduate of Harvard University's Management Development Program. Dr. Peel is a nationally recognized expert in education programs to prevent falls and enhance mobility for older adults. She was honored in 2007 as a Catherine Worthingham Fellow of the American Physical Therapy Association.

Jane F. Potter, MD
Dr. Potter is the Neumann M. & Mildred E. Harris Professor of Geriatrics and Gerontology in Internal Medicine; Chief, Division of Geriatrics and Gerontology, and Director, Geriatric Medicine Fellowship Program Department of Internal Medicine. She joined the UNMC faculty in 1982. She has been a member of the American Geriatrics Society (AGS) since 1980, and was a member of the AGS Board of Directors from 2000-2008, where she also served as President and Board Chair. Dr. Potter is past president of the National Association for Geriatric Education Centers and a former member of the American Board of Internal Medicine Geriatric Test Committee. She is a Deputy Director for the AGS/John A. Hartford Foundation Geriatrics-for-Specialists Initiative and an editor of both Geriatrics at Your Fingertips and The Geriatric Review Syllabus.

Dr. Potter has held continuous extramural support at UNMC since 1984 (NIH/NIA, HRSA, or Donald W. Reynolds and Hartford Foundations). She is a co-investigator on the Hartford Foundation/American Geriatrics Society grant "Geriatrics Workforce Enhancement Program National Coordinating Center."

Dr. Potter received her MD from Creighton University School of Medicine, Omaha, Nebraska. She completed residency training at George Washington University and a Geriatric Fellowship at the National Institute on Aging, NIH. She is boarded in Internal Medicine and Geriatric Medicine.

Dr. Potter has more than 100 publications as articles, book chapters and books edited. Her research interests include geriatric cognitive disorders, the geriatric medical home, interprofessional education in geriatrics, and whole person wellness.

Josette Rivera, MD
Josette Rivera, MD, is Associate Professor at UC San Francisco, where she leads the School of Medicine’s collaborations with the campus-wide Program in Interprofessional Education, and is co-PI of the UCSF Reynolds Foundation Next Steps Grant. She is also the founding chair of the American Geriatrics Society Interprofessional Education and Practice Special Interest Group.

Mandi Sehgal, MD
Dr. Mandi Sehgal is an Associate Professor of Clinical Biomedical Science at the Charles E. Schmidt College of Medicine at Florida Atlantic University serving as the Co-Director of the longitudinal curriculum thread in Geriatrics, the Associate Director of the Geriatrics/Palliative Care Clerkship, and the faculty advisor to the geriatric student interest group. She received her medical degree from the University of South Alabama College of Medicine and graduated from the Tallahassee Memorial Family Medicine Residency Program in Tallahassee, Florida. She completed a Geriatric Medicine Fellowship at the University of Cincinnati and a Faculty Development Fellowship at the University of North Carolina, Chapel Hill. Previously, Dr. Sehgal served as the Associate Director of the Geriatric Medicine Fellowship and Lead Faculty for geriatrics-focused curriculum at the University of Cincinnati College of Medicine and at the University of Kansas School of Medicine as the Director of Geriatric Medicine Education for the Family Medicine Residency Program and as Lead Faculty for curricular development of Interprofessional Education (IPE) in a novel geriatric outpatient IPE team clinic and team-based IPE in the inpatient setting. She lives in Florida with her husband, Corey and her two children, Nikhil and Devin.
Deborah “Deb” Simpson, PhD

Dr. Simpson is Medical Education Programs Director for Aurora Health Care, a not for profit health care system whose physicians provide education to medical students, residents, fellows and other health professions. She is an adjunct clinical professor in family medicine at the University of Wisconsin School of Medicine and Public Health (UWSMPH) & at the Medical College of Wisconsin (MCW). Her primary foci are inter-related: (1) education as scholarship (developing, recognizing, and valuing faculty as teachers and educators); (2) faculty development for educators; and (3) workplace learning across the continuum of physician education: aligning education with clinical care markers for quality and patient experience to support the highest quality of education and patient care. She is a Deputy Editor for the Journal of Graduate Medical Education, a member of the Alliance of Independent Academic Medical Centers’ Board of Directors, a public member of the Psychiatry Residency Review Committee-ACGME and ACGME’s Well Being Task Force, a Portfolio Program Reviewer for the American Board of Medical Specialties, and member of NBME U Advisory Committee. Her more than 420 presentations and 135 publications in medical education reflect her primary interests clinical teaching effectiveness, faculty development and vitality for clinician educators and documenting faculty contributions in education consistent with criteria for educational scholarship.

Prior to joining Aurora Health Care, Dr. Simpson served as Director of the Office of Educational Services and the Associate Dean for Educational Support and Evaluation at the Medical College of Wisconsin and was honored to be a member of MCW’s Society of Teaching Scholars, the 1st holder of the Elsa B and Roger D Cohen MDs CHW/MCW Professorship in Medical Education, and the first female to receive to college’s Distinguished Service Award. Nationally, Dr. Simpson served as Chair of the AAMC’s Group on Educational Affairs, chaired the AAMC-GEA Consensus Conference on Educational Scholarship, and recently concluded her service as a member of the GEA’s Educator Evaluation Task Force. Deb has been recognized nationally for her work in medical education: she was the 2001 recipient of the Excellence in Education award from the Society of Teachers of Family Medicine for her work in faculty development; a 2005 McCann Faculty Scholar for her work in mentoring; and a 2008 recipient of the AAMC-GEA’s Merrill Flair Award. She is a native of San Francisco, a graduate of the University of California at Santa Barbara (BS – American History and Cultural Anthropology), the Ohio State University (MA – Student Personnel Work in Higher Education) and the University of Minnesota (PhD – Educational Psychology).

Rani Snyder , MPA

Rani Snyder is Program Director at The John A Hartford Foundation, a private philanthropy with the vision of a nation where all older adults receive high-value, evidence-based health care, are treated with respect and dignity, and have their goals and preferences honored. With more than 20 years of experience in working with pre-eminent health care institutions across the nation, Rani has demonstrated experience in identifying and guiding health care programs that have set the standard for medical best practices, increased medical education opportunities, and maximizing resources to improve health care broadly.

Prior to joining The John A. Hartford Foundation, Rani served with the Donald W. Reynolds Foundation for 14 years, starting as a program officer with a promotion to director for the Foundation’s Health Care Programs. In that capacity, she managed more than $265 million in Health Care Grants to major medical facilities throughout the country, focusing on Aging and Quality of Life Programs as well as the Foundation’s $159 million investment in its Cardiovascular Clinical Research Program. During her tenure, Rani worked alongside the country’s most forward-thinking medical administrators and pioneering health care providers to create educational and clinical programs that have significantly advanced how
patient care is delivered. These include collaborative and groundbreaking programming at prestigious medical institutions such as Duke University, Johns Hopkins University, New York’s Mount Sinai Medical School, and UCLA’s academic health centers.

Rani earned a Master’s Degree in Public Administration in Health Care Policy from New York University’s Wagner Graduate School of Public Service, followed by a doctoral program in Health Services Research at the UCLA School of Public Health. She began her professional career in 1992 with the New York City-based John A. Hartford Foundation’s Health Care Cost and Quality (HCCQ) program before transitioning from 1995-1997 to guiding health policy initiatives at the Commonwealth Fund in New York City. Rani’s entire career has been directed toward creating opportunities to improve the health of older adults through increased access to quality health care, enhanced health care delivery, improved medical education, collaborative partnerships, and expanded nursing and caregiver training. She brings that experience to The John A Hartford Foundation to coordinate initiatives that will foster collaboration among academic institutions, hospitals and medical providers to improve health care for all older adults.

**Laurence M. Solberg, MD AGSF**

Dr. Laurence M. Solberg earned his medical degree from the Jagiellonian University in Krakow Poland. He completed his residency training in internal medicine and fellowship training in geriatric medicine at Yale University School of Medicine in New Haven, Connecticut. He is the Ruth S. Jewett Professor of Geriatric Medicine and the chief of the division of geriatric medicine at the University of Florida College of Medicine. Dr. Solberg has been active the last decade in educating a variety of learners in geriatrics. His research has focused on geriatrics education and delirium, including interprofessional education, nursing recognition of delirium in the hospitalized older patient, and the communication between nurses and doctors using electronic order sets and computerized decision support tools. Dr. Solberg developed and implemented a graduate distance education program in Gerontology encompassing a graduate certificate and a master’s degree. In clinical geriatric medicine Dr. Solberg introduced geriatric consultation services to the UF College of Medicine Shands hospital and continues to grow the UF Health Senior Care practice. In 2015 the practice partnered with an additional Skilled Nursing Facility in Gainesville to introduce a model of continuity of care from the hospital to the post-acute environment and to the outpatient arena. In 2012 Dr. Solberg was inducted as a fellow in the American Geriatrics Society for contributions to the field in clinical, educational, and research activities.

**Lisa Strano-Paul, MD**

Lisa Strano-Paul, MD is a Professor of Medicine and Assistant Dean for Clinical Education at Stony Brook Medical School. She is the course director for the mandatory third year Primary Care Clerkship, the fourth year geriatric elective and geriatric selective which focuses on care transitions. Dr. Strano-Paul is a member of the AGS education committee. Her interests include medical education, curriculum development, interprofessional education and narrative medicine.

**Niharika Suchak, MBBS**

Dr. Niharika Suchak is a clinician-educator and Associate Professor in the Department of Geriatrics at Florida State University College of Medicine in Tallahassee, Florida. Dr. Suchak's current teaching responsibilities include teaching medical students through all 4 years of medical school and being faculty preceptor for the geriatrics rotation for medical residents. Dr. Suchak contributes to curriculum development in her role as a Medicine 1 Course Co-Director and as a Clinical Skills Director for Year 1. Interprofessional education is another focus area for her. Dr. Suchak is the lead faculty for the development and implementation of the MUST-SIT together © Interprofessional
Education Model (Modified Use of Simulation in Teams for Students In Training together) that incorporates a simulated patient encounter with students from multiple health professions. Dr. Suchak currently serves as the President of the Florida Geriatrics Society. She is a Fellow of the American Geriatrics Society and also a Fellow of the American College of Physicians. In 2012, Dr. Suchak received the Clinician of the Year Award by the American Geriatrics Society.

**Daniel Swagerty, MD, MPH**

Dr Swagerty is a Professor of Family Medicine and Internal Medicine at the University of Kansas School of Medicine, where he serves as the program director for Geriatric Medicine. As the Associate Director of the Landon Center on Aging, he is responsible for the geriatric medical educational program for undergraduate, postgraduate, faculty, and interprofessional learners. This program is largely supported by the Landon Center on Aging, with additional funding by the Donald W. Reynolds Foundation and several other external and internal grant awards. He also serves as the Associate Chair for Geriatric Medicine and Palliative Care, Department of Family Medicine. In this capacity, he directs the clinical and educational efforts in Geriatrics and Palliative Care for his department.

**Zaldy Tan, MD, MPH**

Zaldy Tan, MD, MPH is Assistant Dean for Curricular Affairs and Associate Professor at the David Geffen School of Medicine, University of California Los Angeles. He holds the Philo Van Wagoner Endowed Chair in Geriatrics Education and is Associate Chief of the UCLA Division of Geriatric Medicine. He is the Director and Principal Investigator for the UCLA Geriatric Workforce Enhancement Program, the TimeOut Intergenerational Program and the Improving Caregiving for Dementia (I-CareD) Project. He is also the Medical Director of the UCLA Alzheimer’s and Dementia Care Program.

Dr. Tan is a clinician, researcher and educator. He sees patients for memory disorders evaluation and primary care at the UCLA Medical Plaza and attends in the inpatient geriatric medicine unit and consultation service at Ronald Reagan UCLA Medical Center and the Santa Monica-UCLA Medical Center. He performs dementia epidemiology research at the Framingham Heart Study and health services and education research at UCLA. He is the currently Course Chair of the UCLA Intensive Course in Geriatric Medicine and Pharmacy, which has been held annually in Los Angeles for the past 33 years. Dr. Tan is a committee member of the Donald W. Reynolds Consortium for Faculty Development to Advance Geriatric Education (FD~AGE).

**Elizabeth Tanner, PhD, RN, FAAN**

Elizabeth Tanner, PhD, RN, FAAN, is an Associate Professor at Johns Hopkins University (JHU) School of Nursing and Director of Interprofessional Education, developing innovative educational strategies for improving interprofessional care outcomes and particularly strategies for educating health professional learners to collaborate in providing care for older adults. Dr. Tanner has a joint appointment in the School of Medicine, Division of Geriatric Medicine, and holds research appointments in the Center on Aging and Health and Center for Innovative Care in Aging. As an advanced practice nurse, gerontologist and educator, her practice, research and education of health professionals focus on improving direct care for older adults. As an interprofessional researcher, she is a principal investigator and co-investigator for several studies, including an interprofessional simulation study and an interdisciplinary intervention trial to promote “aging in place”. She has also been involved in advancing gerontological education for nursing throughout her career, including developing national competencies and educational strategies.

**Katherine Thompson, MD**
Katherine Thompson, MD is a clinician educator and Assistant Professor of Medicine at The University of Chicago. Dr. Thompson serves as Project Director for University of Chicago’s Geriatrics Workforce Enhancement Program Project entitled The South Side Healthy Aging Resource Experts (SHARE) Network. She is an expert in educational program development and leadership having served as Associate Program Director for University of Chicago’s internal medicine residency and currently as Program Director for University of Chicago’s geriatrics fellowship. As part of the SHARE Network project, Dr. Thompson developed and implemented ECHO Chicago Geriatrics, a curriculum which uses technology to enhance the geriatrics work force by delivering geriatrics training to primary care providers in their own practice settings across Chicago.

Anita Vanka, MD, FHM
Dr. Anita Vanka earned her Bachelors in Physiology and M.D. with Honors from the University of Illinois. She completed her internal medicine training at Beth Israel Deaconess Medical Center, where she also served as Primary Care Chief Resident. She joined the faculty in the Division of General Medicine and Primary Care as a Hospitalist in 2010. She has been an Associate Program Director for the Internal Medicine Residency Program since 2012. She also serves as the Associate Site Director for the Practice of Medicine course at Harvard Medical School and an Advisor to third-year medical students.

Dr. Vanka completed the Rabkin Fellowship in Medical Education in 2012 and during that year, developed an elective on teaching Transitions in Care to the medical residents. This curriculum was piloted for two years before becoming formally integrated into the overall residency training program. As part of the curriculum, residents are engaged in small-group teaching sessions, mini QI projects, and post-acute care site visits. In addition, as part of this curriculum, residents are closely involved in the ECHO Care Transitions program, which is a novel, videoconferencing, multidisciplinary clinic connecting hospital-based teams with post-acute care providers in order to enhance communications for patients recently discharged to these facilities.

Diane B. Wayne, MD
Diane B. Wayne, MD is Vice Dean for Education and the Dr. John Sherman Appleman Professor of Medicine at the Northwestern University Feinberg School of Medicine. She is also Chair of the Department of Medical Education and President of the McGaw Medical Center of Northwestern University. Dr. Wayne has received many honors and awards, including the 2016 Mentor of the Year award from the medical school, the 2015 Patterson Award, bestowed annually by the graduating resident class to the Best Teacher in the Department of Medicine, and the 2014 Leader in General Internal Medicine Award from the Society of General Internal Medicine, Midwest Region. Dr. Wayne has been invited to deliver numerous talks and lectures and has served as a visiting professor at many national and international institutions and conferences. Dr. Wayne received her bachelor’s and medical degrees from Northwestern University and completed her residency at University of Chicago Hospitals. Following a faculty appointment at Baylor College of Medicine in Houston, Texas, she has since 2001 served as faculty in the Department of Medicine and since 2009 in the Department of Medical Education for the Northwestern University Feinberg School of Medicine. She was named Vice Dean for Education in 2014.

As a researcher, Dr. Wayne focuses on the intersection of education and patient care quality. Her expertise is in simulation-based research. Her team has shown that high quality education leads to improved clinical skills, reduced iatrogenic complications, and lower hospital costs than traditional approaches. She has published extensively on these topics in notable peer-reviewed journals such as
Academic Medicine, the American Journal of Medical Quality, the Archives of Internal Medicine, Critical Care Medicine and CHEST.
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<th>Institution</th>
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<td>Albert Einstein College of Medicine</td>
<td>Cognitive Screening and Functional Assessment OSCE</td>
<td>A complete guide with templates and instructional materials for facilitation of a functional assessment and cognitive screening OSCE to medical students.</td>
<td>Claudene George, MD, RPh</td>
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<td>Brown University</td>
<td>Cadaver Treasure Hunt Faculty Guide</td>
<td>This faculty guide is designed to assist medical schools interested in implementing the Cadaver Treasure Hunt anatomy course program.</td>
<td>Richard Besdine, MD</td>
<td>20524</td>
<td>BU</td>
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<td>Emory University</td>
<td>Computer Based Learning Modules</td>
<td>Multiple topics for self directed learning of residents and fellows.</td>
<td>Jonathan Flacker, MD, Anna Mirk, MD, Phyllis Tawiah, MD</td>
<td>21036</td>
<td>EU</td>
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<td>Florida State University</td>
<td>Geriatricized Clinical Skills Checklist</td>
<td>Geriatricized behaviorally explicit checklists for the complete medical history, complete physical examination, problem oriented examination, and chronic illness examination are provided. Each includes four principle areas: communication skills; functional assessment and intervention; social setting assessment and intervention; and therapeutic review and management.</td>
<td>Lisa Granville, MD</td>
<td>21173</td>
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<td>Icahn School of Medicine at Mount Sinai</td>
<td>Aging from the Outside In</td>
<td>An interactive session on older patients’ perception of younger physicians, as well as a discussion of visual and hearing impairments in older adults.</td>
<td>Rainier Soriano, MD, MPH, Rosanne Leipzig, MD, PhD</td>
<td>18641</td>
<td>MS</td>
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<tr>
<td>Institution</td>
<td>Program/Resource</td>
<td>Description</td>
<td>Author/Contact Person</td>
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<tr>
<td>Medical College of Wisconsin</td>
<td>Geriatric Fast Facts and Quizzes</td>
<td>A mobile enabled website which contains 1-2 page concise, peer-reviewed evidence-based educational summaries on key geriatrics topics to increase medical knowledge.</td>
<td>Deborah Simpson, PhD</td>
<td>21870</td>
<td>MW</td>
</tr>
<tr>
<td>Rowan School of Osteopathic Medicine</td>
<td>CampER: Recognizing Delirium in the Emergency Department and the Case of Mrs. Jane Simon</td>
<td>Elderly patients frequently present in the EDED physicians fail to recognize delirium 70% of the time, which leads to poor patient outcomes. The case of Mrs. Jane Simon was developed to address this deficiency. Designed for upper level residents and attending faculty, the case assesses recognition of delirium, understanding of its multifactorial etiology, and appropriate nonpharmacologic and pharmacologic management in an elderly woman with hypoactive delirium.</td>
<td>Victor Scali, DO</td>
<td>21201</td>
<td>RO</td>
</tr>
<tr>
<td>University of Arizona</td>
<td>Elder Care: A Resource for Providers Compendium</td>
<td>This compendium of engaging single page, practical, evidence-based Elder Care Provider Fact Sheets synthesize key concepts in common geriatric syndromes and common diseases in older adults. Replete with screening and assessment tools and treatment gems, these sheets reinforce sound geriatric practice in an approachable format. Elder Care Provider Fact Sheets are written by experts from around the country, reviewed by a team of interprofessional clinicians, and edited by an informationist, an internist and a family physician, all of whom are board certified in geriatrics.</td>
<td>Reynolds Faculty</td>
<td>N/A</td>
<td>AZ</td>
</tr>
<tr>
<td>UCSF</td>
<td>ePrognosis - Estimating Prognosis for Elders</td>
<td>ePrognosis is a web-based tool designed as a repository of validated geriatric prognostic indices for application in clinical and educational settings. The prognostic indices used in ePrognosis are derived from a systematic review of the literature. (<a href="http://eprognosis.ucsf.edu/">http://eprognosis.ucsf.edu/</a>)</td>
<td>Daphne Lo, MD, Rachael Lucatorto, MD, Marilyn Stebbins, Sharya Bourdet, PharmD</td>
<td>21148</td>
<td>SF</td>
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<tr>
<td>University of Cincinnati</td>
<td>Family Medicine Resident and Geriatric Fellow Longitudinal Home Visit Curriculum</td>
<td>Three-year curriculum with increasing autonomy for family medicine residents based out of new Home-Based Primary Care practice within the Family Medicine Center.</td>
<td>Anna Gorony, MD</td>
<td>21929</td>
<td>CI</td>
</tr>
<tr>
<td>University of Hawaii</td>
<td>Standardized Interdisciplinary Team Meeting Case</td>
<td>This Standardized Interdisciplinary Team Meeting scenario was developed as part of a multi-station, standardized patient assessment. The student’s performance is measured by checklists filled out by the standardized team members and by the evaluation of responses to written questions on the interstation exercise. It is designed to be the second of two consecutive stations used to assess interdisciplinary team skills. The student’s task is to help the team create a discharge plan for Mr. Lee.</td>
<td>Michael Nagoshi, MD</td>
<td>21230</td>
<td>UH</td>
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<td>University of Kansas</td>
<td>Barney Smith 3.0</td>
<td>Transitions of care assessment involving learners and faculty from Medicine and Health Professions. Patient is both transitioning from the hospital to home and from curative to palliative care.</td>
<td>Dan Swagerty, MD, MPH</td>
<td>21936</td>
<td>KU</td>
</tr>
<tr>
<td>University of Mass</td>
<td>Elder Patient Navigator Program 2.0</td>
<td>First and second year medical and nursing students are paired with older patients, whom they “navigate” through outpatient medical encounters to help the patient more fully understand health problems and treatments.</td>
<td>Gary Blanchard, MPH, Mark Fitzgerald, MPH, Sarah McGee, MPH</td>
<td>20768</td>
<td>MA</td>
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<tr>
<td>University of Miami Miller School of Medicine</td>
<td>Choosing the appropriate assistive device: A card sorting activity</td>
<td>This 30–40 minute instructional activity is designed for small groups of medical trainees (6–8) to apply basic information learned about assistive devices. This interactive teaching activity uses a card sorting format in which participants are given a set of cards, each containing a different patient scenario, and are asked to match each card with one of seven assistive devices displayed on a table. Once the matches are complete, participants discuss the rationale for their matches and with input from the group members, make needed changes. The facilitator encourages further group discussion to clarify any misconceptions or mismatches. Key points about the use of assistive devices and common mistakes in their use are reinforced.</td>
<td>Rose Maria van Zuilen, PhD</td>
<td>20465</td>
<td>UM</td>
</tr>
<tr>
<td>University of North Texas (UNTHSC)</td>
<td>Interprofessional Geriatric Education and Training in Texas: Fall Risk Education &amp; Assessment</td>
<td>Education and assessment online learning module for Falls Risk</td>
<td>Reynolds IGET-IT Program &amp; NBOME</td>
<td>21923</td>
<td>NT</td>
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<tr>
<td>University of Oklahoma</td>
<td>Healthy Brain, Healthy Mind</td>
<td>Healthy Brain, Healthy Mind (HBHM) is a five session educational course for older adults that nonstigmatically addresses mental health. Now also translated into Spanish, HBHM teaches seniors twelve pathways to a healthy brain and mind. Training materials include a facilitator's guide, presentation slides, and participant workbook.</td>
<td>Andrew Dentino, MD</td>
<td>21940</td>
<td>UO</td>
</tr>
<tr>
<td>University of Rochester</td>
<td>Hospital to Home Trigger Tapes</td>
<td>Home Visit Trigger Tapes.</td>
<td>Robert McCann, DO</td>
<td>18984</td>
<td>RU</td>
</tr>
<tr>
<td>University of Texas SW</td>
<td>SAGE Urinary Incontinence in the Elderly</td>
<td>Interactive module on urinary incontinence.</td>
<td>Craig Rubin, MD</td>
<td>21244</td>
<td>SW</td>
</tr>
<tr>
<td>University of Utah</td>
<td>Advance Care Planning and POLST Conversation Guide</td>
<td>A POLST Curriculum including Powerpoint training, Provider Conversation Guide Booklet and Patient Educational Handouts.</td>
<td>Shaida Talebreza, MD</td>
<td>21942</td>
<td>UU</td>
</tr>
<tr>
<td>Wake Forest U School of Medicine</td>
<td>Hacking Geriatrics: The World 2 Challenge</td>
<td>The World 2 Challenge is an innovative quality improvement competition designed by our Reynolds Next Steps team, based on the concept of a healthcare hackathon. We partnered with institutional leadership in our health system, graduate medical education leadership, nursing, physical therapy, pharmacy, and other interprofessional representatives to design a platform to promote friendly competition led by specialty faculty, fellows, and residents to improve the quality of care for older adults. We describe the key inputs and steps to promote such a QI effort.</td>
<td>Hal Atkinson, MD</td>
<td>21943</td>
<td>WF</td>
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<tr>
<td>Yale University</td>
<td>IMPROVE Polypharmacy Clinic Resource Site</td>
<td>Website with resources needed to implement IMPROVE (Initiative to Minimize Pharmaceutical Risk in Older Veterans) Polypharmacy Clinic</td>
<td>Marcia Mecca, MD</td>
<td>21927</td>
<td>YU</td>
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</table>
“But I’ve never done this before…" Strategies to get your Faculty up to Speed to Teach Interprofessional Learners

Reynolds Meeting 2016
Elizabeth Eckstrom, MD, MPH, Josette Rivera, MD, Elizabeth (Ibby) Tanner, PhD, RN

* no faculty report conflicts of interest

Goals for this Workshop:
TRAIN THE TRAINER MODEL
• Demonstrate strategies to effectively facilitate communication in interprofessional teams.
• Apply an evaluation tool that has been used successfully for communication in interprofessional teams.
• Practice skills in celebrating successes and addressing challenging situations in interprofessional education.
• Apply “real world” strategies to enhance interprofessional team function.
• Share resources

Session Agenda
• Overview – Elizabeth
• The IP Communication Tool – Elizabeth
• Successful IP Faculty Development – Josette and Ibby
• Small groups- Trigger tape review and discussion

“Interprofessional Education occurs when two or more professions learn with, from and about each other to improve collaboration and the quality of care”

UK Centre for Advancement of Interprofessional Education, 2002

Unique Characteristics of IP Learning
• Each profession brings different:
  – Knowledge about the patient
  – Professional identity and culture
  – Perspective

• Effective IPE must recognize, incorporate, and encourage REACTION on these differences

But HOW can we ‘do IPE’ in the course of a busy day in the clinic or on the wards?
A Model of Team Function

**TASK WORK**
- Roles and Responsibilities
- Continuous Learning and Improvement

**TEAM WORK**
- Build Trusted Relationships
- Communicate Respectfully

**TEAM PROCESSES**
- Teamlet Meetings
- Daily Huddles

---

Cohesive Teams: Communication is Key

Adapted from Patrick Lencioni. *The Five Dysfunctions of a Team* Jossey Bass 2002

- Inattention to Results
- Avoidance of Accountability
- Lack of Commitment
- Fear of Conflict
- Absence of Trust

Willingness to be vulnerable, admit mistakes and weaknesses

---

What does it take to be a TEAM PLAYER?

- **Vision and Values:**
  - Every teamlet member is essential to Patient-centered Care
  - PCC is complex, changing and requires ongoing learning

- **Teamlet Member Actions:**
  - Speak-up, collaborate, experiment, reflect, admit vulnerabilities, and learn from failure
  - Communicate to improve teamlet coordination
  - Support others positively through change is essential

- **Trust, Accountability and Change**
  - Disagreement as an opportunity to improve team function
  - Boundary setting and holding others accountable create a safe practice environment

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A Team’s Interpersonal Climate

- Psychological Safety: A climate in which people feel free to express feelings, ask questions, admit mistakes, and ask for help
- Accountability: the degree to which people are expected to adhere to high standards and pursue challenging goals

---

Team Communication Coaching Principles

1. Role Model Team Communication Behaviors Explicitly
   - Self-awareness
   - Active listening
   - Appreciate Differences
   - Address Emotions
   - Disciplined Conversations

2. Build Commitment for Collaboration

---

Team Communication Coaching Principles

3. Foster a Safe Learning Environment
   - Withhold your opinions
   - Value each teamlet member
   - Convey your own fallibility

4. Provide Feedback

5. Frame failures for learning

6. Facilitate Discussion and Authentic Interactions

7. Foster Continuous Reflection (appreciative)
Summary

- Importance of explicit teaching about teamwork
- Faculty development strategies for enhancing explicit teaching about IP collaboration
- Challenges to IP collaboration
- Team communication coaching principles
- Framework for assessing team communication

IPE Faculty Development: UCSF Strategies
Josette Rivera, MD

The Teach for UCSF Certificate Program in Interprofessional Teaching

- For teachers in all settings who want to create and maximize interprofessional learning opportunities
- Select learning objectives:
  - Identify teachable moments based on knowledge of core principles of IP practice
  - Apply negotiation and conflict management principles to improve IP communication
  - Facilitate critical reflection on IP collaboration with respect to individuals, teams, and settings

The Teach for UCSF Certificate Program in Interprofessional Teaching

- 5 IPE focused workshops
  - Setting the Stage for IP Teaching
  - Engaging Learners Across the Health Professions
  - Capitalizing on Teachable Moments in IPE
  - Sustaining a Positive IP Environment
  - Teamwork and Communication Strategies in IPE (online module)
- 5 general teaching skills workshops

The Teach for UCSF Certificate Program in Interprofessional Teaching

- IPE focused workshops:
  - 2-3 hours each
  - Paired with online module (approx 1 hr)
  - Facilitated by 2 faculty of different professions
- Attend 2-3 workshops/year to complete certificate in 2-4 years.
- Expected time investment 4-16 hrs/year

Just-in-Time Interprofessional Teaching Observation Program

- Aims to build capacity to teach IPE by providing just-in-time coaching for faculty at all UCSF schools/programs
- Unique approach to faculty development via peer mentoring in authentic settings
Just-in-Time Interprofessional Teaching Observation Program

• Anyone doing IP teaching in any setting can request a coach to observe their IP teaching and provide feedback
• Coach & teacher meet in advance of observation to identify challenges and areas of focus
• Coach uses a structured form during the observation
• Coach & teacher meet for debrief/feedback, complete post-coaching session evaluation

Just-in-Time Interprofessional Teaching Observation Program

• Resources needed:
  – Coaches
  – Coach training:
    • Online module
    • Observe 3 “practice” videos: small group classroom setting, outpatient, and inpatient scenarios
    • Structured observation form
    • Debrief video observations and practice giving feedback with coach trainers AKA master coaches
  – Website to house program materials

Just-in-Time Interprofessional Teaching Observation Program

• Coach observation form sample items:
  – Tackled sensitive issues and challenged stereotypical statements while maintaining neutrality and sensitivity.
  – Optimized “teachable moments” for highlighting interprofessional concepts.
  – Maintained a safe environment where all contributions were acknowledged and questions welcomed and validated.

Just-in-Time Interprofessional Teaching Observation Program

• For questions or resources, please email me:
  josette.rivera@ucsf.edu

When There Aren’t Enough Faculty for IPE...
Training Student IPE Small Group Facilitators

Elizabeth “Ibby” Tanner, PhD, RN

IPE Curriculum at Johns Hopkins

• 450 students: medicine, nursing, pharmacy
• 4 IPE events:
  – Year 1, 1st semester
  – Year 1, 2nd semester
  – Year 2, 1st semester
  – Year 2, 2nd semester
• 56 groups of 8 for each
• 2 student facilitators per group (at least 2 of the 3 professions)
• 1 faculty mentor per 2-3 groups
Barriers to IPE Faculty Facilitation

• 56 groups of learners: need 112-168 faculty
• Daytime IPE activities vs. evening IPE activities
• Faculty facilitator training

IPE Student Facilitators:

Training Students to Facilitate IPE:
• IPE Scholars & Faculty Mentors
  ➢ 1-year longitudinal program (12 medical, 12 nursing & 12 pharmacy students)
  ➢ IPE curriculum addresses IPEC competencies
  ➢ Specific training for each required IPE event
  ➢ Training in group facilitation

Does student facilitation work?

Evaluation Results:

• PRE-POST EVALUATION
  – Scale 1: The Readiness for Interprofessional Learning Scale (RIPLS)
  – Scale 2: The Interdisciplinary Education Perception Scale (IEPS)
• Student responses: revealed the meaning of this approach

Learner Satisfaction

Trigger Tapes- Instructions

• Watch the video
• Complete the IP evaluation tools based on what you observed
• Talk with your small group about your scores, and brainstorm how to give feedback in the situation
• Be ready to share some key points with the large group
Trigger Tapes

- Successful interprofessional teamwork
- Quality Improvement That Needs Improvement

http://boisevaco.org/faculty-staff/faculty-development-interprofessional-education/

We would like to acknowledge Bill Weppner, MD, and Carole Warde, MD, for their contributions to this workshop

References

- Warde C, Pearson M. An Interprofessional Education Program to Improve VA PCMH Team Function. (in preparation)

Questions?
Developing Order Sets for Geriatric-Surgical Co-Management Programs: Introduction

Lynn McNicoll, MD
Associate Professor of Medicine
Alpert Medical School of Brown University

Objectives
Our specific goals are that at the conclusion of this workshop, attendees will be able to:

1. list the basic components of GOC pre-operative and post-operative order sets
2. describe the challenges and barriers to order set initiation and implementation in GOC
3. draft their own basic pre-operative and post-operative order sets to return to their own institutions.

Part 2 – Business Case
• Tomorrow’s workshop will concentrate on how to develop a business case for a co-management program
• Please join us for that seminar

Agenda for today’s seminar

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Faculty</th>
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<tbody>
<tr>
<td>10:30</td>
<td>Introductions of Topic and Faculty</td>
<td>Lynn McNicoll</td>
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<tr>
<td>10:35</td>
<td>Presentation on Order Sets</td>
<td>Daniel Mendelson</td>
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<td>10:55</td>
<td>Champions Presentation</td>
<td>Jennifer Ouellet</td>
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<tr>
<td>11:00</td>
<td>Small Group Activity Part 1</td>
<td>All</td>
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<tr>
<td>11:15</td>
<td>Large Group Discussion</td>
<td>Lynn McNicoll</td>
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<tr>
<td>11:25</td>
<td>Presentation on Barriers and Challenges</td>
<td>Laurence Solberg</td>
</tr>
<tr>
<td>11:35</td>
<td>Small Group Activity Part 2</td>
<td>All</td>
</tr>
<tr>
<td>11:50</td>
<td>Large Group Discussion and Conclusion</td>
<td>Lynn McNicoll</td>
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Small Group Discussions
• Small Group Activities Part 1: Participants will discuss key components of an order set and evaluate an example.
• Small Group Activity Part 2: Participants work on their anticipated hospital-specific challenges and barriers and ways to overcome these.

Faculty
Lynn McNicoll, MD
Alpert Medical School of Brown University
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Jennifer Ouellet, MD
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Laurence M. Solberg, MD
University of Florida
lmsolberg@ufl.edu

Kencee Graves, MD
Utah University
Kencee.Graves@hsc.utah.edu
Champions Program at the Veterans Affairs Hospital

**Comprehensive Home based Acute care Medical Program Initiative for Older Noncritical Surgical patients**

Jennifer Ouellet, MD
Geriatric Medicine Fellow
Yale University

---

**Program Goals**

- To improve surgical outcomes of elderly patients by developing a model that encompasses home pre-operative assessments, proactive transitional planning, in hospital co-management, and post-operative monitoring in the home.
- To enhance clinical outcomes, facilitate expeditious discharge back home, and decrease the need for institutional care after surgery.
- Foster patients and caregiver’s understanding & expectations of surgery.

---

**Patient Criteria**

- ≥ 70 years of age
- 4 day minimum projected hospital LOS
- Patient **expected** to return home after hospital discharge.
- Patient lives in Connecticut
  ***No discharge plans to short term rehab***

---

**Key Features**

- Pre Surgical Home Assessment
  - Cognitive evaluation, Identification of projected post operative services, medication evaluation, functional assessment, identification of caregiver support training
- In Hospital Evaluation
  - Geriatric NP follows patient while inpatient to make geriatric syndrome recommendations
- Post Operative Services
  - VNA, PT/OT, durable medical equipment, dietician and social worker, home visit at 48 hours post op, on site video conferencing with surgical post op care, home visit at 30 days post op

---

**Outcomes**

- 246 unique Veterans served since inception (2010)
- 250 unique caregivers served since inception
- * Decrease in E.R. visits and inpatient admissions due to surgery related issues

Challenges and Obstacles: Implementing a Geriatrics Fracture Co-Management Service

Laurence M. Solberg, MD AGSF
Ruth Jewett Professor of Geriatric Medicine
University of Florida College of Medicine

Challenges to Implementation

- Changing the culture of the hospital
- Getting involved in “Turf Wars”
- Showing the value
- Creating the relationships

Changing the culture of the hospital

- Change is difficult
- May be changing who the admitting service is for the older fracture patients.
- This is hospital dependent
- Education for nursing, staff, and physicians is needed

Getting involved in “Turf Wars”

- Admitting services may not be cooperative
- To be Consultative or Admitting?...that may be the question
- IM, FM, or Hospitalists may feel threatened
- Present as working together for the optimal care of the patient

Showing the value

- Educating how geriatrics can help with delirium and dementia
- Presenting as a force multiplier, not a competition
- Showing decreased hospital mortality associated with Geri-co-management

Creating the relationships

- Partner with Orthopedics, IM, FM, and Hospital Medicine to create the team
- Educate the partner services on the complications of older patients
- Track outcomes to demonstrate value
Obstacles to Implementation

- Some people just don’t get it!
- Viewed as competition not cooperation
- Cost effectiveness misconception

Some people just don’t get it!

- Hubris
- Ego
- Avoiding change
- Misunderstanding the needs of the older patient

Viewed as competition not cooperation

- Admitting services may say:
  - “We do geriatrics just fine…”
  - Goes back to “just don’t get it!”
- Seen as not adding value...
- Thought of as trying to steal the patients

Cost effectiveness misconception

- Viewed as competing for payment with IM or FM doctors
- Calling another consult will drive up the cost of the hospitalization
- May take away from the bundled payment

Overcoming the Challenges and Obstacles

- Education, Education, Education
- Teach how geriatric medicine can make a difference
- Focus on the Delirium, Dementia, and Polypharmacy in the co-management
- Build relationships to optimize care and shorten hospital stay
- Use technology i.e. the EMR to benefit the teams with geriatric focused order sets
"Best Practices" in Teaching Care of the Hospitalized Older Adult

Annals of Internal Medicine
Improving Geriatrics Training in Internal Medicine Residency Programs: Best Practices and Sustainable Solutions

- Authors interviewed leaders of 15 nationally recognized geriatrics programs
- Reviewed about 70 articles describing interventions for teaching geriatrics to IM residents
- Best Practices defined as interventions that either
  - Improved knowledge, attitudes or skills or
  - Showed high levels of resident satisfaction


The most successful residency programs involve clinical experiences with 3 key elements”:
1. Model geriatric care in 1 or more settings
2. Care of patients across sites or through transitions of care
3. Interdisciplinary teamwork


- Develop at least 1 Best-Practice Model of Geriatrics
  For acute care, this could be an ACE Unit or a Consult Service
  “Residents must be able to see, first hand, that the body of knowledge and skills really makes a difference in the care of their patients. If this does not occur, it is unlikely that the knowledge and skills will become part of the residents’ clinical arsenal.”


- Increase the number of knowledgeable, engaging, charismatic teachers
  For acute care, this could be non-physician teachers
  “... Certain experiences in and aspects of geriatrics can be well-taught by nonphysician members of the geriatrics team.”
  - Be careful
  - Some house staff feel these professionals have nothing to teach them
  - Residents can be rude when they feel their time is being wasted

Consider combined Inpatient-Outpatient experiences

- Incorporating non-hospital geriatric rotations with in-hospital geriatrics rotations can enhance continuity and allow for care across settings.

- Yale-New Haven combined ACE Unit and non-hospital rotations
  - 2 residents with 3 interns with one geriatrician and one hospitalist attending designated for rotation
  - 2 interns in ACE unit at all times with 2 residents, while 1 of the interns rotated to the outside facilities
  - Sub-acute rehab, long-term care, geriatric assessment center, CCRC, adult day care, and geropsych unit
  - Learners had improved confidence in several geriatric domains pre and post

Broad themes from the literature

- Geriatrics content dovetails well with patient-safety content under the system-based practice competency umbrella
  - “Hazards of Hospitalization”

- Supplementing patient interactions (rounding and bedside teaching) with delivery of uniform content (lectures or modules) necessary

- Finding sufficient faculty experts to teach is difficult
  - Teaching done by non-physician team members is important but tricky

- When evaluating impact, influencing attitudes is a high priority

- Striving to measure impact on resident behavior is important but difficult

Annals of Internal Medicine
Barriers

Residency Buy-in or Requirements

- Residency Program Requirements:
  - Meet with PD to understand what requirements and needs are
    - For a geriatrics rotation by ACGME requirements
    - For the program—is geriatrics rotation being used as ambulatory time or can it be inpatient?
    - Interprofessional learning (i.e. CLER priorities)
    - Patient safety/quality (also CLER priority)

Preceptor Time

- Attending does not have to be the only teacher
  - Interprofessional team members
  - Fellows as “junior attending”
  - Non-geriatrician physicians or APPs (will depend on your ACE unit model)

Learner Time

- Make best use of in-person time
  - Assign reading, prep work prior to time on the unit
  - Supplement with online modules (WebGEMS, WebPEARLs)
  - Use in-person time to discuss, apply to patients on the unit, participate in team rounds, etc.
  - Advanced learner roles/topics
    - Leading IDT rounds
    - Teaching junior learners
    - QI focused (urinary catheter use, Beers med use)

Content

- Competing Content
- Level of Content
- Too much to cover
- Translatable content/tools
  - Geriatric order sets
  - EMR tracking tools
UAB ACE Example

- Residency program requirements
  - 1 month intern year, ambulatory
- Preceptor time
  - Geriatric consultants on ACE
  - Interprofessional team
- Learner time
  - Observe IDT rounds, consults
- Content
  - Key ACE components
  - EMR tools and order sets

Evaluation

- Kirkpatrick’s evaluation of the curriculum
- Bloom’s Taxonomy guides learning objectives

UAB ACE Evaluation Tools

- Rotation evaluation
- Learner attitudes
  - UCLA Geriatric Attitudes Scale
- Skills self-assessment
  - Retrospective pre-post
- Geriatric Knowledge
  - Pre and post-test
  - Delirium concept mapping
- Impact on practice

Impact on Practice

- Hardest to assess but most ideal
  - Timing
  - What to measure
  - Resources required to measure
- Suggestions
  - Use of Beers meds on non-ACE unit
  - Frequency of use of geriatric order sets
  - Residency program eval (CLER follow-up visit)
  - Restraint use
  - Chart audit for documentation on geriatric issues
Curriculum Design

1. Needs Assessment
   - Consists of three parts:
     1a. Problem Identification
     1b. General Needs Assessment
     1c. Targeted Needs Assessment

1. Curricular Design
   1. Needs Assessment
   2. Design/Implementation Strategies
   3. Barriers
   4. Evaluation

1a. Problem Identification
   - What is the problem that needs to be addressed by this curriculum?
   - Who does this affect?
   - What does it affect?

1b. General Needs Assessment
   - What is currently being done to address the problem?
   - What factors affect the problem?
   - What ideally should be done to address the problem?

1c. Targeted Needs Assessment
   - Who are the stakeholders? What are their needs and interests?
   - Who are the learners? What are their needs and interests?
   - What is the learning environment?
2a. Curriculum Design

- Develop goals and objectives
- Choose educational strategies that work within learning environment
- Things to consider:
  - Are these appropriate objectives and strategies?
  - How to measure/assess these goals and objectives?

2b. Implementation

- Identify resources
- Obtain buy-in
- Develop administration/support system
- Anticipate barriers
- Plan introduction

Example: UNC Geriatric Inpatient Curriculum

- Problem Identification: Inpatient care of older adults often does not address or consider the impacts and hazards of hospitalization on the older adult.
- General Needs Assessment: Much of the Geriatric specific inpatient care is performed by the Geriatric attending, Geriatric nurse practitioner, and Geriatric fellows.
- Ideal Solution: Housestaff would participate more in this care, learning principles and tools to use on other services and after their training.

Example: UNC Geriatric Inpatient Curriculum

- Targeted Needs Assessment:
  - Our learners
  - Our stakeholders
  - Our learning environment
  - Current curricula
  - Opportunity

Example: UNC Geriatric Inpatient Curriculum

- Curriculum Design
  - Goals and objectives selected by educational team, with core topics and consistent teachers identified
  - Space in curriculum allowed for additional sessions by faculty on service
  - Teachers given space to find educational methods that work for them within time constraints

Example: UNC Geriatric Inpatient Curriculum

- Implementation
  - Pilot session implemented prior to move to identify barriers
  - Full implementation to coincide with move of the inpatient team—education and buy-in linked to the move of the service itself
Needs Assessment Tool

1. Outline currently existing Geriatrics curricula or clinical opportunities for training in acute care of older adults for residents at your institution

2. Review the attached checklist on AGS core competencies (handouts) in the care of hospitalized older adults and ACGME core competencies (handouts) in subspecialty training for residents
   - How do your current curricula meet these core competencies?
   - What is of mutual value for you, program directors, clinical leaders?

3. Review the outlined best practices for integrating geriatrics curricula into Residency Programs
   a. Do your current curricula meet these best practices?

4. Identify opportunities for improving current curricula to promote learner competency achievement and best practices. Who might be the best teachers? Geriatricians and/or hospitalists? What about IM/FM consults?

5. Identify new curricular opportunities to be designed using recommended best practices for integration of geriatrics curricula into residency programs, that would promote resident acquisition of core competencies
Curriculum Design and Implementation

1. Describe the goal of your curriculum

2. Outline your specific learning objectives

3. Educational Strategies
   a. Curriculum Content
      i. Describe your planned curriculum content
      ii. Outline how these meet the AGS core competencies for care of the hospitalized older adult
      iii. Outline how these meet the ACGME core competencies for subspecialty training for residents

   b. Curriculum Delivery Method
      i. What delivery methods do you plan to use?
      ii. Will your methods meet the needs of different learning styles and promote learner competency?
      iii. Outline how this curriculum meets one or more of the best practices for geriatrics curricula integration into residency programs:
           1. Educational strategies for provision of model geriatric care
           2. Educational strategies for interdisciplinary team work

4. Implementation
   a. Curriculum Implementation
      i. Personnel
      ii. Time
      iii. Facilities
      iv. Funding/ costs
      v. Curriculum Introduction – Pilot, Phase-in, full implementation
      vi. How to assess for success: satisfaction/confidence; knowledge; patient level outcomes (how to move up the Kirkpatrick pyramid)?
Barriers and Solutions to Curricular Implementation Challenges

1. Identify potential challenges to curricular implementation within your institution.

2. List potential solutions to address these challenges.

3. Identify measures to raise stakeholder and institutional awareness and buy-in of best practices in the care of hospitalized older adults, and understanding of role of curriculum on learner and patient outcomes.
Evaluation Methods

1. Describe methods of curricula evaluation that will assess the domains of learning: cognitive (knowledge), psychomotor (skills) affective (attitudes).

2. Using Bloom’s taxonomy (handout) as an example, describe curricular evaluation methods that will demonstrate learners’ acquisition of knowledge and competencies in the care of the hospitalized older adult.

3. Using the table (handout) below align your curricula objectives with your evaluation methods.
Using Technology to Expand the Reach of Geriatrics Education for Trainees and Patients

Tia Kostas, MD
Megan Huisingh-Scheetz, MD, MPH
Katherine Thompson, MD
Katherine Bennett, MD

Disclosures

• Workshop facilitators have no financial or other disclosures

Objectives

• Identify and discuss the advantages and disadvantages of at least 2 technology tools to use to expand the reach of geriatrics education to a large population of trainees or patients
• Identify at least 3 considerations for developing older adult technology
• Identify barriers to utilization of technology to teach geriatrics to trainees and older patients, and brainstorm strategies to address these challenges
• Identify at least one technological tool that could be beneficial and feasible in participants’ own setting at their home institution

Why?

↑ older adult population + Shortage of geriatricians

Reinforce and implement healthy aging interventions to geriatric patients outside of the clinical encounter, especially those who are home-bound

Who?

PATIENTS

PROVIDERS

TRAINEES

PATIENTS

Reinforce and implement healthy aging interventions to geriatric patients outside of the clinical encounter, especially those who are home-bound
Workshop Agenda

- Overview of 3 educational technologies
  - ENGAGE
  - ECHO
  - QI interactive didactics
- Small group breakout discussions (2)
- Report back to the large group
- Summary and closing comments

Outline

I. The Problem

II. Steps for Designing a Tech Solution

III. Conclusions

Background

- Geriatrician
- No business training
- No technology expertise
  - Not even that interested in computers or phones
- Frail elders & their families
  - Successful Aging and Frailty Evaluation (SAFE) consultation clinic
The Problem
Limited physician time and training.
FALL
Partial Recovery
Physical Therapy
Decline
Brief rehabilitation.
Printed exercises are confusing & lost.
No reminders.
Rapid Decline
No family/friend support.
Loneliness, social isolation and depression.

Get Help

Identify Target Users, Outcomes & Buyers

Talk to Potential Users and Buyers...
From Concept to Product Phase
Talk to Potential Users and Buyers

- Informal
  - ~40 conversations during design phase 1

  "My father completed therapy last week. I’m not sure what to do now."
  "I would be motivated by viewing my own progress reports."
  "I had surgery 6 months ago and haven’t kept up with my exercises. This is exactly what I needed."
  "...It would be great if the app could help retirees connect to friends,... so I can stay motivated and keep doing the activities that I enjoy..."

- Formal
  - Participatory Design Study
    - Design a basic product
    - Incorporate suggestions
    - Obtain feedback
    - Repeat...as many times as necessary

Draw It

- Screenshots
- Functions
- Logging in
- Devices
- Use it to communicate with IT

Be Prepared to Face the Non-Believers
Face the Non-Believers

“You are about a decade too early with your idea. Older adults won’t use technology.”

an IT consultant not familiar with older adult technology….

Meeting with an IT Programmer

Meeting with IT

- IT programmers
  - Look for local opportunities

- Plan for significant time.

Healthcare Provider

Older Adult

Text Reminder

Email Reminder

How was the exercise?

Very easy

Sort of difficult

Sort of easy

Very easy

Stop
Hi, Ellen!

This is the daily summary for Rose.

Rose Test completed 12/12 exercises today.

Feel like getting in touch with Rose?

Email them at rosetest@gmail.com, or call/text them at 777-777-7777.

Weekly Summary

Let’s play, grandma!

(Picture approved by her mom, Megan Huisingh)

Test

Users

Physicians

Older adults and caregivers

Therapists

Buyers

Therapy clinics

Caregiver Agencies

Hospitals

Insurance companies

IRB & FDA

Participatory Design

Pilot Test & Clinical Trial

Disseminate

Conclusions

- Consider how technology can (and will) shape the care we provide to older adults.

- Technology **MUST** be created with them & adapted to them.

Appendix

- https://youtu.be/dTQzspx_i1g
OVERVIEW

• Description of Teaching Technology
  • What is ECHO?

• How Tech Enables Educational Opportunities
  • Practicing Providers; Urban, Underserved Setting

• Successes
  • Educational outcomes

• Challenges & Troubleshooting
  • Learn from our mistakes!

What is ECHO?

• Extension for Community Health Outcomes
• Evidence-based model to expand primary care capacity in underserved communities
• Videoconferencing technology (platform=Zoom)
• Recurring 12-session curriculum (1 hr/week)
• 20-30 min didactic topic, 1-2 cases from PCPs, follow up on previous cases & discussion

Sample Curriculum

<table>
<thead>
<tr>
<th>Tuesday</th>
<th>ECHO CHICAGO GERIATRICS SERIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/17/16</td>
<td>Orientation to ECHO-Chicago Geriatrics &amp; Geriatric Assessment in Primary Care</td>
</tr>
<tr>
<td>5/24/16</td>
<td>Screening and Health Maintenance in Older Adults</td>
</tr>
<tr>
<td>5/31/16</td>
<td>Polypharmacy &amp; medication reconciliation, Part I</td>
</tr>
<tr>
<td>6/7/16</td>
<td>Polypharmacy &amp; medication reconciliation, Part II</td>
</tr>
<tr>
<td>6/14/16</td>
<td>Fall Assessments</td>
</tr>
<tr>
<td>6/21/16</td>
<td>Dementia: Diagnosis</td>
</tr>
<tr>
<td>6/28/16</td>
<td>Dementia: Management</td>
</tr>
<tr>
<td>7/5/16</td>
<td>Chronic Disease Management in Older Adults, Part I</td>
</tr>
<tr>
<td>7/12/16</td>
<td>Chronic Disease Management in Older Adults, Part II</td>
</tr>
<tr>
<td>7/19/16</td>
<td>Hospice &amp; Palliative Medicine 101</td>
</tr>
<tr>
<td>7/26/16</td>
<td>Advance care planning (power of attorney and living will)</td>
</tr>
<tr>
<td>8/2/16</td>
<td>Community resources for older adults</td>
</tr>
</tbody>
</table>

Best Practices + Knowledge Transfer + Technology = Geriatric Workforce Multiplier

Geriatrics Workforce Expansion: Who We Reach

• PROVIDERS:
  • 41 providers over two series
  • 18 MD, 8 RN, 7 NP, 6 PA, 2 SW

• PRACTICE SITES:
  • 11 locations (FQHC, private & hosp-assoc clinic)

• LEARNING SITES:
  • Clinic, home, car?, etc....

Benefits to participants

• Overcomes barriers of time and distance
• Provides CME/CEU credit
• Become “local experts” in geriatrics who can then share expertise at their practice sites
• Join a learning community of providers in other practices across the South Side of Chicago
• Enables access to specialists/referrals as needed
Successes

• 21 participants completed pre/post survey
• **Overall self-efficacy** score increased 4.0 to 5.0
  (1=no skill; 7=expert, teach others)
• **Self efficacy for specific geriatric skills** improved across all areas
  • Ex.: “ability to discuss & complete living will/POLST” rose from 3.6 to 4.9
• “Now that you have participated in ECHO-Chicago, do you feel part of a knowledge network where you can consult experts at academic centers and colleagues from other FQHCs?”
  • 71% “yes.”

Challenges & Troubleshooting

• Technical difficulties
  • Engage institutional tech support team
• Provider engagement & participation
  • In-person session, extensive introductions
  • Mandate participation for CME
• Crowd control
  • Set ground rules
  • Facilitator skills training
• HIPAA & confidentiality
  • Pre-screen cases
  • Frequent reminders

For More Info:

• [http://sharenetworkchicago.org/](http://sharenetworkchicago.org/)

ECHO-Chicago Geriatrics

• [ECHO video](http://www.echo-chicago.org/)

Objectives

• How Tech Enables Educational Opportunities
  • Remote trainees in WWAMI Network
• Description of Teaching Technology
  • Teleconferencing didactics and collaborative learning
• Successes and Challenges
• Future Directions
Our Reach – Family Medicine Residency Network

WWAMI = Washington, Wyoming, Alaska, Montana, & Idaho

Project ECHO - Geriatrics

> Monthly, year round.
> Short didactic + real-time case consultations.
> Interdisciplinary panel.
> Sites across WWAMI.
> Average attendance per session of 21 trainees.
> Satisfaction highly rated:
  - 4.4 average for didactics
  - 4.2 average for case consultations

Practice-Based Quality Improvement Projects

> Fund 2 – 4 sites per year to conduct geriatrics QI projects.
> Currently, 4 projects
> Partner with QI expert
  – One-on-one consultations
  – Group trainings

Quality Improvement Webinar Series (QI 101)

> 3 one-hour, interactive didactics
> Use Zoom® video conferencing
> Quality Improvement Basics
  – QI Basics: Watch One, Do One, Teach One
  – Process Improvement
  – “Software” Issues, Human Factors, Patient-Centered Care
> Archived on nwgwec.org

Our UW Family Residency Network Activities

> Project ECHO – Geriatrics
> Practice-Based Quality Improvement Projects
> Quality Improvement Webinar Series
> (Others)

Quality Improvement Webinar Series (QI 101)

> Making it interactive:
  – Posed questions to audience
  – Elicited examples from audience (e.g. Aim statements)
  – Interactive exercise using bolts and threads (mailed in advance)
QI Webinar Participation and Evaluations

> Attendance: 39 (mainly faculty and residents)

> Evaluations:
  - Low return rate of evaluation forms
  - Overall rating for sessions 5.3/7
  - Comments:
    > First session: issues with audio
    > Overall, met objectives.
    > Wanted more real-life examples of QI projects

Our NW GWEC Website

> www.nwgwec.org
> Lectures, didactics archived.

Geriatrics Quality Improvement Collaborative

> 4 sites conducting QI projects
> Will meet quarterly for 60-90 minutes via Zoom®
> Short, focused didactic
> Majority of session for discussion of active projects
> QI expert and geriatrician(s) to provide advice/teaching points

Small Group Discussions

Technology Wrap Up

- Other technology used at other institutions?
- Challenges of instituting the technology?
- How can we overcome these barriers?
Questions?

Thank you!
2016 Annual Reynolds Grantee Meeting
Technology Workshop

1. Technology Small Group 1: __________________________
   a. How could you use this technology at your own institution?
   b. Benefits to using this technology:
   c. Challenges to using this technology:

2. Technology Small Group 2: __________________________
   a. How could you use this technology at your own institution?
   b. Benefits to using this technology:
   c. Challenges to using this technology:

3. What education or clinical care technologies are currently in use at your own institution?
   a. Who are the targeted learners? Does the use of this technology allow you to reach more learners than you otherwise would or help reinforce new principles and recommendations?
   b. How does this technology work well?
   c. What challenges exist with the use of this technology and how might you overcome them?
Addressing the Gaps: Teaching Transitions in Care Across a Spectrum of Learners

Anita Vanka, MD
Grace Farris, MD
Cherie Brunker, MD
Tochukwu Illoabuchi, MD

REYNOLDS ANNUAL GRANTEE MEETING
10/24/16

Learning Objectives

• Identify common adverse events after hospital discharge
• List the key components of an effective transition from the hospital with recognition of existing barriers
• Educate different levels of learners about the risks of care transitions through a systematic approach using various modalities of teaching
• Develop individual curricular plans to teach Transitions in Care

Why is this important?

• Vulnerable time for patients
• Effects of hospitalization on patients
• 1/5 experience an adverse event post-discharge
  – Medications account for 2/3 of all adverse events
• 49% of discharged patients experience a medical error
• Readmissions

Components of an Effective Transition

• Accountability
• Communication
• Timely interchange of information
• Medication reconciliation
• Preparation of the patient and caregiver
• Plan for pending tests & follow-up appointment
• Ability to identify the responsible provider at every step in a transition (contingencies)

Why should we teach this

• Trainees are frontline providers
• AGS 2003 position statement: we should teach this topic to all healthcare professionals
• ACGME milestone for Internal Medicine residents
• Curricular interventions have increased over the last 10 years
  – Content & delivery not standard
  – Not longitudinal
Institutional Programs

Anita Vanka, MD & Grace Farris, MD
BETH ISRAEL DEACONESS MEDICAL CENTER

TIC Curriculum – Department of Medicine
Hospitalists Residents Medical Students

Hospitalist Curriculum
• "Dispo: 3NF" The Nuts and Bolts of Safely Transitioning Patients to Post-Acute Care
• Financing Post-Acute Care
• Diabetes in Older Adults
• Caring for Patients with Advanced Dementia
• Transitions of Care
• Delirium in the Hospital
• Medication Management in the Elderly
  The Post-Acute World: Readmission Data and Common Syndromes
• ECHO Care Transitions and discharge summaries

Hospitalist Outcomes
• Knowledge: pre and post test
• Skills: DC summary assessment
• Attitudes: perceptions and reported frequency of behaviors

Hospitalist Knowledge Results
**Hospitalist DC summary skills**

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
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<tbody>
<tr>
<td>Number of summaries audited</td>
<td>26</td>
<td>25</td>
<td>318</td>
</tr>
<tr>
<td>Team reconciliation</td>
<td>50%</td>
<td>72%</td>
<td>53%</td>
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<tr>
<td>Included intern tests in DC communication</td>
<td>65%</td>
<td>80%</td>
<td>71%</td>
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<tr>
<td>Separation into active vs. chronic diseases</td>
<td>27%</td>
<td>13%</td>
<td>29%</td>
</tr>
<tr>
<td>Used diagnosis-based list</td>
<td>77%</td>
<td>92%</td>
<td>88%</td>
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<tr>
<td>Documented additional communication with PCP</td>
<td>8%</td>
<td>16%</td>
<td>14%</td>
</tr>
<tr>
<td>Code status documented</td>
<td>38%</td>
<td>36%</td>
<td>25%</td>
</tr>
<tr>
<td>Dedicated transitions of care section</td>
<td>38%</td>
<td>36%</td>
<td>33%</td>
</tr>
<tr>
<td>Percentage of items on DC summary checklist</td>
<td>43%</td>
<td>49%</td>
<td>43%</td>
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</table>

**Resident Curriculum**

<table>
<thead>
<tr>
<th></th>
<th>PGY-1</th>
<th>PGY-2</th>
<th>PGY-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-curriculum assessment</td>
<td>• K&amp;A pre-test, DC skills assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transition, &amp; Interventions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Principles of TIC &amp; TIC statewide, across VA hospitals (pre) &amp; TIC case studies (post)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>residents &amp; faculty evaluate on day of presentation (pre) &amp; in post-debrief (post)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Resident Outcomes**

- **Skills**
  - Analysis of discharge summaries pre- & post-curriculum
- **Attitudes**
  - Pre- & post-test results
- **Knowledge**
  - Pre- & post-test results

**Knowledge**

<table>
<thead>
<tr>
<th></th>
<th>Pre-test Mean</th>
<th>Post-Test Mean</th>
<th>Difference in Mean</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paired (n=20)</td>
<td>9.3</td>
<td>11.2</td>
<td>1.9</td>
<td>0.005</td>
</tr>
<tr>
<td>Unpaired, n=37 (pre), n=26 (post)</td>
<td>9.8</td>
<td>11.2</td>
<td>1.4</td>
<td>0.011</td>
</tr>
</tbody>
</table>

**Resident Perceptions**

<table>
<thead>
<tr>
<th>What I learned</th>
<th>What I will teach others</th>
<th>What I will do in my practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge from the hospital is associated with a significant risk for adverse events</td>
<td>Importance of communication with outpatient providers/primary care physicians</td>
<td>Direct communication (“warm” handoff) to PCPs and post acute care sites</td>
</tr>
<tr>
<td>Medications account for the highest portion of medical errors</td>
<td>Importance of thorough medication reconciliation</td>
<td>Timely and clear discharge summaries</td>
</tr>
<tr>
<td>Differences between post acute care sites</td>
<td>When to give a “warm” handoff</td>
<td>Spend more time educating patient and caregivers</td>
</tr>
<tr>
<td>Determining which post acute care site is appropriate for the patient</td>
<td>Completing the discharge paperwork thoroughly for the post acute care staff</td>
<td>Create a system to reliably follow-up pending labs</td>
</tr>
<tr>
<td>How information is transferred and used post-discharge</td>
<td>Importance of determining goals of care</td>
<td>Spend time on medication reconciliation</td>
</tr>
<tr>
<td>RCIS-CT helps bridge TIC issues</td>
<td>Importance of communication with the patient and family at discharge</td>
<td>Arrange follow-up appointments for patients prior to discharge</td>
</tr>
<tr>
<td>The importance of communicating with providers for post acute care site physician</td>
<td>Differences between post acute care sites and how information is transferred</td>
<td>Discharge patients early in the day</td>
</tr>
</tbody>
</table>

87  3
Resident DC Summary Skills

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
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<tbody>
<tr>
<td>Number of summaries</td>
<td>25</td>
<td>25</td>
<td>85</td>
</tr>
<tr>
<td>Dedicated transitions</td>
<td>92%</td>
<td>96%</td>
<td>98%</td>
</tr>
<tr>
<td>Exam reconciliation</td>
<td>100%</td>
<td>100%</td>
<td>88%</td>
</tr>
<tr>
<td>Included tests</td>
<td>100%</td>
<td>100%</td>
<td>96%</td>
</tr>
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<td>40%</td>
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<td>Used diagnosis-based list</td>
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<tr>
<td>Percentage of items on DC summary checklist</td>
<td>67%</td>
<td>72%</td>
<td>55%</td>
</tr>
</tbody>
</table>

Medical Student Curriculum

Narrative Medicine and Care Transitions

- Workshop format using a poem and a selection from the graphic memoir Can’t We Talk about Something More Pleasant?: A Memoir by Roz Chast
- Offered 4 times a year (for each clerkship block), 4th year sub-interns also invited to attend
- Pre- and post-test knowledge and attitudes assessment

The Geriatric Transitions Objective Structured Video Examination (GT-OSVE):
An Interdisciplinary Approach to Teaching and Assessing Best Practices in Transitional Care

October 2016
Timothy W. Farrell, MD
Associate Professor of Medicine, University of Utah School of Medicine
Physician Investigator, VA SLC Geriatric Research, Education, and Clinical Center
Cherie P. Brunker, MD
Associate Professor of Medicine, Division of Geriatrics, University of Utah School of Medicine
Chief of Geriatrics, Intermountain Healthcare

Objective Structured Video Examination (OSVE): a brief history

- First developed in 1990s by Simpson et al. at the Medical College of Wisconsin*
- Brief “trigger videos” based on ACGME competencies
- Trainees completed a paper exercise after watching the videos

Original OSVE vs. GT-OSVE

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Original OSVE</th>
<th>GT-OSVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of video</td>
<td>&lt;5 minutes</td>
<td>~15 minutes</td>
</tr>
<tr>
<td>Educational objective</td>
<td>Broad-based (ACGME competencies)</td>
<td>Narrow (AAMC care transitions competencies)</td>
</tr>
<tr>
<td>Target audience</td>
<td>Individuals</td>
<td>Teams</td>
</tr>
<tr>
<td>Practical exercise</td>
<td>Paper-based</td>
<td>Experiential</td>
</tr>
<tr>
<td>Designed for assessment?</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
GT-OSVE development*

- “Scripts” written for the same hypothetical patient moving across 3 transitions scenarios:
  - First post-hospital outpatient visit
  - Interdisciplinary team “huddle”
  - Interaction with care manager and MA (2:18-4:32)

*Supported by a HRSA Geriatric Academic Career Award (GACA), K01HP204087 (PI: Farrell).

GT-OSVE implementation

- Family medicine residency Patient-Centered Medical Home (PCMH) rotation
  - Discrete unit within a 4-week rotation
  - Includes online modules† and didactic session
  - GT-OSVE exercise is the culminating experience
- Interdisciplinary trainees
  - Third-year family medicine resident
  - Clinical pharmacy resident
  - Physician assistant student

†Denson K et al. “Transitions of Care: Learning the Hospital.” 2017 Geriatric Interdisciplinary Team Training module: “Care of a Hospital Patient.”

GT-OSVE implementation

Example of document augmenting GT-OSVE videos:

- Hypothetical patient medication list

GT-OSVE Scripts Cont’

- Second transitions scenario: Skilled nursing facility to home
- Third GT-OSVE: Assisted living facility

Cases can be used individually or as a series

Cases were designed to depict “average” but not ideal transitions

Typical GT-OSVE exercise

- Identification of team leader
- Team watches video case and reviews corresponding materials from hypothetical patient chart
- Team formulates their transitions plan
- Team leader presents plan to faculty
- Team debrief by faculty

Denson K et al. “Transitions of Care: Leaving the Hospital.” 2017 Geriatric Interdisciplinary Team Training module: “Care of a Hospital Patient.”
Faculty checklist

- Based on best evidence
  - Care transitions: Coleman’s “4 Pillars”®
  - Team functioning: Validated questions*
- Includes functional domains (including ADL/IADL)
- Focuses on team leader
  - PCMH definition includes physician-led teams
  - However, any team member can lead the OSVE exercise

GT-OSVE: Pros and cons

- Pros:
  - No need to compensate or train standardized patients (SPs)
  - “Off the shelf” and readily implemented
  - Little preparation time
- Cons:
  - Unable to reproduce live interaction with SPs
  - Requires scheduling of multiple trainees
  - Common logistical barrier for interdisciplinary education

GT-OSVE: After-Visit Summary Template for Transitions Plan

Instructions: Each team member, except the team leader, should list at least 1 component of the transitions plan under each domain listed below. The components of the transition plan should include recommendations generated from your discipline and (if applicable) from the other disciplines represented within your team. These components will serve as the basis of the plan generated by your team that will be presented by your team leader.

- Transitions domain 1: Patient-Centered Medical Record (list specific plan(s) below):
- Transitions domain 2: Medication Management (list specific plan(s) below):
- Transitions domain 3: Identification of Red Flags (list specific plan(s) below):
- Transitions domain 4: Primary Care, Specialist and Community Follow-Up (list specific plan(s) below):
- Transitions domain 5: Barriers to an Effective Transition (list specific barrier(s) below):
GT-OSVE: Interdisciplinary trainee satisfaction*

<table>
<thead>
<tr>
<th>Extent to which the OSVE was...</th>
<th>Mean (5 = completely agree)</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicable</td>
<td>4.12</td>
<td>1.064</td>
</tr>
<tr>
<td>Enjoyable</td>
<td>4.17</td>
<td>0.824</td>
</tr>
<tr>
<td>Realistic</td>
<td>4.74</td>
<td>0.445</td>
</tr>
<tr>
<td>Fair assessment of skills</td>
<td>4.10</td>
<td>0.900</td>
</tr>
<tr>
<td>Completable in allotted time</td>
<td>3.14</td>
<td>0.647</td>
</tr>
<tr>
<td>Interfering with other obligations</td>
<td>3.88</td>
<td>1.194</td>
</tr>
</tbody>
</table>

*N=42 trainees (medicine, pharmacy, nursing, social work, nutrition and care management) enrolled in RCT.

GT-OSVE: Interdisciplinary trainee self-efficacy*

<table>
<thead>
<tr>
<th>Self-efficacy domain</th>
<th>Mean (5 = completely agree)</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify essential elements to document in transitions</td>
<td>3.88</td>
<td>1.194</td>
</tr>
<tr>
<td>Reconcile medications</td>
<td>3.83</td>
<td>1.324</td>
</tr>
<tr>
<td>Identify “red flags”</td>
<td>3.85</td>
<td>1.308</td>
</tr>
<tr>
<td>Formulate transition plan</td>
<td>4.05</td>
<td>0.936</td>
</tr>
<tr>
<td>Identify barriers to transition plan</td>
<td>4.34</td>
<td>0.726</td>
</tr>
<tr>
<td>Function as team leader</td>
<td>3.55</td>
<td>1.109</td>
</tr>
<tr>
<td>Deliver care in teams</td>
<td>4.36</td>
<td>0.800</td>
</tr>
<tr>
<td>Desire to receive additional transitions education</td>
<td>4.85</td>
<td>0.563</td>
</tr>
<tr>
<td>Manage real-world transitions</td>
<td>3.45</td>
<td>0.993</td>
</tr>
</tbody>
</table>

*N=42 trainees (medicine, pharmacy, nursing, social work, nutrition and care management) enrolled in RCT.

GT-OSVE: Summary

- Two effective team styles
  - respectful leadership by most-experienced member as agreed upon by team, and
  - rapid team consensus with fluid contribution of all members (swift trust)
- Poor quality team process was characterized by passive engagement or domineering leadership
- The GT-OSVE is an interdisciplinary, team-based exercise designed to meet the need for educational products addressing post-hospital care transitions.
- The video cases are freely available and easily implemented at other institutions and educational settings.

http://medicine.utah.edu/internalmedicine/geriatrics/osve/index.php

SMALL GROUP BREAKOUTS
# Minimum Geriatric Competencies for Medical Students

## MEDICATION MANAGEMENT

1. Explain impact of age-related changes on drug selection and dose based on knowledge of age-related changes in renal and hepatic function, body composition, and Central Nervous System sensitivity.

2. Identify medications, including anticholinergic, psychoactive, anticoagulant, analgesic, hypoglycemic, and cardiovascular drugs that should be avoided or used with caution in older adults and explain the potential problems associated with each.

3. Document a patient’s complete medication list, including prescribed, herbal and over-the-counter medications, and for each medication provide the dose, frequency, indication, benefit, side effects, and an assessment of adherence.

## COGNITIVE AND BEHAVIORAL DISORDERS

4. Recognize, compare, and contrast among the clinical presentations of delirium, dementia, and depression.

5. Formulate a differential diagnosis and implement initial evaluation in a patient who exhibits delirium, dementia, or depression.

6. In an older patient with delirium, urgently initiate a diagnostic work-up to determine the root cause (etiologic).

7. Perform and interpret a cognitive assessment in older patients for whom there are concerns regarding memory or function.

8. Develop an evaluation and non-pharmacologic management plan for agitated demented or delirious patients.

## SELF-CARE CAPACITY

9. Assess and describe baseline and current functional abilities in an older patient by collecting historical data from multiple sources, making sure to include instrumental activities of daily living, activities of daily living, and capacity/competence assessment, and performing a confirmatory hearing and vision examination.

10. Develop a preliminary management plan for patients presenting with functional deficits, including adaptive interventions and involvement of interdisciplinary team members from appropriate disciplines, such as social work, nursing, rehabilitation, nutrition, and pharmacy.

11. Identify and assess safety risks in the home environment, and make recommendations to mitigate these.

## FALLS, BALANCE, GAIT DISORDERS

12. Ask all patients > 65 y.o., or their caregivers, about falls in the last year, watch the patient rise from a chair and walk (or transfer), then record and interpret the findings.

13. In a patient who has fallen, conduct a gait assessment and construct differential diagnosis and evaluation plan that addresses the multiple etiologies identified by history, physical examination and functional assessment.

## HEALTH CARE PLANNING AND PROMOTION and Prevention

14. Define and differentiate among types of code status, health care proxies, and advance directives in the state where one is trained.

15. Accurately identify clinical situations where life expectancy, functional status, patient preference or goals of care should override standard recommendations for screening tests in older adults, noting that risk/benefit, not age alone is not a basis for withholding standard screening or treatment.

16. Accurately identify clinical situations where life expectancy, functional status, patient preference or goals of care should override standard recommendations for treatment in older adults.

## ATYPICAL PRESENTATION OF DISEASE

17. For each organ system identify at least 3 changes of normal aging (e.g., normal labs for older adults) and their impact on the patient, including their contribution to homeostenosis (the age-related narrowing of homeostatic reserve mechanisms).

18. Know when clinical signs and presentations are normal aging and not disease.

## PALLIATIVE CARE

19. Assess and provide initial management of pain and key non-pain symptoms based on patient’s goals of care.

20. Identify the psychological, social, and spiritual needs of patients with advanced illness and their family members, and link these identified needs with the appropriate interdisciplinary team members.

21. Present palliative care (including hospice) as a positive, active treatment option for a patient with advanced disease.

## HOSPITAL CARE FOR ELDERS

22. Identify potential hazards of hospitalization for all older adult patients (including immobility, delirium, medication side effects, malnutrition, pressure ulcers, procedures, peri and post operative periods, transient urinary incontinence, and hospital acquired infections) and identify potential prevention strategies.

23. Explain the risks, indications, alternatives, and contraindications for indwelling (Foley) catheter use in older adult patients.

24. Explain the risks, indications, alternatives, and contraindications for physical and pharmacological restraint use.

25. Communicate the key components of a safe discharge plan (e.g., accurate medication list, plan for follow-up), including comparing/contrasting potential sites for discharge.

26. Conduct a surveillance examination of areas of the skin at high risk for pressure ulcers and describe existing ulcers.

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Minimum Geriatric Competencies for Medical Students
Consensus Process and Teaching Resources

The Medical Student Competencies in Geriatric Medicine

In July 2007, the Association of American Medical Colleges (AAMC) and the John A. Hartford Foundation (JAHF) hosted a National Consensus Conference on Competencies in Geriatric Education. The charge was to attain consensus on a minimum set of graduating medical student competencies (learning outcomes) to assure competent care to older patients by new interns. The process identified measurable performance subtasks, associated with evidence-based geriatric care and patient safety for PGY1s. How individual medical schools will assure that students receive the education/preparation needed to achieve these geriatric competencies will vary. However the minimum competencies establish performance benchmarks for all U.S. medical school graduates. As of January 2008, the medical student competencies in geriatric medicine had been endorsed by the American Geriatrics Society and the Association of Directors of Geriatric Academic Programs, and are under review by several other organizations.

Guiding principles
1. The competencies should focus on issues that matter to health outcomes for older adults.
2. The competencies must be important to know for patient care that might occur at the start of one’s internship (aka- the “don’t kill granny” curriculum)
3. The total number of content domains and competencies should be limited, with no more than 5-8 domains, and no more than 3-5 competencies in each.
4. The competencies should be similar to quality indicators in that they are the ‘floor’ behaviors and could be taught and evaluated at any medical school. They are not meant to limit what the ‘ceiling’ could be.

Summary of Consensus Process
The process for developing the in geriatric competencies began by determining a small number of geriatric content domains. Thirty-nine leaders in geriatric medical education voted on 52 domains that had been culled from previously existing geriatric curriculum lists, decreasing the number of domains by half. Geriatrically-interested individuals (members of ADGAP, the principal investigators of Reynolds grants and of Centers of Excellence, and the geriatric interest groups of SGIM, STFM, and APDIM) then completed an on-line survey identifying their top 8 domains. The final domains are:

1. Cognitive and behavioral disorders
2. Medication management
3. Self-care capacity
4. Falls, balance, gait disorders
5. Atypical presentation of disease
6. Palliative care
7. Hospital care for elders
8. Health care planning and promotion

The steering committee identified 3-5 learning outcomes (“competencies”) for each content domain drawing on previous work. These learning outcomes were posted on a ‘wiki’ and the steering committee went through several iterations of each competency to arrive at 35 learning outcomes. These 35 learning outcomes were then evaluated by educators in each of the following disciplines: Geriatrics (Respondents = 81); Family Medicine (Respondents =67); Internal Medicine (Respondents =77); Deans of Medical Education and Curriculum (Respondents = 24); Neurology (Respondents = 20); and General Surgery (Respondents = 43). These respondents completed an on-line survey asking whether a resident MUST, SHOULD or DOES NOT NEED TO be competent, at the start of internship, in each of the 35 learning outcomes.

Results were analyzed in aggregate and by discipline. Eleven of the competencies received >25% ‘does not need to know’ overall. Interestingly, there was considerable consistency across disciplines, often including those geriatricians who had not participated in the steering committee. Discussion ensued about the reasons for rejection, in particular, whether it was thought the learning outcome was: (a) too advanced for a medical student, (b) poorly worded, or (c) other reason for rejection; and whether, despite the survey results, the committee members still felt this was a critical learning outcome for medical students.

Results of this process were presented as a “trial balloon” document for discussion at the AMC-JAHF conference attended by 98 participants. The participant’s discussions resulted in 26 final competencies. The conference steering committee members then reframed the competency statements so that each one:

- Uses cognitive learning verbs such as “explain,” “identify,” “document,” “define and distinguish,” “perform,” “assess,” “compare and contrast,” etc.
- States the competencies as behaviors that occur during patient care and that can be measured (e.g. less listing, more doing and interpreting); and
The final document was sent to all conference participants and steering committee members for approval. Of the 93 respondents, all (100%) agreed to endorse the competencies. These competencies are understood to be minimum required knowledge. Achieving a higher level would be even better, but every medical school in the country should be able to at least teach their students to achieve these learning outcomes.

The competency movement in geriatrics is growing exponentially, with several disciplines eager to develop a set of competencies that must be achieved during residency and fellowship. Next steps could include:
- Competencies for residents (then fellows, practicing physicians, etc...).
- Adoption by medical education societies and practicing physician associations.
- Adoption by licensing bodies.
- Integration into the licensing and certifying examinations.

Matching Competencies to Teaching Resources
Medical educators who seek to teach the medical student competencies in geriatrics have a resource to find appropriate materials that engage the students: the Portal of Geriatric Online Education, or POGOe, (www.pogoe.org). POGOe is an electronic repository of high-quality teaching materials in geriatrics. In spring 2008 the POGOe staff began matching the hundreds of teaching products on its website - and in educators’ inventories of geriatric teaching tools - to the medical student competencies in geriatrics. This year-long project will link the materials on POGOe to competencies. At the same time, the site’s search engine is being enhanced to incorporate natural language processing and a concept-based search function (to be completed summer 2008). Through these advances the resources for teaching geriatric competencies will become effortlessly available to all medical educators. It can become the framework for a virtual national curriculum in geriatrics medical education.

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Deborah E. Simpson (Medical College of Wisconsin)
Karen Sauvigné (Mount Sinai School of Medicine)
Rainier P. Soriano (Mount Sinai School of Medicine)
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Michael Mintzer (University of Miami School of Medicine)
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March 2009
Faculty Mentoring

Making the Most of Mentors: A Guide for Mentees
Judy T. Zerzan, MD, MPH, Rachel Hess, MD, Ellen Schur, MD, Russell S. Phillips, MD, and Nancy Rigotti, MD

Abstract
Effective mentorship is likely one of the most important determinants of success in academic medicine and research. Many papers focus on mentoring from the mentor’s perspective, but few give guidance to mentees forging these critically important relationships. The authors apply “managing up,” a corporate concept, to academic medical settings both to promote effective, successful mentoring and to make a mentor’s job easier. Managing up requires the mentee to take responsibility for his or her part in the collaborative alliance and to be the leader of the relationship by guiding and facilitating the mentor’s efforts to create a satisfying and productive relationship for both parties. The authors review the initiation and cultivation of a mentoring relationship from the perspective of a mentee at any stage (student through junior faculty), and they propose specific strategies for mentee success. Acad Med. 2009; 84:140–144.

Mentoring, a lifelong process particularly important for career development in academic medicine, is essential for a mentee to develop confidence in his or her work. It facilitates career selection, career advancement, publication productivity, and achievement of grant funding. Mentoring is a symbiotic relationship aimed at advancing careers and career satisfaction for both the mentor and the mentee. Ideally, it is a dynamic, collaborative, reciprocal relationship focused on a mentee’s personal and professional development. Mentoring can develop either spontaneously, based on mutual interests, or be set up institutionally. Mentees benefit from multiple mentors to gain exposure to a variety of styles, opinions, and experiences. Previous research has focused primarily on the importance of mentoring and mentors’ activities. We focus on the active role a mentee (at any level: student, resident, fellow, or junior faculty) might take to promote success in a mentoring relationship. In addition, we discuss common pitfalls and how to avoid them.

One classic definition of mentor is someone of advanced rank or experience who guides, teaches, and develops a novice. Mentors in academic medicine can help with day-to-day tasks, such as manuscript editing, or they can help guide more substantial decisions, such as career planning. Some mentors are on-site; others are at a distance. Mentors are peers, near their mentee’s level of training; sounding boards who listen to their mentees process a decision; or role models who provide inspiration. They provide emotional and career support, facilitate insight and change, and/or help mentees avoid burnout. Good mentors value mentoring as part of their professional role and avoid focusing on their own professional needs and agendas, instead helping mentees develop theirs. Good mentors take an interest in the mentee, provide both professional and personal support, prompt a mentee to take risks, and help open doors to opportunities. Because all mentors have different strengths and may not perform all these roles and embody all these qualities, establishing a complement of multiple mentors capable of making diverse contributions is useful for mentees. Whereas mentees benefit through their personal and professional development, mentors benefit by gaining professional stimulation, personal enrichment, satisfaction, and a sense of giving back to their profession.

The mentee is not an empty vessel receiving the mentor’s advice and wisdom but, rather, an active participant, shaping the relationship. The ideal mentee aspires to self-assessment, receptivity, initiative, responsibility, honesty, and appreciation for his or her mentor. One particularly effective way for mentees to get the most out of a mentoring relationship is “managing up.” Managing up is a common corporate concept for an employee/ supervisor relationship that we believe to be highly applicable to mentoring relationships in academic medicine. The principal concept is that the mentee takes ownership of and directs the relationship, letting the mentor know what he or she needs and communicating the way his or her mentor prefers. Ideally, a motivated mentee manages the work of the relationship by planning and setting the meeting agenda, asking questions, listening, completing assigned tasks, and requesting feedback. Managing up makes it easier for a mentor to help a mentee, which makes the relationship more satisfying and more successful for both.

We focus on initiating and cultivating a mentoring relationship, assigned or chosen, from the mentee’s perspective. We propose...
using the strategy of managing up to guide the mentee’s actions during these stages (List 1).6

**Initiation**

**Preparing self**

Before a mentee seeks a mentor, a few introspective steps are necessary.5,15 First, a mentee must clarify his or her own values: What motivates him? What values and attributes does she respect in relationships? Are there personal preferences such as gender or race congruence, personality, emotional needs, or work habits important to the mentee? Next, a mentee should consider his or her personal work style and how it fits with mentoring approaches. Remembering their work styles in past academic environments, mentees might ask the following questions: “How do I learn best—by reading or listening?”15 “Do I need structured, directive guidance, or do I prefer gentle supervision?” Finally, mentees must clarify their needs. What are their knowledge and skill gaps? Specifically, what domains do they want to gain or cultivate from the relationship: personal (creating work–life balance, building confidence), professional development (networking, establishing goals, choosing fellowships or jobs), skill development (communicating, managing time, increasing clinical skills), academic guidance (learning administrative skills, understanding department values, developing collegial relationships), or research (collaborating, developing methodology, drafting manuscripts, and writing grants)?5,7,16

Once a mentee has thought about his or her values, work style, and needs, the mentee should develop a clear vision of career goals using these values and needs. Creating specific, written goals for three months, one year, and five years is helpful.17 If a mentee does not know what he or she wants to be doing in a year, establishing a possible direction provides a starting point. Goals should relate to the knowledge and skill gaps identified, but otherwise they can be specific (e.g., publish a paper) or broad (e.g., improve clinical exam skills), medically related, work related, or personal.11 Setting goals helps a mentee present his or her needs to potential mentors. A mentee who clearly assesses skill and knowledge deficits and sets goals can effectively seek mentoring and become responsible for his or her own growth.9 It is important to refine and rewrite goals periodically.17

**Finding a mentor . . . or two**

**Things to look for in a mentor**

- Is available and accessible
- Provides opportunities and encourages mentee to take risks
- Helps mentee develop own agenda
- Has prior mentoring experience

**The first meeting**

- Tell your mentor how he or she has already helped you
- Share your background, values, and needs
- Send a thank-you note after the meeting

**Cultivating the mentor–mentee relationship**

- Agree on structure and objectives of relationship
- Plan and set the meeting agendas
- Ask questions
- Actively listen
- Follow through on assigned tasks
- Ask for feedback
- Manage up
  - Set goals and expectations
  - Be responsive and flexible
  - Direct the flow of information
  - Follow a regular meeting schedule with agenda

**Separation**

- Talk about when the relationship should end
- Talk with your mentor about next steps
- Talk about future mentors

Mentors may start by meeting with...
faculty they already know both inside and outside their department, school, and/or hospital in order to talk about what guidance and support they seek and to get recommendations of potential mentors who might be a “good fit.” In these meetings, a mentee should ask about potential mentors’ reputations and experiences mentoring successful mentees. Another strategy for identifying mentors suggests the mentee consider people who have positively impacted him or her. The official mentoring relationship can start positively if it is based on previously established admiration, trust, and compatible background and interests. Once the mentee has a list of recommendations, he or she should meet with the selected faculty and conduct informational interviews seeking compatible interests and work styles. Finally, during these meetings, mentees should ask who else the mentor might recommend to advise them, and in this way the initial list grows into a network of contacts.

One common difficulty during the initiation stage is a perception by the mentee that people are too busy or unavailable to be mentors. Knowing that mentoring is time- and energy-intensive and that a potential mentor may say no, a mentee may be uncomfortable requesting mentorship and fear rejection. One remedy for these difficulties is persistence in approaching potential mentors. Additionally, a mentee should be clear in expressing needs, thus providing potential mentors a sense of the commitment sought. When people are too busy or overcommitted, they can gracefully decline and suggest others for the mentee to approach. Another impediment to approaching mentors, even after considering needs and listing potential mentors, is that a mentor may be indecisive regarding his or her career potential mentors, is that a mentee may even after considering needs and listing impediment to approaching mentors, gracefully decline and suggest others for too busy or overcommitted, they can expressing needs, thus providing Additionally, a mentee should be clear in approaching potential mentors.

Mentees should begin seeking mentoring early and in multiple places. A mentee benefits from cultivating mentors at both junior and senior levels. Junior-level mentors complement senior faculty mentors because they may have more time and are closer to the mentee’s career stage. Senior mentors are helpful in connecting a mentee to other prominent scholars, providing research datasets, and giving long-term career planning advice. Multiple mentors are necessary to get needed guidance across the spectrum of work and personal goals. Also, identifying and cultivating multiple mentors is advantageous for the mentors because providing mentorship becomes less demanding and time consuming, and the mentor can keep focused on what he or she knows and does best. Strategies for making multiple mentors successful include clear roles and expectations for each mentor, a good relationship among mentors, and mentors with complementary experience. Potential problems arise when there are unclear expectations, disagreement, or competition among mentors. A risk of multiple mentors is erosion of a close mentoring relationship because the dyad spends less time together. Cultivating the relationship and managing up, discussed in the next section, will help address these problems.

**Meeting for the first time**

When a mentee first meets with a prospective mentor, whether chosen or assigned, the mentee must have a plan. Mentees should consider how to market themselves; with busy and overloaded mentors, it helps if a mentee can recruit a mentor. In fact, it may be best to schedule a brief meeting when considering a potential mentor, and only after the mentee has engaged the potential mentor and demonstrated organization and ability should he or she formally ask whether a person will mentor. The meeting may start with both individuals sharing their backgrounds, followed by the mentee clearly articulating his or her needs and values. A mentee demonstrates early success to prospective mentors by having predefined goals and needs. Other tips for the initial meeting include telling the mentor how he or she has already been helpful, asking for feedback about a research idea, or specifically discussing how the mentor may be helpful. A mentee should ask the mentor’s permission to contact him or her for future guidance and explicitly state the likely purpose. Finally, a mentee must be accountable to his or her prospective mentor and should follow up with a thank-you note or e-mail summarizing the discussion and the mentee’s plans to proceed, thereby keeping the mentor engaged.

At the next meeting, the mentee can ask for more advice. Finding a suitable mentor requires effort and persistence, allowing brief interactions to grow into learning partnerships and long-term alliances.

**Cultivation**

Once a mentee has engaged a mentor, the relationship needs cultivation. At this stage, the mentoring dyad agrees on both objectives and a relationship structure such as meeting frequency (e.g., often an hour every two to four weeks), key responsibilities and needs of each party (such as the mentor’s availability outside of meetings, and networking opportunities for the mentee), mutual expectations and goals (e.g., the mentor will review writing; the mentee will ask for feedback), and concrete measures of progress and success (e.g., the mentee will eventually present an abstract at a meeting). It is important for each individual to make the relationship a priority, set aside time for the relationship, and agree on confidentiality.

**Managing up**

Managing up is one way of cultivating the mentoring relationship. Managing up means the mentee takes ownership of the relationship, letting the mentor know what he or she needs and organizing information in the form the mentor prefers. A mentee must express his or her needs in a direct manner and take responsibility for setting and sticking to a goal schedule. Managing up makes it easier for mentors to help a mentee, and it makes the relationship more satisfying and more successful for both parties because the mentor can target help and the mentee gets exactly what he or she needs most. A mentee must ask directly how the mentor will judge success and be responsive to the mentor’s suggestions and tasks. A mentee should be available and flexible if a mentor’s time or schedule changes. A mentee must communicate in a straightforward way by addressing issues of potential conflict (e.g., authorship on a paper) as they arise and asking when he or she does not understand something.

A mentee’s understanding of him- or herself and the mentor is key to making the relationship successful. The mentee must know the work styles and personal styles, strengths and weaknesses, blind spots, and trigger points of both
A mentee will observe these over time, but he or she may also ask about them, either directly or through other peers and supervisors. A mentee can use the information gleaned from his or her own self-assessment to develop and manage a healthy working relationship compatible with each person’s work style and expectations and, most importantly, in a way that meets his or her critical needs.\textsuperscript{21}

Managing up requires the mentee to take responsibility for managing information flow.\textsuperscript{15} A mentee should ask directly about the mentor’s preferred communication style—Does the mentor like to know the detailed facts and figures, or is a broad overview with specific problems better? Does the mentor like to communicate by e-mail, phone, or both? Is the mentor a “listener” or a “reader”?\textsuperscript{21} If the mentor is a listener, the mentee should provide a verbal brief first and follow up with a short written summary of the details. If the mentor is a reader, than the mentee should provide written material in advance and follow up by talking about the issues in person at the arranged meeting. It is essential to communicate frequently and effectively according to the mentor’s preferred format and frequency of information exchange.\textsuperscript{4}

A mentee needs to ask questions to get new insight, verify or clarify ideas, show interest, and listen actively. Although a mentee should put forth his or her own ideas, it is critical that he or she not get defensive or argumentative when the mentor disagrees or provides constructive feedback. The relationship’s ultimate goal is to help the mentee succeed, and the mentor has the mentee’s best interests in mind. If a mentee disagrees with a mentor, he or she should try to understand the mentor’s perspective but discuss both opinions because, although the mentor has more experience than the mentee, the mentee brings a new and potentially valuable view to a situation.\textsuperscript{4,21} If a mentee must disagree, he or she should do so respectfully and start by asking clarifying questions to find out more about the basis for the mentor’s suggestions. When mentees learn from disagreements, they grow.

Mentees should take responsibility for managing the meetings. They should start by agreeing with their mentors on a regular schedule that is both feasible, considering time commitments, and adequate, allowing them to reach their intended goals. One suggested structure for each mentoring meeting begins with a social opening, followed by agenda negotiation, goal setting, discussion of two to three topics, and a closing, including a summary and plans for the next two to four weeks.\textsuperscript{22} A mentee should write an agenda for each meeting, even if it is simply for his or her own personal organization, to keep track of goals and progress. Some mentors may like to receive a written agenda and questions ahead of time; others just like to arrive and talk. At each meeting, a mentee should inform the mentor of his or her progress since the last meeting and ask what is expected in terms of tasks before the next meeting.\textsuperscript{4} A mentee should use a mentor’s time wisely by keeping meetings as short as possible or cancelling an appointment in advance if there is neither anything new to report nor new issues to discuss. Mentees should keep in mind, however, that nothing new to report can represent a road block they have encountered, and mentors may be able to help navigate this problem.

**Challenges**

Dissatisfaction and problems are common to every relationship, including mentorships. Finding a successful mentoring relationship is like dating: one cannot expect a perfect fit every time, and a good relationship takes work. Dissatisfaction may occur from a mismatch of goals, commitment, or expectations; from a reluctance of the mentee to own and pursue his or her own development; or from a mentee’s reluctance to ask for personal help.\textsuperscript{3,12} There can be power issues (over ownership of authorship or resources), generational tensions (over differences in work schedule expectations), or personality clashes (over differences in communication or work style). Occasionally, a mentor enters a mentorship in search of a clone, encouraging mentees to be dependent rather than to cultivate their own ideas.\textsuperscript{8} When problems occur, either the mentee or mentor can suggest a change, and the approach to the problem depends on the mentor’s and mentor’s styles. Often, another person outside the mentoring relationship can offer advice about disagreements or concerns. Common mentor complaints are that the mentee did not follow through, the mentee did not use the mentor’s time effectively, or there was a poor fit with work style and/or personality.\textsuperscript{19} If a mentor is aware of potential difficulties early, knows his or her values and needs, and manages up, then many of these problems can be avoided.\textsuperscript{12}

Long-distance mentoring relationships, becoming more common as both mentees and mentors move institutions or as a mentee seeks specific expertise, inspire their own unique set of potential problems, including ineffectiveness because there is no direct observation or accountability, and misunderstandings due to phone and e-mail communications.\textsuperscript{18,23} Some ways to make long-distance mentoring more successful include establishing the relationship in a face-to-face meeting and then continuing it at a distance, having occasional face-time at conferences, and having clear expectations set up about roles and goals.\textsuperscript{18}

**Separation**

All relationships naturally change and evolve, and this is true of mentoring.\textsuperscript{9} Ideally, there will be a planned separation as mentees advance their careers, attain their goals, and become more collegial with their mentors. Mentorship needs evolve over time, and managing up helps smooth the transition of ending the mentoring relationship and moving toward more equal standing. Often, both the mentor and mentee recognize that their mentoring relationship has fulfilled its purpose, and both are ready for a change. Occasionally an unsurmountable problem may occur such as differences in communication, respect, or resource use that leads to the sudden end of a mentoring relationship. Ideally, to promote productive future interactions, the mentor or mentee should directly address the transition, rather than letting the relationship dwindle away or avoiding talking about a problem. Part of the mentoring relationship is to communicate about any issues so that, as one mentoring relationship evolves, a mentee begins thinking about next steps and potential future mentors, if needed.

**In Sum**

Mentoring is an evolving relationship that requires time and attention to develop and includes successes and challenges. We outline the strategy, managing up, which may be helpful to improve mentoring relationships but that has not yet been empirically tested in
academic medicine. Nevertheless, following these tips is likely to improve communication and the experience of both mentor and mentee. Next steps for research in this area include testing the success of this strategy in groups of mentees, so we are planning a phased, randomized study at a single institution. When a mentee knows him- or herself, knows his or her values and needs, manages up, makes the relationship a high priority, and shows appreciation, he or she will most likely become successful. By implementing these specific tasks, mentees can nurture and improve a relationship that may ultimately become a productive and enjoyable force in the careers of both the mentor and the mentee.

Acknowledgments

This work was presented in part as a workshop at the National Meeting of the Society for General Internal Medicine, Los Angeles, California, April 2006, and in Toronto, Canada, April 2007.

This work was supported by the Office of Research and Development, Department of Veterans Affairs, and the Robert Wood Johnson Clinical Scholars Program at the University of Washington.

Disclaimer

The views expressed are those of the authors and do not necessarily reflect the views or opinions of the supporting programs.

References

Love Letters: An Anthology of Constructive Relationship Advice Shared Between Junior Mentees and Their Mentors

Suzanne M. Gillespie, MD, RD
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Thomas V. Caprio, MD, MPH
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Abstract

Mentorship is critical to the professional success of physicians, physicians-in-training, and junior faculty in academic practice. There are challenges to being a thoughtful and effective mentor and to being an engaged mentee. Many physicians and physicians-in-training cite difficulty finding professional time to dedicate to building their mentoring relationships, particularly given demanding clinical workloads and competing time commitments. Therefore, making the most out of the time in mentoring relationships is key to success. We present a collection of frustrations and good advice that have been passed between mentees and mentors on improving the mentor-mentee relationship. The information was compiled from actual interactions between mentors and mentees, and these “love letters” draw on complex associations, which like any “committed” relationship require constant reevaluation and discussion to bring them to their full potential.

Author’s Note: The quotes and advice received represent actual advice received by the authors and those fellows, trainees, and junior and senior faculty members that they interviewed to create this article.

Dear Senior Faculty Mentors:

As junior faculty and trainees, we are grateful for your influence on our careers. We are honored that you have taken time from your busy lives and committed yourself to our development. These committed professional relationships have been invaluable to us. However, there are a few things that just aren’t working out in our relationships.

This is not a “Dear John” letter; we aren’t breaking up with you. But there are some things you have said and done that make us wonder if you really understand what we want and need from these relationships. We have spoken to our peers, and many have shared similar growing pains in their academic mentorial relationships. Our collective experiences and observations are included in this letter. We hope it gives you and other mentors insight into the minds of junior mentees and helps you to better guide us through the wilds of academia and training.

1. On feedback: “It was great” is not feedback. Generally, junior mentees are hungry for constructive, thoughtful advice on how to improve. “Good job” and “great” do not constitute adequate feedback. They don’t even feel like genuine compliments. Rather, they feel like a way to get us “out of your office” or out of your “inbox.” We know we aren’t perfect, and although we crave your approval, we also need your critical eye and constructive feedback to improve. If you don’t have the time for an in-depth assessment of our efforts, try to offer a few thoughtful, focused comments. This will be far more helpful than any generic praise.

If we send you our latest grant or manuscript and you don’t have time to read it all, rather than sending a “Great, looks good, thanks” reply, give us your thoughts about the pages you do have time to read or tell us when you would be able to provide meaningful feedback.

2. On commitment: “Are we meeting again already?” It is important for us to spend time with our mentors. Sometimes brief, frequent meetings are needed to keep us on track with a project. At other times, spending more time together is needed to...
generate thoughtful discussion. We are both busy professionals. Committing time to our relationship and honoring that commitment by welcoming, valuing, and protecting our meetings is important. Please do not answer phone calls or do other work during our meetings. Regular discussion about how much time we can each commit to our relationship will clarify expectations.

3. **On engagement:** “So, what have you been up to lately?” Engaged mentors are effective mentors. We would like you to know what we’re working on, and to remember when we have important deadlines looming. Your interest and participation make us feel supported in our work and help keep us on track. It makes you seem disinterested in us when we hear, “Oh, I am so sorry I missed your presentation, it must have fallen off my radar.”

4. **On balance:** “Don’t know how you do it all” and “Keep up the good work.” As developing professionals, we struggle to find balance in our professional and personal lives. Help us critically assess the things we are doing. Are we doing too much? Should we do less? “Keep up the good work” is too general to be of any use. In what area? In what way? In which area are we excelling? What should we be keeping up? We know that medicine, especially in academia, is a full-time job. We also know that we have to balance our work-life commitments or we will not be personally or professionally satisfied in either area. Be prepared for us to seek your specific advice about how best to do this.

5. **On self-awareness:** “You can do anything you want to” and “I always thought knowing what you wanted to do was part of being a grownup.” Junior mentees often need help finding their niche. We often lack the “10 000 foot” view of the entire picture. We may lack insight into our most valuable skills and areas for improvement. Help us to identify these, and please be specific. Insight into ourselves will help us better focus our work efforts and create long-term career success. As senior leaders, you can work with us to ensure that our efforts align with the strategic plans for our field, ourselves, and the department and academic centers.

6. **I can help you with that**: Mentors who know and share their strengths and weaknesses are worth their weight in gold. If analyzing data or editing manuscripts isn’t your thing, connect us with someone you know who has those skills. As our mentor, you can help us build a team of colleagues equipped with the goods to help us succeed.

7. **On advocacy:** “Just tell them you can’t do it” or “You should get onto that national committee.” Please advocate for us. For trainees and many members of the faculty, “just say no” isn’t helpful advice when the “someone” involved is the dean or chair. Be willing to go to bat for us and explain why our time is needed elsewhere. Similarly, when opportunities arise for leadership in professional organizations, be our champion. Some mentors may worry that pushing their junior mentees into the limelight will expose them to recruitment by other centers. In contrast, when you showcase our talents and support our development as national leaders, we know that you believe in us and value our work. Why would we ever leave?

Dearest mentors, we close by reminding you how much we love you and look forward to countless years of exciting professional and educational development. Thanks for everything you do.

Love, Your Junior Mentees

**Dear Junior Faculty and Trainee Mentees:**

Thank you for your kind words of constructive feedback. We have tried to provide the foundation for your academic career and professional development. It has become increasingly apparent that there are domains in our relationship that need your attention too.

1. **On feedback:** “I don’t know, what do you think?” We know what we think! We need to hear that you are being honest and reflectively analytical about your own work. Developing insight into your own work is an important part of academic and personal development. We are trying to help you develop it! We’ll share our constructive feedback, but we can’t think for you.

2. **On commitment:** “Can you review this? It’s not due until tomorrow.” It should come as no surprise that we are busy. Although mentoring is fulfilling and rewarding, we have our own deadlines to meet. We need time and notice so we can give your work the attention that it deserves.

3. **On engagement:** “I thought you would do it” or “I thought you would tell me when I should do it.” Academic medicine and learning are full-time jobs. The responsibility to ensure our mentoring relationship moves forward is yours. We cannot take sole responsibility for tracking you down, checking your progress, and pushing you forward. Be responsive to e-mails and/or requests within a reasonable time frame with at least a short reply that you are acknowledging and working toward a thoughtful response. You need to anticipate and schedule time on our calendar in advance so that it will be there when we need it.
4. **On balance: “I give up, I can’t do it anymore.”**

Think about the things that we do and how we prioritize them. It turns out that we, like you, cannot do everything. Every choice results in sacrifices in other areas of work and life. We’ll support you in your decision making, but only you can make an honest assessment of where your interests and abilities lie, and how strong your commitment is to goals. Think about these things before you reach the breaking point and please come to us for advice well before that time.

5. **On balance: “I can do it.”** As you point out, agreeing to do something doesn’t help if you can’t do it. Think first: Do you really want to do it? Are you able to do it? Are you agreeing as a favor to us, or because you think you just can’t say no? We would not ask you if we did not think it had value, but doing a poor job is worse than being honest about your interest and time commitments. Be honest about the time frame that you “can” do it when taking something on. If we decide to write a grant or paper or do a project together, tell us honestly if the deadlines are realistic with your other activities. Only when we have that information can we begin to advise you and advocate for your time.

6. **On self-awareness: Know your weaknesses: “I just don’t know what I want to do.”** A learning plan is an important component of any trainee’s development as well as any academic career, and we can help you develop it. It is this type of thoughtful reflection on your strengths and weaknesses that will help you develop realistic career goals. Career development is an ongoing process; it requires patience and self-reflection. Rome wasn’t built in a day. Career development can’t be rushed, and it cannot be done without self-appraisal and goal setting. Be honest with yourself and us about your strengths, weaknesses, and future plans.¹

7. **On advocacy: Be your own champion: “I thought you knew I was interested.”** If you really want to be considered for something or put up for a position, you need to tell us. We will be honest about your qualifications and help assess your appropriateness for a position. We will also tell you if we think that it isn’t the right move to advance your career. At the same time, if you have done something great, we want and need to hear about it. It is appropriate to self-advocate and tell us of your success. We use those accomplishments to weigh your readiness for new opportunities. Remember, your success is our success, and we do have your best interests in mind at all times.

Forever Yours, Senior Faculty and Mentors

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**References**


I. Deep Dive Concurrent Workshop Session: “Developing Interprofessional Education (IPE) at Your Institution: Tools and Strategies”

Time: Monday, October 24, 2016 from 2:45-4:30 PM

II. Description of Workshop:
Five Reynolds interprofessional education (IPE) leaders serve will as facilitators to share their experiences in developing a variety of interprofessional curricula at their institutions. While the facilitators have all benefited from Reynolds Next Steps funding in their efforts, the focus of the workshop will be to help institutions and individuals to begin or sustain IPE innovations with whatever resources are available. The primary goal will be for each participant to share their own experiences with IPE activities and establish short and long term goals for their programs. Facilitators and participants will consider what lessons they have learned as IPE educators and what might work at their institutions as they expand their efforts. Participants will leave the workshop with practical recommendations and tools to advance their own curricular efforts.

III. Workshop Details:
This workshop will provide an opportunity for participants to learn from one another on how to best develop IPE curricular activities by selecting appropriate curricular strategies, health disciplines, and facilitator training approaches. The workshop facilitators will also summarize the evaluation data and provide recommendations for educators who are developing and expanding IPE programs at their own institutions.

There will be “round table” discussions on five thematic areas of developing and sustaining IPE curricular activities:
1. designing curriculum through meshing IPE and Geriatric Medicine/Gerontology Competencies for a variety of undergraduate and graduate learners
2. using TeamSTEPPS and other resources for training small and large group IPE audiences, including useful team training tools and strategies
3. developing clinical and educational partnerships, including interinstitutional, intrainstitutional, and community-based partners in IPE curricular activities
4. targeting IPE activities to specific undergraduate and graduate learner groups
5. Sustainability for interprofessional education curricula and programs

In the first 15 minutes of the workshop, the facilitators will be introduced and participants oriented to the workshop format. The next 75 minutes will be devoted to participants working in small groups to discuss the five thematic areas of interest, including strategies that might be used to adapt and/or replicate desired activities at their own institution. Participants will remain in their small group throughout the workshop, with the thematic facilitators circulating to all the groups. Each small group will “report out” to the large group in the last 15 minutes of the workshop.

IV. Special Requirements:
Podium with table for a five person panel
Five 8 person round tables
Five standing flip charts

V. Handouts/takeaways: Provided on the five IPE thematic areas
VI. Thematic Facilitator Information:

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Phone: 913-449-7240
Interprofessional Education (IPE) at Your Institution: Targeting IPE for Specific Learner Groups

Background:
Interprofessional education activities frequently bring together learners at varying levels of development in their professional training. The IPEC Core Competencies for Collaborative Practice represent a great framework for developing educational objectives and content, but they don’t speak strategies for teaching learners in varying environments with varying expectations and perceived educational needs. We will discuss participants’ experiences with integrating learners of varying levels in IPE activities.

Common Challenges and Tips for Bringing Learners Together:
Engaging learners with varying backgrounds and perceived educational needs requires matching educational content to their level of training and seeking out opportunities for collaborative practice in model teams.

1. For groups of learners that are either mixed in their clinical experiences or exclusively pre-clinical, focusing on knowledge and skills that have broad applications – e.g. communication techniques, evidence-based medicine, quality improvement, professionalism, teaching skills, etc. – perhaps at the expense of clinical cases will allow learners to engage on equal footing.
2. Designate faculty/preceptor leaders for each group of professional students who can collaborate to develop defined role-appropriate individual learning objectives and activities as well as combined team-appropriate learning objectives and activities for learners in a collaborative practice environment.
3. Promote peer evaluations across professional schools.

Examples:
• The “Convergence” activity at UT Southwestern brings together students with varying levels of clinical experience from schools of medicine, nursing, pharmacy, physical therapy, and others to expose them to foundational knowledge and experience in team-based care, communication styles, and roles and responsibilities. Content of the session is based on TeamSTEPPS, effective communication strategies that vary with DISC personality types, and roles and responsibilities of each profession. Learners form interprofessional teams and do a marshmallow and spaghetti tower-building activity to illustrate concepts of teamwork and communication.

• Fill in gaps in UME curriculum with sessions that include learning goals in geriatrics, IPE, and another topic (e.g. patient safety or medication reconciliation). Opportunities arise during curricular transformation and other times in response to curricular needs.

• Transforming inpatients rounds (i.e. Medicine wards) to be more interprofessional and inclusive of learners from all professions, as is done on the “Eisenberg Service” at UT Southwestern Clements University Hospital can foster better role-awareness and communication. During daily rounds, Geriatric Medicine fellows serve as transitions of care experts, IM residents as hospitalists along with geriatrician attendings, and clinical students from schools of nursing, nutrition, physical and occupational therapy represent their respective professions along with their preceptors.

• Include fellows as curriculum development and teaching partners for interprofessional education sessions, allowing them to develop both education as well as interprofessional communication skills.

References:
## Interprofessional Education (IPE) at Your Institution: Team Training Tools

<table>
<thead>
<tr>
<th>Organization/Description</th>
<th>Website</th>
<th>Learner level</th>
<th>Cost</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TeamSTEPPS®</strong>&lt;br&gt;Complete curricular materials for teaching team behaviors, communication, and leadership</td>
<td><a href="http://www.ahrq.gov/teamstepps/instructor/index.html">http://www.ahrq.gov/teamstepps/instructor/index.html</a></td>
<td>All/ Any Online and in person; Master training for instructors</td>
<td>Public Domain; supplemental materials for purchase</td>
<td>½ or full day training sessions; adapted for: outpt; hospital, nursing home; requires a Master Trainer to lead sessions</td>
</tr>
<tr>
<td><strong>Institute for Health Improvement: Open School</strong>&lt;br&gt;“Brings essential training and tools in an online community to help you and your team deliver excellent, safe care.”</td>
<td><a href="http://app.ihi.org/lms/home.aspx">http://app.ihi.org/lms/home.aspx</a></td>
<td>Beginning students to practicing professionals</td>
<td>Free to individuals; site license for purchase</td>
<td>Self-guided</td>
</tr>
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</table>

### Reynolds’ Tools on POGOe (254 products, below are examples; search ‘interprofessional’)

<table>
<thead>
<tr>
<th>Title</th>
<th>Topic(s)</th>
<th>Mode</th>
<th>Learner Level</th>
<th>POGOe Id</th>
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</thead>
<tbody>
<tr>
<td>TeamSTEPPS® for Primary Care Teams</td>
<td>teaches basic team work tools and behaviors, communication, leadership</td>
<td>Interactive, case based, online</td>
<td>Residents faculty</td>
<td>21688</td>
</tr>
<tr>
<td><strong>A Developmental Approach to Campus-Wide IP Ed: From Exposure to Immersion using a Geriatric Case Study</strong></td>
<td>health professions students experiential learning develop skills for working with an interprofessional health care team students to better understand the roles of different health care professions early in their career</td>
<td>Pre-work (TeamSTEPPS® Or IHI &amp; case review from the each professions perspective; 1 hr small group student led discussion &amp; care planning</td>
<td>All 2nd year HP students; adaptable for any/all of: Med, Nursing, OT, PT, Speech therapy, Nutrition, Pharmacy, Public Health, PA</td>
<td>21849</td>
</tr>
<tr>
<td><strong>ELDER Project Teams /Teamwork: Member Roles</strong></td>
<td>3 sessions characteristics of effective teams; members of an IP team; functions of each profession; role overlap</td>
<td>Live, group work</td>
<td>Early to advanced HCP trainees</td>
<td>21105</td>
</tr>
<tr>
<td><strong>Standardized IP Team Meeting Case</strong></td>
<td>standardized patient assessment</td>
<td>Live, standardized pt</td>
<td>Student</td>
<td>21230</td>
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<tr>
<td><strong>IP Team Care</strong></td>
<td>Structure, goals running, of IDT Conference</td>
<td>Cases, Video</td>
<td>HCP students and teams</td>
<td>21709</td>
</tr>
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Interprofessional Education (IPE) at Your Institution: Competencies

Background:
Many disciplines have created minimum geriatric competencies to assure that the graduating learner provides competent care to older patients. Educators who seek to teach competencies in geriatrics have the Portal of Geriatric Online Education, or POGOe, (www.pogoe.org) as a resource to find appropriate materials that engage their learners. It is an electronic repository of high-quality teaching materials in geriatrics. This session will focus on three such sets of competencies, each of them provided in the following three pages:

- AAMC Minimum Geriatric Medicine Competencies For Medical Students - List of minimum graduating medical student competencies to assure competent care to older patients by new interns.
- Partnership for Health in Aging Workgroup Multidisciplinary Competencies in the Care of Older Adults at the Completion of the Entry-level Health Professional Degree - Multidisciplinary competencies in the care of older adults at the completion of the entry-level health professional degree.
- IPE Competencies for Undergraduate and Postgraduate Education - List of minimum interprofessional education competencies to assure competent team care to older patients by the breadth of undergraduate and postgraduate health care learners.
# AAMC Minimum Geriatric Medicine Competencies for Medical Students

The graduating medical student, in the context of caring for a specific older adult patient, must be able to:

## Medication Management

1. Explain impact of age-related changes on drug selection and dose based on knowledge of age-related changes in renal and hepatic function, body composition, and Central Nervous System sensitivity.

2. Identify medications, including anticholinergic, psychoactive, anticoagulant, analgesic, hypoglycemic, and cardiovascular drugs that should be avoided or used with caution in older adults and explain the potential problems associated with each.

3. Document a patient’s complete medication list, including prescribed, herbal and over-the-counter medications, and for each medication provide the dose, frequency, indication, benefit, side effects, and an assessment of adherence.

## Cognitive and Behavioral Disorders

4. Recognize, compare, and contrast among the clinical presentations of delirium, dementia, and depression.

5. Formulate a differential diagnosis and implement initial evaluation in a patient who exhibits delirium, dementia, or depression.

6. In an older patient with delirium, urgently initiate a diagnostic work-up to determine the root cause (etiology).

7. Perform and interpret a cognitive assessment in older patients for whom there are concerns regarding memory or function.

8. Develop an evaluation and non-pharmacologic management plan for agitated demented or delirious patients.

## Self-Care Capacity

9. Assess and describe baseline and current functional abilities in an older patient by collecting historical data from multiple sources, making sure to include instrumental activities of daily living, activities of daily living, and capacity/competence assessment, and performing a confirmatory hearing and vision examination.

10. Develop a preliminary management plan for patients presenting with functional deficits, including adaptive interventions and involvement of interdisciplinary team members from appropriate disciplines, such as social work, nursing, rehabilitation, nutrition, and pharmacy.

11. Identify and assess safety risks in the home environment, and make recommendations to mitigate these.

## Falls, Balance, Gait Disorders

12. Ask all patients > 65 yr., or their caregivers, about falls in the last year, watch the patient rise from a chair and walk (or transfer), then record and interpret the findings.

13. In a patient who has fallen, conduct a gait assessment and construct a differential diagnosis and evaluation plan that addresses the multiple etiologies identified by history, physical examination and functional assessment.

## Health Care Planning and Promotion

14. Define and differentiate among types of code status, health care proxies, and advance directives in the state where one is training.

15. Accurately identify clinical situations where life expectancy, functional status, patient preference or goals of care should override standard recommendations for screening tests in older adults, noting that risk/benefit, not age alone is not a basis for withholding standard screening or treatment.

16. Accurately identify clinical situations where life expectancy, functional status, patient preference or goals of care should override standard recommendations for treatment in older adults.

## Atypical Presentation of Disease

17. For each organ system identify at least 3 changes of normal aging (e.g., normal labs for older adults) and their impact on the patient, including their contribution to homeostenosis (the age-related narrowing of homeostatic reserve mechanisms). Know when clinical signs and presentations are normal aging and not disease.

18. Generate a differential diagnosis based on recognition of the unique presentations of common conditions in older adults, including acute coronary syndrome, dehydration, urinary tract infection, acute abdomen, and pneumonia.

## Palliative Care

19. Assess and provide initial management of pain and key non-pain symptoms based on patient’s goals of care.

20. Identify the psychological, social, and spiritual needs of patients with advanced illness and their family members, and link these identified needs with the appropriate interdisciplinary team members.

21. Present palliative care (including hospice) as a positive, active treatment option for a patient with advanced disease.

## Hospital Care for Elders

22. Identify potential hazards of hospitalization for all older adult patients (including immobility, delirium, medication side effects, malnutrition, pressure ulcers, procedures, peri and post-operative periods, transient urinary incontinence, and hospital acquired infections) and identify potential prevention strategies.

23. Explain the risks, indications, alternatives, and contraindications for indwelling (Foley) catheter use in older adult patients.

24. Explain the risks, indications, alternatives, and contraindications for physical and pharmacological restraint use.

25. Communicate the key components of a safe discharge plan (e.g., accurate medication list, plan for follow-up), including comparing/contrasting potential sites for discharge.

26. Conduct a surveillance examination of areas of the skin at high risk for pressure ulcers and describe existing ulcers.
## Domain #1: Health Promotion and Safety

1. Advocate to older adults and their caregivers interventions and behaviors that promote physical and mental health, nutrition, function, safety, social interactions, independence, and quality of life.

2. Identify and inform older adults and their caregivers about evidence-based approaches to screening, immunizations, health promotion, and disease prevention.

3. Assess specific risks and barriers to older adult safety, including falls, elder mistreatment, and other risks in community, home, and care environments.

4. Recognize the principles and practices of safe, appropriate, and effective medication use in older adults.

5. Apply knowledge of the indications and contraindications for, risks of, and alternatives to the use of physical and pharmacological restraints with older adults.

## Domain #2: Evaluation and Assessment

1. Define the purpose and components of an interdisciplinary, comprehensive geriatric assessment and the roles individual disciplines play in conducting and interpreting a comprehensive geriatric assessment.

2. Apply knowledge of the biological, physical, cognitive, psychological, and social changes commonly associated with aging.

3. Choose, administer, and interpret a validated and reliable tool/instrument appropriate for use with a given older adult to assess: a) cognition, b) mood, c) physical function, d) nutrition, and e) pain.

4. Demonstrate knowledge of the signs and symptoms of delirium and whom to notify if an older adult exhibits these signs and symptoms.

5. Develop verbal and nonverbal communication strategies to overcome potential sensory, language, and cognitive limitations in older adults.

## Domain #3: Care Planning and Coordination Across the Care Spectrum (Including End-of-Life Care)

1. Develop treatment plans based on best evidence and on person-centered and directed care goals.

2. Evaluate clinical situations where standard treatment recommendations, based on best evidence, should be modified with regard to older adults’ preferences and treatment/care goals, life expectancy, co-morbid conditions, and/or functional status.

3. Develop advanced care plans based on older adults’ preferences and treatment/care goals, and their physical, psychological, social, and spiritual needs.

4. Recognize the need for continuity of treatment and communication across the spectrum of services and during transitions between care settings, utilizing information technology where appropriate and available.

## Domain #4: Interdisciplinary and Team Care

1. Distinguish among, refer to, and/or consult with any of the multiple healthcare professionals who work with older adults, to achieve positive outcomes.

2. Communicate and collaborate with older adults, their caregivers, healthcare professionals, and direct-care workers to incorporate discipline-specific information into overall team care planning and implementation.

## Domain #5: Caregiver Support

1. Assess caregiver knowledge and expectations of the impact of advanced age and disease on health needs, risks, and the unique manifestations and treatment of health conditions.

2. Assist caregivers to identify, access, and utilize specialized products, professional services, and support groups that can assist with care-giving responsibilities and reduce caregiver burden.

3. Accurately identify clinical situations where life expectancy, functional status, patient preference or know how to access and explain the availability and effectiveness of resources for older adults and caregivers that help them meet personal goals, maximize function, maintain independence, and live in their preferred and/or least restrictive environment.

4. Evaluate the continued appropriateness of care plans and services based on older adults’ and caregivers’ changes in age, health status, and function; assist caregivers in altering plans and actions as needed.

## Domain #6: Healthcare Systems and Benefits

1. Serve as an advocate for older adults and caregivers within various healthcare systems and settings.

2. Know how to access, and share with older adults and their caregivers, information about the healthcare benefits of programs such as Medicare, Medicaid, Veterans’ services, Social Security, and other public programs.

3. Provide information to older adults and their caregivers about the continuum of long-term care services and supports – such as community resources, home care, assisted living facilities, hospitals, nursing facilities, sub-acute care facilities, and hospice care.
### IPE Competencies for Undergraduate and Postgraduate Education

| IPE Team and Teamwork Experiences | Describe the process of team development and the roles and practices of effective teams. | Develop consensus on the ethical principles to guide all aspects of patient care and team work. | Engage other health professionals—appropriate to the specific care situation—in shared patient-centered problem-solving. | Integrate the knowledge and experience of other professionals—appropriate to the specific care situation—to inform care decisions, while respecting patient/community values and priorities/preferences for care. | Apply leadership practices that support collaborative practice and team effectiveness. | Engage self and others to constructively manage disagreements about values, roles, goals, and actions that arise among healthcare professionals and with patients and families | Share accountability with other professions, patients, and communities for outcomes relevant to prevention and health care. | Reflect on individual and team performance for individual, as well as team, performance improvement. | Use process improvement strategies to increase the effectiveness of interprofessional teamwork and team-based care. | Use available evidence to inform effective teamwork and team-based practices. | Perform effectively on teams and in different team roles in a variety of settings. | Serve as a leader and catalyst to transform interprofessional team-based care. |
|----------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|
| IPE Values & Ethics Experiences | Place the interests of patients and populations at the center of interprofessional health care delivery. | Respect the dignity and privacy of patients while maintaining confidentiality in the delivery of team-based care. | Embrace the cultural diversity and individual differences that characterize patients, populations, and the health care team. | Respect the unique cultures, values, roles/responsibilities, and expertise of other health professions. | Work in cooperation with those who receive care, those who provide care, and others who contribute to or support the delivery of prevention and health services. | Develop a trusting relationship with patients, families, and other team members. | Demonstrate high standards of ethical conduct and quality of care in one’s contributions to team-based care. | Manage ethical dilemmas specific to interprofessional patient/population centered care situations. | Act with honesty and integrity in relationships with patients, families, and other team members. | Maintain competence in one’s own profession appropriate to scope of practice. |
| IPE Roles & Responsibilities Experiences | Communicate one’s roles and responsibilities clearly to patients, families, and other professionals. | Recognize one’s limitations in skills, knowledge, and abilities. | Engage diverse healthcare professionals who complement one’s own professional expertise, as well as associated resources, to develop strategies to meet specific patient care needs. | Explain the roles and responsibilities of other care providers and how the team works together to provide care. | Use the full scope of knowledge, skills, and abilities of available health professionals and healthcare workers to provide care that is safe, timely, efficient, effective, and equitable. | Communicate with team members to clarify each member’s responsibility in executing components of a treatment plan or public health intervention. | Create purposeful interdependent relationships with other professions to improve care and advance learning. | Engage in continuous professional and interprofessional development to enhance team performance. | Use unique and complementary abilities of all members of the team to optimize patient care. |
| IPE Communication Experiences | Choose effective communication tools and techniques, including information systems and communication technologies, to facilitate discussions and interactions that enhance team function. | Organize and communicate information with patients, families, and healthcare team members in a form that is understandable, avoiding discipline-specific terminology when possible. | Express one’s knowledge and opinions to team members involved in patient care with confidence, clarity, and respect, working to ensure common understanding of information and treatment and care decisions. | Listen actively, and encourage ideas and opinions of other team members. | Give timely, sensitive, instructive feedback to others about their performance on the team. | Respond respectfully as a team member to feedback from others. | Use respectful language appropriate for a given difficult situation, crucial conversation, or interprofessional conflict. | Recognize how one’s own uniqueness, including experience level, expertise, culture, power, and hierarchy within the healthcare team, contributes to effective communication, conflict resolution, and positive interprofessional working relationships. | Communicate consistently the value of high functioning teams in patient-centered and community-focused care. |

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**IPE Competencies for Undergraduate and Postgraduate Education**

- **IPE Team and Teamwork Experiences**: Provide effective interprofessional team-based care that is patient/population centered, safe, timely, efficient, effective, and equitable.
- **IPE Values & Ethics Experiences**: Work with patients and individuals of other health professions to maintain a climate of mutual respect, in the provision of patient-centered care.
- **IPE Roles & Responsibilities Experiences**: Use the knowledge of one’s own roles and those of other professionals to appropriately assess and address the healthcare needs of the patients and populations served.
- **IPE Communication Experiences**: Communicate with patients, families, communities, and other health professionals in a responsive and responsible manner that supports a team approach to patient/population centered care.
Interprofessional Education (IPE) at Your Institution:
Developing Clinical and Educational Partnerships

Background:
Interprofessional education requires the bringing together of various health profession students from multiple colleges and schools from within an academic health science center or between various academic institutions that provide health professions education. Additional partnerships may be considered, such as community based programs, not for profit agencies or the aging network providers, to support the necessary training environments to engage students into interprofessional educational activities. These various partnerships provide a wide array of opportunities and challenges when attempting to provide interprofessional education and these will be explored during this session.

Common Challenges:
Interprofessional education is now required by most health professions’ accreditation organizations. However several challenges may exist dependent on the local academic institutional landscape such as:
- Which health professions’ programs or schools are available?
- What type of intra and interinstitutional relationships exist?
- Do any community partnerships exist or will they need to be developed?
- How to manage each health professions’ curricular schedules?
- Is there leadership commitment for IPE at the various health professions’ institutions and/or programs?

Recommendations and Tips:
Various approaches have been utilized in order to develop successful partnerships for IPE collaboration that can occur from either “top down” or “bottom up” strategies.
1. Creation of a Department or Office of Interprofessional Education
2. Appointment of a Dean, Chair, Director of Interprofessional Education
3. Development of an IPE Committee with members from various health professions’ programs
4. Provide faculty development offerings in IPE from multiple health profession programs/schools
5. Explore grant proposals with health professions’ programs and community based organizations
6. Consider Area Agencies on Aging as a community partner (they have a directive from the Administration on Community Living to partner with academic institutions, especially those funded as GWEPs)
7. Engage IPE faculty and community partners in quality improvement cycles/processes.
8. Identify community evidence-based programs as collaborative practice experiences.

Examples:
- UNTHSC has four health professions programs: Texas College of Osteopathic Medicine, UNT System School of Pharmacy, UNTHSC School of Health Professions that include the PA Studies Program and the Department of Physical therapy and partners with TCU with three health professions programs: College of Nursing and Social Work and the College of Science and Engineering’s Dietetics Program
- UNTHSC Reynolds IGET IT Program and HRSA WE HAIL Program partners with Meals on Wheels of Tarrant County, Senior Citizen Services, Alzheimer’s Association and James L West Dementia Care Center to provide evidence based program education for interprofessional health profession students

References:
National Center for Interprofessional Practice and Education (www.nexusipe.org)
Interprofessional Education (IPE) at Your Institution:
Tools and Strategies for Sustainability

Background:
Interprofessional education began in the 1960s. It is defined as occasions when two or more professions learn from, with, and about each other to improve collaboration and the quality of care. The D.W. Reynolds Foundation and others, including the World Health Organization and academic institutions, have made investments to study, report, and create programs to advance interprofessional collaboration and learning. In a context of evolving internal and external resources (e.g. funding sources for faculty time) as well as shifting goals and drivers (e.g. focus on other import initiatives), we explore ways to sustain innovative interprofessional education and collaboration at your institution.

Recommendations and Tips:

Sustaining change involves incorporating it into the institutional culture, values, and norms.

1. Gather stories and data from your interprofessional education pilot successes as well as external reports describing the evidence and need for effective collaboration.
2. Align your efforts with other current campus & health system goals (e.g. patient safety, patient satisfaction, improving communication in health care initiatives)
3. Find and engage your interprofessional stakeholders, champions, and partners in conversation about meeting mutual goals with IPE programs.
4. Explore strategies for:
   a. Institutional funding to sustain successful current IPE programs
   b. Collaborating with and incorporation into existing curricular programs
   c. Advocate for faculty development to develop a cadre of experts
5. Develop and share strategies (e.g. how to align schedules across professional schools) and a toolkit (e.g. learning session materials)

For Example:
- The Univ of Nebraska Med Center has an Interprofessional Academy of Educators, an interprofessional curriculum committee, & program on interprofessional education (Dr. J Potter)
- UCSF has incorporated interprofessional education & patient safety into all levels of student and resident education (e.g. medication reconciliation, hospital discharge, inpatient rounds)

References:
Interprofessional Education (IPE) at Your Institution: Targeting IPE for Specific Learner Groups

Background:

Interprofessional education activities frequently bring together learners at varying levels of development in their professional training. The IPEC Core Competencies for Collaborative Practice represent a great framework for developing educational objectives and content, but they don’t speak strategies for teaching learners in varying environments with varying expectations and perceived educational needs. We will discuss participants’ experiences with integrating learners of varying levels in IPE activities.

Common Challenges and Tips for Bringing Learners Together:

Engaging learners with varying backgrounds and perceived educational needs requires matching educational content to their level of training and seeking out opportunities for collaborative practice in model teams.

1. For groups of learners that are either mixed in their clinical experiences or exclusively pre-clinical, focusing on knowledge and skills that have broad applications – e.g. communication techniques, evidence-based medicine, quality improvement, professionalism, teaching skills, etc. – perhaps at the expense of clinical cases will allow learners to engage on equal footing.

2. Designate faculty/preceptor leaders for each group of professional students who can collaborate to develop defined role-appropriate individual learning objectives and activities as well as combined team-appropriate learning objectives and activities for learners in a collaborative practice environment.

3. Promote peer evaluations across professional schools.

Examples:

- The “Convergence” activity at UT Southwestern brings together students with varying levels of clinical experience from schools of medicine, nursing, pharmacy, physical therapy, and others to expose them to foundational knowledge and experience in team-based care, communication styles, and roles and responsibilities. Content of the session is based on TeamSTEPPS, effective communication strategies that vary with DISC personality types, and roles and responsibilities of each profession. Learners form interprofessional teams and do a marshmallow and spaghetti tower-building activity to illustrate concepts of teamwork and communication.

- Fill in gaps in UME curriculum with sessions that include learning goals in geriatrics, IPE, and another topic (e.g. patient safety or medication reconciliation). Opportunities arise during curricular transformation and other times in response to curricular needs.
• Transforming inpatients rounds (i.e. Medicine wards) to be more interprofessional and inclusive of learners from all professions, as is done on the “Eisenberg Service” at UT Southwestern Clements University Hospital can foster better role-awareness and communication. During daily rounds, Geriatric Medicine fellows serve as transitions of care experts, IM residents as hospitalists along with geriatrician attendings, and clinical students from schools of nursing, nutrition, physical and occupational therapy represent their respective professions along with their preceptors.

• Include fellows as curriculum development and teaching partners for interprofessional education sessions, allowing them to develop both education as well as interprofessional communication skills.

References:
### Interprofessional Education (IPE) at Your Institution: Team Training Tools

<table>
<thead>
<tr>
<th>Organization/Description</th>
<th>Website</th>
<th>Learner level</th>
<th>Cost</th>
<th>Notes</th>
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<tbody>
<tr>
<td><strong>TeamSTEPPS®</strong></td>
<td><a href="http://www.ahrq.gov/teamstepps/instructor/index.html">http://www.ahrq.gov/teamstepps/instructor/index.html</a></td>
<td>All/Any</td>
<td>Public Domain; supplemental materials for purchase</td>
<td>½ or full day training sessions; adapted for: outpt; hospital, nursing home; requires a Master Trainer to lead sessions</td>
</tr>
<tr>
<td>Complete curricular materials for teaching team behaviors, communication, and leadership</td>
<td>TeamSTEPPS 2.0® (hospital based scenarios) TeamSTEPPS® for Office-Based Care Long-Term Care version of TeamSTEPPS®</td>
<td>Online and in person; Master training for instructors</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Institute for Health Improvement: Open School</strong></td>
<td><a href="http://app.ihi.org/lms/home.aspx">http://app.ihi.org/lms/home.aspx</a></td>
<td>Beginning students to practicing professionals</td>
<td>Free to individuals; site license for purchase</td>
<td>Self-guided</td>
</tr>
<tr>
<td>“Brings essential training and tools in an online community to help you and your team deliver excellent, safe care.”</td>
<td>PS 104: Teamwork and Communication in a Culture of Safety L 101: Introduction to Health Care Leadership PFC 101: Introduction to Patient-Centered Care*</td>
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### Reynolds’ Tools on POGOe (254 products, below are examples; search ‘interprofessional’)

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<thead>
<tr>
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<th>Mode</th>
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<tbody>
<tr>
<td><strong>TeamSTEPPS® for Primary Care Teams</strong></td>
<td>teaches basic team work tools and behaviors, communication, leadership</td>
<td>Interactive, case based, online</td>
<td>Residents faculty</td>
<td>21688</td>
</tr>
<tr>
<td><strong>A Developmental Approach to Campus-Wide IP Ed: From Exposure to Immersion using a Geriatric Case Study</strong></td>
<td>health professions students experiential learning; develop skills for working with an interprofessional health care team; students to better understand the roles of different health care professions early in their career</td>
<td>Pre-work (TeamSTEPPS® or IHI &amp; case review from each professions perspective; 1 hr small group student led discussion &amp; care planning</td>
<td>All 2nd year HP students; adaptable for any/all of: Med, Nursing, OT, PT, Speech therapy, Nutrition, Pharmacy, Public Health, PA</td>
<td>21849</td>
</tr>
<tr>
<td><strong>ELDER Project Teams /Teamwork: Member Roles</strong></td>
<td>3 sessions characteristics of effective teams; members of an IP team; functions of each profession; role overlap</td>
<td>Live, group work</td>
<td>Early to advanced HCP trainees</td>
<td>21105</td>
</tr>
<tr>
<td><strong>Standardized IP Team Meeting Case</strong></td>
<td>standardized patient assessment</td>
<td>Live, standardized pt</td>
<td>Student</td>
<td>21230</td>
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<tr>
<td><strong>IP Team Care</strong></td>
<td>Structure, goals running, of IDT Conference</td>
<td>Cases, Video</td>
<td>HCP students and teams</td>
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Jane F Potter, MD
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Master Learning Resources

   http://journals.lww.com/academicmedicine/Fulltext/2015/11000/Mastery_Learning___It_Is_Ti
time_for_Medical.9.aspx

   http://journals.lww.com/academicmedicine/Abstract/2015/11000/Setting_Mastery_Learning_S
tandards.20.aspx

   http://journals.lww.com/academicmedicine/Abstract/2015/11000/Making_the_Case_for_Mast
erly_Learning_Assessments___11.aspx

4. Additional papers in the November, 2015 issue of Academic Medicine
Mastery Learning in Geriatrics Education
Sara Bradley, MD
Diane B. Wayne, MD
Northwestern University Feinberg School of Medicine

Objectives
- Recognize variation in clinical skill among experienced professionals
- Review principles of mastery learning and deliberate practice
- Describe mastery learning applications to geriatrics education

Traditional Training ≠ Competence

Most Education Interventions
- Pretest
- Simulation-based Training
- Posttest

Example: Lumbar Puncture Skills

2 videos here of LP simulation
Typical Educational Outcomes

Mastery Learning: Excellence for All

Mastery Learning Educational Outcomes

Design and Sequencing of Training Activities

Mastery Learning Bundle

Features
1. Baseline, i.e., diagnostic testing;
2. Clear learning objectives, units ordered by difficulty;
3. Educational activities (e.g., deliberate skills practice) focused on objectives;
4. Minimum passing mastery standard (MPS) for each unit;
5. Formative testing → mastery of each unit;
6. Advancement if performance ≥ MPS; or
7. Continued practice or study until MPS is reached
8. Time varies, outcomes are uniform

Deliberate Practice (DP)

Features
1. Highly motivated learners with good concentration;
2. Engagement with a well-defined learning objective or task; at an
3. Appropriate level of difficulty; with
4. focused, repetitive practice; that leads to
5. Rigorous, precise measurements; that yield
6. Informative feedback from educational sources (e.g., simulators, teachers); and
where
7. Trainees also monitor their learning experiences and correct strategies, errors, and
levels of understanding, engage in more DP; and continue with
8. Evaluation to reach a mastery standard; and then
9. Advance to another task or unit
10. Goal: constant improvement
Designing a Mastery Learning Curriculum

1. Define learning objectives
2. Develop curriculum (lecture, video, demonstrations, deliberate practice)
3. Select assessment modality (exam, OSCE, simulator, SP)
4. Create skills checklist (develop, pilot, rater training/IRR)
5. Establish a minimum passing standard
6. Study educational and clinical outcomes

Outcome Measurement

Research Progress
Valid Decisions or Judgments
Feedback to Learners
Reliable Data

Mastery Learning in the Classroom

Cardiac Auscultation
Paracentesis
Code Status Discussion
Central Venous Catheter Insertion

Mastery Learning at the Bedside

85% reduction in CLABSI

SBML in Action: Intern Boot Camp

Cost Savings From Reduced Catheter-Related Bloodstream Infection After Simulation-Based Education for Residents in a Medical Intensive Care Unit

- The total annual estimated savings were approximately $820,000, 139 patient hospital days, and 120 MICU days.
- When compared with the cost of our intervention ($112,000), the net savings was approximately $708,000.

7:1 ROI

Includes:
- Internal Med.
- Neurology
- ER Medicine
- Anesthesiology
- Gen. Surgery


Cohen et al. Simul Healthc. 2010

Cohen et al. Simul Healthc. 2010
Develop an evaluation and non-pharmacologic management plan for agitated demented or delirious patients.

Perform and interpret a cognitive assessment in older patients for whom there are concerns regarding memory or function.

In an older patient with delirium, urgently initiate a diagnostic work-up to determine the root cause (etiology).

Formulate a differential diagnosis and implement initial evaluation in a patient who exhibits delirium, dementia, or depression.

Recognize, compare and contrast among the clinical presentations of delirium, dementia, and depression.

Work involvement of interdisciplinary team members from appropriate disciplines, such as social work, nursing, rehabilitation, nutrition, and pharmacy.

Develop a preliminary management plan for patients presenting with functional deficits, including adaptive interventions and assessment, and performing a confirmatory hearing and vision examination.

Assess and describe baseline and current functional abilities in an older patient by collecting historical data from multiple sources.

Identify potential hazards of hospitalization for all older adult patients (including immobility, delirium, medication side effects, falls, pressure ulcers, infections) and identify potential prevention strategies.

Communicate the key components of a safe discharge plan (e.g., accurate medication list, plan for follow-up), including comparing/contrasting potential sites for discharge.

Identify potential hazards of hospitalization for all older adult patients (including immobility, delirium, medication side effects, falls, pressure ulcers, infections) and identify potential prevention strategies.

Further Discussion:
Collaborate to design, implement, & study mastery learning in geriatrics
Meet us during the Meet the Professors Lunch today!

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Key Features Exams
Additional Resource

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Introduction

The Clinical Reasoning Skills (CRS) Examination of the Medical Council of Canada (MCC) was introduced in 1992 as a test of the clinical decision-making (AKA clinical problem-solving or clinical reasoning) skills expected of graduates from Canadian medical schools. The examination was originally referred to as the “Q4 Examination” as it was the fourth booklet of the MCC’s four booklet Part 1 Qualifying Examination. The design of the examination is based upon the notion of “key features” described below. The examination was initially developed in a major R&D initiative between 1986 and 1992. In 1995 Page and Bordage reported this development process and the evidence supporting the effectiveness of the new examination in Academic Medicine (1,2).

Key features problems are currently presented as a paper-based examination on the MCC’s Part 1 examination, and are well suited to the future computer presentation of this examination. A key features problem typically consists of a case scenario followed by two or three questions which test only the critical elements (“key features”) in the resolution of the problem.

Sample Key Features Problem

A 35-year-old mother of three presents to your office at 1700h with complaints of severe, watery diarrhea. On questioning, she indicates that she has been ill for about 24 hours. She has had fifteen watery bowel movements in the past 24 hours, has been nauseated, but not vomited. She works during the day as a cook in a long-term care facility but left work to come to your office. On her chart, your office nurse notes a resting blood pressure of 105/50 mm Hg supine, (a pulse of 110/minute), 90/40 standing, and an oral temperature of 36.8°C. On physical examination, you find she has dry mucous membranes and active bowel sounds. A urinalysis (urine microscopy) was normal, with a specific gravity of 1.030.

1. What clinical problems would you focus on in your immediate management of this patient? List up to three.

________________________________________
________________________________________
________________________________________

2. How should you treat this patient at this time? Select up to three.

1. Antidiarrheal medication
2. Antiemetic medication
3. Intravenous 0.9% NaCl
4. Intravenous 2/3 to 1/3
5. Intravenous gentamicin
6. Intravenous metronidazole
7. Intravenous Ringer lactate
8. Nasogastric tube and suction
9. Nothing by mouth
10. Oral ampicillin
11. Oral chloramphenicol
12. Oral fluids
13. Rectal tube
14. Send home with close follow-up
15. Surgical consultation
16. Transfer to hospital

2. After management of the patient’s acute condition, what additional measures, if any, would you take? Select up to four or select #11, None, if none is indicated.
1. Avoid dairy products
2. Colonoscopy
3. Enteric precautions
4. Gastroenterology consultation
5. Give immune serum globulin to patients at long-term care facility
6. Infectious disease consultation
7. Notify Public Health Authority
8. Stool cultures
9. Strict isolation of patient
10. Temporary absence from work
11. None

The title of this problem is “diarrhea”, and the key features tested by the questions above are:

1. Recognize dehydration (Tested) and its level of severity (Not Tested).
2. Manage dehydration appropriately.
3. Evaluate the possible communicability of the underlying disease (family/hospital spread, possible common source).

Each question directly tests one of these key features, and each challenges the examinee to apply their knowledge in making clinical decisions.

Testing Knowledge vs. Clinical Decision-Making

Assessing recall of factual knowledge as opposed to assessing decision-making skills often surfaces during discussions of key features problems. While knowledge is obviously a (the) most important requisite for effective problem-solving, the challenge posed to examinees by the CRS examination is to apply their knowledge to the resolution of a problem -- that is, to use their knowledge to guide their decisions to elicit clinical cues, to formulate diagnostic impressions, to select a management procedure, to acquire data to monitor a course of action or evaluate the severity/probability of an outcome, to order investigative or follow-up procedures, … For example, the CRS examination should not assess examinees’ ability “to describe features of delirium tremens” (a knowledge issue). Rather, it should assess their ability “to recognize delirium tremens in this specific patient” (a clinical reasoning/decision issue) and “to prescribe appropriate therapeutic measures” (a clinical decision issue). The distinction is not just semantic; it focuses on different skills. While it may be easy for the candidate to list the cardinal features of delirium tremens, it may be altogether different for that same candidate to recognize delirium tremens within a clinical scenario and to prescribe an appropriate course of action.

The line between testing knowledge and testing clinical decision-making becomes thin when a particular key feature hinges on the possession of a single piece of factual knowledge. The key feature, "Prescribe the appropriate dose of diazepam for a prolonged convulsion (status epilepticus)" is an example of this situation. If this clinical action is recognized as a key feature for (a critical step in the resolution of) the problem of prolonged convulsion, then it should be tested as part of the CRS paper.

The following examples provide illustrations of questions that inappropriately test recall of knowledge, versus questions that test clinical decisions and actions.
A 20-year-old nulliparous type 1 diabetic presents to your office to discuss the complications of diabetes in pregnancy.

1. **What are the maternal complications of type 1 diabetes in pregnancy. List four.**
   1. 
   2. 
   3. 
   4. 

2. **What are the fetal complications of type 1 diabetes in pregnancy. List two.**
   1. 
   2. 

The case above was written for the problem “diabetic pregnancy” and the first two key features for the problem are:

1. Be aware of the specific risks to mother and fetus in poorly controlled diabetic pregnancy by ordering appropriate investigations.

2. Emphasize the importance of a strict control of glycemia in insulin dependent diabetic women who consider pregnancy.

The concerns with these questions are that they test the recall of factual information, and that they could be presented independently of the case. The questions also bear only a minimal relationship to the key features. To improve this situation, the case could be rewritten to present a poorly controlled diabetic pregnancy. The first question could then ask, “Which investigations would you order …?”, which would directly test the first key feature.

**The Notion of Key Features**

The first sections of this guide were presented to convey what a key features problem is – a test of clinical decision-making, and what it is not – a test of knowledge. The sections that follow will now explain the MCC’s rationale for adopting key feature problems, and outline the steps that CRS Committee members should follow in developing these problems. This section will begin with the rationale.

Norman and collaborators, in the Proceedings of the Cambridge Conference on the Assessment of Clinical Competence (1985; pp. 14-26), challenged the view that any single problem is equivalent to any other in evaluating a physician’s problem-solving skills. They observed that research on clinical competence indicated that competence is specific to the problem encountered, and that an accurate assessment of a general level of competence must be based upon performance over a large sample of problems. They further proposed that the measurement of competence would be more valid if the questions posed relative to each problem in an examination focussed on the few specific and essential elements critical to the resolution of the problem -- its key features. Scoring criteria would be defined relative to examinees’ performance on only this limited number of key features. The desired examination would then consist of many brief problems (e.g. 40 in a 3-hour period). Such examinations could also employ a variety of question formats selected to most directly assess the examinees' ability to resolve the essential elements or key features of the problem. Assessing examinees’ on only the essential steps in the resolution of a relatively large range of problems would offer a more accurate estimate of their general level of problem solving skills.
The concept of key features represents two important shifts from traditional positions in the assessment of clinical competence. First, it shifts the emphasis from the methods of assessment to the object of assessment. The first question to be addressed in developing a key features examination is, “What are the essential elements in the resolution of this problem”; that is, what are this problem’s key features that we want to assess?” The subsequent question is then, “Which method or methods are best suited to measure the key features of this particular problem?” Thus, the object of assessment is clear and the methods are adapted to the object. Second, key features shift the emphasis from assessing all aspects of solving a problem to assessing only the essential elements relative to each problem. This shift recognizes that the essential elements in resolving a problem are unique or specific to each problem (referred to as “Case specificity”). For some problems, the key features may pertain to data gathering or data interpretation while for others they may focus on choosing an appropriate therapeutic or follow-up plan.

Key features are defined by taking into consideration the specifics of the problem and the clinical situation chosen. Key features are defined operationally as:

1. the critical or essential elements or steps in the resolution of the problem,
2. the elements most likely to lead to errors in the resolution of the problem by examinees at particular levels of training (for the MCC Part 1 examination, graduating medical students), and
3. the difficult aspects of the identification and management of the problem in practice.

The first characteristic is a positive definition of a key feature; it highlights the fact that all aspects of the resolution of the problem are not equally important and that not all aspects should be assessed for each problem. The latter two characteristics are corollaries of the first. The second characteristic, errors committed by graduating medical students, is especially helpful in determining the specific level of clinical competence of a graduating student as opposed to more senior trainees or practising physicians.

The key features for a given problem can change depending on how the problem presents – its “clinical situation”. For example, the critical elements in solving a diabetic problem as a life-threatening event (e.g., diabetic coma) are quite different from those of a diabetic problem presented as an undifferentiated complaint (e.g., fatigue in an adolescent) or preventive care.

The clinical presentations of problems on the CRS examination are classified in one or more of the following clinical situations:

1. an undifferentiated complaint,
2. a single typical problem,
3. a multisystem or multiproblem,
4. a life-threatening event, and
5. preventive care and health promotion.

An example of a problem with its key features is presented below:

<table>
<thead>
<tr>
<th>Problem:</th>
<th>Painful swollen leg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical situation:</td>
<td>Undifferentiated complaint</td>
</tr>
</tbody>
</table>

**Key features:**

1. *Include deep venous thrombosis (DVT) in a differential diagnosis, given a patient complaining of a swollen and/or painful leg.*
2. *Elicit risk factors on history pertinent to a DVT in a patient with a swollen and/or painful leg.*
3. *Order a venogram as the definitive test for suspected DVT.*
This example, like the one presented earlier, illustrates that operationally, key features focus on clinical decisions (e.g., “Include DVT in a differential diagnosis”) or clinical actions (e.g., “Elicit risk factors”, “Order a venogram”), where a clinical action is an expression of a clinical decision. This example also illustrates that there is a second component in a key feature statement -- the provision of initial clinical information (“Given a patient complaining of a swollen and/or painful leg”). A key feature can also possess a third component, a qualifier that pertains to issues such as urgency (e.g., what initial action …?) or priority (“…the most important investigation …?”). In the example above, the qualifier in key feature #3 is “definitive”. The table below gives further illustrations of the three components of a key feature statement: (1) given clinical data, (2) a clinical decision or action, and (3) qualifiers.

<table>
<thead>
<tr>
<th>Given Clinical Data</th>
<th>Clinical Decision or Action</th>
<th>Qualifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>A complaint</td>
<td>Elicit historical information</td>
<td>None</td>
</tr>
<tr>
<td>Symptoms</td>
<td>Interpret physical findings</td>
<td>Immediate</td>
</tr>
<tr>
<td>Signs</td>
<td>Order investigations</td>
<td>Initial</td>
</tr>
<tr>
<td>Laboratory results</td>
<td>Management goals/decisions</td>
<td>Definitive</td>
</tr>
<tr>
<td>Diagnosis(es)</td>
<td>Prescribe drugs/actions</td>
<td>Most important</td>
</tr>
<tr>
<td>Treatment outcomes</td>
<td>Follow-up</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Make a diagnosis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Generate a differential diagnosis</td>
<td></td>
</tr>
</tbody>
</table>

For some problems there are also legal, ethical, public (population) health or organizational decisions or actions that represent key steps in the problem’s resolution. By definition these decisions should be included in the statement of the problem’s key features, and questions should be developed to test these decisions. The CLEO objectives and the work of the PHLEO Test Committee can guide the definition of these key features.

The Process of Defining Key Features

The process of defining key features for a problem can be approached in several ways. One straightforward approach is to select a problem (e.g., anemia), an age group (e.g., adult), and a clinical situation (e.g., an undifferentiated complaint), and then address the question, “What are the critical steps in the resolution of this problem for patients of this age group presenting in this way?” This approach often leads to a narrow statement of a problem’s key features, as it is specific to only one presentation of the problem (e.g., as an undifferentiated complaint). It is often useful to take a more general approach to defining key features, and address the following question for a selected problem and age group, “What are the critical steps in the resolution of this problem for patients in this age group?” In answering this question, it is extremely useful to think of instances of patients in which the problem presented in different ways (e.g., as undifferentiated complaint, or as a life threatening event, or …). This second approach to defining key features seems to be productive in defining a more general set of key features, some of which are common to different presentations (clinical situations) of the problem. This second approach can be further generalized by not specifying an age group, and then including age as part of the “given clinical information” in the statement of the key features. When the key features are defined in these ways, and a case is then selected for the examination, it may turn out that not all key features defined are relevant to the case, and thus cannot be tested. Experience has shown that a two to three key features can typically be tested by one case – that is, there are two to three critical steps in its resolution. Some cases have been found to possess as few as one key feature (and risk not being very effective for testing clinical decision-making skills), and others have as many as five.

The second more general approach to defining key features outlined above is considered preferable. In summary, it entails the following steps:
1. Select a clinical problem (and an age group).

2. Pose the question, “What are the critical steps in the resolution of this problem (for patients in this age group)?”

3. Think of instances -- patients who present in different ways with this problem.

4. List the key features for these patients, some that will be unique to specific patients, others that will be common across patients.

5. Select a case, write the case scenario.

6. Write questions and scoring keys which test the key features of the case.

**Guidelines for Case and Question Development**

The following material is abstracted from the Page and Bordage 1995 Academic Medicine article, “Developing Key Feature Problems and Examinations to Assess Clinical Decision-Making Skills” (2). It provides an overview of the process of writing case scenarios, writing questions, selecting question formats and preparing scoring keys.

**Selecting the Case; Writing the Case Scenario**

After defining the problem’s key features, the author selects a clinical case to represent the problem on the examination and writes the case scenario. Case scenarios vary considerably in length. For problems whose key features emphasize the diagnostic work-up of the patient, the scenario is often very brief. For problems in which the critical steps in problem resolution focus on laboratory or management issues, the scenario will typically be longer and contain clinical data derived from history taking and physical examination.

The common elements of any case scenario should be the patient's age and gender, the setting of the encounter, and the patient's presenting condition or reason for seeking care, followed by whatever clinical details are required prior to the presentation of the first question.

**Writing Questions**

Generally, one examination question tests for one key feature. On some occasions a question may be used to test more than one key feature. Also, it is usually possible to test for all key features using one case scenario, but again there are exceptions. Issues of excessive cueing across questions make it necessary, at times, to select a second case and develop a second case scenario to test for a remaining key feature. This second case would be separated from the first in the examination booklet, and presented in such a way that it would not be readily recognized as related to the first.

The stems of the questions within key-feature problems use direct questions (in contrast to incomplete sentences that would be completed by an examinee's responses). For example, "What is your leading diagnosis at this time?" Instructions regarding the number of permissible responses, for example, "List up to four" are presented as a separate and final sentence in the stem. If the question is not the first, it may also present addition information. For example, "The patient has now been in the hospital for two days, and his condition...." The instructions regarding the number of responses permitted can be stated in several different ways, such as "Select up to "x"," or "Select only one," or "Select as many as are appropriate." "Select up to "x" is a suitable instruction for questions in which one on more answers are sought and for which the number of opportunities for examinees to provide these answers should be capped. The
number "x" that is defined in the instruction considers the number of keyed responses sought, together with other factors such as responses that would be reasonable but are not keyed (e.g., general screening questions in a history-taking question). Also, the number "x" commonly provides a buffer for examinees to select some incorrect responses (e.g., if four responses are sought, five responses might be permitted). The instruction "Select only one" is used in questions requesting a single definitive answer, for example, one leading diagnosis. "Select as many as are appropriate" is used in situations where it is useful to determine how many actions an examinee might take. For example, does the examinee over investigate the patient? For questions using this instruction, a maximum allowable number of responses is stipulated in the question's scoring key.

Selecting Question Formats

Two formats of questions are recommended for key-feature problems: short-answer "write-in" (WI) and "short menu" (SM). In the WI format, examinees supply their responses. In the SM format, examinees select their responses from prepared lists of options presented with individual questions. The number of options in these lists vary relative to what the questions are testing. In general, there are typically 15-20 options, but the numbers can range from as few as two to as many as 45. The lists of options must, of course, contain all keyed responses plus incorrect responses and common misconceptions in sufficient numbers to reduce guessing effects (e.g., two to three times the number of keyed responses). An excellent way to generate and refine option lists for SM questions is to pilot test the question as a WI question, and then use the examinees' responses as a source of options for the short menu.

The sample problems in this guide illustrate both the WI and the SM formats of questions. It is recommended that the use of the WI format be limited to questions that test for diagnoses and treatments. It is in these questions that cueing provided by lists of options is of most concern. Questions testing for diagnoses and treatments are also most readily marked in the WI format, which is not the case for questions testing issues of history and physical examination, to which examinees can phrase responses in many equivalent ways. Questions that test issues of laboratory investigation are naturally presented in a SM "laboratory sheet" format. Recent studies of the CRS examination data for the years 1995 to 1998 found that WI questions were somewhat more discriminating than the SM questions, and more effective at identifying weaker candidates.

Preparing Scoring Keys

A scoring key consists of the list of the correct responses to a question and a system of assigning numbers to these keyed responses. Some scoring keys can contain only a single response, such as the scoring key for question 1 of the diarrhea problem presented on page 2.

<table>
<thead>
<tr>
<th>Score</th>
<th>Keyed Responses</th>
<th>Synonyms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>Dehydration</td>
<td>Hypovolemia, fluid loss, fluid depletion</td>
</tr>
<tr>
<td>0</td>
<td>Listing more than three items</td>
<td></td>
</tr>
</tbody>
</table>

Other scoring keys contain several responses and, in addition, the responses may be clustered on the basis of logical considerations regarding the correct clinical actions to be taken. A scoring key for question 3 of the diarrhea problem is shown below.
<table>
<thead>
<tr>
<th>Score</th>
<th>Keyed Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25 each</td>
<td># 3. Enteric precautions</td>
</tr>
<tr>
<td></td>
<td># 8. Notify Public Health Authority</td>
</tr>
<tr>
<td></td>
<td>#11. Stool cultures</td>
</tr>
<tr>
<td></td>
<td>#13. Temporary absence from work</td>
</tr>
<tr>
<td>0</td>
<td># 5. Give immune serum globulin to patients at long-term care facility</td>
</tr>
<tr>
<td></td>
<td>#12. Strict isolation of patient</td>
</tr>
<tr>
<td></td>
<td>or</td>
</tr>
<tr>
<td></td>
<td>Selecting more than four items</td>
</tr>
</tbody>
</table>

This scoring key illustrates a partial credit system of scoring, where a weight is assigned to each response – in this case the same weight of .25 to each response. Alternately, some responses could be considered more important than others and assigned larger weights. As a general rule, authors should strive to use simple weighting systems, since research has shown that differential weighting does not improve score reliability. Some scoring keys also list responses that result in a score of “0” no matter what other responses an examinee makes. These responses are usually actions that are dangerous (e.g., unnecessary invasive investigation or harmful treatment). Items #5 and #12 in the scoring key above are examples of such actions.

Whatever weights are assigned to keyed responses, they should sum to “1” so that each question within a problem is given a score of “1”. Question scores within problems are then averaged so that each problem on the examination has a maximum score of “1”. Examination scores are then the sum of problem scores.

References


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G Page, September 1999.
Key Features Template
Reynolds Grant Meeting 10.25.16

1. Case Number:

2. Title of Clinical Problem:

3. Author:

4. Learning Objective(s) from which Clinical Problem is derived:

5. Life Span Period (check one)
   □ middle aged adult (45-65 years)
   □ young old (over 65-84 years)
   □ old old (>84 years)

6. Clinical Situation (check one or more)
   □ undifferentiated complaint
   □ single typical problem
   □ multiple or multisystem problem
   □ life-threatening event
   □ preventive care and health promotion

7. Identification of Location/Setting
   □ Home
   □ Hospital
   □ Office
   □ Post-Acute Care (e.g. Rehab)
   □ Long term Care Facility
   □ Hospice

8. Patient's Age (specify only if essential to the case; otherwise range given above is sufficient):

9. Patient's Gender (specify only if essential to the case):
10. List of all Key Features for the Clinical Problem (each key feature should be linked to the learning objective(s) identified in #3 above).

- Key features are the critical steps to identifying and/or resolving a clinical problem; for an exam, we will focus on the critical steps where a learner is likely to go wrong.
- Typically there are 2-3 key features per case (though you can have 1-5 on rare occasions). You may implement multiple steps in a case, but try to distill the case down to what the critical steps are.
- Achieve consensus with your group on what the key features are for your clinical problem.

Note where each key feature is assessed in your case. Each key feature may be assessed in 1 question, or multiple key features may be tested in a single question. It is recommended that you include only 1-3 questions per case.

You can fill this out after or while you are writing your vignette.

<table>
<thead>
<tr>
<th>Key Feature #</th>
<th>Question 1</th>
<th>Question 2</th>
<th>Question 3</th>
</tr>
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<tbody>
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</tbody>
</table>
Case Vignette, Part 1

- Supply enough information to solve the case, but not all the data.
- Describe key findings in lay language, rather than interpreting them for the learner (e.g. “Hematocrit is 23%”, rather than “Patient is anemic”).
- Make sure the case is testing the key features you identified in the template.
- Avoid the temptation to go back and change the key features to fit your case vignette. If you really need to change the key features, you will need to get consensus from your group again.

Question Stem

Ask the learner to make a decision and indicate the max # of correct options. If the key feature is to be parsimonious in testing or treating, then you can allow the learner to select as many options as they wish, but note what the limit is in the scoring guide.

Examples:
- What are the most likely diagnoses? Select up to 2.
- What test(s) will you order next? Select as many as are appropriate, or select “none”.
- What intervention(s) will you make at this time? Select up to 3.
Answer Options
- Include the correct answers and reasonable distractors, approximately 15-20 in total.
- Make sure the correct answers represent the key features in your template.
- Don’t worry about grammar; we will take care of that later!

Correct Answer(s)
(note the letters and the text of the correct options)

Scoring
Don’t worry if you don’t get to the scoring! We will do this for you. However, if you want to try it out, use these hints:
- Each case counts as one point
- Each key feature weighs evenly within the case (e.g. if there are 2 key features, then each counts 0.5 points).
- Within each key feature, each component is weighted evenly

<table>
<thead>
<tr>
<th>KF Number</th>
<th>Score</th>
<th>Correct answer</th>
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<tbody>
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</table>
Vignette, Part 2

- You can provide additional information and have the case unfold (e.g. family provides additional history, or a test result is returned that impacts management).
- Learners’ answers to question 1 will be locked in, so don’t worry about cuing them to the right answers.

Question Stem

Ask the learner to make a decision and indicate the max # of correct options. If the key feature is to be parsimonious in testing or treating, then you can allow the learner to select as many options as they wish, but note what the limit is in the scoring guide.

Examples:
- What are the most likely diagnoses? Select up to 2.
- What test(s) will you order next? Select as many as are appropriate, or select “none”.
- What intervention(s) will you make at this time? Select up to 3.
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- Make sure the correct answers represent the key features in your template.
- Don’t worry about grammar; we will take care of that later!

**Correct Answer(s)**
*(note the letters and the text of the correct options)*

**Scoring**
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</tbody>
</table>
Service Learning: An Educational Activity to Promote Interprofessional Training in Geriatrics

Service Learning

- Moderator: Lisa Strano-Paul, MD
- Senior Mentors Program: Niharika Suchak, MBBS, MHS & Lisa Granville, MD
- S.L.I.C.E.: Lindsay Wilson, MD, MPH
- Medicine Reconciliation: Stephanie Rennke, MD
  Michi Yukawa, MD, MPH

Conflict of Interest

- These programs were developed with supported provided by the Reynold Foundation
- No conflicts of interest to report

BASIC TENENT

- Service learning must fulfill the needs of the community or recipient
- Medical Schools should improve the health of the communities they serve

Service Learning

- Service learning is a reciprocal interaction between the community and the learner
- It is tied to student course objectives
- When organized and executed appropriately both parties benefit
- Improved community health
- Students gain knowledge through authentic experiences

Planning and Preparation

- Build university-community partnerships
- Strong partnerships ensure a shared common interest, complementary skills and resources and commitment to instruction and assessment of students
- Decide when and where to infuse service learning into the curriculum
Action
- Match service activity to goal
  - Education and training-teaching CPR
  - Clinic/community based-elderly health fair
  - Advocacy - cancer awareness
  - Indirect-organizing first aide kits
  - Research

Reflection and Demonstration
- Should be continuous before, during and after
- Connected to real life needs
- Examples include-discussion, presentation, performance, journals, writings, role-play, artwork, portfolios, research posters and meditations

Assessment
- Quantitative measures-tests, attendance
- Qualitative measures-reflection, posters (see above)

STUDENT Outcomes
- Academic learning and professional development
- Personal development-increased self-confidence and communication skills, development of problem solving skills
- Professional development-better understanding of their roles as physicians, better understanding of public health, provides meaningful teamwork opportunities
- Enhanced civism and social responsibility-supporting underserved communities

Outcomes
- SCHOOL PERSPECTIVE: class rank, quantitative or qualitative rating of satisfaction, skills, attitudes, career intention, residency choice
- COMMUNITY PERSPECTIVE- patient satisfaction, provision of medical service, agency or staff satisfaction, project impact and community knowledge

Benefits
- Service learning an important way to teach complicated or abstract ideas like professionalism, social determinants of health, cultural competency, health care disparities
- Teaches students about health care delivery and systems-based practice in a real and meaningful way
- Prepares students for future work on interprofessional teams
- Expands options for interprofessional co-curricular educational opportunities
- Fulfills Community Health Needs
### Programs

- **Senior Mentors Program**: Florida State University - Suchak and Granville
- **S.L.I.C.E.**: Service Learning in Communities of Elders - University of North Carolina Chapel Hill - Lindsay Wilson
- **Medication Reconciliation**: University of California San Francisco - Rennke and Yukawa

### Program Description

**Background:**
- Year 1 course activity
- Initial development in 2006 with funding from the Reynolds Foundation
- > 1100 students over 10 years

**Learners:**
- 1st year medical students complete 3 "house calls" during fall semester
- All 120 first year students participate in this required component of the fall semester

**Community Partners:**
- Voluntary participation by active, independently living, community seniors who have a desire to contribute to the education of medical students and are actively recruited for this purpose

### Program Goals

- Creating opportunities for early clinical exposures
  - Developmental learning of certain skills by students: communication, medical history taking, and patient education
  - Deliberative practice of clinical skills in active listening and history taking as part of a patient centered approach
  - Introducing the biopsychosocial perspective of aging
- Dispelling myths about aging (hidden agenda)

### Student Assessment and Grading Policy

- A grade of Pass is earned by timely performance of home visits, participation in all activities, and timely completion of written assignments.
- Formative written feedback is provided by assigned faculty who read the student submissions.
- Formative verbal feedback is provided by small group faculty when students present their senior mentor visit information to their peers.

### Program Evaluation

- Students complete end of program survey
- Seniors complete end of program survey
- Qualitative comments from students
- Qualitative comments from seniors
- Additional impacts:
  - Letters and additional comments from students and seniors.
  - Students stay in touch with seniors with additional visits, by e-mail, seniors may attend graduation ceremony
### Challenges and Solutions

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety issues</td>
<td>Students</td>
</tr>
<tr>
<td>- in pairs</td>
<td>- in professional attire with IDs</td>
</tr>
<tr>
<td>- advised about relationship boundaries</td>
<td>- met social and professional needs</td>
</tr>
<tr>
<td>- meeting site: neutral</td>
<td>- meeting site: respectful and welcoming</td>
</tr>
<tr>
<td>Notification</td>
<td>Senior Mentors</td>
</tr>
<tr>
<td>- recruited from known environments</td>
<td>- screened, advised of role &amp; expectations</td>
</tr>
<tr>
<td>- written informed consent</td>
<td>- written informed consent</td>
</tr>
<tr>
<td>Orientation</td>
<td>Recruitment</td>
</tr>
<tr>
<td>- from &quot;aha&quot; moments ... &quot;I didn't know...&quot;</td>
<td>- ongoing with updates to database</td>
</tr>
<tr>
<td>- &quot;normal&quot; processes</td>
<td>- use of back-ups or alternates</td>
</tr>
<tr>
<td>- &quot;long&quot; time to know themselves</td>
<td>- flexibility</td>
</tr>
<tr>
<td>- &quot;ever&quot; a difference</td>
<td>- in scheduling of meeting</td>
</tr>
<tr>
<td>- &quot;outcome&quot; of meeting</td>
<td>- in location of meeting</td>
</tr>
<tr>
<td>- &quot;tolerance&quot;</td>
<td>- adaptability</td>
</tr>
<tr>
<td>- &quot;preservation of&quot;</td>
<td>- modify goal, as appropriate</td>
</tr>
<tr>
<td>- &quot;self-care&quot;</td>
<td>- preservation of mentor &amp; student relationship is important</td>
</tr>
<tr>
<td>- &quot;age-related&quot;</td>
<td>- ...</td>
</tr>
<tr>
<td>- &quot;age-appropriate&quot;</td>
<td>- ...</td>
</tr>
<tr>
<td>- &quot;age-appropriate&quot; for all ages</td>
<td>- ...</td>
</tr>
</tbody>
</table>

### Pitfalls / Opportunities

- Timeliness of student visits
- Timeliness of student submissions
- Variability in feedback from faculty
- Student perceptions: "similar to visiting my grandma" vs "aha" moments ... "I didn't know..."
- Potential for interprofessional engagement

### Comments from Senior Participants

**Advice to students**

- Be mindful of the person inside the aging, imperfect body – at all ages!
- LISTEN! Older people have lived in their bodies a long time and know themselves well.
- Hang in there! You have chosen a tough field of study, but you can make such a difference in our lives! Don’t lose your enthusiasm and caring ways!
- Keep up the good work! You will make great doctors!

### Comments from Students

**Perceptions about functional ability & age**

- I realized my own biases and was reminded to stay open minded with regard to senior populations’ functional abilities. I am more conscious of my own judgments now.
- I have become more aware of the "normal" process of aging and I realize that not all seniors are dependent or disease stricken.
- My senior was very active and it made me realize that every senior is an individual and it’s important to take that into account when interviewing them.
S.L.I.C.E.
Service Learning in Communities of Elders
Lindsay Wilson, MD, MPH
lwilson3@unch.unc.edu
Assistant Clinical Professor
Division of Geriatric Medicine
University of North Carolina
School of Medicine at Chapel Hill
With support from The John A. Hartford Foundation
And special thanks to Jordana Laks, BS
No financial disclosures to report

S.L.I.C.E.

Problem:
- Minimal Geriatrics exposure for 1st and 2nd year medical students
- Students have negative attitudes about working with this population and choosing a career in Geriatrics

S.L.I.C.E.

Solution:
- With support from The John A. Hartford foundation, we developed a unique service-learning curriculum for the students in MEDI 286, an elective for 1st and 2nd year medical students -1 hour didactics weekly x 10 weeks

S.L.I.C.E.

Curriculum:
- Increases exposure to a variety of older adults in their living environments (outside of the clinical setting)
- Provides students with an opportunity to counsel older adults with consideration of health literacy and sensitivity to possible sensory and cognitive impairments
- Provides time for active reflection and didactics with a geriatrician

S.L.I.C.E.

Curriculum:
- Students (in groups of 3-6) meet older adults at their assigned community site and perform a needs assessment via surveys or interviews.
- With help from the course faculty and the community needs assessment, the students create an educational product for the target audience.

S.L.I.C.E.

Curriculum:
- Students present their products to the older adults and get feedback.
- They present their experiences to their peers in a multimedia presentation showcasing the community, the residents, and their topic.
- In class didactics include time for active reflection and Geriatrics content.
S.L.I.C.E. Assessment tools

Quantitative - attitudinal (COCOA): a validated instrument using a 5-point Likert scale to assess medical student attitudes toward older adults

Qualitative evaluations - knowledge and attitudinal (short answer)
Ex. What experience was the most valuable to your learning?

S.L.I.C.E. Feedback

79 students have completed the course to date. After completing SLICE, students were more likely
- to agree that caring for patients in nursing homes would be rewarding (3.0, 3.7, p<0.01)
- To agree that choosing a career in geriatrics would be a good decision (3.0, 3.7, p<0.01).

S.L.I.C.E. Feedback

100% of students would recommend this course to future students!

- “It was an interesting course that was helpful to my education. I also enjoyed working on a project with my colleagues.”
- “I felt that I was able to leave a lasting impact on a community.”
- “I think that it’s important to learn about the various aspects of caring for Geriatric patients prior to graduation, and this class is a fun way to do it.”
- “Great opportunity to learn about a population not focused on in lecture. Very applicable to MOST fields of medicine.”

S.L.I.C.E. Pearls...

- Engages students in active learning
- Addresses my concerns for my patients
- Provides community outreach and engagement
- Fosters relationships with communities and patients

S.L.I.C.E. and Pitfalls...

*Need for student support → Solution: Prior participants or MS3, MS4s serve as Teaching Assistants, Geriatric Medicine fellows interested in the Clinician Educator track also have helped

*Need buy-in from community sites → Solution: Use sites with relationships to the instructor, engage older adults who are patients of the instructor

*Students and older adults’ perception that communities already have resources → Solution: Be creative with the needs assessment

S.L.I.C.E. Sustainability

- Recruit more students through Geriatrics Interest Group, course announcement, word of mouth
- Explore new communities, different settings (e.g. long-term care vs. independent living)
- Encourage Geriatric Medicine fellows to help potential future instructors?
Med Rec: An Interprofessional Skills-Based Curriculum for Health Professions Students

Stephanie Rennke, MD
Associate Professor of Medicine
MICH Yukawa, MD, MPH
Professor of Medicine
University of California San Francisco Medical Center

Med Rec Curriculum:

Goal/Objectives:

Develop and implement a hospital-based curriculum focused on medication reconciliation and medication safety for first year medical students and pharmacy students

Med Rec Curriculum:

1) Perform medication reconciliation and related health coaching with hospitalized patients
2) Review indications of medications and patient-specific risk for adverse drug events
3) Identify medication discrepancies
4) Provide real time feedback to the primary team

Med Rec: Learners and Service

- Pilot – 9 medical students and 4 pharmacy students, 2 clinical pharmacists
- MS1s and pharmacy students or clinical pharmacist work together on one of the medicine units
- 3 hospitals – UCSF Medical Center, San Francisco VA Medical Center and San Francisco General Hospital
- Identify and interview patients at the bedside
- Work with nurses, patient care assistants, physicians, clinical pharmacists and other hospital-based staff

Med Rec: Tools and Assessments

- Med Rec tool box
  - Worksheet with 5 sections
    - Medication reconciliation steps
      - Obtain the Best Possible Medication History (BPMH)
    - Identifying issues (adherence, comorbid diseases, cost)
    - Health coaching
  - Email template for the students to email/contact the primary team

Med Rec: Pearls and Pitfalls

- 1) Useful and thorough framework
  - 2) Can be shortened and reorganized
- 1) Enjoyed having a significant role in patient care
  - 2) Abundance of discrepancies
    - 3) Feedback from teams lacking
- 1) Med rec inconsistently done
  - 2) Who is responsible?
  - 3) Lack of resources

"I made me remember to ask about things the patient didn't even know were barriers"

"You take the medical record as the truth and sometimes it isn't. That's scary."

"Who is supposed to be doing med rec? How and when?"
### Med Rec: Outcome Measures
- Skills/Performance – rubric completed by faculty preceptor
- Communication to other providers
- Email/Contact with primary team and response
- Identification of medication errors
- Changes to the medication record by the primary team

### Med Rec: Sustainability and Next Steps
- Support from the School of Medicine, School of Pharmacy
- Expand for all first year medical students and pharmacy students
Developing a Business Case for a Geriatric Orthopedic Co-Management Program at Your Institution: Introduction

Daniel Ari Mendelson, M.S., M.D., F.A.C.P., A.G.S.F., C.M.D.
Professor of Medicine, William and Sheila Konar Family Professor of Geriatrics, Palliative Medicine, and Person-Centered Care, Division of Geriatrics and Aging, SID Associate Chief of Medicine; Director, Palliative Care; and Co-Director, Geriatric Fracture Center, Highland Hospital

Objectives

Our specific goals are that at the conclusion of this workshop, attendees will be able to:
1. delineate the basic components of a successful GOC business plan
2. list the hospital-specific information and data necessary for the GOC business plan (case volume, length of stay and mortality outcomes of baseline cases)
3. draft a basic GOC business plan during the session (including requests for a way to measure success such as being able to collect process and outcome data)

Agenda for today’s seminar

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:45</td>
<td>Introductions of Topic and Faculty</td>
<td>Daniel Mendelson</td>
</tr>
<tr>
<td>3:50</td>
<td>Presentation on Business Plan</td>
<td>Stefan Gravenstein</td>
</tr>
<tr>
<td>4:15</td>
<td>Small Group Activity</td>
<td>All</td>
</tr>
<tr>
<td>4:30</td>
<td>Large Group Discussion</td>
<td>Daniel Mendelson</td>
</tr>
<tr>
<td>4:40</td>
<td>Presentation on Information and Data</td>
<td>Lynn McNicoll</td>
</tr>
<tr>
<td>4:50</td>
<td>Small Group Activity</td>
<td>All</td>
</tr>
<tr>
<td>5:05</td>
<td>Large Group Discussion and Conclusion</td>
<td>Daniel Mendelson</td>
</tr>
</tbody>
</table>

Small Group Discussions

- Small Group Activities Part 1: Discuss participant draft business plans or sample business plan provided by faculty. Assess strengths and weaknesses of the business plan. If you were the CEO of your institution, what would you like to see in the business plan that would entice you to support it?
- Small Group Activity Part 2: Participants work on hospital-specific information and data necessary for GOC business plan and how they will obtain it.

Faculty

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Kencee Graves, MD
Utah University
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Business Case for Geriatric-Surgical Co-Management Programs: What Information and Data Do You Need?

Lynn McNicoll, MD
Associate Professor of Medicine
Alpert Medical School of Brown University

Disclosures

• I have no financial disclosures to report.

Making the (Quality and Financial) Case to Administration

• Get information about the current state of affairs
• Get information from the literature about similar programs and outcomes, estimate cost and quality benefit
• Get data on potential cost for the institution as well as cost savings

Current State

• Sources of Quality Data – already being collected
  ▫ UHC (University Healthcare Consortium)
  ▫ trauma registry
  ▫ NSQIP (National Surgical Quality Improvement Program) – New Geriatric Surgery quality indicators

Current State

• Statistics
  ▫ Number of surgeries over time (is the trend decreasing, increasing, stable)
  ▫ Number of surgeons
  ▫ Which groups of surgeons (academic, private)
  ▫ What is the culture of consultation at your institution?
  ▫ Have there been major changes within the health system or plans for major changes (priority groups, centers of excellence, accreditation, moving specialty patient groups from one hospital to another)

Current Guidelines

• Many new guidelines on Geriatric Surgery
  ▫ OPTIMAL PERIOPERATIVE MANAGEMENT OF THE GERIATRIC PATIENT: Best Practices Guideline from ACS NSQIP®/American Geriatrics Society
  ▫ Check to see if the practice at your institution follows these guidelines
**Current State: Quality Data**

- **Mortality** rate – preferable if risk adjusted
  - For example, UHC uses a complex algorithm to provide and O/E (Observed over Expected) ratio
  - Lower O/E is better (<1) – reflects that given your patient population, mortality should have been higher and you are providing good care
  - Higher O/E is worse (>1) – reflects that mortality rate is higher than expected and there are opportunities for improvement
  - Often excludes hospice patients (even inpatient hospice)

**Current State: Other Quality Data**

- **30-day Mortality**
- **Length of stay** – again often risk adjusted
- **Number of complications**
- **% hospice** referral or discharge to hospice
- **Readmissions** – often not risk adjusted
- **% ICU** stay and LOS in the ICU
- **Surgical site infection** rate
- **Unplanned return to the OR** rate

**UHC Department of Surgery Report**

<table>
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<tr>
<th>Current Quarter</th>
<th>Fiscal Year</th>
<th>Cases (in thousands)</th>
<th>Mean LOS (Obs)</th>
<th>Mean LOS (Exp)</th>
<th>Pct ICU Cases from ICU File</th>
<th>Mean ICU Days from ICU File</th>
<th>Cases With 1 or More Complication</th>
<th>Pct ICU Cases (Obs)</th>
<th>Death (Obs)</th>
<th>Exp. Death (Exp)</th>
<th>Exp. Mortality</th>
<th>Exp. Rate</th>
<th>Exp. Rank</th>
<th>% Rank</th>
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<td>1.03</td>
<td>1.03</td>
<td>0.43</td>
<td>0.43</td>
<td></td>
</tr>
</tbody>
</table>

**UHC Fracture Report**

**Review the Literature**

- Find comparable programs and improved outcomes to justify investment
- Find information on cost savings documented in the literature

**Mean total hospital charges for a Geriatric Colorectal Surgery Comanagement Program**

- Control: $35,000
- GSC: $45,000
- Δ $9,500
Making the Financial Case

Use CEO Language

- Cost Savings can be huge
- Improving Value Based Purchasing (improved patient satisfaction, reduced readmissions, reduced LOS, reduced ICU use, improving efficiency by reducing the cost of care) – reduce loss or even result in bonus
- Might even be revenue generating
- Discuss funding models – institution supported models have most stability long term
ESTABLISH AND SUSTAIN AN AGS STUDENT INTEREST GROUP

Megan Young, MD
Assistant Professor of Medicine & Geriatrics
Assistant Dean, Office of Student Affairs
Boston University School of Medicine
- The institution must value the role of Student Interest Groups as crucial for student Professional Identity Development
- The Department must value and support SIG
- Students leadership must have a genuine interest in the discipline
- There must be a faculty champion within the department
- The SIG must have robust program to provide Career Development Information
- The group must have educational, scholarly, and/or service projects
AGS STUDENT & RESIDENT CHAPTERS: WHAT MAKES A GROUP SUCCESSFUL

OCTOBER 25 2016
Why start an AGS chapter?

The purpose of the student & resident chapter network is to:

• Spark trainee interest in the field of geriatrics
• Enhance the visibility of geriatric medicine at the student & resident level
• Provide educational programs on geriatric medicine
What do student & resident chapters do?

Student & Resident Chapters work toward the goals of the Society, with a particular emphasis on:

- Encouraging interest in geriatrics among faculty and residents in various disciplines
- Encouraging developments to include geriatrics in the general curriculum, elective course offerings, and multidisciplinary programs
- Developing educational programs in geriatrics open to the school faculty as well as to local health care professionals
- Promoting educational activities within community facilities such as nursing homes and senior centers
What are the benefits of affiliating my student/resident chapter with the AGS?

- **Access to Student & Resident Activities at the AGS Annual Meeting.** Special activities include resident research presentations, trainee breakfasts and interactive sessions.

- **Access to the AGS National Organization.** AGS Staff provides technical support for chapter development and ongoing activities.

- **Access to Leaders in Geriatrics.** Through affiliation with the AGS, chapters can get in touch with a national network of experts in geriatrics – many of whom are available to visit schools and speak at local events.

The Application Process

- Students and residents submit a chapter application.
- The Student Subcommittee reviews the application and either accepts the application or returns with clarifying questions.
- Once accepted, a $200 stipend is sent to the chapter to assist in funding activities.
- Stipend is renewed annually upon completion of a progress report.
Guidelines for Establishing & Maintaining a Student or Resident Chapter

- At least one faculty member selected as a Chapter Advisor should be a member of the AGS
- The Chapter must elect leading officers
- The Chapter council should work together to determine program activities involving service, educational and scientific programs
- Chapters must act in accordance with university and AGS regulations
- Submit an annual progress report and roster of members to the AGS
- View full guidelines
What does the reviewing committee look for in an application?

“One thing that we’ve continued to look for is whether or not the chapter has or can have an interprofessional focus...this is consistent with AGS and AGS Education Committee directives and over the years that I’ve been doing this, I would say it is one of our most common comments.”

- If your institution has schools for other healthcare professions in addition to a school of medicine (nursing, pharmacy, social work, PT/OT, etc.), work to collaborate and recruit members within these schools.

- View tips for making your chapter interprofessional.
Tips for Maintaining Your Chapter

- Upon receiving notification from the AGS, complete the annual progress report and submit a roster of your members.
  - Stipends are not sent unless reports have been submitted.
- Notify the AGS when there is turnover in faculty advisors or student/resident officers.
- Work to recruit members in different disciplines as well as different years of schooling. If all members graduate at the same time, it is harder to maintain the chapter.
- Ensure that all chapter members are student or resident members of the AGS. Free e-membership is available.
- Use tools such as MyAGSOnline to communicate with members of other chapters across the country, and network with individuals working in the field.
- Reach out to AGS Staff with questions or concerns.
Lauren Kopchik
lkopchik@americangeriatrics.org
(212) 308-1414
Helpful Links

- Student/Resident Chapter Application
- Annual Student/Resident Progress Report
- Guidelines for Establishing & Maintaining a Student or Resident Chapter
- Interprofessional Chapter Tips
- List of Current Student Chapters
- List of Current Resident Chapters
- Member Benefits for Trainees
- Become a member of the AGS
Thank you for your time!

Visit us at:

www.americangeriatrics.org

Facebook.com/AmericanGeriatricsSociety
Twitter.com/AmerGeriatrics
linkedin.com/company/american-geriatrics-society
How to Run an Effective Student Group
Megan Young, MD

American Geriatrics Society
Boston University School of Medicine
Student Chapter Past Events

Activities Fair
The medical school sponsors a Student Activities Fair in an effort to help incoming students learn more about activities and organization on campus, exposing them to different opportunities. Participation in student activities is complimentary to the academic curriculum. Students can develop skills useful in healthcare such as leadership, collaboration, communication, and critical and creative thinking. These skills will be essential in addressing the adaptive challenges they will face in their personal and professional lives.

"What is Geriatrics?"
Dr. Ryan Chippendale shared what she does as a geriatrician at Boston Medical Center. Students saw how complex cases can get in elderly patients and the great need for a specialized geriatrics-trained point-person to coordinate care for such a frail population - referring patients to multiple specialists or prescribing 20+ medications is often not the solution! Students learned about different opportunities to work in multidisciplinary teams with other healthcare professionals and heard amazing life stories from Dr. Chippendale's patients. Whatever specialty medical students choose to pursue, they will meet geriatric patients so it is crucial to learn about geriatrics during the four years of medical school.

Partnering with Other Student Groups
- The Chapter partnered with Family Medicine Student Interest Groups to host "Breaking Bad News" - Breaking bad news is one of a physician's most difficult duties; however, medical education typically gives little formal preparation for this daunting task. Without proper training, the discomfort and uncertainty associated with breaking bad news may lead physicians to emotionally disengage from patients. We discussed how to break bad news to patients, especially the elderly and their families.
- The Chapter also partnered with the Psychiatry Student Interest Group to host a "lunch and learn" panel session on Mental Health and the Elderly. Since a large part of medical care outcomes depend upon a patient's motivations, the effects of mental illness as it affects the patient's medical care. The panel included a geriatric psychiatrist, a psychiatrist, two fellows in geriatric psychiatry, and one fellow in psychiatry. They spoke to the challenges and implications of mental health care for the elderly population, and how they arrived at their decision to pursue their career paths.

Film Screening
This past September, the group hosted a screening of Alive Inside, a documentary that follows healthcare workers who use music to unlock memory in patients afflicted with Alzheimer’s disease. The film is available to watch on Netflix.
**Older Adult Companion Program**
The chapter is piloting a new service learning opportunity, *The Older Adult Companion (OAC) Program*, in which first and second year medical students are paired with nursing home residents in the community. Students participating in the program commit to visiting their companions 3-4 hours every month to spend time together (sharing stories, playing games, or watching movies) and attend lunchtime meeting once a month to reflect on their experiences. This exciting opportunity gives each student the chance to develop a longitudinal relationship with an older adult with a variety of sensory or cognitive impairments while also gaining exposure to the interdisciplinary approach to caring for older adults with chronic illness seen in nursing homes.

**Shadowing Experience**
This is an interprofessional experience where 1st and 2nd year medical students spend an afternoon with a palliative care attending, social worker, nurse practitioner, or administrator. Some experiences also involve a family meeting if one were to occur that day.

**Experiential Learning Workshop**
Stations were set up for this interactive event to teach students about the physical and sensory changes that many people experience with age. Station activities included trying to button a shirt while your fingers were taped together and their fingertips were taped over to represent arthritis and neuropathy, trying to fill out forms while wearing lenses to represent diminished sight, attempting to follow commands while wearing the same with cotton balls in your ears. Students gained appreciation for some of the difficulties associated with older age.

**Lunch Time Talk**
Lunch talk with Dr. Thomas Perls, the principal investigator at the New England Centenarian Study, to discuss the genetic, environmental, and neuropsychological factors associated with longevity. Clips from the documentary “Living to 101” was shown. Given that centenarians are one of the fastest growing segments of the population, this informative talk engaged students interested in the field of geriatrics.

**Primary Care Panel**
The Geriatrics, Pediatrics, Internal Medicine, Family Medicine, and OB/GYN Student Interest Groups co-sponsored a lunch panel and heard from physicians about their experiences working in primary care. Students were able to learn more about the many ways to practice primary care.

**Journal Club**
Redefining Success at the End of Life: A Conversation on Hospice & Palliative Care – The Chapter hosted a journal club for medical students to discuss articles about end of life care in medicine. Two geriatrics fellows were also invited to talk about their experiences.

**Guest Speakers**
From the PAIRS program (Partnering Alzheimer's Research Instruction Study), Willie, an Alzheimer’s patient, presented with his wife and caregiver, Janet. They shared their experience living with Willie’s diagnosis and the impact that the disease has made on their lives. They discussed the many steps they have taken to cope with the diagnosis, including volunteering and spending time with other Alzheimer's patients and caregivers.
Plenary Session: What Does the Future Hold? Developing a Job Description for the 2025 Geriatrician

Additional Resource

Mainstream or Extinction: Can Defining Who We Are Save Geriatrics?

Mary Tinetti

The guiding principles and skills of small “g” geriatrics increasingly inform healthcare delivery, person-oriented research, medical education, and health policy. At the same time, the field of big “G” Geriatrics struggles to recruit new fellows and to provide a single, consistent, unified understanding of who we are and what we do. Our extinction has been predicted from the beginning and repeatedly over the years, but previously, our options appeared to be extinction as a species from lack of replication versus survival as a marginalized field. Our current situation includes an alternative scenario: our principles will define mainstream health care while the field disappears. Before launching into what is wrong with our current strategies and tactics and what we should do differently to increase our chance of survival, let’s remember that we have had many successes.

PROGRESS IN GERIATRICS SINCE THE 1980S

Geriatrics has developed a strong research and clinical base over the past 30 years. Dementia and multifactorial geriatric syndromes such as falls are two examples. The perception was still prevalent in the 1980s that “senility” was a normal part of aging. Dementia is now gaining parity with cardiac disease and cancer in the public’s attention and in the scientific community’s commitment to unraveling their pathological mechanisms. In the early 1980s, falls were considered—if at all—as inevitable consequences of aging. Thirty years later, there have been more than 100 randomized clinical trials (RCTs) of fall prevention strategies. Prevention of falls and other multifactorial geriatric syndromes such as delirium, incontinence, and immobility are critical targets of research and clinical practice.

The 1990s and early 2000s witnessed the development of geriatric models of care such as Acute Care of the Elderly, Geriatric Resources for Assessment and Care of Elders, Program of All-inclusive Care for the Elderly, Hospital Elder Life Program, Nurses Improving Care for Healthsystem Elders, and several others, all of which are now implemented throughout healthcare settings. Comanagement models with orthopedics, surgery, and other subspecialties have also spread broadly. Lest we think innovation is a recent phenomenon, an article from the 1980s described geriatric-orthopedic comanagement, and another article asked, “Can readmissions to a geriatric medical unit be prevented?”

There have also been many promising developments in health policy. Geriatric concepts, such as readmissions of persons with multiple chronic conditions, have become quality measures, as have assessment and management of several geriatric syndromes. The Centers for Medicare and Medicaid Services (CMS) now provides modest payments for home visits, transitional care, and care coordination; payment for engaging in advanced care planning discussion has been reintroduced.

The movement to value-based healthcare payment has stimulated the uptake of innovations, such as team-based care, patient safety, patient preferences, care of complex patients, palliative care, and transitions of care, that have roots in Geriatrics or are based on geriatric principles. We have come a long way in 30 years.

SO WHAT’S THE PROBLEM?

Despite these successes, it remains unclear what value-based and alternative payment models, essential to continued geriatric success, will look like. Health systems, particularly academic medical centers, still favor high-volume remunerative specialties and procedures. Quality metrics that determine what gets done and rewarded remain focused predominantly on diseases and events, despite lip service given to person-centeredness. Medical education similarly persists in its organ- and disease-based paradigms.

The major threat to Geriatrics is best identified by looking in the mirror. We are timid about pushing our evidence, taking credit for our accomplishments, marketing our products, and defining our field. Who but other Geriatricians knows that the roots of patient safety are in early
geriatric work on adverse effects of hospitalization or that innovations in transitions of care and postacute care are based on work by geriatricians.\textsuperscript{17}

A personal anecdote reflects our timidity in pushing our evidence. Around the same time that authors of a meta-analysis reported that, “Current evidence suggests that multifactorial fall risk assessment and intervention may reduce the number of fallers by only a modest amount,”\textsuperscript{18} I headed a Food and Drug Administration committee charged with advising whether there was sufficient evidence to warrant the transition of statin drugs from prescription to over-the-counter status. Several cardiologists who spoke called for “putting statins in the drinking water,” given the strong evidence of safety and effectiveness. The prevailing evidence suggested that statins reduce risks of stroke or myocardial infarction by about 25% to 30%—the same benefit accrued by multifactorial fall prevention.

Another example of our reluctance to push our advances is reflected in our inadequate efforts to compel the incorporation of self-reported measures of function into electronic health records and quality measurement. Function, along with symptom relief, is the health outcome that older adults care most about.\textsuperscript{19} Furthermore, evidence shows that chronic conditions exert their effects by compromising function and causing symptoms.\textsuperscript{20} Are not function and symptom burden, along with individuals’ specific outcome goal ascertainment and achievement, therefore the outcomes that should inform clinical decision-making and the quality of clinical care? How can any clinician care for older adults without systematically assessing, managing, recording, and tracking function and symptoms? The Institute of Medicine, CMS, and the National Quality Forum, among other health policy bodies, are looking for leadership to push function forward as a quality measure.\textsuperscript{21,22} So what is holding it up? One roadblock is that we cannot agree on the “right” measures despite the fact that the myriad of existing instruments measure the same concepts.\textsuperscript{23} A slew of disease-specific functional measures is rapidly filling this void. The window of opportunity will close soon.

We continue to accentuate our negatives to the public—including potential recruits. “Shortage of Geriatricians” is the most common topic geriatricians’ comment on in the lay press.\textsuperscript{24} We lament that careers focused on caring for older adults can be burdensome and financially unattractive. Every year we publicize the number of unfilled geriatric fellowship slots. Then we wonder why trainees don’t want to join our club.

Perhaps most disconcerting is that we have failed to provide a single, consistent, unified understanding of who we are and what we do. Everyone knows what a pediatrician, surgeon, or cardiologist does, but it is not surprising that the public is unaware or confused about what a geriatrician is, given the conflicting perceptions among geriatricians themselves.\textsuperscript{25} Are we meant to be the primary care providers for all older adults\textsuperscript{26,27} or only the oldest old?\textsuperscript{28} Are we the experts in healthy aging\textsuperscript{29} or a specialty with skills in chronic care, frailty, geriatric syndromes, long term care, or conditions of aging\textsuperscript{22,29,30} Although the multifaceted nature of what we do is one of the attractions for many of us, it also impedes a clear understanding of the field by other healthcare professionals and the public.

How might we address these problems?

DEVELOPING A UNIFIED VISION OF WHO WE ARE AND WHAT WE DO

In addition to claiming credit for what we create, marketing our products, and stopping our whining, geriatrics’ best chance for survival comes from unifying and focusing its training, clinical, and health policy efforts to align with current needs, opportunities, and realities (Table 1).

Geriatric Training Strategy

Trying to increase the number of geriatricians by lamenting the shortage hasn’t worked in three decades. It has probably discouraged promising candidates. Let’s abandon that tactic. In its place, we can embrace who we are—or could be: a small elite workforce that discovers and tests geriatric principles through our research, that teaches these geriatric principles to all health professionals and to the public, and that disseminates and implements these geriatric principles through our health system and health policy leadership. Our mission should not be to train enough geriatricians to provide direct care but rather to ensure that every clinician caring for older adults is competent in geriatric principles and practices. In the 1990s, we debated whether geriatrics was a primary care or specialty discipline.\textsuperscript{30} It is neither. Geriatrics is a “metadiscipline”—perhaps the only one—that transcends and informs all other disciplines. Its knowledge base and principles should guide all care. The right metric for success should not be the number of fellowship slots filled, but rather the number of health professional trainees with geriatric skills and behaviors and, most importantly, the number of older adults that clinicians care for using geriatric principles.

This is not to say we haven’t already done a lot of training of nongeriatric health professionals—quite the contrary. Work we have done with subspecialties and surgery shows how effective we can be,\textsuperscript{31} these are among our most successful training efforts. Building on this success, particularly targeting primary care clinicians, who provide the vast majority of care to older adults, we should move further in this direction as a small elite training force imparting its knowledge and skills to all fields of health care.

Develop a Single Geriatric Curriculum

Trainees, clinicians, and health systems want to use the “best tool and curriculum.” They are confused when there are muliple tools and curricula covering the same topics. The presence of multiple tools can be misinterpreted as lack of evidence or consensus on the topic. Clinician educators would do well to abandon the one-off curricular projects, joining forces to develop and disseminate a single, unified national geriatric curriculum. WebGEMs is a good start, but efforts need to be sped up and formalized.\textsuperscript{32} Engaging geriatric educators from around the country in a “Manhattan Project for geriatric curriculum” could accomplish great things in a short time. Costs could be recouped by selling this well-branded product. At least as much academic pres-
tige and credit toward promotion would accrue to participants in a nationwide project as from creating one-off tools that achieve little uptake. Once created, this curriculum should be disseminated broadly through multiple mechanisms. Curriculum is increasingly moving from the classroom to the web, and we can do the same. A few geriatric educators can reach large numbers of health professional trainees and practitioners through the Internet and telemedicine.

One area on which we could have a profound effect is development of a 21st-century history, physical examination, and Subjective, Objective, Assessment, Plan that reflects the needs and realities of 21st-century patients. Such a history would recognize that the focus of health care for today’s complex patients of all ages is no longer on the “disease” but on the individual’s health concerns within their life context and their own values, health goals, and care preferences. Clinical assessment and management skills should reflect this shift from disease-based to person-centered care, including the translation of clinical data and evidence into person-centered decision-making based on people’s health outcome goals and preferences. If Geriatrics is willing to lead this effort, the effect on health care will be felt for generations to come.

Geriatric Clinical Care Strategy
Our best opportunity (and major threat) lies in how we respond as health systems struggle (willingly or not) to move from fee-for-service, volume-based to value-based health care. Let’s explicitly, uniformly, and unequivocally market and brand ourselves as THE experts in complexity and all that comes with it, including uncertainty, tradeoffs, interdisciplinary teams, multiple coexisting conditions, patient goal-driven care. Geriatrics may rarely be mentioned in discussions about high-cost complex patients, but our principles are. We can change this. We can help health systems and implement the geriatric principle-based approach to care and enhance our visibility, credibility, and marketability by doing so.

The consensus among leaders of geriatrics academic programs in 2008 was that the people who would most benefit from a geriatrician would be those aged 85 and older and those with frailty, geriatric syndromes, severe functional impairment, and multiple complex healthcare problems. Let’s take this consensus as the starting point and move to solidify this as our patient (and research and educational) base. Multiple chronic conditions (multimorbidity) is a concept that has gained traction and should be our “defining condition.” We don’t have to worry about shrinking our patient base. Adults of all ages with multiple conditions are the majority of healthcare users. Defining ourselves as the experts in complex decision-making for persons with multiple conditions does not preclude interest in healthy aging, nor does it mean focusing only on the frailest individuals. It means defining our unique niche to the public.

While we are at it, let’s move away from disseminating the multiple excellent but standalone models—which frankly reinforces fragmentation and suggests we have not figured out what really works—to identifying and disseminating the core elements that anchor all these models. A unified approach to caring for a discrete population of

Table 1. Strategies and Tactics for 21st-Century Geriatrics

<table>
<thead>
<tr>
<th>Current “G”eriatrics Strategies and Tactics</th>
<th>Suggested “g”eriatrics Strategies and Tactics</th>
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<tbody>
<tr>
<td>Focus on shortage of geriatricians and the on unpopularity of the field (e.g., “... 36,000 geriatricians needed to care for increasing number of older adults)</td>
<td>Train a small cadre of geriatricians who ensure geriatric competency in all clinicians. Care directly only for the subset of the most complex patients. Provide e-consults or telemedicine support to clinicians caring for all other older adults.</td>
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<tr>
<td>Develop and implement multiple standalone site- and condition-specific models of care</td>
<td>Agree on, and disseminate, the core geriatric principles and elements imbedded in all these models. Ensure these principles and elements define care across all settings.</td>
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<tr>
<td>Focus program building and administrative efforts on providing discrete geriatric services</td>
<td>Ensure that geriatric principles are health system guiding principles (and acknowledged as such).</td>
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<tr>
<td>Practice and teach traditional disease-based care with attention to geriatric conditions and syndromes added on.</td>
<td>Make geriatric care mainstream care. Develop and disseminate patient health outcome goals-directed history, examination, assessment, plan, and decision-making.</td>
</tr>
<tr>
<td>Develop a confusing and redundant array of curricula, educational materials, and tools.</td>
<td>Develop and disseminate a single, unified national geriatric curriculum.</td>
</tr>
<tr>
<td>Focus on specific entities which are likely to change (e.g., list of inappropriate medications)</td>
<td>Focus on foundational principles and concepts (principles of appropriate medication management).</td>
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<tr>
<td>Contribute to plethora of condition- or event-specific quality measures</td>
<td>Lead efforts to develop a few patient-centered measures to drive value-based payments such as: Were patients’ goals ascertained, addressed, achieved? Was treatment burden minimized? These efforts will need to include incorporation of patient reported outcomes such as function, symptom burden into the electronic record.</td>
</tr>
<tr>
<td>Espouse a confusing and conflicting array of primary clinical focus from healthy aging to primary care to chronic disease to frailty to long-term care to oldest old</td>
<td>Endorse multimorbidity and complexity as our defining condition.</td>
</tr>
<tr>
<td>Whine about lack of recognition</td>
<td>Celebrate and broadcast our successes and advances.</td>
</tr>
<tr>
<td>Underplay our evidence; extenuate the negative to the public</td>
<td>Embark on a full, unified public relations campaign to let the public (and ourselves) know who we are and what we do and why our expertise is unique and necessary.</td>
</tr>
</tbody>
</table>
older adults with multiple complex health conditions—in all healthcare settings—will help brand us in the healthcare world.

**Geriatric Health Policy Strategy**

Geriatricians hold positions as deans and department chairs and have leadership positions at the American Board of Internal Medicine, National Quality Forum, National Committee for Quality Assurance, and CMS. We should aspire to fill more leadership positions nationally and locally. From whatever positions we hold, let’s push in solidarity for the healthcare delivery and payment changes that support integrated, patient outcome-driven care. Let’s accelerate the movement away from the plethora of disease-focused measures that foster unnecessary, expensive, ineffective, fragmented, and often harmful care for our patients with complex and multiple conditions. Let’s be the ones who define value, particularly for the most complex older patients. Defining value-based care not by one-size-fits-all disease or event metrics such as blood pressure or glycated hemoglobin levels or readmissions but as care appropriate to the priorities and needs of each older adult. To accomplish this move to person-centered value, let’s lead the effort in developing and implementing person-centered measures such as ascertainment and achievement of patient outcome goals, consideration of patient treatment preferences and care burden, and person-centered and reported outcomes such as symptoms and function.

The American Geriatrics Society identified five strategic goals in 2005: to ensure that every older person receives high-quality, patient-centered health care; to expand the geriatrics knowledge base; to increase the number of healthcare professionals who employ the principles of geriatric medicine in caring for older persons; to recruit physicians and other healthcare professionals into careers in geriatric medicine; and to unite professional and lay groups in the effort to influence public policy to continuously improve the health and health care of older adults. With the exception of the fourth goal, which hasn’t worked for the past 4 decades, the suggestions outlined in this article are tactics aligned with these strategic goals that respond to current opportunities.

**GERIATRICS’ DEFINING CHALLENGE**

The emerging interest in caring for complex patients and multimorbidity is perhaps the crucial defining moment for geriatrics, leading to the “geriatric paradox.” There is increasing interest in small “g” geriatrics (the geriatric principles that guide clinical-decision making and clinical care for complex patients) while there remains little interest in big “G” Geriatrics (the training and support of Geriatricians to implement these principles). Health systems (and the public) have not associated the principles they desire—which we know are geriatric principles—with the field of Geriatrics or with the expertise of Geriatricians.

Is our chance of surviving optimized by efforts to recruit and train a large cadre of Geriatricians or a small number who are passionate and capable of inculcating geriatric care and principles throughout health care? Do we focus on direct care of the limited number of older adults we are able to reach or on teaching and disseminating geriatric principles to the broad range of health professionals who care for older adults? Which strategy is most likely to result in our ultimate mission of ensuring that all older adults receive appropriate care?

If we want to unify our efforts around this mission, the 2005 AGS goals are a good place to start, but the strategies and tactics we deploy to achieve these goals must align with current opportunities. I have outlined several action steps in Table 1 that could get us started. It is likely that geriatric principles will be increasingly mainstream, but will geriatricians be in the stream? Agreeing on, and letting the world know, clearly and positively, who we are and what we do is our best marketing tool and best chance for staying in the stream.

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The Next Big Thing for Tech: The Internet of Everything

Although we have been talking about connected devices since the mid '90s, I think we will look back at this year's CES and realize it as the event where the Internet of Everything finally hit the mainstream.

In a column I wrote here before CES, I outlined eight trends I suggested would come out of the show. I omitted a key trend known as the Internet of Everything (IOE), as it was implied throughout most of the trends I listed. But now that I have digested the events of the show, I should have called it out as a trend in its own right because it ultimately became the true theme of this year’s CES.

This became very clear to me during a meeting I had with the CEO of Cisco, John Chambers, where he outlined Cisco’s thinking on IOE. The financial numbers he predicts for the impact of IOE in the public sector alone: $4.6 trillion. He believes it will have a dramatic impact on everything from city planning, first responders, military, health and dozens of other environments. When I hear numbers this big, I become skeptical. We’re talking about trillions of dollars here, not billions. However, when you look at the ultimate idea of what IOE is, these numbers could be on the mark.

The Internet of Everything has become a catch-all phrase to describe adding connectivity and intelligence to just about every device in order to give them special functions. At the show, for instance, there was an Internet-connected crock pot. You could control when it comes on and adjust its settings from the other side of the world. There were also various car vendors who introduced the next generation of connected...
automobiles. All of them referred to their cars as being part of IOE. Smart cars, smart appliances, smartwatches and more all end up with the “smart” moniker in front of them when they become tied to the Internet and interconnect to ecosystems of devices, software and services. The company behind the Sleep Number beds even announced a smart bed that monitors sleep patterns with 500 sensors built into the mattress, sending the results to an app on your smartphone or tablet.

As I walked the CES show floor, which by the way had 2 million square feet of exhibit space, it was hard to find a product that didn’t have some form of connectivity. This was especially true in the health section, where about 60 booths showed off health-related wearables that monitored steps taken, heart rate, calories burned and blood pressure. There were even personal EKG systems. I was wearing the Fitbit Force wrist band and found that I walked in excess of 20,000 steps each day I was at the show. When I checked out the various cars on the show floor, all were showing off how smart and connected they were. There were connected TVs, refrigerators, appliances, home automation systems; you name it, and it was connected in some way or another to the Internet or to a smartphone, tablet or PC.

The IOE focus on health is quite interesting and I consider very important. In the health section at CES, United Healthcare, which is one of the largest health care insurers in the U.S., had a large booth that highlighted various health monitoring devices and online educational services. Healthcare providers and insurers know that keeping you healthy and out of the hospital is much cheaper and better than taking care of the costs for you if you get sick — and especially if you’re admitted to a hospital. So they are very much behind IOE, suggesting that people use things like the Jawbone Up, Misfit Shine, Nike Fuelband, Fitbit Force and dozens of other health devices used to motivate you and monitor your exercise. Some of these devices, such as connected blood pressure kits and connected blood glucose testing kits can even send the data they collect to your healthcare provider so that he or she can monitor your progress. As a type-2 diabetic, I was especially interested in a product from Dexcom: a continuous blood glucose monitoring system that uses a subcutaneous sensor inserted into the arm, belly or thigh and wirelessly communicates with a handheld digital monitoring device. This monitor then slides into an Internet connected docking system and can send an entire 24-hour or even a 10-day reading to your healthcare provider so he or she can see how you are doing with your meds and make adjustments in real time.

Connected cars will be the big differentiators for the auto industry in the near future. AT&T announced a major platform that can be used by car makers to add 4G connectivity and services to their vehicles. And last fall, AT&T introduced a foundry that will serve as a source for automakers to make their cars smarter. At CES, AT&T announced that Audi and GM would be using AT&T’s 4G solutions, and in a surprise move said that GM would move its OnStar services from Verizon to AT&T soon.

Intel, Nvidia, Qualcomm and most of the semiconductor companies at the show all announced new processors and services aimed at IOE with Intel announcing its Quartz chip for wearables and a new SOC (system on a chip) called Edison, which is the size of an SD card and provides a complete computer system for use in all types of IOE devices. I see Qualcomm as being one of the really big players and winners in IOE since the company has been championing IOE for the past two years and attacks IOE at two levels. Its mobile chips and radios are used in millions of smartphones and tablets now, and the company has also been pushing something it calls the Digital Sixth Sense, which relates to
another important part of IOE: sensors. Qualcomm’s sensors are called Gimbal processors.

Billions of sensors will be shipped each year. These sensors give devices like lights, beacons, appliances and home automation systems a connection to other devices and Internet ecosystems. Market researcher IDC projects that by 2020, 220 billion connected devices will be in use. Qualcomm can deliver these sensors in dedicated products such as beacons and home automation systems, but they can also be added to the company’s Snapdragon mobile processors that power phones and tablets.

Although we have been talking about connected devices since the mid ’90s, I think we will look back at this year’s CES and realize it as the event where IOE finally hit the mainstream. Over the next three to five years, all companies will create products and services that fit into a world of smarter devices, services and ecosystems. While there will surely be some variants on this theme, the bottom line is that the Internet of Everything is the next big thing for tech and pretty much all industries, as they’ll all want to be part of this revolution.

One last note on IOE: What I share here is simply the trend. All industries will still have to deal with issues like security, privacy, hardware compatibility, software compatibility, synchronization, wired infrastructure, wireless infrastructure, data mining, data analysis and dozens of other things that will make IOE really work all over the world. While IOE is the next big trend, the next step will be to work on these major issues if IOE is to meet its full potential.

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Welcome to the 4th Industrial Revolution. Welcome to the Exponential Age.” said Udo Gollub

How the Future will look....

I just went to the Singularity University summit and here are the key learnings.

In 1998, Kodak had 170,000 employees and sold 85% of all photo paper worldwide. Within just a few years after that, their business model all but disappeared, and they went bankrupt. What happened to Kodak will happen in a lot of industries in the next 10 years - and most people don’t see it coming. Did you ever think in 1998 that 3 years later you would never take pictures on paper film again?

Digital cameras were invented in 1975. The first ones only had 10,000 pixels, but followed Moore’s law. So as with all exponential technologies, it was a disappointment for a long time before it improved, became way superior to traditional formats, was finally cheaper to produce and got mainstream — in only a few short years. It will now happen with Artificial Intelligence, health care, automatic/electric cars, education, 3D printing, agriculture and many other jobs.

Welcome to the 4th Industrial Revolution and welcome to the Exponential Age. Software alone will dramatically disrupt most traditional industries as we know them today in just the next 5-10 years.

Mind you, Uber is no more than just a software (app) tool. They don't own any cars, but are now the biggest taxi company in the world. AirBnB is now the biggest hotel company in the world, although they don’t own any properties — just software.

Artificial Intelligence: Computers have become exponentially better in understanding the world. This year, a computer beat the best Go player in the world, 10 years earlier than expected. In the US, young doctors and lawyers already have fewer jobs. You can get legal and medical advice (more or less basic stuff) from IBM Watson within seconds, with 90% accuracy compared with 70% accuracy when out is provided by humans.

So if you study medicine or law, maybe you need to rethink your career path? There will be 90% less doctors and lawyers in the future, only specialists acting as assistants will remain.

Watson already helps doctors and nurses diagnose cancer, and being 4 times more accurate and faster than human doctors and nurses. Facebook now has a pattern recognition software that can recognize faces better than humans. By 2030, computers will become far more intelligent than humans, and with unlimited memory.

Automatic cars: In 2018 the first self driving cars will appear for the public. Around 2020, the complete automobile industry will start to be disrupted. You don't want to own a car anymore. You will call a car with your phone, it will show up at your location and drive you to your destination. You will not need to park it, you only pay for the driven distance and be productive while driving.

Our kids will never get a driver's licence and will never own a car. It will change the cities, because we will need 90-95% less cars for that. We can transform former parking spaces into parks. 1.2 million people die each year in car accidents worldwide. We now have one accident every 100,000 km, with autopilot driving that will drop to one accident in 10 million km. That will save a million lives each year.

Most car companies might become bankrupt. Traditional car companies try the evolutionary approach and just build a better car, while tech companies (Tesla, Apple, Google) will try the revolutionary approach and build a computer on
wheels. I spoke to a lot of engineers from Volkswagen and Audi; they are completely terrified of Tesla.

Insurance companies will have massive trouble because without accidents, the insurance will become 100x cheaper. Their car insurance business model will disappear.

Real estate business is bound to change. Because if you can work while you commute, people will move further away to live in a more beautiful neighbourhood.

Electric cars will become mainstream by 2020. Cities will be less noisy because all cars will run on electricity, which will become incredibly cheap and clean.

Energy: Solar production has been on an exponential curve for 30 years, but you can only now see the impact. Last year, more solar energy stations were installed worldwide than fossil. The price for solar energy will drop so much that all coal companies will be defunct by 2025.

With cheap electricity comes cheap and abundant water. Desalination now only needs 2kWh per cubic meter. We don't have scarce water in most places, we only have scarce drinking water. Imagine what will be possible if anyone can have as much clean water as he wants, for nearly no cost.

Health: The Tricorder X price will be announced this year. There are pharma companies building a medical device (called the 'Tricorder' from Star Trek) that works with your phone, which takes your retina scan, your blood sample and your breath into it. It then analyses 54 biomarkers that will identify nearly any disease. It will be cheap, so in a few years everyone on this planet will have access to world class medicine, nearly for free.

3D printing: The price of the cheapest 3D printer came down from $18,000 to $400 within 10 years. In the same time, it became 100 times faster. All major shoe companies started 3D printing shoes. Spare airplane parts are already 3D printed in remote airports. The space station now has a 3D printer that eliminates the need for the large amount of spare parts they used to have in the past. [Honda’s 3d printed electric car 10.6.16](http://example.com) that runs! At the end of this year, new smartphones will have 3D scanning possibilities. You can then 3D scan your feet and print your perfect shoe at home. In China, they already 3D printed a complete 6-story office building. By 2027, 10% of everything that's being produced will be 3D printed.

Business opportunities: If you think of a niche you want to go in, ask yourself - in the future, do you think we will have that? If the answer is yes, how can you make that happen sooner? If it doesn't work with your phone, forget the idea. And any idea designed for success in the 20th century is doomed for failure in the 21st century.

Work: 70-80% of jobs will disappear in the next 20 years. There will be a lot of new jobs, but it is not clear if there will be enough new jobs in such a small time frame.

Agriculture: There will be a $100 agricultural robot in the future. Farmers in 3rd world countries can then become managers of their field instead of working all day on their fields.

Aeroponics will need much less water. The first petri dish-produced veal is now available and will be cheaper than cow-produced veal in 2018.

Right now, 30% of all agricultural surface is used for cows. Imagine if we don't need that space anymore. There are several start-ups who will bring insect protein to the market shortly. It contains more protein than meat. It will be labelled as 'Alternative protein source' (as most people still reject the idea of eating insects).
There is an app called 'Moodies', which can already tell in which mood you are. By 2020 there will be apps that can tell by your facial expressions if you are lying. Imagine a political debate where it's being displayed, if they are speaking the truth or not.

Bitcoin might become mainstream this year and might even become the default reserve currency.

Education: The cheapest smart phone is already at $10 in Africa and Asia. By 2020, most humans will own a smartphone or a device that has access to world class education/information. Every child can use Khans Academy and other tools for learning art, engineering, design, languages, science, music, mathematics, etc.

Longevity: Right now, the average life span increases by 3 months per year. Four years ago, the life span used to be 79 years, now it's 80 years. The increase itself is increasing and by 2036, there will be more than one year increase per year. So we all might live for a long long time, probably way more than 100.

And this is just what we know of today's science and technology.