Goals & Objectives:
1. Practice the initial assessment of a geriatric trauma patient.
2. Recognize physiologic and anatomic changes that occur with aging that are relevant to trauma management of the elderly.
3. Review the causes of syncope in the elderly.
5. Learn how to assess vaginal bleeding in the setting of possible trauma.

Equipment:
1. SimMan
2. Code Cart
3. Monitor/Defibrillator/Pacer
4. Backboard
5. C-Collar
6. Box of 4 x 4's
7. Pederson speculum
8. Ring forceps
9. Trauma CT's with uterine mass
10. Normal CXR
11. Gowns

Moulage:
1. In improperly placed C-collar
2. Multiple various abrasions/contusions on the extremities.
3. Blood in GU area

Simulation Specific Instructions:
1. Sim Man malpositioned collar.
2. Blood in vaginal area and internal vaginal bleeding.
3. Patient has relative hypotension and tachycardia. Will improve with fluids.

Initial Vignette:
77 yr old female fell down 8 wooden stairs. She was found at the base of the stairs. Per EMS she was initially unconscious but was awake by the time EMS arrived 15 minutes after being found. Initial vital signs: 98/50, pulse 108, RR 20, O2sat 96%. GCS 15. RTS 12.

Initial Appearance:
Alert, oriented x 4, BP 101/75, pulse 108, RR 20, O2 sat 96%. The patient is on a backboard with C-collar.
Scenario Flow (Initial encounter 10 minutes, pelvic and resuscitation 10 minutes)

- Primary assessment: ABCDE
- 100% O2, 2 large bore IV's with limited fluid bolus due to age.
- C-spine collar adjusted.
- PMH: Illnesses: Hypertension, Diabetes, CAD
  Unknown to patient she has uterine cancer
  Meds: Metformin, Norvasc, Isosorbide, ASA
  Allergies: Morphine
- Secondary Survey should identify vaginal bleeding.
- FAST exam is negative
- Order CBC, CMP, UA, Blood typed, Cardiac enzymes, PT/INR, EKG.
- Order CT head, neck, chest, abdomen, pelvis. Optional plain films.
- Speculum exam attempted. Profuse bleeding. Drumsticks do not work. Ring forceps wrapped with 4 x 4's used. No vaginal laceration.
- Patient becomes hypotensive to 65/P and requires IVF bolus.
- CT read uterine mass (fibroid or cancer). Can be read by resident or radiologist.
- Patient responds to IVF fluids.
- Surgeon called

Critical Actions
- C-spine stabilized
- 2 large bore IV's
- Appropriate fluid bolus
- Identify syncopal event occurred
- Identify vaginal bleeding
- Appropriately treats post-pelvic episode of hypotension
- Appropriate studies ordered
- Perform pelvic exam
- Type and cross ordered

Facilitator Debriefing Points
- Causes of vaginal bleeding in the elderly.
- Tips for performing speculum exam in geriatric patient.
- Discuss relative hypotension
- Ways to maintain the patient's dignity
- Timed Up & Go test. (*low risk of falling if <20 sec to get up from chair, without using arms, walk 10 ft, turn around, return to chair and sit down*)
For Geriatric Scenario #4B

**CBC Results**

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<tr>
<th>Parameter</th>
<th>Value</th>
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<tr>
<td>WBC</td>
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<td>Polys</td>
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<td>Bands</td>
<td>0</td>
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<tr>
<td>Lymphs</td>
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<tr>
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<td>Hct</td>
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For Geriatric Scenario #4B

**Electrolyte Results**

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<td>Cl</td>
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<tr>
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<td>TB:</td>
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<tr>
<td>Ca:</td>
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For Geriatric Scenario #4B

### Urinalysis Results

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<tr>
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<td>Glucose</td>
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<tr>
<td>Bacteria</td>
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For Geriatric Scenario #4B

**Cardiac Enzymes**

- **CPK:** 291
- **CK-MB:** 12.0
- **Troponin:** 0.1
For Geriatric Scenario #4B

**Coagulation Studies**

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For Geriatric Scenario #4B

**ABG Results**

- **pH:** 7.41
- **pO2:** 485
- **pCO2:** 39
- **HCO3:** 22
- **HgB:** 6.1
- **COHgB:** 1.5
- **MetHgB:** 0.6
For Geriatric Scenario 4B

Radiographic Studies

CXR: Tortuous aorta