

Appendix A: Chest Pain Assessment Tool and Scenario

<p><u>Data Collection</u></p> <p><i>Orders diagnostic tests appropriate to and focused on the clinical setting</i></p>	<p><u>Differential Diagnosis</u></p> <p><i>Creates a differential diagnosis appropriate to the clinical setting</i></p>	<p><u>Medical Decision Making</u></p> <p><i>Appropriate to the clinical setting</i></p>	<p><u>Comm and interaction w/RN</u></p>	<p><u>Comm w/Senior Resident (SR)</u></p>	<p><u>Overall Approach</u></p> <p><i>Interaction w/pt and nursing staff to successfully evaluate the pt and obtain pertinent clinical info in a timely and organized fashion</i></p>
<p><i>Critical Data Points:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Vitals (≥3) <ul style="list-style-type: none"> <input type="checkbox"/> Heart rate <input type="checkbox"/> Blood pressure <input type="checkbox"/> Respiratory rate <input type="checkbox"/> Temperature <input type="checkbox"/> O2 saturation <input type="checkbox"/> Current medications <input type="checkbox"/> Confirm pt is on telemetry <input type="checkbox"/> Confirm pt has an IV <p><i>Labs:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Troponin* <input type="checkbox"/> BMP/Electrolytes (≥2) <ul style="list-style-type: none"> <input type="checkbox"/> Potassium, K <input type="checkbox"/> Magnesium, Mg <input type="checkbox"/> Phosphorus, P <input type="checkbox"/> CBC <input type="checkbox"/> ABG 	<p><i>Critical Diagnoses:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Angina <input type="checkbox"/> Demand ischemia <input type="checkbox"/> NSTEMI <input type="checkbox"/> STEMI <input type="checkbox"/> Anxiety <input type="checkbox"/> PE <input type="checkbox"/> Pleuritic pain/PNA 	<ul style="list-style-type: none"> <input type="checkbox"/> Apply Oxygen <p><i>Administer medication:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Nitroglycerin <input type="checkbox"/> Aspirin <input type="checkbox"/> Reglan <input type="checkbox"/> 2nd Nitroglycerin <input type="checkbox"/> Beta-blocker <input type="checkbox"/> Morphine <ul style="list-style-type: none"> <input type="checkbox"/> Administer IV fluids <input type="checkbox"/> Transfer to ICU or call code 	<ul style="list-style-type: none"> <input type="checkbox"/> Contact occurs w/in first 2 mins and 30 sec of sim* <input type="checkbox"/> Request nurse's sign out/notes on pt <input type="checkbox"/> Request pt PMH <input type="checkbox"/> Obtain current/home medications <input type="checkbox"/> Order/discuss work up of pt** <input type="checkbox"/> Communicates concerns/differential diagnosis <input type="checkbox"/> Communicates medication order(s) <input type="checkbox"/> Professional Communication (Please & Thank you) 	<ul style="list-style-type: none"> <input type="checkbox"/> Contact occurs w/ each evaluation interaction* <input type="checkbox"/> Pt name <input type="checkbox"/> Age <input type="checkbox"/> Gender <input type="checkbox"/> Hospital/post-op day <input type="checkbox"/> Reason in the hospital or operation <input type="checkbox"/> Reason for call <input type="checkbox"/> Vitals (≥2) <ul style="list-style-type: none"> <input type="checkbox"/> Heart rate <input type="checkbox"/> Blood pressure <input type="checkbox"/> Respiratory rate <input type="checkbox"/> Temperature <input type="checkbox"/> O2 saturation <input type="checkbox"/> Lab and/or imaging results (≥2) <ul style="list-style-type: none"> <input type="checkbox"/> Electrolytes <input type="checkbox"/> Troponin <input type="checkbox"/> EKG <input type="checkbox"/> CXR <input type="checkbox"/> Treatment thus far + any results (or thoughts/questions) 	<p>Scattered or disorganized approach that interferes w/ timely care & management of pt = 1</p> <p>Provides appropriate medical care but disorganized approach hinders timing/ delivery of that care; required SR guidance in data and treatment = 2</p> <p>Becomes sidetracked in evaluation of pt, loss of efficiency; required SR guidance in data or treatment = 3</p>

<p><i>Imaging:</i></p> <p><input type="checkbox"/> EKG*</p> <p><input type="checkbox"/> CXR</p>					<p>Organized but missed important aspect of care; 1 box; required minimal guidance = 4</p> <p>Efficiently completed scenario; all boxes = 5</p>
<p>No tests ordered = 1</p> <p>1-3 checkbox; missed * = 2</p> <p>4-5 checkboxes, incl. * = 3</p> <p>6-7 checkboxes = 4</p> <p>8-10 checkboxes = 5</p>	<p>No diagnoses stated = 1</p> <p>1-2 stated dx = 2</p> <p>3-4 stated dx = 3</p> <p>5+ stated dx, stumbled, scattered = 4</p> <p>5+ stated dx, concise = 5</p>	<p>Stumped = 1</p> <p>Verbalized idea(s) but nothing done = 2</p> <p>1-3 checkbox = 3</p> <p>4-6 checkboxes = 4</p> <p>7-9 checkboxes = 5</p>	<p>Did not contact or had to be told by facilitator to contact RN; was rude, ignored or disregarded RN = 1</p> <p>Delayed, missed *; repetitive = 2</p> <p>3-4 checkboxes, incl. * but missed ** = 3</p> <p>5-6 checkboxes, incl. * & ** = 4</p> <p>7-8 checkboxes = 5</p>	<p>Did not contact; was rude or disregarded SR = 1</p> <p>Delayed, missed *; had to be told by facilitator to contact SR = 2</p> <p>1-4 checkboxes, incl. * = 3</p> <p>5-7 checkboxes, incl. * = 4</p> <p>8-10 checkboxes, incl. * = 5</p>	

Goals:

1. Evaluation and Management of Perioperative Chest Pain
2. Provide appropriate Communication to Nursing and Senior Resident, Assign level of care.
3. Differential Diagnosis: NSTEMI, STEMI, PE, Demand ischemia, Angina, Anxiety.

Setting:

You are the surgical intern on the Vascular surgery service. The patient was walking in the hall and developed chest pain. You were paged by the nurse and were just down the hall.

Scenario:

70 year old female POD 2 s/p Left Fem-pop Bypass.

Patient states, "I had a strange sensation in my chest. It feels like an elephant is sitting on my chest". She is dizzy, weak, and diaphoretic.

Current MEDS: Normal Saline 75mL/hr, Nitro SL, Plavix, Morphine, Reglan, Lovenox, ASA.

Social History: Smoker for 50 years, widowed, retired school teacher, enjoys playing bridge

Surgery History: Hysterectomy at age 50, Appy age 35, Lt. Mastectomy age 60, L Fem-pop

Medical History: PVD, CAD (sent 5 yrs ago), hypercholesterolemia, DM

Home Meds: Metformin, Lisinopril, ASA, Simvastatin, Boniva

Current Vitals: HR 70, BP 110/60, Resp 22, T. 99.5 95% RA

Chest pressure continues, Pain 7/10

Last Labs, CXR and EKG were taken prior to surgery.

DESIRED LEARNER ACTION:

Give ASA and Nitroglycerin

Give Oxygen 2L NC

Confirm IV access (18g L hand, 22g R forearm)

Order: 12 LEAD EKG Stat

Labs: CBC, BMP, Troponin,

CXR (portable)

Reassess, repeat vitals

Communication Challenge:
Inexperienced, nervous RN

SCORING NOTES

Start time: _____

Time nurse contacted: _____

Time of first treatment: _____

End time: _____

5 MINUTES LATER: HR 82, BP 162/86, Resp 20, 98% 2L NC

Chest Pressure Continues, Pain 4/10 after Nitro. Patient states she *feels nauseated*.
EKG: NSR

DESIRED LEARNER ACTIONS:

- Repeat Nitroglycerin
- Consider/Give Morphine
- Give Reglan (4 mg IV push)

SCORING NOTES

30 MINUTES LATER: HR 84, BP 140/86, Resp 20, 100% O2 sat

Labs Return: Troponin 0.02

CBC 8>32<185

BMP

141	24	9
3.9	109	1.1

 <145 Mag 2.0 Phos 2.9

DIFFERENTIAL DIAGNOSIS: NSTEMI, STEMI, PE, Demand ischemia, Angina, Anxiety

THE NEXT NIGHT:

The nurse calls you because something is 'very wrong'.
The patient isn't responding. The nurse is *inexperienced and panicky* on the phone.

Current Vitals: HR 120 BP 70/40 RR 33 92% 2 LNC

DESIRED LEARNER ACTIONS:

- Order *over the phone*: STAT EKG, ABG, CXR
- Check IV Status
- Report immediately to the bedside

The patient is lying in bed, obtunded, but currently protecting her airway. She is diaphoretic. Appears to have ST depression on the monitor. EKG is being completed. (Shows Elevated ST segments in V1-V6 consistent with LAD infarction)

DESIRED LEARNER ACTIONS:

- Recognize patient in Cardiogenic Shock.
- Have Senior Resident Paged.
- Activate Rapid Response Team and/or Code Team.
- Call for airway back-up (anesthesia, RRT, CCM).
- Assess airway and provide adjuncts as needed.
- Confirm IV Access.
- Notify for need to transfer to higher level of care – ICU.

SCORING NOTES

IF NO TREATMENT OR CONTACT OCCURS UNTIL >75% OF SCENARIO = Delivery of care is delayed (overall perform.) or comm is excessively delayed, respectively.

Appendix B: Atrial Fibrillation Assessment Tool and Scenario

<p><u>Data Collection</u></p> <p><i>Orders diagnostic tests appropriate to and focused on the clinical setting</i></p>	<p><u>Differential Diagnosis</u></p> <p><i>Creates a differential diagnosis appropriate to the clinical setting</i></p>	<p><u>Medical Decision Making</u></p> <p><i>Appropriate to the clinical setting</i></p>	<p><u>Comm and interaction w/RN</u></p>	<p><u>Comm w/Senior Resident</u></p>	<p><u>Overall Approach</u></p> <p><i>Interaction w/pt and nursing staff to successfully evaluate the pt and obtain pertinent clinical info in a timely and organized fashion</i></p>
<p><i>Critical Data Points:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Vitals (≥3) <ul style="list-style-type: none"> <input type="checkbox"/> Heart rate <input type="checkbox"/> Blood pressure <input type="checkbox"/> Respiratory rate <input type="checkbox"/> Temperature <input type="checkbox"/> O2 saturation <input type="checkbox"/> Current medications <input type="checkbox"/> Physical exam (≥3) <ul style="list-style-type: none"> <input type="checkbox"/> General impression <input type="checkbox"/> Check pulse <input type="checkbox"/> Listen to heart <input type="checkbox"/> Listen to lungs <input type="checkbox"/> Examine extremities <input type="checkbox"/> I & O's <i>Labs:</i> <input type="checkbox"/> CBC <input type="checkbox"/> Troponin <input type="checkbox"/> BMP/Electrolytes (≥2) <ul style="list-style-type: none"> <input type="checkbox"/> Potassium, K <input type="checkbox"/> Magnesium, Mg <input type="checkbox"/> Phosphorus, P 	<p><i>Critical Diagnoses:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Atrial fibrillation <input type="checkbox"/> A-fib w/RVR <input type="checkbox"/> Atrial flutter <input type="checkbox"/> MI <input type="checkbox"/> Hyperthyroid <input type="checkbox"/> Hypovolemia <input type="checkbox"/> Electrolyte abn. <input type="checkbox"/> Infection <input type="checkbox"/> Other tachyarrhythmia <p><i>Other relevant dx:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Psychiatric cause/anxiety <input type="checkbox"/> PE 	<ul style="list-style-type: none"> <input type="checkbox"/> Order an IV rate control medication* <ul style="list-style-type: none"> <input type="checkbox"/> Metoprolol <input type="checkbox"/> Diltiazem <input type="checkbox"/> Amiodarone <input type="checkbox"/> Decrease/Hold IV fluids <input type="checkbox"/> Electrolyte Replacement (≥1) <ul style="list-style-type: none"> <input type="checkbox"/> Mg <input type="checkbox"/> PO4 <input type="checkbox"/> KCl <input type="checkbox"/> Order Diuresis (Lasix/Furosemide) <input type="checkbox"/> Apply/ensure nasal cannula oxygen 	<ul style="list-style-type: none"> <input type="checkbox"/> Contact occurs within first 2 mins and 30 sec of sim* <input type="checkbox"/> Request nurse's sign out/notes on pt <input type="checkbox"/> Request pt PMH <input type="checkbox"/> Obtain current/home medications <input type="checkbox"/> Order/discuss work up of pt** <input type="checkbox"/> Communicate concerns/differential diagnosis <input type="checkbox"/> Communicate medication order(s) <input type="checkbox"/> Professional Communication (Please & Thank you) 	<ul style="list-style-type: none"> <input type="checkbox"/> Contact occurs before script mark or calls if/when stumped* <input type="checkbox"/> Pt name <input type="checkbox"/> Age <input type="checkbox"/> Gender <input type="checkbox"/> Hospital/post-op day <input type="checkbox"/> Reason in the hospital or operation <input type="checkbox"/> Reason for call <input type="checkbox"/> Vitals (≥2) <ul style="list-style-type: none"> <input type="checkbox"/> Heart rate <input type="checkbox"/> Blood pressure <input type="checkbox"/> Respiratory rate <input type="checkbox"/> Temperature <input type="checkbox"/> O2 saturation <input type="checkbox"/> I & O's <input type="checkbox"/> Lab and/or imaging results (≥2) <ul style="list-style-type: none"> <input type="checkbox"/> Electrolytes <input type="checkbox"/> Troponin <input type="checkbox"/> EKG <input type="checkbox"/> CXR 	<p>Scattered or disorganized approach that interferes w/ timely care & management of pt = 1</p> <p>Provides appropriate medical care but disorganized approach hinders timing/ delivery of that care; required SR guidance in data and treatment = 2</p> <p>Becomes sidetracked in evaluation of pt, loss of efficiency; required SR guidance in data or treatment = 3</p>

<p><i>Imaging:</i></p> <input type="checkbox"/> EKG* <input type="checkbox"/> CXR <input type="checkbox"/> Confirm pt is on telemetry				<input type="checkbox"/> Treatment thus far + any results (or thoughts/questions)	<p>Organized but missed important aspect of care; 1 box; required minimal guidance = 4</p> <p>Efficiently completed scenario; all boxed = 5</p>
<p>No tests ordered = 1 1-2 checkboxes; missed * = 2 3-4 checkboxes (at least 1 lab and 1 image), incl. * = 3 5-6 checkboxes = 4 7-10 checkboxes = 5</p>	<p>No diagnoses stated = 1 1-2 stated dx = 2 3-4 stated dx = 3 5+ stated dx, stumbled, scattered = 4 5+ stated dx, concise = 5</p>	<p>Stumped = 1 Verbalized idea(s) but nothing done; missed * = 2 1-2 checkboxes, incl. * = 3 3-4 checkboxes = 4 5 checkboxes = 5</p>	<p>Did not contact or had to be told by facilitator to contact RN; was rude, ignored or disregarded RN = 1 Delayed, missed *; repetitive = 2 2-3 checkboxes, incl. * but missed ** = 3 4-5 checkboxes, incl. * & ** = 4 6-8 checkboxes = 5</p>	<p>Did not contact; was rude or disregarded SR = 1 Delayed, missed *; had to be told by facilitator to contact SR = 2 3-5 checkboxes, incl. *=3 6-8 checkboxes, incl. *=4 9-11 checkboxes = 5</p>	

SETTING: You are the cross-covering night float intern. The nurse pages you to see a patient in the stepdown unit because the HR is 135 & irregular. HR had been 80s until 15 min. ago. You go to see the patient.

Scenario:

62 yo F POD #3 S/P emergent LOA for SBO secondary to adhesions. The patient states, “I can’t breathe”, “Help me”, “I need to sit up”. She is moderately uncomfortable, some dyspnea, no chest pain/pressure

Current MEDS: IV Lactated Ringers at 150 ml/ hour, PPI, Morphine PCA, SQ Heparin
Medical History: HTN, OA, Endometrial CA
Surgical History: Hysterectomy, open appendectomy, Ex-lap LOA

Current Vitals: HR 135, BP 110/60, Resp 25, O2 Sat 93% 2 L NC

Moderate distress, anxious
Chest: Irreg, irreg. No murmurs.
Lungs: Bilateral crackles bases to midlung fields
Abd: Soft , appr tender. Inc: C/D/I
BLE warm & symmetric 2+ pitting edema
Circulation: pale, CRT 3-4 seconds
Tele Monitor: Irregularly irregular = Atrial Fibrillation HR 135-150
EKG: Atrial Fib rate 135

DIFFERENTIAL DIAGNOSIS: A. Fib w/ RVR, A-Flutter, Other Tachyarrhythmia, Volume Overload

Desired Learner Actions -

1. ORDER Intervention:
 - a. Metoprolol, 5 mg, IV -OR- Diltiazem 2.5 mg IV –OR- Amiodarone 150 mg (give slowly 3-5 minutes; MAY INDUCE hypotension) *If uncertain Call Senior!*
2. Consider/Order Lasix
3. **Order Electrolytes, EKG, CXR, Troponin**
 4. Decrease IV fluids to 50cc/hr
 5. Assess pt. Talk to pt. Attempt to calm her down. Check O2 applied.

Communication Challenge:
Distressed Patient

SCORING NOTES

Start time: _____
Time nurse contacted: _____
Time of first treatment: _____
End time: _____

5 MINUTES LATER: HR 155, BP 100/58, Resp 28, O2 Sat 95% 2 L NC

- Increased HR TO 155-165, Slightly lower BP
- Pt complains of increasing difficulty with breathing

Desired Learner Action –

Confirm patient is on telemetry
GIVE Metoprolol or Diltiazem or Amiodarone

After CXR is back: HR 100-110, 110/70, Resp 20, O2 Sat 95% 2 L NC

******Show CXR** – B pulmonary edema

STAT Lab Results:

132 110 15
2.8 26 1.0 <112 Mag 1.5 Phos 2.1

Desired Learner Action:

Replete electrolytes:
Order: 2g Mag, 30mEq KPhos, and 40 mEq KCL
Order Lasix (20mg IV push)
Order frequent vital sign checks (q15mins)
Call Senior resident, assess level of care
Plan for rate control: q 6hr Metoprolol vs
Amiodarone ggt vs Dilt ggt
State Ddx for periop A-fib: Vol Overload, MI, Demand
Ischemia, Hyperthyroid, Electrolyte abn

SCENARIO EXPECTED INTERVENTIONS:

- Treat A-fib with RVR appropriately: Beta Blocker, CCB or Amiodarone
(NOTE: Don't expose Pt. to all 3!)
- Repleat electrolytes

SCORING NOTES

***MUST HAVE CONTACTED SENIOR
IF NO TREATMENT OR CONTACT
OCCURS UNTIL >75% OF SCENARIO
= Delivery of care is delayed (overall
perform.) or comm is excessively
delayed, respectively.**

- Treat volume overload – Lasix, reduce IV fluids
- Troponin now & Q 8 hr X2
- Order ECHO
- Consider Anticoagulation Need
- Consider Level of Care Appropriateness

Appendix C: Oliguria Assessment Tool and Scenario

<p><u>Data Collection</u> Orders diagnostic tests appropriate to and focused on the clinical setting</p>	<p><u>Differential Diagnosis</u> Creates a differential diagnosis appropriate to the clinical setting</p>	<p><u>Medical Decision Making</u> Appropriate to the clinical setting</p>	<p><u>Comm and interaction w/RN</u></p>	<p><u>Comm w/Senior Resident</u></p>	<p><u>Overall Approach</u> Interaction w/pt and nursing staff to successfully evaluate the pt and obtain pertinent clinical info in a timely and organized fashion</p>
<p><u>Critical Data Points:</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Vitals (≥ 3) <ul style="list-style-type: none"> <input type="checkbox"/> Heart rate <input type="checkbox"/> Blood pressure <input type="checkbox"/> Respiratory rate <input type="checkbox"/> Temperature <input type="checkbox"/> O2 saturation <input type="checkbox"/> Current medications <input type="checkbox"/> Confirm pt has an IV <input type="checkbox"/> Physical exam (≥ 2) <ul style="list-style-type: none"> <input type="checkbox"/> Extremity edema <input type="checkbox"/> Abdomen/incision/drain <input type="checkbox"/> Chest/heart/lungs <p><u>Labs:</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> CBC <input type="checkbox"/> ABG <input type="checkbox"/> UA* <input type="checkbox"/> BMP* <ul style="list-style-type: none"> <input type="checkbox"/> Creatinine <input type="checkbox"/> BUN <input type="checkbox"/> Potassium, K <input type="checkbox"/> INR/Coags 	<p><u>Critical Diagnoses:</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> ATN/Acute Renal Failure <input type="checkbox"/> Foley obstruction <input type="checkbox"/> Intra-abdominal bleeding/hemorrhagic shock <input type="checkbox"/> Hypovolemia <input type="checkbox"/> UTI 	<ul style="list-style-type: none"> <input type="checkbox"/> IV Fluid Bolus* <input type="checkbox"/> Hold Metoprolol <input type="checkbox"/> Flush Foley <input type="checkbox"/> Transfer to ICU <input type="checkbox"/> Type & cross match blood 	<ul style="list-style-type: none"> <input type="checkbox"/> Contact occurs within first 2 mins and 30 sec of sim* <input type="checkbox"/> Request nurse's sign out/ notes on pt <input type="checkbox"/> Request pt PMH <input type="checkbox"/> Obtain current medications <input type="checkbox"/> Order/discuss work up of pt** <input type="checkbox"/> Communicates concerns/differential diagnosis <input type="checkbox"/> Relays order to flush foley <input type="checkbox"/> Professional Communication (Please & Thank you) 	<ul style="list-style-type: none"> <input type="checkbox"/> Contact occurs upon change in phys exam* <input type="checkbox"/> Pt name <input type="checkbox"/> Age <input type="checkbox"/> Gender <input type="checkbox"/> Hospital/post-op day <input type="checkbox"/> Reason in the hospital or operation <input type="checkbox"/> Reason for call <input type="checkbox"/> Vitals (≥ 2) <ul style="list-style-type: none"> <input type="checkbox"/> Heart rate <input type="checkbox"/> Blood pressure <input type="checkbox"/> Respiratory rate <input type="checkbox"/> Temperature <input type="checkbox"/> O2 saturation <input type="checkbox"/> Input and outputs <input type="checkbox"/> Change in pt exam <ul style="list-style-type: none"> <input type="checkbox"/> Abd distention <input type="checkbox"/> Lab and/or imaging results (≥ 2) <ul style="list-style-type: none"> <input type="checkbox"/> UA <input type="checkbox"/> BMP <input type="checkbox"/> CBC 	<p>Scattered or disorganized approach that interferes w/ timely care & management of pt = 1</p> <p>Provides appropriate medical care but disorganized approach hinders timing/delivery of that care; required SR guidance in data and treatment = 2</p> <p>Becomes sidetracked in evaluation of pt, loss of efficiency; 1 box; required SR guidance in data or treatment = 3</p> <p>Organized but missed important aspect of care; 2-3 boxes; required minimal guidance = 4</p>

				<input type="checkbox"/> Treatment thus far + any results (or thoughts/questions)	Efficiently completed scenario = 5
No tests ordered = 1 1-3 checkbox; missed * = 2 4-5 checkboxes, incl. * = 3 6-7 checkboxes = 4 8-9 checkboxes = 5	No diagnoses stated = 1 1-2 stated dx = 2 3-4 stated dx = 3 4-5 stated dx, stumbled, scattered = 4 5+ stated dx, concise = 5	Stumped = 1 Verbalized idea(s) but nothing done = 2 * checkbox = 3 2-3 checkboxes, incl. * = 4 4-5 checkboxes = 5	Did not contact or had to be told by facilitator to contact RN; was rude, ignored or disregarded RN = 1 Delayed, missed *; repetitive = 2 2-3 checkboxes, incl. * but missed ** = 3 4-5 checkboxes, incl. * & ** = 4 6-8 checkboxes = 5	Did not contact; was rude or disregarded SR = 1 Delayed, missed *; had to be told by facilitator to contact SR = 2 5-6 checkboxes, incl. * = 3 7-9 checkboxes, incl. * = 4 10-12 checkboxes = 5	

Goals:

- 1.) Learner will recognize and work up Oliguria (low urine output)
- 2.) Provide appropriate communication to nursing staff and senior resident.
- 3.) Differential Diagnosis: hypovolemia, post-op bleeding/hemorrhage, obstructed foley, acute renal failure (pre, post, intrinsic)

SETTING: You are the intern on the general surgery service at the VA and are paged by the nurse for low urine output in the afternoon.

Scenario:

65 year old woman POD 1 s/p lap splenectomy for CLL. Urine output of 100 ml, over the last 4 hours. The patient has a Foley catheter in place.

Previous Urine Output: 120-150 ml / 4 hours.

AM Labs: $\frac{140}{3.8} | \frac{112}{25} | \frac{6}{0.2} < 110$ Hct: 39

Past Medical History: CLL, Hypercholesterolemia

Past Surgical History: Rt Hemicolectomy

Medications: Morphine PCA, IVF D5NS 50mL/hr, IV Metoprolol, SQ Lovenox DVT Prophylaxis, SSI

Current Vitals: HR 65, BP 135/75, Resp 18, O2sat 99% RA, Temp 37.2

NAD, A x O x3

Chest: RRR, BCTA

Abd: soft, appr tender, not distended, Inc: c/d/i

Drain LUQ: 30 ml sero-sanguinous fluid.

Urine: yellow

Extr: No Pedal Edema

DESIRED LEARNER ACTIONS:

Flush Foley

IV Fluid bolus 500 – 1000 mLs

Frequent Abdominal Exams

Recheck Vital Signs and UOP after bolus remains marginal: 25mL/hr.

Re-check Labs

Give appropriate sign-out to the night team.

Communication Challenge:
Distressed Patient

SCORING NOTES

Start time: _____

Time nurse contacted: _____

Time of first treatment: _____

End time: _____

DIFFERENTIAL DIAGNOSIS: Hypovolemia, Post-op bleeding, Obstructed Foley

SCORING NOTES

POD 2: You are now rounding the following morning – 5:30 am.
Sign-out told you: No calls overnight. Last abdominal check was Midnight. “Soft”

VITALS: T 37.5 HR 110 BP 95/35 O2 Sat 99% RA RR 22 UOP: 20 ml/2

hrs

Gen: Mild Distress: moderate anxiety, Dizzy. Denies SOB, Chest Pain.
Chest: B CTA, RRR
Abd: Soft, mild distention
Urine: dark, clear
Drain: 20mL sero-sanguinous fluid.
Extrem: no Pedal Edema
HEENT: Conjunctiva pale

Desired learner action:

Flush Foley (again)
Give 1 Liter of fluid
Labs: CBC, CoAgs, ABG, BMP, Type & Cross
Confirm 2 Large Bore IVs

DIFFERENTIAL DIAGNOSIS: (Learner to state) Hypovolemia, post-op
bleeding/hemorrhage, Obstructed Foley, Acute Renal

Failure (pre, post, intrinsic)

2 HRS LATER Vitals: T 37.5 HR 110 (BP 90/60) O2Sat 99% RA RR 27 (ABDOMINAL DISTENTION)

RN Pages you: Urine Output 20 ml/ 2 hours and patient is complaining of increased dizziness. Bolus was given.

DESIRED LEARNER ACTION:

Go to Bedside to Evaluate Patient.

Physical Exam:

Subjective: No SOB, No chest pain, No abd. pain.

General: Mild diaphoresis, cool to touch, Increased anxiety

Chest: B TCA, Tachy, RR

Abd: distended, diffusely and mildly tender. Inc: C/D/I

Drain: 20mL Serosang (same as earlier)

Vascular: pulses weak & thread

LABS: 141 | 111 | 20
 3.9 | 24 | 1.0 < 110

9.8 > 9.0 / 27 < 176 INR 1.0

DESIRED LEARNER ACTION:

Diff Dx: Intra Abdominal Bleeding

Call Senior Resident (repeat call if called earlier)

20 Minutes Later Re-Evaluation: You return to check on the patient as you were called away to another urgent call.

T 37.6 HR 125 BP 70/40 O2Sat 94% 2 L NC RR 30

Obtunded, Diaphoretic, Cool

B CTA, min air movement at bases

Tachy

Abd: Distended. Drain: unchanged, now with blood oozing out around drain tube

Extr: no PE

DESIRED LEARNER ACTION:

Transfer to ICU and Communicate to Senior Resident

Call ICU team

Consider Calling Rapid Response Team

Hypotension – Fluid bolus: Transfuse PRBCs, FFP if needed

Reconfirm IV Access

Call family with update (check with senior resident)

SCORING NOTES

***CONTACT WITH SR MUST OCCUR AT THIS POINT. If not = excessively delayed.**

IF NO TREATMENT OR CONTACT OCCURS UNTIL >75% OF SCENARIO = Delivery of care is delayed (overall perform.) or comm is excessively delayed, respectively.

Appendix D: Altered Mental Status Assessment Tool and Scenario

<u>Data Collection</u> <i>Orders diagnostic tests appropriate to and focused on the clinical setting</i>	<u>Differential Diagnosis</u> <i>Creates a differential diagnosis appropriate to the clinical setting</i>	<u>Medical Decision Making</u> <i>Appropriate to the clinical setting</i>	<u>Comm and interaction w/RN</u>	<u>Comm w/Senior Resident</u>	<u>Overall Approach</u> <i>Interaction w/pt and nursing staff to successfully evaluate the pt and obtain pertinent clinical info in a timely and organized fashion</i>
<p><i>Critical Data Points:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Vitals (≥3) <ul style="list-style-type: none"> <input type="checkbox"/> Heart rate <input type="checkbox"/> Blood pressure <input type="checkbox"/> Respiratory rate <input type="checkbox"/> Temperature <input type="checkbox"/> O2 saturation <input type="checkbox"/> Current medications <input type="checkbox"/> Physical exam (≥2) <ul style="list-style-type: none"> <input type="checkbox"/> General impression <input type="checkbox"/> Neuro exam <input type="checkbox"/> Listen to heart/lungs <input type="checkbox"/> Examine incision site/abdomen <input type="checkbox"/> I & O's <i>Labs:</i> <input type="checkbox"/> CBC <input type="checkbox"/> BMP <input type="checkbox"/> UA <input type="checkbox"/> Finger stick Glucose <input type="checkbox"/> ABG <input type="checkbox"/> CXR 	<p><i>Critical Diagnoses:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Narcotics overdose/toxicity <input type="checkbox"/> Benzos overdose/toxicity <input type="checkbox"/> Hypoglycemia <input type="checkbox"/> Hypoxia <input type="checkbox"/> Infection <input type="checkbox"/> Hypotension <input type="checkbox"/> Delirium <input type="checkbox"/> Stroke/CVA <input type="checkbox"/> Hypercarbia 	<ul style="list-style-type: none"> <input type="checkbox"/> Stop meds (Ativan, Benadryl, & narcotic) <input type="checkbox"/> IV fluid bolus <input type="checkbox"/> Apply/ensure nasal cannula oxygen <input type="checkbox"/> Order safety measures (≥1) <ul style="list-style-type: none"> <input type="checkbox"/> Bed alarm <input type="checkbox"/> Mitts <input type="checkbox"/> Sitter <input type="checkbox"/> Administer medication (≥1) <ul style="list-style-type: none"> <input type="checkbox"/> Haldol <input type="checkbox"/> Seroquel <input type="checkbox"/> Trazadone 	<ul style="list-style-type: none"> <input type="checkbox"/> Contact occurs within first 2 mins and 30 sec of sim* <input type="checkbox"/> Request nurse's sign out/notes on pt <input type="checkbox"/> Request pt PMH <input type="checkbox"/> Obtain current/home medications <input type="checkbox"/> Relays order to stop medications <input type="checkbox"/> Order/discuss work up of pt** <input type="checkbox"/> Communicates concerns/differential diagnosis <input type="checkbox"/> Professional Communication (Please & Thank you) 	<ul style="list-style-type: none"> <input type="checkbox"/> Contact occurs before script mark* <input type="checkbox"/> Pt name <input type="checkbox"/> Age <input type="checkbox"/> Gender <input type="checkbox"/> Hospital/post-op day <input type="checkbox"/> Reason in the hospital or operation <input type="checkbox"/> Reason for call <input type="checkbox"/> Vitals (≥2) <ul style="list-style-type: none"> <input type="checkbox"/> Heart rate <input type="checkbox"/> Blood pressure <input type="checkbox"/> Respiratory rate <input type="checkbox"/> Temperature <input type="checkbox"/> O2 saturation <input type="checkbox"/> I & O's <input type="checkbox"/> Lab and/or imaging results (≥1) <ul style="list-style-type: none"> <input type="checkbox"/> ABG <input type="checkbox"/> UA <input type="checkbox"/> Treatment thus far + any results (or thoughts/questions) 	<p>Scattered or disorganized approach that interferes w/ timely care & management of pt = 1</p> <p>Provides appropriate medical care but disorganized approach hinders timing/delivery of that care; required SR guidance in data and treatment = 2</p> <p>Becomes sidetracked in evaluation of pt, loss of efficiency; required SR guidance in data or treatment = 3</p> <p>Organized but missed important aspect of care; required minimal guidance = 4</p>

					Efficiently completed scenario = 5
No tests ordered = 1 1-2 checkboxes = 2 3-4 checkboxes = 3 5-6 checkboxes = 4 7-10 checkboxes = 5	No diagnoses stated = 1 1-2 stated dx = 2 3-4 stated dx = 3 5+ stated dx, stumbled, scattered = 4 5+ stated dx, concise = 5	Stumped = 1 Verbalized idea(s) but nothing done = 2 1 checkbox = 3 2-3 checkboxes = 4 4-5 checkboxes = 5	Did not contact or had to be told by facilitator to contact RN; was rude, ignored or disregarded RN = 1 Delayed, missed *; repetitive = 2 2-3 checkboxes, incl. * but missed ** = 3 4-5 checkboxes, incl. * & ** = 4 6-8 checkboxes = 5	Did not contact; was rude or disregarded SR = 1 Delayed, missed *; had to be told by facilitator to contact SR = 2 1-4 checkboxes, incl. * = 3 5-7 checkboxes, incl. * = 4 8-11 checkboxes, incl. * = 5	

1. Learner will Recognize and Work-Up Altered Mental Status
2. Provide appropriately complete update to senior resident in a timely fashion
3. DDx: Narcotics, Benzos, Hypoglycemia, Hypoxia, Infection, Hypotension, Delirium, Stroke

SETTING: Resident sign-out mentions that the patient has been intermittently, but increasingly confused over the past day. You see the patient on your evening rounds.

Scenario: 88 yo Female POD 2 Lap Appy for acute nonperforated appendicitis. She has become increasingly confused over last 12 hours.

Your exam: Pleasant & cooperative, but confused.

IVF 75mL/hr LR

Past Medical History: anxiety, htn, mild early dementia

Past Surgical History: Hysterectomy

Current Meds: Ativan, Benadryl, Lopressor, ASA

INITIAL ASSESSMENT: Current Vitals: Temp 37.8 HR 95 BP 130/80 Resp 22 O2 sat 99% RA

General: confused

Chest: Tachy, RR, BCTA

Abd: soft, port sites clean, intact

Skin: pink & warm.

No foley, No NG. IV intact.

Desired Learner Actions -

1. Assess patient – localizing?
2. Check Meds: STOP PRN Ativan & Benadryl Consider change H2Blocker to PPI
3. Order Labs: CBC, BMP, UA
Immediately Avail: Accu Check Glu: 110
4. Order safety measures: Bed alarm, Mitts, Sitter.

2 HOURS LATER THE NURSE Pages: “I need you to look at the patient again. Something is not right...”

Vitals: Temp 38 HR 110 BP 110/70 Resp 25 O2 sat 99% RA

Communication Challenge:
Difficult communication with patient

SCORING NOTES

Start time: _____

Time nurse contacted: _____

Time of first treatment: _____

End time: _____

Neuro: Patient lethargic but arousable. No complaints, not very interactive. Goes to sleep if not stimulated.

Chest: BCTA, RRR

Abd: soft, NT, ND

Extr: no Ped edema, warm

Labs Ordered Earlier: $\frac{13 - 12 - 210}{36}$ $\frac{141 - 110 - 18}{3.6 - 22 - 1.2 < 100}$ Mag 2.0

Desired Learner Actions -

1. Assess patient
2. Check for infection: Phys exam: IV sites, Neuro Exam, Chest, abd.
3. Work-up: CXR, WBC, UA, Bladder scan, FS Glu, ABG
4. Give IV fluid bolus (500 cc)
5. Hold narcotics
6. Increase level of care (IMCU) and frequency of VS.
7. Notify Senior

Results:

CXR: clear

EKG: NSR

UA: Neg

Glu: 113

ABG: wnl

AFTER FLUID BOLUS: Pt is hitting at staff, disoriented. The Nurse, clearly frustrated, tells you “this cannot keep going on.....”

Current Vitals: Temp: 37.8 HR: 105 BP 100/65 O2 Sat: 98% RA RR: 24

Neuro: Disoriented to place, year, time. Combative.

Chest: Tachy, RR, BCTA

Abd: Soft, NT, ND, Inc: c/d/i

Extr: Flailing equally, warm

DIFFERENTIAL DIAGNOSIS: Narcotics, Benzos, Hypoglycemia, Hypoxia, Infection, Hypotension, Delirium, Stroke

SCORING NOTES

***MUST HAVE CALLED SENIOR BY THIS POINT. If not = excessively delayed.**

IF NO TREATMENT OR CONTACT OCCURS UNTIL >75% OF SCENARIO = Delivery of care is delayed (overall perform.) or comm is excessively delayed, respectively.

Appendix E: Trauma Assessment Tool and Scenario

<u>Data Collection</u> <i>Orders diagnostic tests appropriate to and focused on the clinical setting</i>	<u>Differential Diagnosis</u> <i>Creates a differential diagnosis appropriate to the clinical setting</i>	<u>Medical Decision Making</u> <i>Appropriate to the clinical setting</i>	<u>Comm and interaction w/RN</u>	<u>Comm w/Senior Resident</u>	<u>Overall Approach</u> <i>Interaction w/pt and nursing staff to successfully evaluate the pt and obtain pertinent clinical info in a timely and organized fashion</i>
<p><i>Critical Data Points:</i></p> <input type="checkbox"/> Vitals (≥3) <ul style="list-style-type: none"> <input type="checkbox"/> Heart rate <input type="checkbox"/> Blood pressure <input type="checkbox"/> Respiratory rate <input type="checkbox"/> Temperature <input type="checkbox"/> O2 saturation <input type="checkbox"/> Current medications <input type="checkbox"/> Abd exam <input type="checkbox"/> I & O's <p><i>Labs:</i></p> <input type="checkbox"/> CBC or Hct* <input type="checkbox"/> ABG* <input type="checkbox"/> Serum glucose <input type="checkbox"/> BMP/Electrolytes <input type="checkbox"/> INR/Coags <p><i>Imaging:</i></p> <input type="checkbox"/> Pan scan (≥2) <ul style="list-style-type: none"> <input type="checkbox"/> CT of head <input type="checkbox"/> CT of chest <input type="checkbox"/> CT of abd/pelvis <input type="checkbox"/> Focused assessment with Sonography in Trauma (FAST)	<p><i>Critical Diagnoses:</i></p> <input type="checkbox"/> Hypovolemia <input type="checkbox"/> Pain <input type="checkbox"/> Bowel injury <input type="checkbox"/> Bladder injury <input type="checkbox"/> Bleeding <input type="checkbox"/> Withdrawal	<input type="checkbox"/> States pt needs to be checked on every 2-4 hrs* <input type="checkbox"/> Insulin sliding scale <input type="checkbox"/> Apply/confirm nasal cannula (O2) <input type="checkbox"/> IV fluid (1L) <input type="checkbox"/> Alert OR <input type="checkbox"/> Antibiotics <input type="checkbox"/> Contact family for consent	<input type="checkbox"/> Contact occurs within first 2 mins and 30 sec of sim* <input type="checkbox"/> Request pt PMH <input type="checkbox"/> Order/discuss work up of pt** <input type="checkbox"/> Communicates concerns/differential diagnosis <input type="checkbox"/> Professional Communication (Please & Thank you)	<input type="checkbox"/> Attempts to contact SR/Chief upon abd exam changes* <input type="checkbox"/> Pt name <input type="checkbox"/> Age <input type="checkbox"/> Gender <input type="checkbox"/> Reason in the hospital <input type="checkbox"/> Reason for call <input type="checkbox"/> State change in exam <input type="checkbox"/> State need for OR <input type="checkbox"/> Report critical data <ul style="list-style-type: none"> <input type="checkbox"/> ABG <input type="checkbox"/> CBC 	<p>Scattered or disorganized approach that interferes w/ timely care & management of pt = 1</p> <p>Provides appropriate medical care but disorganized approach hinders timing/ delivery of that care; required SR guidance in data and treatment = 2</p> <p>Becomes sidetracked in evaluation of pt, loss of efficiency; required SR guidance in data or treatment = 3</p> <p>Organized but missed important aspect of care; required minimal guidance = 4</p> <p>Efficiently completed scenario = 5</p>

No tests ordered = 1 1-2 checkboxes; missed * = 2 3-5 checkboxes, incl. * = 3 6-8 checkboxes = 4 9-11 checkboxes = 5	No diagnoses stated = 1 1-2 stated dx = 2 3-4 stated dx = 3 3-4 stated dx & ≥ 3 course expectations = 4 5+, All course expected dx = 5	Stumped = 1 Verbalized idea(s) but nothing done; missed * = 2 1-2 checkboxes, incl. * = 3 3-5 checkboxes, incl. * = 4 6-7 checkboxes = 5	Did not contact or had to be told by facilitator to contact RN; was rude, ignored or disregarded RN = 1 Delayed, missed *; repetitive = 2 2-3 checkboxes, incl. * but missed ** = 3 4 checkboxes, incl. * & ** = 4 All checkboxes = 5	Did not contact; was rude or disregarded SR = 1 Delayed, missed *; had to be told by facilitator to contact SR = 2 1-2 checkboxes, incl. * = 3 3-5 checkboxes, incl. * = 4 6-9 checkboxes, incl. * = 5	
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Goals:

1. Assignment of and Follow-up of Serial abdominal Exams, Decision to OR
2. Obtain appropriate information at Sign out and Notify Senior of change in clinical status
3. Differential Diagnosis: Hypovolemia, Pain, Occult bowel injury, Bleeding

SETTING: You are the night trauma intern. You are responsible for serial abdominal exams, new admissions and primary nursing calls.

You have just received signout from the day team

HPI: Healthy 27yo Female, PTD 0 belted passenger in car crash. CT Imaging showed no solid organ injury and trace free fluid in the pelvis, right pubic rami fracture with minimal displacement. Slight hematoma over Right Lower Quadrant (seatbelt sign).

Vital signs on arrival to Trauma Bay: HR 110, BP 120/60 RR 12 97% RA

Admission labs:

CBC: 15 > 12/38 < 300

BMP: Nml

Glucose: 300

BAL: 0.12

UA: + Glu, 5 RBC

FAST: Neg

She received 2L LR in ED and is now on LR 125ml/h. Foley placed without gross blood.

CT SCAN (Pan Scan): No solid organ injury. Trace free fluid in pelvis.

Right pubic rami fracture with minimal displacement.

REPORT AT SIGN OUT:

Sleepy, but arousable. Complaining of thirst and her C collar.

Vital Signs: 37.0 HR 110 BP 120/60 RR 12 97% RA

Light bruising right lower abdomen, soft, positive bowel sounds, minimal tenderness over right lower abdomen.

600ml urine in last 6 hours

Repeat HCT 35

Communication Challenge:

Chief Resident Unavailable

Clinical Decision making

SCORING NOTES

Start time: _____

Time nurse contacted: _____

Time of first treatment: _____

End time: _____

DESIRED LEARNER ACTION: (ask learner these questions)

How often are you going to check on this patient?

- every 2-4 hours

What are you watching for (Differential Diagnosis)? What are your concerns?

- bleeding from pelvic fracture
- occult bowel injury
- occult bladder injury

Eval:

- 2 Hr Abd Check
- 4 Hr Abd. Check
- 6 Hr Abd. Check

SCORING NOTES

FIRST ABD CHECK: 2 HOURS: T 37.5 HR 95 BP 100/70 RR 12 98% RA

Patient is annoyed for being woken up.

Still very thirsty. Denies abdominal pain. Pain medicine is making her nauseated.

Urine Output: 100ml over last two hours

Abdomen: Diffusely tender

*Increased tenderness in right lower quadrant over area of bruising,
otherwise soft, +BS*

DESIRED LEARNER ACTION: (ask learner these questions)

What will you look for on your exam and document in your note?

- thorough subjective
- vital signs, I/Os
- abdominal exam

DESIRED LEARNER ACTION:

Order: Hct (36)

Serum glucose (210)

If intern rechecks U/A: + glucose, no RBCs

Insulin Sliding Scale

Confirm mIVF @ 125mL/hr LR

NURSE CALLS IN 3 HOURS, STATING PATIENT HAD SMALL EMESIS

DESIRED LEARNER ACTION:

Intern goes to bedside to examine patient

VS: T 38 HR 130 BP 100/70 RR 18 92% RA

Diaphoretic, uncomfortable appearing
Small bilious emesis in basin
Abdomen with diffuse tenderness, + Rebound, spreading ecchymosis
Place on Nasal Cannula O2
STAT Labs: ABG: 7.34/33/100/20 BE -5

20>35<112 INR 1.2
138 | 100 | 21
3.6 | 20 | 0.7 <110 (Glu 300 if ISS not ordered previously)

CALL CHIEF RESIDENT, but chief is in OR and can't come to bedside. Give Update.

Bolus 1 L LR
Abdomen: Diffuse tenderness, + Rebound, spreading ecchymosis,
but worse nausea

REPEAT Vital Signs: Temp 38 HR 128 BP 108/65 RR 20 97% 2LNC

Repeat ABG: 7.28/32/92/18 **BE -8**
Stable Hct, Urine Output 10ml/Hr
Abdomen: Diffuse tenderness, + Rebound, spreading ecchymosis,
worsened nausea

DESIRED LEARNER ACTIONS:

Bolus additional 1L LR
Plan for Close Pt Follow Up (When will they re-examine?)

15 Minutes Later:

Vital Signs: Temp 37.9 HR 135 BP 100/60 RR: 25 96% 2L NC
Appears Ill
Moaning, Legs Drawn up to Abdomen, Lying very still

DESIRED LEARNER ACTIONS:

UPDATE CHIEF RESIDENT (may need to go to OR)
Arrange for patient to go to OR for Ex Lap to examine for bowel injury
What do you need to do to prep for OR?
Active Type and Cross
Alert the OR "Drop A Card" – Stat Case as soon as Resident/Staff avail.
Order antibiotics now – suspect bowel perforation
Consent (for ex lap, possible bowel resection, possible ostomy)
▪ Call family

SCORING NOTES

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