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| VCH Color Logo | Coastal Simulation ProgramScenario Name: Major BleedingMassive Transfusion Protocol |  |

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| **Learning Objectives:**By the end of the debriefing the participants should be able to:*Knowledge & Skills*: * Rapidly recognize deterioration in Pt status
* Recognize and initiate treatment options for major hemorrhage / hypovolemia
* Initiate massive transfusion protocol (MT)
* Correctly utilize a rapid infuser / IV fluid warmer
* Anticipate and recognize risks associated with massive transfusions

*Attitudes and Judgement:** Demonstrate good role clarity and delegation of roles and responsibilities early in scenario
* Demonstrate examples of effective communication during the scenario
* Exhibit elements of good teamwork
* Demonstrate effective resource utilization
* Exhibit good situational awareness/ global awareness – recognizing limitations, avoiding fixation error
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| **Patient Description:****Name:** Age: 75Weight: 90kgHight: 175 cm *Hx of current condition*:C/o mid-abdominal pain radiating to the back. States this has been going on for weeks and last couple of days it has gotten really bad. Had CT abdomen and chest: positive for a large (6.5 -7 cm) infra-renal AAA. Sent up to PAR in anticipation of AAA repair by Dr. Hunter later today.Orders: NPO, Hydralazine and Labetalol to keep SBP < 140.ECG and arterial line monitoring.Pt PMHx: Hypertension, PVD, Hypercholesterolemia, COPD, CAD with MI in 2006, gout. Social Hx: Smoker 40-pack year,Occasional drinker | **Skills required prior to simulation/learner assessment:**Psychomotor: Stabilize VS, recognize and treat hypovolemia, establish sufficient IV access (2 large bore IVs), rapidly infuse bolus of a crystalloid (NS) In event of deteriorating status bring a rapid infuser and start MT protocol.Cognitive: Assessment/Tx of patient with hypovolemia related to major bleeding, anticipation of initiating MT protocol, recognition of risks associated with the MT.Teamwork: Start organizing effective team. Assume / assign roles and responsibilities (designate contact person for communication with blood-bank, designate a “runner” and a rapid infuser operator. Who are my learners? PAR / DCSS RNs, Anesthesiologist |
| **Monitors:** ECG, SpO2, BP cuff, arterial line. |
| **Physical Props/Equipment:** ECG Monitor, medication tray, simulated PRBC and plasma, IV fluids,large container for fluid collection, rapid infuser with tubing. | **References, Resources, Protocols, Algorithms, or Evidence Informed Practice Guidelines:*** **VCH Massive Transfusion (MT) flow chart.**
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| **Equipment available in room:** IV Pump, Rapid Infuser. |
| **Room set up**: PAR bay 22 | **Medications & Fluids:**Normal Saline,PRBC, Plasma, Platelets. | **Diagnostics:**G&S, CBC, Coags, ABG plus, Fibrinogen, Extended Lytes. | **Documentation forms:**Transfusion Record,PAR flow-sheet | **Confederates** |
| **Mannequin:****ACE – High Fidelity Adult –**  |
| **Personnel:**RNs, physician, blood-bank staff.  |

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| **Scenario Transitions / Patient Parameters** | **Effective Management** | **Consequences of Ineffective Management** | **Notes** |
| **phase 1 Setting:** |
|  **Initial VS:**BP 95/45HR 130 (sinus)Temp: 36.6RR 26/minO2 sats: 97% on r/a**GCS:** 15, anxious.**Physical exam**:PaleDistended, tender abdomen.Bedside ultrasound very difficult to obtain due to blood in abdomen. | Call anesthetist stat Establish IV accessAdminister bolus of NSObtain blood samples (including G & S)Continue monitoring VSAnticipate MTBring rapid infuser to the bedsidePrime RI tubing. | Pt deteriorates |  |
| **phase 2**  |
| **VS:**BP 70/40HR 140 (sinus)O2 Sat: 93 % r/aRR 30/min shallow**Neuro:**Panicky, restless.**Physical exam**:Pale, diaphoretic, abdomen distended, rigid, tender. C/o chest and abdominal pain. | Attach RIBolus 1L NS or PL or RL100% O2 via mask, assist with resps.Anesthetist calls MT protocol.OR and Dr. Hunter notified. Continue crystalloids until PRBC available.Administer PRBC and Plasma once available. | Pt deteriorates  | This phase will continue until 8 units of and 4 units of plasma are given. |
| **phase 3** |
| **VS:**BP 100/40HR 100 (sinus)O2 Sat: 100 % with O2 at 10l via maskRR 26/min.**Physical exam**:Pale, diaphoretic, abdomen distended, rigid, tender. No more chest pain. | Assess for complicationsContinue monitoring vital signsPrepare for ORRepeat blood work12 lead ECGMore blood products until OR / surgeon available.  |  |   |
| Possible debrief points:* Role allocation, teamwork, closed loop communication.
* Common signs of hypovolemia due to major bleeding.
* MT protocol (discussion)
* Complications of MT (discussion)
* Use of the RI ( Q&A)
 | Debrief notes |