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| **Scenario Title: Sepsis** | | **Learning Objectives**:   * Recognize the features of sepsis * Review the management of hypotension and sepsis * Learn when to involve consultants | |
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| **Last edit: June 20, 2016** | |
| **Set up:** | |
| **Confederates**: | |
| **Duration (min)**:   * Scenario: 15 min * Debriefing: 15 min | | **Learners**:   * Level/type * Number of learners | |
| **CanMeds Core Competencies** | Health advocate | **Medical Expert** | **Collaborator** |
| **Communicator** | Professionalism | **Manager** |

Scenario Development Template

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| **Case Summary:** 30 yo F who presents to the ED with acute onset of hypotension, fever, diffuse rash, nausea, and vomiting. Her hypotension is refractory to fluids and vasopressors need to be used. She has staphylococcal toxic shock syndrome from a tampon. ID and ICU should be consulted. | |
| **Chief complaint**: Feeling unwell, nausea, and vomiting | **Past medical history**: None  Medication: None  Allergies: None |

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| **Patient information** | | | | | | | | |
| Age: 30 | Gender: F | Name: | Weight: 65kg | BMI: 23 |  |  | Manikin: |  |
| Physical Exam Findings: | Looks unwell  Diffuse red macular rash involving palms and soles | | | | Moulage: |  | | |

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| **Aids** | Lab: See attached | | | Imaging: | | | ECG: | | | Pictures: | |
| Equipment |  |  |  | |  |  | |  |  | |  |
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**Scenario detailed Flow:**

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| **Phase** | **Time**  **(min)** | **Expected Actions and Interventions** | **Skills demonstrated** |
| **Phase 1:**   * General appearance: Unwell, diffuse red macular rash * T 39.5, HR 130, RR 28, Sat % 98% R/A, BP 80/50 * CNS: Drowsy. GCS 14 (E3V5M6) * Resp: Clear chest * CVS: Hyperdynamic heart. Normal HS. Flat JVP * Abdomen: Soft, non-tender | 0 min | -IV, O2, monitors  -Patient has already received 2 L prior to the resident seeing. Bolus 2L crystalloid and check response.  -Look for a source of infection -> exam, B/C, CXR, U/C  -Ask/look about a retained tampon  -Start empiric antibiotics – broad (piptazo) is fine. Ideally, would recognize the potential for TSS and start vanco plus clinda | -Acute management of a hypotensive patient  -Management of sepsis with investigations and early antibiotics  -Recognition of TSS |
| **Phase 2: Improvement/deterioration:**   * General appearance: * T 39, HR 120, RR 28, Sat % 98% R/A, BP 90/60 * CNS: Unchanged * Resp: * CVS: * Abdomen: | 10 min | **-**Minimal response to crystalloids. Need to consider vasopressors/ICU  -Call ID  -Remove tampon  -Follow lactate for clearance | **-**Recognition of when vasopressors are needed  -Appropriately consulting other services  -Management of sepsis |
| **Phase 3: Resolution:**   * General appearance: * T 38, HR 110, RR 26, Sat % 97% R/A, BP 100/60 * CNS: GCS 15 * Resp: Unchanged * CVS: * Abdomen: | 15 min | -Pt going to ICU  -Central line placement |  |

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| **Debriefing points** | 1. Sepsis management  -Fever and hypotension is sepsis until proven otherwise  -Stabilize the patient 🡪 IV, O2, Monitors. Crystalloid boluses with reassessment  -Identify the source 🡪 Hx, exam, and quick investigations (B/C, ABG, B/W, CXR, U/C +/- other imaging)  -Prompt antibiotics for suspected source  -EGDT – Fluids and vasopressors to keep MAP >65, Hgb >70, falling lactate  -ICU, ID, Surgery consults as needed | 3. |
| 2. Toxic Shock Syndrome  -Suspect in a young, healthy patient with refractory hypotension and a fever  -Clinical criteria:  T >38.9, sBP <90, diffuse macular erythroderma, desquamation within 1-2 weeks of onset, 3 or more system involvement (GI, muscular, mucous membranes, renal, hepatic, heme/low plt, CNS), negative B/C or CSF for pathogens apart from Staph aureus, negative serologies for RMSF, leptospirosis, or measles  -Identify source 🡪 Don’t forget to look for a tampon, but can theoretically be caused by any Staph aureus infection  -Source control  -Empiric treatment with Vanco + clinda 900mg IV q8h  -Consider IVIG (weak evidence) if poorly responsive to fluids and vasopressors | 4. |

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| **References**: |  |