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| **Case Title** | Spinal and Head Trauma |
| **Scenario Name** | Teenage Diver |

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| **Learning Objectives -** [**Use action words**](http://ubccpd.ca/sites/ubccpd.ca/files/Accreditation_Learning%20Objectives_%20Verbs.pdf) | |
| **Knowledge:**   1. Recognize the presentation of spinal trauma 2. Describe the management of neurogenic shock | |
| **Skills:**   1. Perform management of the injured patient with spinal trauma 2. Perform management of a patient in Neurogenic shock | |
| **Attitude/Behaviours**   1. Demonstrate Team skills 2. Demonstrate Situational awareness 3. Demonstrate Graded Assertiveness | |
| **Scenario Environment** | |
| **Location** | Emergency Department |
| **Monitors** | Standard |
| **Props/Equipment** | C-spine collar |
| **Make-up/Moulage** |  |
| **Potential Distractors** |  |

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| **Case Introduction:** |
| **Pre-hospital Notification:** 18 year old male. Dived of a cliff into shallow water. Arrival by helicopter – scene response. C-spine secured by EHS.  **On Arrival/History:** 18 year old male, Drinking at bush party, dive from 15 foot cliff into shallow water. Came up face down, face underwater for 5 minutes before rescued by friends. |

| **Patient Parameters** | **Effective Management** | **Notes** |
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| **Phase 1: Quad Injury**  **Condition:** Unstable  **Initial Assessment**   * **Heart Rhythm:** Sinus Tachycardia * **HR:** 140 * **BP:** 90/60 * **RR:** 14 * **SP02**: 93% * **CNS:** GCS 8-10 (M1(quad injury), E3-4, V4) | 1. **Take a focused history** (see Notes column) 2. **Medical Management**  * ABCs * History and Physical Exams * IVs X 2, Fluids * Assess Neurologic deficit * Airway- intubate with correct meds | 1. **Focused history**   **PMHx**  Injury Summary   * C-spine – quad injury * Head * Drowning- aspiration pneumonitis |
| **Phase 2: Neurogenic Shock**  **Condition:** Unstable  Patient goes into neurogenic shock with hypotension resistant to fluids with a bradycardia  **Physical Examination**   * **Heart Rhythm:** Sinus Bradycardia * **HR:** 35 * **BP:** 60/30 * **RR:** 8 * **SP02:** 80% if not intubated * **CNS:** GCS 3 (E-1, V-1, M-1) | 1. **Patient Reassessment** (see Notes column)-*Recognizes change in condition* 2. **Medical Management:**  * Recognition of neurogenic shock and treat with fluids and pressors | 1. **Patient Reassessment**   **Airway**   * Unable to maintain own- must be intubated if not already done   **Breathing**   * Ineffective breathing   **Circulation**   * Absent peripheral pulses |

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| **Expected Patient Management** | **Debriefing Points** |
| 1. **Student** 2. **R1** 3. **Senior IM resident** |  |

**References:**

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