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| **Case Title** | Respiratory Depression |
| **Scenario Name** | Fred Johnston |

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| **Learning Objectives (3 or more) -** [**Use action words**](http://ubccpd.ca/sites/ubccpd.ca/files/Accreditation_Learning%20Objectives_%20Verbs.pdf) | |
| **Knowledge:**   1. Identify Roles and Delegate Responsibilities – for instance:    1. 2 med students on call for the MRP/service.    2. One providing overall leadership and calling the MRP    3. 1 med student on CCOT providing resuscitation    4. 1 med student on CCOT providing Respiratory/Anesthesia support    5. 1 nursing student on ward supporting assessment and providing care to the patient    6. 1 nursing student on CCOT 2. Formulate a working diagnosis and alternate diagnoses 3. Recognize respiratory depression as the problem 4. Generate a short differential diagnosis of respiratory depression    1. Narcotic OD    2. Hypoglycemia    3. CNS event 5. Bonus: recognize patient characteristic that may predispose to narcotic OD i.e. OSA (obstructive sleep apnea) | |
| **Skills:**   1. Complete a systematic patient assessment 2. Acknowledge and provide comfort to patient 3. Document current vital signs including GCS 4. Initiate generic management (ABCD)    1. Ensure airway    2. Provide oxygen, attach patient non-invasive monitor and O2 sat probe    3. Ensure patent and functioning IV    4. Document GCS, check blood glucose 5. Initiate management based on PCA protocol 6. Call MRP and communicate patient condition using SBAR | |
| **Attitude/Behaviours**   1. Communicate salient patient findings clearly and respectfully with each other (SBAR as a guide) 2. Demonstrate listening skills and seek contribution from all team members 3. Demonstrate Team skills   Notes and Prompts:   * If students don’t notice that the patient is experiencing respiratory depression and administer Narcan in a timely manner, the patient will stop breathing. * If students raise the head of the bed, the patient will wake up with a terrible headache afterwards   **Participants:**   1. 2 Nursing students per scenario – 4 students plus a nursing student facilitator 2. 4 med students – one is delegated RT role in advance 3. 1 RT trainer/facilitator 4. 2 SIM Facilitators 5. 1 physician MRP and debriefer | |
| **Scenario Environment** | |
| **Location** | Ward |
| **Monitors** | None at the beginning, students must ask for them |
| **Props/Equipment** | 1. Tour of the room 2. Handling of the Sim patient 3. Equipment demo 4. Respiratory support equipment 5. Nursing documentation forms 6. Patient’s chart (Case 1 and Case 2) 7. Blank SBAR sheets 8. Observer worksheet 9. Debrief worksheet (questions)   **Students to bring:** Stethoscope |
| **Make-up/Moulage** | None |
| **Potential Distractors** | None |

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| **Case Introduction:** |
| 52 year old male admitted under Neurosurgeon. Post Op day 2, lumbar laminectomy and fusion. |

| **Patient Parameters** | **Effective Management** | **Notes** |
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| **Phase 1: Respiratory Depression, GCS 8**  **Condition:** Unstable  **Initial Assessment**   * **Heart Rhythm:** NSR * **HR:** 80 * **BP:** 170/83 * **RR:** 6 * **SP02:** 91% on RA * **T:** 36.7 C * **Glucose:** 8.4 (only if asked) * **CNS:** GCS 8 (opens eyes to pain- E2, mumbles incoherently- V2, withdraws to pain- M4)- 2 hours ago**.** Was GCS 14 (not oriented to time) 2 hours ago. | 1. **Take a focused history** (see Notes column) 2. **Medical Management** 3. Document current vital signs including GCS 4. Recognize respiratory depression as the problem 5. **Recognize that you need more help: Call Code Blue or CCOT** 6. Generate a short differential diagnosis of respiratory depression    1. Narcotic OD    2. Hypoglycemia    3. CNS event 7. Initiate generic management    1. Ensure airway    2. Provide oxygen    3. Ensure working IV    4. Attach patient non-invasive monitor and O2 sat probe 8. Initiate management based on PCA protocol (See link in references) 9. Call MRP and communicate patient condition using SBAR 10. Bonus: recognize patient characteristic that may predispose to narcotic OD i.e. OSA(obstructive sleep apnea) | 1. **Focused history**   **RN Assessment:**   * S: “not rousable” “Mumbling and then drifts off to sleep” * Post op day # 2 lumbar laminectomy and fusion   **PMHx**   * Obesity * Type II Diabetes   **Meds**  *Hand the MAR to the students:*   * + Morphine by PCA pump   + NPH insulin this morning   **Allergies**   * None |

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| **Expected Patient Management** | **Debriefing Points** |
| 1. **Student** 2. **R1** 3. **Senior IM resident** | **de-BRIEFING SUGGESTIONS:**   * Ask students:   + What did you do particularly well?   + What would you do differently if you could do it over again?   + How were the team dynamics? * Discuss your observations of what the team did well, and what you think they could have done better. * Discuss whether the team achieved all of the minimal behaviours (above). * What was going on with this patient? Why did it happen? * Write down what you learned during this simulation that you would apply in clinical practice? |

**References:**

**Patient- Controlled Analgesia (PCA)- Kelowna General Hospital PPO:**

[**http://teamsites.interiorhealth.ca/sites/Clinical/AcuteTertiary/KGH%20PrePrinted%20Orders/Patient%20Controlled%20Analgesia.pdf**](http://teamsites.interiorhealth.ca/sites/Clinical/AcuteTertiary/KGH%20PrePrinted%20Orders/Patient%20Controlled%20Analgesia.pdf)

**X-RAYS – Click** [here](https://extranet.interiorhealth.ca/IHUBCFaculty/Diagnostics/Forms/AllItems.aspx?RootFolder=%25252FIHUBCFaculty%25252FDiagnostics%25252FX%25252Drays&View=%25257bFD97E2FE-FD01-433F-B9CB-D75A4195924E%25257d)

**LABS**

RUN DATE: Today LABORATORY \*LIVE\* Lab Summary Report

LOCATION

Only if asked: Blood glucose 8.4 by glucometer

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| **Test** | **On Admission** | **Postop Day 2** | **Reference** |
| CBC |  |  |  |
| WBC | 5.6 | **6.0** | 3.5 – 10.8 10^9/L |
| RBC | 4.5 | **3.8 L** | 4.3 – 5.7 10^12/L |
| Hgb | 135 | **102 L** | 130 – 170 g/L |
| HCT | **0.39 L** | **0.29 L** | 0.37 – 0.47 L/L |
| Platelets | 210 | 378 | 150 – 400 10^9/L |
| LYT |  |  |  |
| Glucose - Random | 7.2 | 8.2 | 3.0 – 11.0 mmol/L |
| Na | 142 | **134 L** | 137 – 145 mmol/L |
| K | 3.7 | **3.4 L** | 3.5 – 5.0 mmol/L |
| Cl | 102 | 100 | 98 – 107 mmol/L |
| Mg | 0.8 | 0.7 | 0.7-1.1 mmol/L |
| Urea | **7.2 H** | **7.5 H** | 2.5 – 6.1 mmol/L |
| Creat | 97 | 93 | 62 – 106 umol/L |
| GFR Est | 72 | 68 | > 60 ml/min |
| CARD |  |  |  |
| CPK | - | - | 50 – 240 U/L |

**EKGs – click** [here](https://extranet.interiorhealth.ca/IHUBCFaculty/Diagnostics/Forms/AllItems.aspx?RootFolder=%25252FIHUBCFaculty%25252FDiagnostics%25252FECGs&View=%25257bFD97E2FE-FD01-433F-B9CB-D75A4195924E%25257d) **or paste**