**Maryland Next Gen NCLEX Test Bank Project**

**May 25, 2023**

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| **Case Study Topic**: | Opioid Overdose | **Author:** | E. Myers MSN-Ed RN CHPN  Frederick Community College |

**Case Summary**

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| 21-year-old male client with chief complaint of pain is found by the triage nurse in the emergency department to be minimally responsive. The learner should recognize cues of a client at risk for opioid overdose, recognize cues of an opioid overdose, plan and prioritize care for a client experiencing an opioid overdose, implement an appropriate treatment plan. |

**Objectives**

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| 1. Recognize relevant cues associated with opioid misuse  2. Apply knowledge of pathophysiology, when measuring vital signs of a client experiencing adverse effects from opioid misuse  3. Administer medications given by common routes for opioid overdose  4. Implement an appropriate treatment plan for the client experiencing an opioid overdose |

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| **Case Study Link** | **Case Study QR Code** |
| <https://umaryland.az1.qualtrics.com/jfe/form/SV_6PrMuaMbqWNYaBU> |  |
| **Trend QR Code** | **Trend Link** |
|  | <https://umaryland.az1.qualtrics.com/jfe/form/SV_2uFkuzxkiHJDTnw> |

**Case References**

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| 1. Videbeck, S. L. (2022). *Lippincott CoursePoint Enhanced for Videbeck's Psychiatric-Mental Health Nursing* (9th ed.). Wolters Kluwer Health. <https://coursepoint.vitalsource.com/books/9781975205867> |

**Case Study Question 1 of 6**

The nurse cares for a 21-year-old male in the emergency department with cellulitis and uncontrolled pain.

* Click to highlight the findings that require **immediate** follow-up.

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| **Nurses’ Notes** |
| 0930. Client being treated for cellulitis presented with a complaint of right arm pain not controlled by prescription narcotics. The client is alert and oriented but agitated, rating pain 10/10 pain. Denies shortness of breath or chest pain. Informed client of wait times, placed wristband on client, and had him return to the waiting room to be triaged.  1055. Notified by a family in the waiting room that the client was slouched in chair and “seemed dead.” Client was found to be unresponsive with constricted pupils, clammy skin, bradypnea, and circumoral cyanosis. Rt arm is red and swollen with blistered areas. | |

Key

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| **Nurses’ Notes** |
| 0930: Client being treated for cellulitis presented with a complaint of right arm pain not controlled by prescription narcotics. The client is alert and oriented but agitated, rating pain 10/10 pain. Denies shortness of breath or chest pain. Informed client of wait times, placed wristband on client, and had him return to the waiting room to be triaged.  1055: Notified by a family in the waiting room that the client was slouched in chair and “seemed dead.” Client was found to be unresponsive, with constricted pupils, clammy skin,  bradypnea, and circumoral cyanosis.  Rt arm is red and swollen with blistered areas. | |

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| **Score: +/-**  Rationale: The client reports narcotic use and may be suffering from an opioid overdose as evidenced by the respiratory depression, constricted pupils, change in the level of consciousness, and color changes. This client shows evidence of hypoxia with circumoral cyanosis and bradypnea. Respiratory depression should be the priority assessment. Clammy skin can have multiple causes including pain and anxiety. The redness, swelling and blisted skin are expected findings with cellulitis. These findings can be addressed at a later time. |

**Case Study Question 2 of 6**

The nurse cares for a 21-year-old male in the emergency department with cellulitis and uncontrolled pain.

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| **Nurses’ Notes** | |
| 0930. Client being treated for cellulitis presented with a complaint of right arm pain not controlled by prescription narcotics. The client is alert and oriented but agitated, rating pain 10/10 pain. Denies shortness of breath or chest pain. Informed client of wait times, placed wristband on client, and had him return to the waiting room to be triaged.  1055. Notified by a family in the waiting room that the client was slouched in chair and “seemed dead.” Client was found to be unresponsive with constricted pupils, clammy skin, bradypnea, and circumoral cyanosis. Rt arm is red and swollen with blistered areas.  1100. Emergency response team activated. Vital signs obtained. | | | |
| **Vital Signs** | |
| Time | 1100 | |
| T ◦F/ ◦C | 97.1F /36.1C | |
| P | 48 | |
| RR | 6 | |
| B/P | 90/50 | |
| Pulse oximeter | 86% | |
| Oxygen | RA | |
| Pain | Unable to report | |

* For each finding click to indicate if the finding is consistent with opioid overdose, sepsis, or myocardial infarction. Each finding may support more than one condition.

|  |  |  |  |
| --- | --- | --- | --- |
| Findings | Opioid Overdose | Sepsis | Myocardial infarction |
| Constricted pupils |  |  |  |
| Depressed respiratory rate |  |  |  |
| Cyanosis |  |  |  |
| Change in level of consciousness |  |  |  |
| Rt arm pain |  |  |  |
| Clammy skin |  |  |  |

Note: Each column must have at least 1 response option selected.

Key

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| --- | --- | --- | --- |
| Findings | Opioid overdose | Sepsis | Myocardial infarction |
| Constricted pupils | * \* |  |  |
| Depressed respiratory rate | * \* |  |  |
| Cyanosis | * \* | * \* | * \* |
| Change in level of consciousness | * \* | * \* | * \* |
| Rt arm pain |  |  |  |
| Clammy skin | * \* | * \* | * \* |

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| Score: +/-  Rationale: Constricted pupils, respiratory depression, cyanosis and change in the level of consciousness are all signs of opioid overdose. Sepsis and myocardial infarction (MI) can cause cyanosis and a change in the level of consciousness. Right arm pain is not specific to any of the listed conditions. Clammy skin is consistent with sepsis, MI, and opioid overdose. |

**Case Study Question 3 of 6**

The nurse cares for a 21-year-old male in the emergency department with cellulitis and uncontrolled pain.

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| **Nurses’ Notes** | |
| 0930. Client being treated for cellulitis presented with a complaint of right arm pain not controlled by prescription narcotics. The client is alert and oriented but agitated, rating pain 10/10 pain. Denies shortness of breath or chest pain. Informed client of wait times, placed wristband on client, and had him return to the waiting room to be triaged.  1055. Notified by a family in the waiting room that the client was slouched in chair and “seemed dead.” Client was found to be unresponsive with constricted pupils, clammy skin, bradypnea, and circumoral cyanosis. Rt arm is red and swollen with blistered areas.  1100. Emergency response team activated. Vital signs obtained. | | | |
| **Vital Signs** | |
| Time | 1100 | |
| T ◦F/ ◦C | 97.1F /36.1C | |
| P | 48 | |
| RR | 6 | |
| B/P | 90/50 | |
| Pulse oximeter | 86% | |
| Oxygen | RA | |
| Pain | Unable to report | |

* Complete the sentences from the list of drop-down options.

|  |  |
| --- | --- |
| The client is most likely experiencing | Select |
| myocardial infarction. |
| opioid overdose.\* |
| sepsis. |
| The priority is to treat the | Select |
| blood pressure. |
| infection. |
| respiratory effort.\* |

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| Score: 0/1  Rationale: This client has more signs of respiratory depression related to opioid overdose than any other conditions. The client may have a severe enough infection in their arm to cause sepsis, however early signs of sepsis include rapid respirations, tachcardia, and fever. Severe hypotension is late sign. A myocardial infarction (MI) is a major cause of cardiogenic shock. If the client was having an MI, it would be expected that the client reported other symptoms such as shortness of breath, chest pain, or left arm pain. The client does have low blood pressure and infection; however, the immediate concern is respiratory depression supported by the clinical findings. |

**Case Study Question 4 of 6**

The nurse cares for a 21-year-old male in the emergency department with cellulitis and uncontrolled pain.

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| **Nurses’ Notes** | |
| 0930. Client being treated for cellulitis presented with a complaint of right arm pain not controlled by prescription narcotics. The client is alert and oriented but agitated, rating pain 10/10 pain. Denies shortness of breath or chest pain. Informed client of wait times, placed wristband on client, and had him return to the waiting room to be triaged.  1055. Notified by a family in the waiting room that the client was slouched in chair and “seemed dead.” Client was found to be unresponsive with constricted pupils, clammy skin, bradypnea, and circumoral cyanosis. Rt arm is red and swollen with blistered areas.  1100. Emergency response team activated. Vital signs obtained. | | | |
| **Vital Signs** | |
| Time | 1100 | |
| T ◦F/ ◦C | 97.1F /36.1C | |
| P | 48 | |
| RR | 6 | |
| B/P | 90/50 | |
| Pulse oximeter | 86% | |
| Oxygen | RA | |
| Pain | Unable to report | |

The team suspects the client is experiencing an opioid overdose.

* For each potential nursing or collaborative intervention, click to specify whether the intervention is indicated or not indicated to include in the plan of care. Each row must have 1 option selected.

|  |  |  |
| --- | --- | --- |
| Potential Intervention | Indicated | Not indicated |
| Provide oxygen via nasal cannula | * \* |  |
| Administer intranasal naloxone | * \* |  |
| Administer PO charcoal |  | * \* |
| Administer intranasal flumazenil |  | * \* |
| Apply a cardiorespiratory monitor | * \* |  |
| Obtain a neurological assessment | * \* |  |
| Start chest compressions |  | * \* |

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| Score: 0/1  Rationale: The oxygen via nasal cannula would support the client’s respiratory status and naloxone would be given to reverse the respiratory depression. Oral charcoal would only be given if the team suspected that the client had ingested poison. Intranasal flumazenil would be given for a benzodiazepine overdose. Continuous vital signs would be done to monitor respiratory status for further respiratory depression. A neurological assessment is indicated as the client had hypoxia for an unknown amount of time. Chest compressions are not needed because the client has a pulse. |

**Case Study Question 5 of 6**

The nurse cares for a 21-year-old male in the emergency department with cellulitis and uncontrolled pain.

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| **Nurses’ Notes** | |
| 0930. Client being treated for cellulitis presented with a complaint of right arm pain not controlled by prescription narcotics. The client is alert and oriented but agitated, rating pain 10/10 pain. Denies shortness of breath or chest pain. Informed client of wait times, placed wristband on client, and had him return to the waiting room to be triaged.  1055. Notified by a family in the waiting room that the client was slouched in chair and “seemed dead.” Client was found to be unresponsive with constricted pupils, clammy skin, bradypnea, and circumoral cyanosis. Rt arm is red and swollen with blistered areas.  1100. Emergency response team activated. Vital signs obtained.  1105. Intranasal naloxone administered. Oxygen started at 2L per nasal cannula. Client starting to arouse. | | | |
| **Vital Signs** | |
| Time | 1100 | |
| T ◦F/ ◦C | 97.1F /36.1C | |
| P | 48 | |
| RR | 6 | |
| B/P | 90/50 | |
| Pulse oximeter | 86% | |
| Oxygen | RA | |
| Pain | Unable to report | |

The client was given intranasal naloxone and supplemental oxygen. The nurse begins to gather other assessment data and provide for the client’s safety.

* For each possible task, click to specify if it should be done immediately, within the hour, or before the shift ends at 1900. Each row must have 1 option selected.

|  |  |  |  |
| --- | --- | --- | --- |
| Task | Immediately | Within the hour | Before the end of the shift |
| Obtain repeat vital signs | * \* |  |  |
| Assess with an opioid withdrawal scale |  | * \* |  |
| Assess neurologic status | * \* |  |  |
| Complete a head to toe admission assessment |  | * \* |  |
| Provide wound care to right arm |  |  | * \* |
| Screen belongings for unsafe items |  | * \* |  |

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| Score: 0/1  Rationale: Emergency care follow the (C) castostrophic hemmorhage, A (airway), B (breathing), C (circulation), D (disability), E (exposure/environment/evaluate) approach. Initial supportive care has been given and the client is starting to arouse. The nurse should proceed to checking the neurologic status (disability) and reassessing the client’s vital signs. Over the next hour as the client becomes more alert, the nurse can complete the admission assessment, and screen with a withdrawal scale. The nurse should also screen belongings for unsafe items before leaving the client alone. Wound care is needed for the right forearm however, this is not the priority for the client and can be done later in the shift. |

**Case Study Question 6 of 6**

The nurse cares for a 21-year-old male in the emergency department with cellulitis and uncontrolled pain.

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| **Nurses’ Notes** | |
| 0930. Client being treated for cellulitis presented with a complaint of right arm pain not controlled by prescription narcotics. The client is alert and oriented but agitated, rating pain 10/10 pain. Denies shortness of breath or chest pain. Informed client of wait times, placed wristband on client, and had him return to the waiting room to be triaged.  1055. Notified by a family in the waiting room that the client was slouched in chair and “seemed dead.” Client was found to be unresponsive with constricted pupils, clammy skin, bradypnea, and circumoral cyanosis. Rt arm is red and swollen with blistered areas.  1100. Emergency response team activated. Vital signs obtained.  1105. Intranasal naloxone administered. Oxygen started at 2L per nasal cannula. Client starting to arouse.  1115. Client respirations returned to expected levels within two minutes, client awake, alert, nauseated, and vital signs improved.  1135. Client is alert and now complaining of severe pain and nausea. Reports he has been taking non-prescribed oxycotin in addition to ordered narcotic pain medications. Orders received. | | | | | |
| **Vital Signs** | |
| Time | 1100 | | 1115 | 1145 |
| T ◦F/ ◦C | 97.1F /36.1C | | 97.1F/36.1C | 98.3/F 36.7C |
| P | 48 | | 56 | 90 |
| RR | 6 | | 12 | 16 |
| B/P | 90/50 | | 94/56 | 130/88 |
| Pulse oximeter | 86% | | 93% on 2L | 96% on 2L |
| Oxygen | RA | | 2L via NC | 2L via NC |
| Pain | Unable to report | | 6/10 | 10/10 |
| **Orders** | |
| Admit to the inpatient unit  VS every 30 minutes x 6hrs  May repeat intra nasal naloxone 4 mg/0.1 ml every 2-3 minutes as needed  Oxygen per NC to keep pulse oximeter greater than 92%  Pain management consult  Wound nurse consult | | | | | |

The nurse receives orders, reassesses the client, and prepares them for admission.

* For each client statement, click to specify whether the statement indicates an understanding, or no understanding of teaching provided about opioid addiction. Each row must have 1 option selected.

|  |  |  |
| --- | --- | --- |
| Statement | Understanding | No understanding |
| “The pain management provider will manage my pain medications from now on” | * \* |  |
| “It is dangerous to take street drugs to self-medicate my pain.” | * \* |  |
| “My provider will not order opioids because I have had an opioid overdose” |  | * \* |
| “I have no control over my plan of care and should do what the provider says.” |  | * \* |
| “Because I am seeing pain management, I do not need to go to a rehab program.” |  | * \* |
| “I can drink alcohol with my opioid medications if it is not daily.” |  | * \* |

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| Score: 0/1  Rationale: The pain management provider will manage all opioids while the client is under care. Non prescribed drugs may not be safe, and clients should be under a provider’s care for pain management. Clients can still receive opioids with a substance misuse disorder. Clients on replacement therapies may still receive additional pain medications. The client should be part of their plan of care. Pain management is not a substitute for rehab. Alcohol should not be combined with opioids as they are both CNS depressants and can increase the risk of respiratory depression.h. |

**Trend Template**

The nurse cares for a 21-year-old male in the emergency department with cellulitis and uncontrolled pain.

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| **Nurses’ Notes** |
| 0930. Client being treated for cellulitis presented with a complaint of right arm pain not controlled by prescription narcotics. The client is alert and oriented but agitated, rating pain 10/10 pain. Denies shortness of breath or chest pain. Informed client of wait times, placed wristband on client, and had him return to the waiting room to be triaged.  1055. Notified by a family in the waiting room that the client was slouched in chair and “seemed dead.” Client was found to be unresponsive with constricted pupils, clammy skin, bradypnea, and circumoral cyanosis. Rt arm is red and swollen with blistered areas.  Emergency response team activated. Vital signs obtained. T 97.1F(36.1C), P48, RR 6, B/P 90/50, Pulse oximeter 86% on room air. | |

* Drag 1 condition and 1 finding to fill in the blanks of the following sentence.

The client is at highest risk for

due to

|  |  |  |
| --- | --- | --- |
| Conditions |  | Causes |
| Myocardial infarction |  | Extreme stress |
| Dystonia |  | Extrapyramidal symptoms |
| Opioid overdose\* |  | Opioid use \* |
| Septic shock |  | Wound infection |

Score: 0/1

Rationale: This client has more signs of respiratory depression related to opioid overdose than any other conditions. The client may have a severe enough infection in their arm to cause sepsis, however early signs of sepsis include rapid respirations, tachcardia, and fever. Severe hypotension is late sign. Left arm pain is a symptom of a myocardial infarction, not right, and it would be expected that the client reported other symptoms such as shortness of breath or chest pain. The client does have hypotension and infection; however, the immediate concern is respiratory depression supported by the clinical findings.