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| **Maryland Next Gen NCLEX Test Bank Project****September 1, 2022** |
| **Case Study Topic**:  | Postpartum Hemorrhage | **Author:** | Christine Schlaerth, PhD, CNM, WHNP-BCCarroll Community College |

**Case Summary**

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| A client in the 4th stage of labor has a postpartum hemorrhage following a cesarean birth. Uterotonics and fluids are given, and the client begins to recover once the fundus is firm and bleeding has ceased. |

**Objectives**

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| 1. Recognize trends and changes in client conditions/vital signs and intervene as needed2. Provide care for clients experiencing complications of pregnancy/labor and or delivery 3. Evaluate and document client responses to emergency interventions |

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| **Case Study Link** | **Case Study QR Code** |
| <https://umaryland.az1.qualtrics.com/jfe/form/SV_ethSrOLGR20HDZs> |  |
| **Trend QR Code** | **Trend Link** |
|  | <https://umaryland.az1.qualtrics.com/jfe/form/SV_02IHwhHpiblxzb8> |

**Case References**

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| 1. Agency for Healthcare Research and Quality (2017). Sample Scenario for Postpartum Hemorrhage In Situ Simulation. Retrieved from: <https://www.ahrq.gov/hai/tools/perinatal-care/modules/situ/simulation-postpart-hemorrhage.html>
2. Bristol, T.J., Herrman, J.W, and Stephenson, W. (2019). Postpartum hemorrhage. In *NurseThink for Students: NCLEX-RN Conceptual Review Guide (pp. 46).* NurseTim, Inc.
 |

**Case Study Question 1 of 6**

A client in the 4th stage of labor is being cared for following a cesarean birth.

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

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| --- |
| Flowsheet |
| Time | 1615 | 1630 | 1645 |
| Temp | 37.1 C / 98.8 F |  |  |
| P  | 88 | 100 | 115 |
| RR | 20 | 21 | 22 |
| B/P | 124/70 | 103/76 | 85/45 |
| Pulse oximeter | 97% on RA | 94% on RA | 89% on RA |
| 1615. 27yo Gravida 2 now Para 2 delivered 3590 gram(7lb 9oz) term infant via cesarean at 1545. Quantitative blood loss 850 mL. Client stable in PACU with oxytocin 30units/500mL LR IV @ 250mL/hr.1645. Client states, “I feel dizzy” and appears pale. Additional blood loss 400 mL.Fundus boggy, midline, and 3cm above umbilicus. |

Key

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**Scoring Rule: +/-**

**Rationale:** The concerning findings are the client stating she feels dizzy, appearing pale, additional blood loss and the bogginess and position of the uterus. Concerning vital signs are pulse, BP and pulse oximeter. The quantitative blood loss after the cesarean is within normal limits (up to 1000 mL for cesarean delivery). More than 1000 mL in 24 hours qualifies as postpartum hemorrhage after cesarean. Additional 400 mL puts the client at a total loss of 1300 mL. Infant weight is WNL.

**Case Study Question 2 of 6**

A client in the 4th stage of labor is being cared for following a cesarean birth.

|  |
| --- |
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| Temp | 37.1 C/ 98.8 F |  |  |
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* For each finding click to indicate if the finding is consistent with septic shock, cardiogenic shock, or hemorrhagic shock. Each finding may support more than one type of shock.

|  |  |  |  |
| --- | --- | --- | --- |
| Finding | Septic shock | Cardiogenic shock | Hemorrhagic shock |
| Blood pressure | * \*
 | * \*
 | * \*
 |
| Heart rate | * \*
 | * \*
 | * \*
 |
| Blood loss |  |  | * \*
 |
| Skin coloration |  | * \*
 | * \*
 |
| Dizziness | * \*
 | * \*
 | * \*
 |

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

**Scoring Rule: +/-**

**Rationale:** Hypotension and tachycardia occur in all three types of shock. Pale and cool skin is indicative of cardiogenic or hemorrhagic shock. Blood loss only occurs in hemorrhagic shock. Dizziness with poor perfusion in all forms of shock.

**Case Study Question 3 of 6**

A client in the 4th stage of labor is being cared for following a cesarean birth.

|  |
| --- |
| **Flowsheet** |
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| Temp | 37.1 C/ 98.8 F |  |  |
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| RR | 20 | 21 | 22 |
| B/P | 124/70 | 103/76 | 85/45 |
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| 1615. 27yo Gravida 2 now Para 2 delivered 3590 gram (7lb 9oz) term infant via cesarean at 1545. Quantitative blood loss 850 mL. Client stable in PACU with oxytocin 30units/500mL LR IV @ 250mL/hr.1645. Client states, “I feel dizzy” and appears pale. Additional blood loss 400 mL.Fundus boggy, midline, and 3cm above umbilicus. |

* Complete the following sentence by choosing from the list of options.

|  |  |
| --- | --- |
| The client is most likely experiencing  | Select |
| Septic shock |
| Cardiogenic shock |
| Hemorrhagic shock\* |
|  |
| as most evidenced by  | Select |
| Total blood loss\* |
| Blood pressure |
| Pulse |
|  |

**Scoring Rule: Rationale**

**Rationale:** The blood loss and vital signs are consistent with postpartum hemorrhage and a client experiencing hemorrhagic shock. All forms of shock include low blood pressure and pulse. Blood loss is unique to hemorrhagic shock.

**Case Study Question 4 of 6**

A client in the 4th stage of labor is being cared for following a cesarean birth.

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| --- |
| **Flowsheet** |
| Time | 1615 | 1630 | 1645 |
| Temp | 37.1 C/ 98.8 F |  |  |
| P  | 88 | 100 | 115 |
| RR | 20 | 21 | 22 |
| B/P | 124/70 | 103/76 | 85/45 |
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| 1615. 27yo Gravida 2 now Para 2 delivered 3590 gram(7lb 9oz) term infant via cesarean at 1545. Quantitative blood loss 850 mL. Client stable in PACU with oxytocin 30units/500mL LR IV @ 250mL/hr.1645. Client states, “I feel dizzy” and appears pale. Additional blood loss 400 mL.Fundus boggy, midline, and 3cm above umbilicus. |

* Select the orders from each of the categories the nurse should include in the plan of care. Each category may have more than one order.

|  |  |
| --- | --- |
| Categories | Orders |
| Nursing | * Massage fundus\*
 |
| * Weigh peripads\*
 |
| * Oxygen 10 L/min\*
 |
| * Clear liquids
 |
| Laboratory | * Type and cross\*
 |
| * Glomerular filtration rate
 |
| * Hemoglobin and hematocrit\*
 |
| * Urine specific gravity
 |
| Medications | * Colloid fluids\*
 |
| * Misoprostol\*
 |
| * Rhogam
 |
| * Penicillin
 |

**Scoring Rule: +/-**

**Rationale:** Expected actions are fundal massage to stimulate contractions, weighing of the peripads for quantitative blood loss, oxygen, and pulse oximetry. Clear liquids would not be appropriate at this time. The provider would order a type and cross for potential transfusion and Hct &Hbg to monitor recovery. Colloid fluids help replace lost fluids and uterotonics help contract the uterus to prevent further blood loss.

**Case Study Question 5 of 6**

A client in the 4th stage of labor is being cared for following a cesarean birth.

|  |
| --- |
| **Flowsheet** |
| Time | 1615 | 1630 | 1645 |
| Temp | 37.1 C/ 98.8 F |  |  |
| P  | 88 | 100 | 115 |
| RR | 20 | 21 | 22 |
| B/P | 124/70 | 103/76 | 85/45 |
| Pulse oximeter | 97% on RA | 94% on RA | 89% on RA |
| 1615. 27yo Gravida 2 now Para 2 delivered 3590 gram (7lb 9oz) term infant via cesarean at 1545. Quantitative blood loss 850 mL. Client stable in PACU with oxytocin 30units/500mL LR IV @ 250mL/hr.1645. Client states, “I feel dizzy” and appears pale. Additional blood loss 400 mL.Fundus boggy, midline, and 3cm above umbilicus.1650. Provider notified and postpartum hemorrhage protocol activated.  |
| **Postpartum hemorrhage Protocol Orders** |
| * Misoprostol 1000 mcg per rectum
* Type and cross for packed red blood cells
* Hemoglobin and hematocrit
* Oxygen 10L/min via non-rebreather
* Massage fundus
* Weigh peripads
* 500 mL normal saline fluid bolus
* Notify surgical team
 |

* Which 4 orders should the nurse implement first?

|  |
| --- |
| * Hemoglobin and hematocrit
 |
| * Massage fundus\*
 |
| * Administer misoprostol\*
 |
| * Weigh pads
 |
| * Oxygen 10 L/min\*
 |
| * Type and cross
* 500 mL normal saline fluid bolus \*
 |
| * Notify surgical team
 |

**Scoring Rule: 0/1**

**Rationale:** The most important actions are to stop the bleeding and maintain circulation. Massaging the fundus stimulates contraction, which should stop the bleeding. Uterotonics also serve to contract the uterus to stop bleeding. The fluid bolus and oxygen are necessary to restore perfusion because blood pressure has dropped, and the client states they feel dizzy. The patient may require a blood transfusion but there are nursing interventions that can be done first.

**Case Study Question 6 of 6**

A client in the 4th stage of labor is being cared for following a cesarean birth.

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| --- |
| **Flowsheet** |
| Time | 1615 | 1630 | 1645 | 1655 | 1705 |
| Temp | 37.1 C/ 98.8 F |  |  |  | 37.2 C/99.0 F |
| P  | 88 | 100 | 115 | 108 | 102 |
| RR | 20 | 21 | 22 | 22 | 20 |
| B/P | 124/70 | 103/76 | 85/45 | 99/68 | 105/79 |
| Pulse oximeter | 97% on RA | 94% on RA | 89% on RA | 91% on 10L | 93% on 10L |
| 1615. 27yo Gravida 2 now Para 2 delivered 3590 (7lb 9oz) gram term infant via cesarean at 1545. Quantitative blood loss 850 mL. Client stable in PACU with oxytocin 30units/500mL LR IV @ 250mL/hr.1645. Client states, “I feel dizzy” and appears pale. Additional blood loss 400 mL.Fundus boggy, midline, and 3cm above umbilicus.1650. Provider notified and postpartum hemorrhage protocol activated. 1655. Fundal massage implemented. Misoprostol 1000 mcg per rectum. Fluid bolus started. Oxygen started.1705. Fundus firm at umbilicus. Bleeding ceased. |
| * **Orders**
 |
| * Misoprostol 1000 mcg per rectum
* Type and cross for packed red blood cells
* Hemoglobin and hematocrit
* Oxygen 10L/min via non-rebreather
* Massage fundus
* Weigh peripads
* 500 mL normal saline fluid bolus
* Notify surgical team
 |

The nurse reassesses the client after implementation of the treatment plan.

* Complete the following sentence by choosing from the list of options.

|  |  |
| --- | --- |
| The nurse determines the client’s status is  | Select |
| Improving\* |
| Deteriorating  |
| Unchanged |
| The nurse should now  | Select |
| continue monitoring the client\* |
| administer blood products |
| request a second uterotonic. |

**Scoring Rule: 0/1**

**Rationale:** The trends in the vital signs, firm fundus, and cessation of bleeding indicate the client is improving. The correct action is to continue to monitor the patient.

**Trend Template**

A client in the 4th stage labor develops postpartum hemorrhage following a cesarean birth.

|  |
| --- |
| **Flowsheet** |
| Time | 1615 | 1630 | 1645 | 1655 | 1705 |
| Temp | 37.1 C/ 98.8 F |  |  |  | 37.2 C/99.0 F |
| P  | 88 | 100 | 115 | 108 | 102 |
| RR | 20 | 21 | 22 | 22 | 20 |
| B/P | 124/70 | 103/76 | 85/45 | 99/68 | 105/79 |
| Pulse oximeter | 97% on RA | 94% on RA | 89% on RA | 91% on 10L | 93% on 10L |
| 1615. 27yo Gravida 2 now Para 2 delivered 3590 (7lb 9oz) gram term infant via cesarean at 1545. Quantitative blood loss 850 mL. Client stable in PACU with oxytocin 30units/500mL LR IV @ 250mL/hr.1645. Client states, “I feel dizzy” and appears pale. Additional blood loss 400 mL.Fundus boggy, midline, and 3cm above umbilicus.1650. Provider notified and postpartum hemorrhage protocol activated. 1655. Fundal massage implemented. Misoprostol 1000 mcg per rectum. Fluid bolus started. Oxygen started.1705. Fundus firm at umbilicus. Bleeding scant. Client is groggy and confused. |

The nurse reassesses the client after implementation of the treatment plan.

* For each finding, click to specify if the finding indicates that the client’s status has improved, declined, or is unchanged.

|  |  |  |  |
| --- | --- | --- | --- |
| Finding | Improved | Declined | Unchanged |
| Fundal firmness | * \*
 |  |  |
| Bleeding | * \*
 |  |  |
| Level of consciousness |  | * \*
 |  |
| Temperature |  |  | * \*
 |
| Blood pressure | * \*
 |  |  |
| Pulse | * \*
 |  |  |
| Pulse oximetry | * \*
 |  |  |

**Scoring Rule: 0/1**

**Rationale**: The trends in the vital signs, firm fundus, and cessation of bleeding indicate the client is improving. The level of consciousness has declined from dizzy to groggy due to the blood loss. The correct action is to continue to monitor the patient.