

CLINICAL REASONING CHECKLIST - HYPERVOLAEMIA

Students receive one point for every item on the checklist performed correctly and in the proper sequence. They receive a score of zero for any item not performed, performed out of sequence or performed incorrectly.

Scenario: An 76 year old man, day 2 post-op following a bowel resection, with hypervolaemia and early stage pulmonary oedema

Process	Description	Behaviour	✓	Comments
Considers the patient situation	<u>Observes</u> context and patient situation	<i>Verbalises key observations from handover and initial view of patient:</i> 1. Patient's age 2. Recent surgery 3. Previous fluid challenges 4. IV 125 mL/hr 5. PCA 6. Patient's restlessness 7. Patient's distress 8. Other relevant observation/s		
Collect cues/ information	<u>Reviews</u> current information (e.g. handover reports, patient history, patient charts, results of investigations and nursing/medical assessments previously undertaken)	<i>Reviews:</i> 1. Temp 2. HR 3. RR 4. BP 5. O ₂ sats 6. Urine output		

		<ul style="list-style-type: none"> 7. IV rate 8. FBC – cumulative balance 9. Medical notes 10. Nursing notes 		
	<p><u>Gathers</u> new information (e.g. undertake patient assessment)</p>	<p><i>Assesses:</i></p> <ul style="list-style-type: none"> 1. Asks patient how they are feeling 2. HR 3. BP 4. RR 5. Temp 6. O₂ saturation 7. PCA 8. Catheter drainage 9. Lung auscultation 10. Cognitive status 11. O₂ flow rate 12. Pain 13. BGL 14. Condition of wound 15. Peripheral oedema 		
	<p><u>Recalls</u> knowledge (e.g. physiology, pathophysiology, pharmacology, epidemiology, therapeutics, culture, context of care, ethics, law etc)</p>	<p><i>Verbalises:</i></p> <ul style="list-style-type: none"> 1. BP is related to fluid status 2. Resolution of third space fluid shift can result in increased intravascular volume 3. Post-operatively confusion in older patients can result from ... 4. Older patients can have renal insufficiency The 5. Normal electrolyte levels are ... 6. Morphine can cause vasodilation and reduce urine output 		

Process information	<p><u>Interprets</u>: analyse data to come to an understanding of signs or symptoms. Compare normal Vs abnormal.</p>	<p><i>Verbalises:</i></p> <ol style="list-style-type: none"> 1. HR high 2. BP high 3. RR high 4. O₂ saturation low 5. Urine output low 6. Lung auscultation audible wheeze 7. Cognitive status confused 8. Cumulative balance positive 9. O₂ flow rate 2L min 10. BGL normal 		
	<p><u>Discriminates</u>: distinguish relevant from irrelevant information; recognise inconsistencies, narrow down the information to what is most important and recognise gaps in cues collected.</p>	<p><i>Identifies and verbalises:</i></p> <ol style="list-style-type: none"> 1. HR high 2. BP high 3. RR high 4. O₂ saturation low 5. Urine output low 6. Cognitive status confused 7. Electrolyte levels abnormal 8. Cumulative fluid balance shows positive balance 9. Other relevant information 		
	<p><u>Relates</u>: discover new relationships or patterns; cluster cues together to identify relationships between them.</p>	<p><i>Verbalises:</i></p> <ol style="list-style-type: none"> 1. Hypertension and tachycardia can result from increased intravascular volume 2. Increased intravascular volume can result in hypoxia, tachypnoea and wheeze 3. A decreased urine output can exacerbate fluid volume excess 4. Other relevant clinical pattern/s 5. Increased intravascular volume can cause confusion 		
	<p><u>Infers</u>: make deductions or form opinions that follow logically by interpreting subjective and objective</p>	<p><i>Verbalises:</i></p> <ol style="list-style-type: none"> 1. The patient's cognitive changes may be the result of hypervolaemia and hypoxia 		

	cues; consider alternatives and consequences.	2. The patient's wheeze may be from pulmonary oedema 3. The patient confusion may be because of hypoxia or cerebral oedema		
	<u>Matches</u> current situation to past situations or current patient to past patients (usually an expert thought process)	<i>Verbalises:</i> 1. I have seen this before when ...		
	<u>Predicts</u> an outcome (usually an expert thought process)	<i>Verbalises:</i> 1. If we don't get an order for a diuretic the patient's condition will deteriorate 2. The patient could have a respiratory arrest		
Identify problem / issue	<u>Synthesises</u> facts and inferences to make a definitive diagnosis of the patient's problem.	<i>Verbalises:</i> 1. The patient is hypervolaemic 2. The patient has pulmonary oedema		
Establish goals	<u>Describes</u> what you want to happen, a desired outcome, a time frame.	<i>Verbalises:</i> 1. Improved oxygenation levels within 20-30mins 2. Improved vital signs within 60 mins 3. Increased urine output within 15 mins 4. Decreased confusion with 120 mins 5. Improved RR, BP, HR within 60 mins		
Take action	<u>Selects</u> a course of action between different alternatives available	<i>Initiates:</i> 1. Increase oxygen flow rate to 10 L via Hudson mask 2. Sit patient in high Fowler's position 3. Monitor O ₂ sats 4. Reduce IV rate 5. Phone MO using ISBAR 6. Obtain order for diuretic 7. Administer diuretic 8. Monitor vital signs 9. Monitor urine output		

Evaluate	<u>Evaluates</u> the effectiveness of outcomes and actions. Ask: "has <i>the situation improved now?</i> "	<i>Reviews:</i> 1. O ₂ sats 2. RR 3. Urine output 4. BP 5. HR 6. Lung sounds 7. Cognitive status		
Reflect on process and new learning	<u>Contemplates</u> what you have learnt from this process and what you could have done differently.	<i>For debriefing:</i> Next time I would ... I should have ... If I had ... I now understand ...		