

Clinical Skill Tool

Intubation and Ventilation



ThinkAskLearn
Health Professional Education

Disclaimer

Think Ask Learn offers this sample of an Assessment Tool for use in your department. This is to be modified to suit the individual needs of organisations. Think Ask Learn does not offer a clinical skill assessment service for individuals. Think Ask Learn does not take responsibility for the use of this tool by individuals. This tool is used at the express risk of the individual and the organisation that uses this form.

Domain: Intubation and Mechanical Ventilation

Indicator 1: Discusses the criteria for intubation and mechanical ventilation.		
Performance Indicator	Achieved	Not Achieved
<p>Is able to identify and discuss the indications for intubation:</p> <ul style="list-style-type: none"> • Glasgow Coma Scale • Airway protection • Stabilise chest wall • Permit sedation and neuromuscular blockade • CO2 retention • Acid-base disturbances • Disease processes • Reverse respiratory muscle fatigue • Reverse hypoxaemia • Decrease ICP • Reverse or prevent atelectasis 		
<p>Is able to identify and demonstrate use of adjuncts utilised to maintain an airway:</p> <ul style="list-style-type: none"> • Head position • Oropharyngeal airway • Nasopharyngeal airway • Patient position • Suction equipment. • Bag Valve Mask 		
<p>Is able to describe the four grades of intubation difficulty:</p> <ul style="list-style-type: none"> • Mallampati score • Cormack-Lehane grading 		
<p>Can describe the assessment parameters that guide the decision to institute mechanical ventilation:</p> <ul style="list-style-type: none"> • Patient history (noting the presence of chronic respiratory disease) • Physical examination • Vital sign assessment including WOB • Analysis of ABGs, SaO2, CXR, ECG • Revision of pathology results and spirometry 		

Indicator 2: Anticipates and instigates appropriate treatment and management strategies for multiple unstable or undiagnosed patients within a dynamic environment

Performance Indicator	Achieved	Not Achieved
<p>Uses checklist approach to ensure consistency and confirms critical items are not forgotten</p> <p>Able to locate departmental checklist (if applicable) for</p> <ul style="list-style-type: none"> • Pre-intubation • Post Intubation 		

Indicator 3: Demonstrates knowledge of drugs used in intubation.

Performance Indicator	Achieved	Not Achieved
<p>Is able to demonstrate knowledge of following drugs:</p> <p>Knowledge includes:</p> <ul style="list-style-type: none"> - mode of action - dosage - drawing up of drug - complications - general side effects <p>Depolarising muscle relaxants</p> <ul style="list-style-type: none"> • Suxamethonium <p>Non-depolarising muscle relaxants</p> <ul style="list-style-type: none"> • Rocuronium • Vecuronium <p>Opiates</p> <ul style="list-style-type: none"> • Morphine • Fentanyl <p>Sedatives</p> <ul style="list-style-type: none"> • Midazolam • Propofol <p>Other</p> <ul style="list-style-type: none"> • Ketamine 		

Indicator 4: Demonstrates knowledge of drugs used in intubation.

Performance Indicator	Achieved	Not Achieved
Gathers and prepares the appropriate equipment for intubation as per unit policy		
Prepares the patient for the procedure <ul style="list-style-type: none"> • Sits back of bed up 20 degrees (not in trauma) • Ensure pillow in situ (not in trauma) • Applies High Flow Nasal Prongs (15l/min) • Checks equipment/suction to ensure working order • 2 large bore cannula with free flowing hand pump set 		
Competently assists in the procedure, including: <ul style="list-style-type: none"> • handing of appropriate equipment to the operator • securing of the endotracheal tube • does not apply cricoid pressure • drug administration per unit protocol 		

Indicator 5: Discusses the criteria for confirmation of the correct placement of the endotracheal tube

Performance Indicator	Achieved	Not Achieved
Identifies the following methods <ul style="list-style-type: none"> • ETCO2 analysis and waveform • Auscultation of breath sounds • Observation of the patient's chest symmetry • Oxygenation • Chest X-ray interpretation 		

Indicator 6: Identifies and sets up components of the ventilator used in the clinical area

Performance Indicator	Achieved	Not Achieved
Identifies all components of the ventilator circuit: sets up the circuit <ul style="list-style-type: none"> • performs a safety check • describes all ventilator settings and their use/limits • discusses the use of HME/wet circuits • sets the ventilator parameters according to unit policy, including alarm limits, apnoea alarms • ensures ventilation equipment is ordered ready for the next patient 		

Indicator 7: Competently assesses the mechanically ventilated patient utilising the Emergency Care Cycle

Performance Indicator	Achieved	Not Achieved
Demonstrates a head-to-toe patient assessment, including: <ul style="list-style-type: none"> • General patient assessment (primary survey) • Air entry and added breath sounds • Palpation and percussion of the chest wall • ETT size, type and position • Assessment of ETT cuff • Mucosal assessment • SaO₂ monitoring and ABG analysis • Chest X-ray interpretation • Patient position and alignment 		

Indicator 8: Assesses and reviews the type of mechanical ventilation the patient is receiving

Performance Indicator	Achieved	Not Achieved
Describe and note differences between CMV, assist control and SIMV modes, including <ul style="list-style-type: none"> • The flow of gas in each • Types of patients they would be used on 		
Briefly discuss <ul style="list-style-type: none"> • Compliance • Resistance • Peak inspiratory pressures • Plateau pressure • Flow rates • Triggering (flow and pressure) • I:E ratio • Inspiratory pause • Dead space • Sensitivity 		
Discuss the ventilation cycling mechanism: <ul style="list-style-type: none"> • Volume • Time • Pressure. 		
Differentiate between mandatory, assist and spontaneous breath delivery		

Performance Indicator	Achieved	Not Achieved
<p>Assess the ETT cuff seal, including:</p> <ul style="list-style-type: none"> Identifies parameters for cuff pressures Auscultation over trachea to determine cuff seal Identifies areas that may cause a leak—cuff valve, pilot tube or ETT cuff or herniation of cuff above the cords Describes troubleshooting strategies for a leaking cuff 		
<p>Assess the adequacy of humidification, including:</p> <ul style="list-style-type: none"> Observes and ensures that humidifier and inspiratory limb temperatures are set within unit guidelines Observes for excess moisture on HMEs Observes consistency of secretions Notes the relevance to the compliance and resistance of the patient's lungs to ventilation Discusses complications of humidification. 		
Assess the need for and perform endotracheal suctioning as per unit policy		
<p>Review the patient's ventilation parameters, noting the above and in consultation with medical staff, including:</p> <ul style="list-style-type: none"> Observe the patients work of breathing and identify interventions regarding same Observe ventilator/patient synchrony and identify troubleshooting regarding same 		

Indicator 9: Discusses the necessity for ventilation observations

Performance Indicator	Achieved	Not Achieved
Considers necessity for individual and collective observations		
Observations are used to show changes in trends, compliance, chest symmetry, air entry, O2 requirements, A-a gradients, machine function, patient LOC, haemodynamic changes associated with ventilation		
Patient safety issues		

Indicator 10: Critically assesses the adequacy of ventilation on a range of emergent patients

Performance Indicator	Achieved	Not Achieved
<p>Identifies parameters used to assess the work of breathing, including:</p> <ul style="list-style-type: none"> • Patient's respiratory rate, • Tidal volume • Minute volume • Spontaneous breathing • Use of accessory muscles • Diaphoresis • Changes in vital signs from baseline 		
<p>Identifies normal and abnormal ABG results:</p> <ul style="list-style-type: none"> • Changes ventilation to correct abnormalities 		
<p>Identifies the possible cause of the acid/base imbalance and provides a clinical rationale, including:</p> <ul style="list-style-type: none"> • Physiological compensation mechanisms • Identifies clinical indicators of hypoxaemia/hypercarbia. 		
<p>Describes the clinical application of the oxyhaemoglobin dissociation curve</p>		
<p>Identifies normal and abnormal ETCO₂ results:</p> <ul style="list-style-type: none"> • Discusses why ETCO₂ and PaCO₂ values may vary • Discusses manipulation of ETCO₂ and its importance in ventilation 		
<p>Discusses the physiological changes the patient may evidence due to positive pressure ventilation, including:</p> <ul style="list-style-type: none"> • Preload/afterload • BP and heart rate • Tissue perfusion • Lung compliance • Trauma/patient comfort. 		

Indicator 11: Critically discusses possible complications of mechanical ventilation

Performance Indicator	Achieved	Not Achieved
<p>Describes the following complications and how the risk of each can be reduced:</p> <ul style="list-style-type: none"> • Barotrauma • Volutrauma • Potential for raised ICP • Subcutaneous emphysema due to hyperinflation • Atelectasis • Consolidation • Decreased compliance • Haemodynamic compromise • V/Q mismatch • Infection • Anxiety/fear • Communication difficulties 		

Indicator 12: Concurrently performs ongoing patient assessment while undertaking a variety of other activities

Performance Indicator	Achieved	Not Achieved
Continuously observes the responses of the patient to activity		
<p>Safely continues to perform nursing care whilst simultaneously addressing other's needs</p> <ul style="list-style-type: none"> • Interacts with multidisciplinary team whilst caring for/observing patient • Deals with family/relative inquiries whilst caring for/observing patient • Interacts calmly and appropriately with family/other team health care workers 		

Indicator 13: Responds effectively to rapidly changing situations

Performance Indicator	Achieved	Not Achieved
Initiates pre-emptive interventions in anticipation of potential complications		
Anticipates and prepares for potential complications to specific interventions or conditions		
Draws on team resources when required		
Assists in the co-ordination of resources when appropriate		

Candidate's Name

Indicator 14: Identifies and analyses altered physiological parameters and intervenes appropriately.

Performance Indicator	Achieved	Not Achieved
Recognises subtle changes in patient's status and responds appropriately		
Effectively and efficiently manages emergency situation if appropriate		

Indicator 15: Demonstrates an ability to manage the emergency situation and prepare appropriate resources

Performance Indicator	Achieved	Not Achieved
Ensures availability of appropriate resources <ul style="list-style-type: none">• Emergency trolley• Intubation equipment		
Ensures staff coverage of all other patients during an emergency		
Effectively delegates and prioritises care during an emergency		

Date: ____/____/____

Assessment setting/Patient Condition:

Please circle one: ACHIEVED REASSESSMENT REQUIRED

Assessor's comments: Assessors' Qualifications _____

Assessor's name (printed): _____ Signature: _____

Candidate's comments:

Candidate's name (printed): _____ Signature: _____