



ANAESTHESIOLOGY ( CARDIOTHORACIC )				
NO	INDICATOR	DIMENSION	STANDARD	HOSPITAL REPORTING FREQUENCY
1	Percentage of post-elective cardiopulmonary bypass adult patients with blood glucose level $\leq 11$ mmol/L on arrival to Cardiac Intensive Care Unit (CICU)	Effectiveness	$\geq 80\%$	Monthly
2	Percentage of accidental carotid arterial puncture during central venous cannulation via internal jugular vein (IJV) approach	Safety	$\leq 5\%$	Monthly
3	Percentage of thoracic surgical patients receiving Acute Pain Service	Customer Centeredness	$\geq 60\%$	Monthly



Indicator 1	:	Departmental
Discipline	:	Anaesthesiology ( Cardiothoracic)
Name of indicator	:	Percentage of post-elective cardiopulmonary bypass adult patients with blood glucose level $\leq 11$ mmol/L on arrival to Cardiac Intensive Care Unit (CICU)
Dimension of Quality	:	Effectiveness
Rationale	:	Post-operative patient with high blood glucose level is associated with surgical wound infection and prolonged hospital stay.
Definition of Terms	:	Adult: Age >18 years.
Criteria	:	<b>Inclusion:</b> 1. All adult elective cardiac surgery that underwent cardiopulmonary bypass.  <b>Exclusion:</b> NA
Type of indicator	:	Rate-based process indicator
Numerator	:	Number of post-elective cardiopulmonary bypass adult patients with blood glucose level $\leq 11$ mmol/L on arrival to CICU
Denominator	:	Total number of post-elective cardiopulmonary adult patients in CICU
Formula	:	$\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$
Standard	:	$\geq 80\%$
Data Collection	:	1. <b>Where:</b> Data will be collected in CICU. 2. <b>Who:</b> Data will be collected by Officer/ Paramedic/ Nurse in-charge (indicator co-ordinator) of the department/ unit. 3. <b>How frequent:</b> Monthly data collection. 4. <b>Who should verify:</b> All performance data must be verified by Head of Department/ Head of Unit/ Hospital Director. 5. <b>How to collect:</b> Data is suggested to be collected from record book/ CICU chart.
Remarks	:	

Indicator 2	:	Departmental
Discipline	:	Anaesthesiology ( Cardiothoracic)
Name of indicator	:	Percentage of accidental carotid arterial puncture during central venous cannulation via internal jugular vein (IJV) approach
Dimension of Quality	:	Safety
Rationale	:	1. The use of central venous catheter via the IJV approach is frequently required in the management of cardiothoracic patients. 2. Accidental carotid artery puncture has an incidence of 6-25% and is associated with morbidity.
Definition of Terms	:	<b>Accidental carotid artery puncture:</b> Process whereby the cannulating needle accidentally punctures the carotid artery during insertion.
Criteria	:	<b>Inclusion:</b> 1. All IJV cannulations done in cardiothoracic cases.  <b>Exclusion:</b> NA
Type of indicator	:	Rate-based process indicator



<b>Numerator</b>	:	Number of accidental carotid arterial punctures during central venous cannulation via internal jugular vein (IJV) approach
<b>Denominator</b>	:	Total number of central venous cannulation via internal jugular vein (IJV) approach performed
<b>Formula</b>	:	$\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$
<b>Standard</b>	:	≤ 5%
<b>Data Collection</b>	:	<ol style="list-style-type: none"> <li><b>Where:</b> Data will be collected in operating theatre and Cardiac ICU/ CRW or wards that cater the above condition.</li> <li><b>Who:</b> Data will be collected by Officer/ Paramedic/ Nurse in-charge (indicator co-ordinator) of the department/ unit.</li> <li><b>How frequent:</b> Monthly data collection.</li> <li><b>Who should verify:</b> All performance data must be verified by Head of Department/ Head of Unit/ Hospital Director.</li> <li><b>How to collect:</b> Data is suggested to be collected from record book.</li> </ol>
<b>Remarks</b>	:	

<b>Indicator 3</b>	:	Departmental
<b>Discipline</b>	:	Anaesthesiology ( Cardiothoracic)
<b>Name of indicator</b>	:	Percentage of thoracic surgical patients received Acute Pain Service
<b>Dimension of Quality</b>	:	Customer centeredness
<b>Rationale</b>	:	1. Effective postoperative pain relief via APS helps reduce morbidity, aids recovery and decrease hospital length of stay.
<b>Definition of Terms</b>	:	<b>All thoracic surgery : Elective and emergency.</b>
<b>Criteria</b>	:	<p><b>Inclusion:</b></p> <ol style="list-style-type: none"> <li>All thoracic surgical cases, both elective and emergency</li> <li>Closed cardiothoracic surgery with thoracic approach eg. PDA ligation</li> <li>Postoperative admission to intensive care unit, high dependency ward and surgical ward</li> <li>Age ≥ 12years old</li> </ol> <p><b>Exclusion:</b></p> <ol style="list-style-type: none"> <li>All cases requiring cardiopulmonary bypass</li> <li>Patient who died intra-operatively</li> <li>Patient who underwent surgery under local anaesthesia or sedation.</li> </ol>
<b>Type of indicator</b>	:	<b>Rate-based process indicator</b>
<b>Numerator</b>	:	Total number of patients on APS after surgery
<b>Denominator</b>	:	Number of thoracic surgical cases both elective and emergency who received anaesthesia
<b>Formula</b>	:	$\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$
<b>Standard</b>	:	≥ 60%
<b>Data Collection</b>	:	<ol style="list-style-type: none"> <li><b>Where:</b> Data will be collected in intensive care wards, high dependency wards and surgical wards.</li> <li><b>Who:</b> Data will be collected by Officer/ Paramedic/ Nurse in-charge (indicator</li> </ol>



		co-ordinator) of the department/ unit. 3. <b>How frequent:</b> Monthly data collection. 4. <b>Who should verify:</b> All performance data must be verified by Head of Department/ Head of Unit/ Hospital Director. 5. <b>How to collect:</b> Data is suggested to be collected from record book.
Remarks	:	