



ANAESTHESIOLOGY (GENERAL)				
NO	INDICATOR	DIMENSION	STANDARD	SECONDARY DATA REPORTING FREQUENCY
1	Percentage of patients on Acute Pain Service (APS) with pain score of ( $\leq$ ) 4 at rest within ( $\leq$ ) the first 24 hours after surgery	Effectiveness	$\geq 85\%$	3 Monthly
2	Ventilator care bundle (VCB) compliance rate	Safety	$\geq 95\%$	6 Monthly
3	Percentage of elective surgical cancellations after pre-operative assessment in the Anaesthetic Clinic	Effectiveness	$\leq 5\%$	3 Monthly



<b>Discipline</b>	: <b>Anaesthesiology (General)</b>									
<b>Indicator 1</b>	: <b>Percentage of patients on Acute Pain Service (APS) with pain score of (<math>\leq</math>) 4 at rest within (<math>\leq</math>) the first 24 hours after surgery</b>									
<b>Dimension of Quality</b>	: Effectiveness									
<b>Rationale</b>	: Post-operative patients in the wards sometimes do not have adequate pain relief despite being managed by the acute pain team.									
<b>Definition of Terms</b>	: <b>Acute Pain Service (APS):</b> It is a service provided by acute pain team for the post-operative patients.  <b>Pain score:</b> Measures a patient's pain intensity using the MOH pain scale (zero to ten).									
<b>Criteria</b>	: <b>Inclusion:</b> 1. All patients on APS.  <b>Exclusion:</b> 1. Day Care and ICU patients.									
<b>Type of indicator</b>	: Rate-based outcome indicator									
<b>Numerator</b>	: Number of patients on APS with pain score of $\leq 4$ at rest within the first 24 hours after surgery									
<b>Denominator</b>	: Total number of patients on APS after surgery									
<b>Formula</b>	: $\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$									
<b>Standard</b>	: $\geq 85\%$									
<b>Data Collection &amp; Verification</b>	: <ol style="list-style-type: none"> <li><b>Where:</b> Data will be collected in wards that cater for the above conditions.</li> <li><b>Who:</b> Data will be collected by Officer/ Paramedic/ Nurse in-charge of the department/ unit.</li> <li><b>How to collect:</b> Data is suggested to be collected from patient's case notes/ APS record book.</li> <li><b>How frequent:</b> Monthly data collection within department. Validated summarised secondary data to be sent 3 monthly to Quality Unit of the respective hospital for monitoring. PVF to be sent 6 monthly to Quality Unit of hospital.</li> <li><b>Who should verify:</b> <table border="1"> <thead> <tr> <th></th> <th>Prepared by</th> <th>Validated by</th> </tr> </thead> <tbody> <tr> <td>Primary Data</td> <td>Officer/ Paramedic/ Nurse in-charge</td> <td>Supervisor of the person who prepared the data</td> </tr> <tr> <td>Secondary Data</td> <td>Officer/ Paramedic/ Nurse in-charge</td> <td>Head of Department/ Specialist in-charge</td> </tr> </tbody> </table> <p>PVF must be verified by Head of Department, Head of Quality Unit and Hospital Director.</p> </li> </ol>		Prepared by	Validated by	Primary Data	Officer/ Paramedic/ Nurse in-charge	Supervisor of the person who prepared the data	Secondary Data	Officer/ Paramedic/ Nurse in-charge	Head of Department/ Specialist in-charge
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<b>Remarks</b>	: *This indicator is also being monitored as an Outcome Based Budgeting (OBB) indicator.									

<b>Discipline</b>	: <b>Anaesthesiology (General)</b>
<b>Indicator 2</b>	: <b>Ventilator care bundle (VCB) compliance rate</b>
<b>Dimension of Quality</b>	: Safety



<b>Rationale</b>	: 1. Ventilator care bundle (VCB) is a set of interventions used to reduce the incidence of Ventilator Associated Pneumonia. 2. Ventilator Associated Pneumonia (VAP) is a complication that develops in a patient after 48 hours of mechanical ventilation, which carries morbidity and mortality. 3. The VCB is an on-going quality improvement initiative under the Malaysian Registry of Intensive Care.									
<b>Definition of Terms</b>	: <b>Ventilator care bundle (VCB):</b> A set of 4 interventions which are : 1. Head elevation > 30 degrees. 2. The use of stress ulcer prophylaxis. 3. The use of deep vein thrombosis prophylaxis. 4. Daily interruption of sedation.  Compliant to VCB is considered when all 4 of these interventions are done.									
<b>Criteria</b>	: <b>Inclusion:</b> 1. All patients on invasive mechanical ventilation in General ICU.  <b>Exclusion:</b> 1. Patients ventilated outside of General ICU. 2. Patients of < 12 years of age. 3. Non-invasive ventilation such as BIPAP and HFNC.  <b>Sampling:</b> Using an average of total ICU patients in a month, 25% of the patients in each month need to be sampled for this indicator. Samples will be taken once a week. All patients on invasive mechanical ventilation in ICU at 8 am on one same day/ week (e.g. every Monday) will be the denominator.									
<b>Type of indicator</b>	: Rate-based process indicator									
<b>Numerator</b>	: All patients on invasive mechanical ventilation and compliant to VCB bundle									
<b>Denominator</b>	: Total number of patients on invasive mechanical ventilation									
<b>Formula</b>	: $\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$									
<b>Standard</b>	: $\geq 95\%$									
<b>Data Collection &amp; Verification</b>	: 1. <b>Where:</b> Data will be collected in General ICU. 2. <b>Who:</b> Data will be collected by Officer/ Paramedic/ Nurse in-charge of the department/ unit. 3. <b>How to collect:</b> Data is suggested to be collected from patient's case notes/ ICU admission record book/ VCB record book. 4. <b>How frequent:</b> Monthly data collection within department. Validated summarised secondary data to be sent 6 monthly to Quality Unit of the respective hospital for monitoring. PVF to be sent 6 monthly to Quality Unit of hospital. 5. <b>Who should verify:</b> <table border="1"> <thead> <tr> <th></th> <th>Prepared by</th> <th>Validated by</th> </tr> </thead> <tbody> <tr> <td>Primary Data</td> <td>Officer/ Paramedic/ Nurse in-charge</td> <td>Supervisor of the person who prepared the data</td> </tr> <tr> <td>Secondary Data</td> <td>Officer/ Paramedic/ Nurse in-charge</td> <td>Head of Department/ Specialist in-charge</td> </tr> </tbody> </table>		Prepared by	Validated by	Primary Data	Officer/ Paramedic/ Nurse in-charge	Supervisor of the person who prepared the data	Secondary Data	Officer/ Paramedic/ Nurse in-charge	Head of Department/ Specialist in-charge
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<b>Remarks</b>	:	*This indicator is also being monitored as an Outcome Based Budgeting (OBB) indicator.

<b>Discipline</b>	:	<b>Anaesthesiology (General)</b>						
<b>Indicator 3</b>	:	<b>Percentage of elective surgical cancellations after pre-operative assessment in the Anaesthetic Clinic</b>						
<b>Dimension of Quality</b>	:	Effectiveness						
<b>Rationale</b>	:	The effectiveness of the anaesthetic clinic should reflect in the reduced rate of cancellation due to anaesthetic reasons for elective surgeries and hence, increased customer satisfaction.						
<b>Definition of Terms</b>	:	<b>Surgical cancellation:</b> It is cancellation of the surgery by the Anaesthetic team which includes reasons such as anaesthetic and/ or medical reasons such as uncontrolled Diabetes Mellitus, Hypertension, Heart Disease etc.						
<b>Criteria</b>	:	<p><b>Inclusion:</b></p> <ol style="list-style-type: none"> <li>All elective surgical cases seen in Anaesthetic Clinic for per-operative assessment.</li> </ol> <p><b>Exclusion:</b></p> <ol style="list-style-type: none"> <li>Patients who were scheduled for elective operations but not had a pre-operative assessment done in Anaesthetic Clinic.</li> <li>Patient with URTI.</li> <li>Lack of ICU bed.</li> <li>Lack of OT time.</li> <li>Mechanical and electrical problem of OT including GA machine problems.</li> <li>Operation is cancelled by surgeon.</li> </ol>						
<b>Type of indicator</b>	:	Rate-based output indicator						
<b>Numerator</b>	:	Number of patients with elective surgical cancellations after pre-operative assessment in the Anaesthetic Clinic						
<b>Denominator</b>	:	Total number of patients scheduled for elective operation and had pre-operative assessment done prior in Anaesthetic Clinic						
<b>Formula</b>	:	$\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$						
<b>Standard</b>	:	≤ 5%						
<b>Data Collection &amp; Verification</b>	:	<ol style="list-style-type: none"> <li><b>Where:</b> Data will be collected in Anaesthetic Clinic and OT.</li> <li><b>Who:</b> Data will be collected by Officer/ Paramedic/ Nurse in-charge of the department/ unit.</li> <li><b>How to collect:</b> Data is suggested to be collected from patient's case notes/ OT list/ Anaesthetic Clinic pre-operative patients' record book.</li> <li><b>How frequent:</b> Monthly data collection within department. Validated summarised secondary data to be sent 3 monthly to Quality Unit of the respective hospital for monitoring. PVF to be sent 6 monthly to Quality Unit of hospital.</li> <li><b>Who should verify:</b> <table border="1"> <tr> <td></td> <td>Prepared by</td> <td>Validated by</td> </tr> <tr> <td>Primary Data</td> <td>Officer/ Paramedic/</td> <td>Supervisor of the person</td> </tr> </table> </li> </ol>		Prepared by	Validated by	Primary Data	Officer/ Paramedic/	Supervisor of the person
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			Nurse in-charge	who prepared the data
		Secondary Data	Officer/ Paramedic/ Nurse in-charge	Head of Department/ Specialist in-charge
		PVF must be verified by Head of Department, Head of Quality Unit and Hospital Director.		
<b>Remarks</b>	:	The denominator is based on the date of scheduled elective operation (OT list) and not the date patient was seen in Anaesthetic Clinic for pre-operative assessment.		

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