KEMENTERIAN KESIHATAN MALAYSIA

TECHNICAL SPECIFICATIONS OF HOSPITAL PERFORMANCE INDICATORS FOR ACCOUNTABILITY (HPIA) & SPECIFIC INDICATORS
VER 5.0

2017

CLINICAL PERFORMANCE SURVEILLANCE UNIT
MEDICAL CARE QUALITY SECTION
MEDICAL DEVELOPMENT DIVISION
MINISTRY OF HEALTH MALAYSIA
## TECHNICAL SPECIFICATIONS OF HOSPITAL PERFORMANCE INDICATORS FOR ACCOUNTABILITY (HPIA) & SPECIFIC INDICATORS VERSION 5.0

### LIST OF HOSPITAL PERFORMANCE INDICATORS FOR ACCOUNTABILITY (HPIA)

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<tr>
<td>1</td>
<td>ST Elevation Myocardial Infarction (STEMI) [Without Shock] Case Fatality Rate</td>
<td>≤ 10%</td>
<td>Monthly</td>
<td>6</td>
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<tr>
<td>2</td>
<td>Non ST Elevation Myocardial Infarction (STEMI) / Unstable Angina (UA) Case Fatality Rate</td>
<td>≤ 10%</td>
<td>Monthly</td>
<td>7</td>
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<tr>
<td>3</td>
<td>Percentage of paediatric patients with unplanned readmissions to the paediatric ward within 48 hours of discharge</td>
<td>≤ 2 %</td>
<td>Monthly</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>Percentage of massive postpartum haemorrhage (PPH) incidence in cases delivered in the hospital</td>
<td>≤ 1%</td>
<td>Monthly</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>Percentage of inappropriate triaging (UNDER-TRIAGING): Category Green patients who should have been triaged as Category Red</td>
<td>≤ 0.5%</td>
<td>Monthly</td>
<td>10</td>
</tr>
<tr>
<td>6</td>
<td>Percentage of x-rays with turnaround time of ≤ 45 minutes of Urgent Plain radiographic examination (X-ray) requested by the Emergency &amp; Trauma Department (ED/ A&amp;E)</td>
<td>≥ 80%</td>
<td>Monthly</td>
<td>11</td>
</tr>
<tr>
<td>7</td>
<td>Percentage of laboratory turnaround time (LTAT) for urgent Full blood count (FBC) within (≤) 45 minutes</td>
<td>≥ 90%</td>
<td>6 Monthly</td>
<td>12</td>
</tr>
<tr>
<td>8</td>
<td>Incidence of thrombophlebitis among inpatients with intravenous (IV) cannulation</td>
<td>≤ 0.5%</td>
<td>Monthly</td>
<td>13</td>
</tr>
<tr>
<td>9</td>
<td>Percentage of Morbidity and/ or Mortality meetings being conducted at the hospital level with documentation of the cases discussed State &amp; Specialist Hospital: 12 times/ year Other Hospital: 6 times/ year</td>
<td>≥ 80%</td>
<td>6 Monthly</td>
<td>14</td>
</tr>
<tr>
<td>10</td>
<td>Cross-match Transfusion (CT) ratio</td>
<td>≤ 2.5</td>
<td>6 Monthly</td>
<td>16</td>
</tr>
<tr>
<td>11</td>
<td>Rate of Healthcare Associated Infections (HCAI)</td>
<td>&lt; 5%</td>
<td>6 Monthly</td>
<td>16</td>
</tr>
<tr>
<td>12</td>
<td>Percentage of Root Cause Analysis (of the Clinical Services) on Near Misses with corrective action taken</td>
<td>≥ 80%</td>
<td>6 Monthly</td>
<td>17</td>
</tr>
<tr>
<td>Customer Focus</td>
<td>≥ 95%</td>
<td>Monthly</td>
<td>19</td>
<td></td>
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<tr>
<td>-------------------------------------------------------------------------------</td>
<td>-------</td>
<td>---------</td>
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<td></td>
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<tr>
<td>Percentage of medication prescriptions dispensed within 30 minutes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of hospital customers who were satisfied with the hospital services (based on customer satisfaction survey)</td>
<td>≥ 80%</td>
<td>6 Monthly</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Percentage of Aduan Sederhana settled within 15 working days</td>
<td></td>
<td>3 Monthly</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Percentage of Medical Reports prepared within the stipulated period:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State &amp; Specialist Hospital: ≤ 4 weeks</td>
<td>≥ 90%</td>
<td>Monthly (Cohort)</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Other Hospital: ≤ 2 weeks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of patient age ≥ 75 year-old who attended Specialist Outpatient Clinic appointment for ≤ 90 minutes.</td>
<td>≥ 80%</td>
<td>Monthly</td>
<td>23</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employee Satisfaction</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of officers who were informed of their performance marks by the First Evaluating Officer (Pegawai Penilai Pertama (PPP)) for the Annual Performance Evaluation Report, (LNPT)</td>
<td>≥ 95%</td>
<td>Yearly</td>
<td>24</td>
</tr>
<tr>
<td>Percentage of new hospital staffs who attended the Orientation Programme within 3 months of their placement at the Unit or Department in the hospital</td>
<td>≥ 80%</td>
<td>6 Monthly</td>
<td>25</td>
</tr>
<tr>
<td>Percentage of Hari Bertemu Warga Hospital conducted by the Hospital Director in the corresponding year</td>
<td>≥ 75%</td>
<td>6 Monthly</td>
<td>26</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Learning and Growth</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of paramedics in acute care areas who have a CURRENT trained status in Basic Life Support (BLS) in the corresponding year</td>
<td>≥ 70%</td>
<td>6 Monthly</td>
<td>27</td>
</tr>
<tr>
<td>Percentage of staff who successfully attained the requirement of 7 days compulsory training in the corresponding year</td>
<td>≥ 75%</td>
<td>Yearly</td>
<td>28</td>
</tr>
<tr>
<td>Percentage of Medical Officers with completed paper (study/ research/ case report) for postgraduate study application purposes</td>
<td>≥ 90%</td>
<td>Yearly</td>
<td>29</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financial and Office Management</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of hospital vehicles that conformed to the Planned Preventive Maintenance (PPM) schedule.</td>
<td>≥ 80%</td>
<td>3 Monthly</td>
<td>30</td>
</tr>
<tr>
<td>Percentage of personnel who confirmed in service within 3 years of their date of appointment.</td>
<td>≥ 95%</td>
<td>3 Monthly (3 year cohort)</td>
<td>31</td>
</tr>
<tr>
<td>Percentage of paid bills by discharged patients from the inpatient revenue</td>
<td>≥ 70%</td>
<td>Monthly</td>
<td>32</td>
</tr>
<tr>
<td>Percentage of assets in the hospital that were inspected and monitored at least once a year</td>
<td>100%</td>
<td>Yearly</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Hospital possesses CURRENT Accreditation (MSQH) or MS ISO Certification Status (YES = 1; NO = 0)</td>
<td>1</td>
<td>Yearly</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>29</td>
<td>Percentage of personnel with complete documentation 3 months prior to their time-based promotion in the corresponding year</td>
<td>≥ 90%</td>
<td>3 Monthly</td>
</tr>
<tr>
<td>30</td>
<td>Percentage of Sijil Perukan Pelupusan Aset (PEP) Kew. PA-16 obtained within 3 months of BER 2 submission</td>
<td>≥ 90%</td>
<td>3 Monthly</td>
</tr>
<tr>
<td>31</td>
<td>Percentage of hospital utilities bills reduction in the corresponding year:</td>
<td>3 Monthly</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>a) Electricity Bill</td>
<td>≥ 5%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Water Bill</td>
<td>≥ 5%</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Percentage of expired consumables item in the corresponding year</td>
<td>≤ 10%</td>
<td>3 Monthly</td>
</tr>
</tbody>
</table>

**ENVIRONMENTAL SUPPORT**

<table>
<thead>
<tr>
<th></th>
<th>Percentage of Safety Audit findings identified whereby control measures had been taken in the corresponding year</th>
<th>≥ 70%</th>
<th>Yearly</th>
<th>38</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>Percentage of Facility Engineering Plant Room Inspection (EPR) with report submission done by Engineering Unit Personnel in the corresponding year</td>
<td>≥ 80%</td>
<td>Monthly</td>
<td>40</td>
</tr>
<tr>
<td>35</td>
<td>Percentage of meetings with Members of the Board of Visitors (Ahli Lembaga Pelawat) that were conducted by the Hospital in the corresponding year:</td>
<td>100%</td>
<td>Yearly</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>a. Psychiatric Institution/ Hospital: ≥ 12 times/ year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Other Hospital: ≥ 4 times/ year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Percentage of Fire Drill that has been carried out by the hospital in the corresponding year:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Fire Drill at hospital level: Once a year</td>
<td>100%</td>
<td>Yearly</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>b. Table Top Exercise at hospital level: Twice a year</td>
<td>100%</td>
<td>Yearly</td>
<td></td>
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# TECHNICAL SPECIFICATIONS OF HOSPITAL PERFORMANCE INDICATORS FOR ACCOUNTABILITY (HPIA) & SPECIFIC INDICATORS VERSION 5.0

## LIST OF SPECIFIC INDICATORS

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<tbody>
<tr>
<td>1</td>
<td>Number of Uncontrolled Diabetes Mellitus patients admitted to MOH Hospital in the corresponding year</td>
<td>NA</td>
<td>6 Monthly</td>
<td>43</td>
</tr>
<tr>
<td>2</td>
<td>Percentage of Diabetes Mellitus patients who were under regular clinic follow-up with A1c ≤ 6.5% in the corresponding year</td>
<td>≥ 20%</td>
<td>6 Monthly</td>
<td>44</td>
</tr>
<tr>
<td>3</td>
<td>Number of Uncontrolled Hypertension patients admitted to MOH Hospital in the corresponding year</td>
<td>NA</td>
<td>6 Monthly</td>
<td>45</td>
</tr>
<tr>
<td>4</td>
<td>Percentage of Hypertensive patients who were under regular clinic follow-up with Blood Pressure control ≤ 140/90 in the corresponding year</td>
<td>≥ 70%</td>
<td>6 Monthly</td>
<td>46</td>
</tr>
<tr>
<td>5</td>
<td>Rate of patients who received their surgery within 48 hours following an admission for hip fracture in the corresponding year</td>
<td>≥ 70%</td>
<td>6 Monthly</td>
<td>47</td>
</tr>
<tr>
<td>6</td>
<td>Number of inpatient suicide among people who were diagnosed with a mental disorder in the corresponding year</td>
<td>NA</td>
<td>6 Monthly</td>
<td>48</td>
</tr>
<tr>
<td>7</td>
<td>Colorectal Cancer Mortality in the corresponding year</td>
<td>NA</td>
<td>6 Monthly</td>
<td>49</td>
</tr>
<tr>
<td>8</td>
<td>Percentage of Obstetric Trauma following vaginal delivery without instrument in the corresponding year</td>
<td>NA</td>
<td>6 Monthly</td>
<td>49</td>
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</table>
### TECHNICAL SPECIFICATIONS OF HOSPITAL PERFORMANCE INDICATORS FOR ACCOUNTABILITY

#### Indicator 1: ST Elevation Myocardial Infarction (STEMI) without shock Case Fatality Rate

**Element**: Internal Business Process

**Rationale**: Acute Coronary Syndrome is a frequent cause of hospital death. It is important to measure the quality of care and adherence to practice guidelines.

**Definition of Terms**: ST Elevation Myocardial Infarction (STEMI): A clinical syndrome of acute myocardial death defined by a rise in cardiac biomarkers in the presence of ST elevation on the Electrocardiograph (ECG). The biomarkers used may include any of the following: Troponin T/I, Creatinine Kinase or its MB fraction (CK, CKMB).

**Criteria**

**Inclusion**:
1. Patients admitted under cardiology (for hospital with Cardiology Services).
2. All deaths diagnosed with STEMI prior to hospital discharge, including in CCU or CRW.
3. Patients admitted with STEMI as the primary diagnosis.

**Exclusion**:
1. Patients not admitted under cardiology (for hospital with Cardiology Services).
2. Patients "brought in dead" to Emergency but resuscitation still attempted.
3. STEMI complicated with shock.

**Type of indicator**: Rate-based outcome indicator

**Numerator**: Number of patients diagnosed and/or admitted with STEMI and who died from STEMI

**Denominator**: Total number of patients diagnosed and/or admitted with STEMI

**Formula**: Numerator x 100% / Denominator

**Standard**: ≤ 10%

**Data collection**:
1. **Where**: Data will be collected in the respective department/ward that caters the above condition.
2. **Who**: Data will be collected by the Officer/ Paramedic/Nurse in-charge (Indicator Coordinator) of the department/unit
3. **How frequent**: Monthly data collection.
4. **Who should verify**: All performance data must be verified by the Head of Department/ Head of Unit/ Hospital Director.
5. **How to collect**: Data is suggested to be collected from the record or log book/ patient’s file/ National Cardiovascular Disease for Acute Coronary Syndrome (NCVD-ACS) Registry.

**Remarks**:
- Duplication of Cardiology Departmental Indicator No. 2
<table>
<thead>
<tr>
<th>Indicator 2</th>
<th>Non-ST Elevation Myocardial Infarction (NSTEMI)/Unstable Angina (UA) Case Fatality Rate</th>
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<tr>
<td><strong>Element</strong></td>
<td>Internal Business Process</td>
</tr>
</tbody>
</table>
| **Rationale**   | 1. Cardiovascular diseases accounted for the 25.6% of deaths in Ministry of Health (MOH) Hospitals in 2011. The majority of cardiovascular deaths are attributed to acute coronary syndrome (ACS). This is a spectrum of disease with 3 accepted classes: 
   a) ST elevation Myocardial Infarction (STEMI)
   b) Non-ST elevation Myocardial Infarction (NSTEMI)
   c) Unstable angina (UA).
2. Mortality rates quoted in the Malaysian Acute Coronary Syndrome (ACS) Registry maintained by the National Heart Association of Malaysia are 9% for NSTEMI and 3% for UA between 2006 and 2010.
3. Survival is dependent on good monitoring with prompt and continued use of specific medication (anti-platelets, anti-thrombotics, hypolipidemic therapy, B-blockers and ACE-Inhibitors). |
| **Definition of Terms** | Non-ST Elevation Myocardial Infarction (NSTEMI): A clinical syndrome of acute myocardial death defined by a rise in cardiac biomarkers in the absence of ST elevation on the Electrocardiograph (ECG). The biomarkers used may include any of the following; Troponin T/I, Creatinine Kinase or its MB fraction (CK, CKMB).
Unstable Angina (UA): A clinical syndrome comprising of chest pain or its equivalent with or without ST depression and T wave inversion on the ECG and in the absence of raised cardiac biomarkers. |
| **Criteria**     | **Inclusion:**
   1. Patient with ACS/ NSTEMI/ UA as a primary diagnosis.
   2. Deaths due to cardiovascular causes.
   3. Deaths due to infection as a secondary cause.

**Exclusion:**
1. Death on arrival.
2. Patients "brought in dead" to Emergency but resuscitation still attempted. |
| **Type of indicator** | Rate-based outcome indicator |
| **Numerator**    | Number of patients diagnosed with ACS/ NSTEMI/ UA who died |
| **Denominator**  | Total number of patients diagnosed with ACS/ NSTEMI/ UA |
| **Formula**      | Numerator x 100% / Denominator |
| **Standard**     | ≤ 10% |
| **Data collection** | 1. **Where:** Data will be collected in Medical wards/ ICU/ CCU/ CRW/ NICU/ wards that cater for the above condition/ record office. 
   2. **Who:** Data will be collected by Officer/ Paramedic/ Nurse in-charge (indicator coordinator) of the department/ unit. 
   3. **How frequent:** Monthly data collection 
   4. **Who should verify:** All performance data will be verified by Head of Department/ Head of Unit/ Hospital Director. 
   5. **How to collect:** Data is suggested to be collected from registration book/ record book (refer to KPI MOH Guidelines). |
## Remarks
- The above technical specification is a duplication of General Medicine Departmental Indicator No. 1.
- For hospital without specialist, it is suggested that data to be collected from the wards that cater to the above condition and follows the technical specification of General Medicine Departmental Indicator No. 1.
- For hospital where General Medicine and Cardiology services are available, the collected data is a combination data (i.e. fatality rate) of both disciplines. The technical specification, however, follows each discipline respectively (i.e. General Medicine Department will be referring to the General Medicine Departmental Indicator No. 1 and Cardiology Department will be referring to the Cardiology Departmental Indicator No. 4).
- For hospital where only General Medicine service is available, data collection follows the technical specification of General Medicine Departmental Indicator No. 1.
- For hospital where only Cardiology service is available, data collection follows the technical specification of Cardiology Departmental Indicator No. 4.

## Indicator 3
**Element**: Percentage of paediatric patients with unplanned readmission to the paediatric ward within (≤) 48 hours of discharge

**Rationale**: Unplanned readmission is often considered to be the result of suboptimal care in the previous admission leading to readmission.

**Definition of Terms**
- **Unplanned readmission**: Patient being readmitted for the management of the same clinical condition he or she was discharged with and the admission was not scheduled.
- **Same condition**: Same diagnosis as refer to the ICD 10.

**Criteria**
- **Inclusion**: Readmission with similar conditions (primary diagnosis).
- **Exclusion**:
  1. Neonates
  2. Patients of > 12 years of age.
  3. AOR (at own risk) discharge patients during the first admission
  4. Patients re-admitted at different hospital (difficult in data collection and reporting).
  5. Patient with chronic illness
  6. Readmission requested by next of kin or other team.

**Type of indicator**: Rate-based process indicator

**Numerator**: Number of paediatric patients with unplanned readmission to the paediatric ward within 48 hours of discharge

**Denominator**: Total number of paediatric patients discharged during the same period of time the numerator data was collected.

**Formula**: \[ \text{Percentage} = \frac{\text{Numerator}}{\text{Denominator}} \times 100\% \]
### Indicator 4

**Percentage of massive post-partum haemorrhage (PPH) incidence in cases delivered in the hospital**

**Element**: Internal Business Process

**Rationale**: The incidence of massive obstetric haemorrhage is reflective of the effectiveness of the management of haemorrhage at delivery. Post-partum haemorrhage occurs in 3-5% of pregnant mothers and is still the leading cause of maternal death in Malaysia. The use of this indicator would be reflective of the prompt diagnosis and speed of instituting multidisciplinary care. References:

- b) CEMD Training Module for PPH.

**Definition of Terms**: Massive post-partum haemorrhage: Total amount of blood loss of > 1.5 litres within (≤) 24 hours of delivery. Delivery includes both the vaginal and abdominal routes.

**Criteria**

- **Inclusion**: NA
- **Exclusion**: Patients with adherent placenta.

**Type of indicator**: Rate-based outcome indicator

**Numerator**: Number patients with massive Primary Post-Partum Haemorrhage

**Denominator**: Total number of deliveries

**Formula**: $\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$

**Standard**: ≤ 1%

**Data collection**

1. **Where**: Data will be collected in the Labour room/ward/HDW.
2. **Who**: Data will be collected by the Officer/ Paramedic/ Nurse in-charge/ Indicator Coordinator of the department/unit.
3. **How frequent**: Monthly data collection.
4. **Who should verify**: All performance data must be verified by the Head of Department/ Head of Unit/ Hospital Director.
5. **How to collect**: Data is suggested to be collected from the registration book (refer to KPI MOH Guidelines).

**Remarks**: • Duplication of O&G Departmental Indicator No. 2
<table>
<thead>
<tr>
<th>Indicator 5</th>
<th>Percentage of inappropriate triaging (under-triaging): Category Green patients who should have been triaged as Category Red</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Element</strong></td>
<td>Internal Business Process</td>
</tr>
</tbody>
</table>
| **Rationale** | • Triage is an essential function of Emergency Departments (EDs), whereby many patients may present simultaneously. Triage aims to ensure that patients are treated in the order of their clinical urgency and that treatment is appropriate. Triage also allows for the allocation of the patient to the most appropriate assessment and treatment area.  
• It is a scale for rating clinical urgency. The scale directly relates triage category with a range of outcome measures (inpatient length of stay, ICU admission, mortality rate) and resource consumption (staff time, cost).  
• Studies have shown that the “under triaging” of critically ill patients can increase their morbidity and mortality due to delay in their resuscitation and the provision of definitive care. Urgency refers to the need for time-critical intervention.  
• This indicator measures the accuracy and appropriateness of the Triaging system in the Emergency Department (ED) to ensure that critically ill patients are not missed and categorized as “non-critical”. |
| **Definition of Terms** | Under-triaged: Critically ill patient (MTC RED) who was triaged as “non-critical” patient (MTC GREEN). |
| **Criteria** | **Inclusion**: NA  
**Exclusion**: Period of time when the hospital unable to function as usual because involved in mass casualty/ disaster/ crisis. |
| **Type of indicator** | Rate-based process indicator |
| **Numerator** | Number of MTC GREEN patients who should have been triaged as MTC RED |
| **Denominator** | Total number of MTC GREEN patients |
| **Formula** | \[
\text{Numerator} \times 100\% \\
\text{Denominator}
\] |
| **Standard** | \( \leq 0.5\% \) |
| **Data collection** | 1. **Where**: Data will be collected in the Emergency Department  
2. **Who**: Data will be collected by the Officer/ Paramedic/ Nurse in-charge/ Indicator Coordinator of the department/unit.  
3. **How frequent**: Monthly data collection.  
4. **Who should verify**: All performance data must be verified by the Head of Department/ Head of Unit/ Hospital Director.  
5. **How to collect**: Data is suggested to be collected from the record book (refer to KPI MOH Guidelines). |
<p>| <strong>Remarks</strong> | • Duplication of Emergency Medical and Trauma Services Departmental Indicator No. 2 |</p>
<table>
<thead>
<tr>
<th>Indicator 6</th>
<th>Percentage of x-rays with turnaround time of ≤ 45 minutes of Urgent Plain radiographic examination (X-ray) requested by the Emergency &amp; Trauma Department (ED/ A&amp;E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element</td>
<td>Internal Business Process</td>
</tr>
<tr>
<td>Rationale</td>
<td>X-ray is the most basic tool of investigations in the form of imaging. In general, x-ray is used to visualize body internal structures. Timely x-rays turnaround time, thus, have a major impact on the patient management whereby it ensures the clinicians to make prompt decisions and actions accordingly.</td>
</tr>
</tbody>
</table>
| Definition of Terms | **Turnaround time:** The time taken between the order for the plain radiographic examination received by the Diagnostic & Imaging Department/ X-ray Unit to the time that the x-ray film is available to be viewed by the doctor (≤ 45 minutes).  
**Plain radiographic examination:** A modality of x-ray (static x-ray/ portable x-ray) to visualize the internal structures of a patient without using any contrast. This includes chest x-rays, skeletal x-rays, abdominal x-rays etc.  
**Urgent Plain radiographic examination:** Urgent x-rays which were ordered by the ED/ A&E Medical Officer/ Paramedics for emergency cases. |
| Criteria | **Inclusion:**  
1. All urgent plain radiographic examinations performed on patients in ED/ A&E.  
2. Inclusive of portable x-rays.  
**Exclusion:**  
1. The time period when the hospital was unable to function as usual due to mass casualty/ disaster/ crisis.  
2. Any delay due to life-saving procedures performed to stabilize the patient’s condition (e.g. the ordered x-ray cannot be done because of the emergency team is resuscitating the patient). |
| Type of indicator | Rate-based process indicator |
| Numerator | Number of urgent plain radiographic examinations with turnaround time within (≤) 45 minutes requested by ED/ A&E |
| Denominator | Total number of urgent plain radiographic examinations requested by ED/ A&E |
| Formula | \[
\frac{\text{Numerator}}{\text{Denominator}} \times 100\%
\] |
| Standard | ≥ 80% |
| Data collection |  
1. **Where:** Data will be collected in the Diagnostic & Imaging Department/ X-ray Unit.  
2. **Who:** Data will be collected by the Officer/ staff in-charge in Diagnostic & Imaging Department/ X-ray Unit.  
3. **How frequent:** Monthly data collection.  
4. **Who should verify:** All performance data must be verified by the Head of Department/ Head of Unit/ Hospital Director.  
5. **How to collect:** Data will be collected from the record book/registration book at Diagnostic & Imaging Department/ X-ray Unit. |
### Remarks
- The hospital Diagnostic & Imaging Department/ X-ray Unit is responsible for the performance achievement.
- It is suggested that CLOCK IN time (time of the urgent plain radiographic examination request received) and CLOCK OUT time (time that plain radiographic examination is available) to be recorded at the Diagnostic & Imaging Department/ X-ray Unit.
- The CLOCK IN time will be written in the request book by the medical personnel who send the request.
- Not all X-rays, which were done after office hours are considered as Urgent. Urgent X-ray refers to a request/ decision by Medical Officer/ Paramedic in charge based on the patient’s condition with the “URGENT” tag/ stamp.

### Indicator 7: Percentage of laboratory turnaround time (LTAT) for urgent Full Blood Count (FBC) within (≤) 45 minutes

**Element**: Internal Business Process

**Rationale**:
1. One of the objectives of a haematology laboratory is to provide fast laboratory results for the management of medical emergency.
2. Timelines of the services is the capability of the laboratory providing fast results.
3. A fast laboratory turnaround time (LTAT) is desirable and is one of the indicators of efficient laboratory service.
4. FBC is a basic and commonly requested test provided in all healthcare facilities.

**Definition of Terms**:
- **Full Blood Count (FBC)**: Automated measurement of blood cell parameters.
- **Laboratory turnaround time (LTAT)**: Measuring the time laboratory receives the specimen to the time the test results is validated.
- **Urgent FBC**: FBC requested as urgent for immediate management of patient or emergency cases.

**Criteria**:
- **Inclusion criteria**: All requests sent for full blood counts that are labelled as urgent.
- **Exclusion criteria**:
  1. Requests for non-urgent FBC.
  2. Request short turnaround time (STAT) not for immediate management of patient or emergency cases.
  3. FBC done at POCT site.

**Type of indicator**: Rate-based Process Indicator

**Numerator**: Number of urgent Full Blood Count (FBC) with LTAT within (≤) 45 minutes

**Denominator**: Total number of urgent Full Blood Count (FBC) requested

**Formula**: \(\text{Numerator} \times 100\% \div \text{Denominator}\)

**Standard**: \(\geq 90\%\)

**Data collection**:
1. **Where**: Data will be collected in all laboratories providing the tests.
2. **Who**: Data will be collected by the Officer/ assigned laboratory personnel (indicator coordinator) of the department/unit.
3. **How frequent**: 6 Monthly data collection.
4. **Who should verify**: All performance data must be verified by Head of Department/ Head of Unit/ Hospital Director.
5. **How to collect**: Data is suggested to be collected from record book/ registry system/ request form/ LIS (refer to KPI MOH Guidelines).

**Remarks**
- Duplication of Pathology Departmental Indicator No. 1

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**Indicator 8**
- **Incidence of thrombophlebitis among inpatients with intravenous (IV) cannulation**

**Element**
- **Internal Business Process**

**Rationale**
- Thrombophlebitis has a direct/ indirect impact on the patient health as it can cause discomfort, pain and prolong inpatient stays that may lead to the patient suffering from economic consequences.

**Definition of Terms**
- **Thrombophlebitis**: inflammation of the wall of a vein with associated thrombosis.

### Assessment of Thrombophlebitis with Visual Infusion Phlebitis (VIP) Scores

<table>
<thead>
<tr>
<th>VISUAL INFUSION PHLEBITIS (VIP) SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Site Observation</strong></td>
</tr>
<tr>
<td>IV site appears healthy</td>
</tr>
<tr>
<td>One of the following signs evident:</td>
</tr>
<tr>
<td>- Pain near IV site (pain score of 1-3)</td>
</tr>
<tr>
<td>- May not require analgesics</td>
</tr>
<tr>
<td>- Slight redness near IV site</td>
</tr>
<tr>
<td>Two of the following signs evident:</td>
</tr>
<tr>
<td>- Pain at IV site (pain score of 4-6)</td>
</tr>
<tr>
<td>- Interfere with activities</td>
</tr>
<tr>
<td>- Redness around site</td>
</tr>
<tr>
<td>- Swelling</td>
</tr>
<tr>
<td>All of the following signs evident:</td>
</tr>
<tr>
<td>- Pain along path of cannula (pain score of 4-6)</td>
</tr>
<tr>
<td>- Interferes with concentration</td>
</tr>
<tr>
<td>- Redness around site</td>
</tr>
<tr>
<td>- Swelling</td>
</tr>
<tr>
<td>- Palpable venous cord</td>
</tr>
<tr>
<td>All of the following signs evident and extensive:</td>
</tr>
<tr>
<td>- Pain along path of cannula (pain score of 7-9)</td>
</tr>
<tr>
<td>- Interferes with basic needs</td>
</tr>
<tr>
<td>- Redness around site</td>
</tr>
<tr>
<td>- Swelling</td>
</tr>
<tr>
<td>- Palpable venous cord</td>
</tr>
<tr>
<td>All of the following signs evident and extensive:</td>
</tr>
<tr>
<td>- Pain along path of cannula (pain score of 10)</td>
</tr>
<tr>
<td>- Redness around site</td>
</tr>
</tbody>
</table>
### Criteria

**Inclusion:**
1. All admitted patients with peripheral venous cannula
2. Peripheral cannulas that were inserted during current admission.

**Exclusion:**
1. “Double counting” i.e. the complication that has been counted during previous admission.
2. Psychiatry patient.
4. Paediatric patient.
5. Unconscious patient.

### Type of indicator
Rate-based outcome indicator

### Numerator
Total Number of thrombophlebitis incidences

### Denominator
Total Number of inserted peripheral venous cannulas

### Formula
\[
\text{Numerator} \times 100\% \\
\text{Denominator}
\]

### Standard
\( \leq 0.5\% \)

### Data collection
1. **Where:** Data will be collected from every ward of the hospital.
2. **Who:** Data will be collected by the ward manager/ staff nurse/personnel in charge of the ward.
3. **How frequent:** Monthly data collection.
4. **Who should verify:** All performance data must be verified by the Head of Department/ Head of Unit/ Hospital Director.
5. **How to collect:** Data will be collected from the record book/ patient’s case notes.

### Remarks
- Thrombophlebitis Chart (BKJ-BOR-PPK-10 Pin. 1/2015) will be used for thrombophlebitis monitoring.
- Report must be sent to State Matron (KPJN) for Nursing Division compilation.
- All peripheral venous cannula must be counted.

### Indicator 9
Percentage of Morbidity and/ or Mortality meetings being conducted at the hospital level with documentation of the cases discussed.
- State & Specialist Hospitals: 12 times/year
- Other Hospitals: 6 times/ year

### Element
Internal Business Process

### Rationale
The main purpose of the meeting is to improve patient’s management and quality of care. Regular morbidity and mortality meetings serve to look at the weakness and the shortfall in the overall management of patients, hence it will be learnt, and the same mistake could be prevented and would not be repeated in the future.

### Definition of Terms
- **Morbidity:** A diseased state or symptom.
- **Mortality:** The quality or state of being mortal.
**Morbidity Meeting:** Discussion of case management in regards to patient morbidity, incidence reporting, issue of patient safety, clinical audit (at the hospital level).

**Mortality Meeting:** Discussions related to the management of the case and cause of death of the patient. (e.g.: Clinical audit, POMR, MMR, Dengue Mortality, TB Mortality, Mortality under 5 years of age (MDG5), Perinatal Mortality Reviews (MDG4), Inquiries) (at the hospital level).

**Hospital level:** A meeting chaired by the Hospital Director or a person appointed by the Hospital Director with multidisciplinary involvement (preferably). For district hospital/ institution, multidisciplinary involvement is not necessary.

**Conduct:** Meeting can be led by the Hospital Director/ Head of Department/ Appointed Specialist/ Medical Officer/ Paramedics.

**Documentation:** Official minutes or notes taken during the meeting with the attendance list (certified by the Hospital Director).

**Official Minutes:** The minutes must be certified by the chairperson of the Meeting or by the Hospital Director.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Inclusion: All Morbidity and/ or Mortality meetings being conducted at the hospital level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exclusion criteria: 1. Time period when the hospital was unable to function as usual due to mass casualty/ disaster/ crisis. 2. Grand Ward Rounds or activities with no official documentation/ minutes.</td>
</tr>
<tr>
<td>Type of indicator</td>
<td>Rate-based process indicator</td>
</tr>
<tr>
<td>Numerator</td>
<td>Number of documented morbidity and/ or mortality meetings that were conducted in a year.</td>
</tr>
<tr>
<td>Denominator</td>
<td>Total number of morbidity and/ or mortality meetings that were scheduled in a year.</td>
</tr>
</tbody>
</table>
| Formula | Numerator x 100%  
Denominator |
| Standard | ≥ 80% |
| Data collection | 1. **Where:** Data will be collected from the department involved and the Hospital Director’s office.  
2. **Who:** Data will be collected by the hospital director’s staff/ person in charge in the department.  
3. **How frequent:** 6 Monthly data collection.  
4. **Who should verify:** All performance data must be verified by the Hospital Director.  
5. **How to collect:** The meeting must be organized at the hospital level (i.e. it is open to hospital staff across disciplines/ departments to join the Meeting). |
### Remarks
It is suggested that the frequency of the meetings to be scheduled in early of the year and the meetings must be minuted for documentation and audit purposes.

### Indicator 10: Cross-match Transfusion (CT) ratio

**Element:** Internal Business Process

**Rationale:**
- Cross-match transfusion ratio is an indicator of appropriateness of blood ordering. A ratio of more than 2.5 reflects excessive ordering of blood cross matching tests, thus imposing inventory problems for blood banks, an increase in workload, cost and wastage.
- This indicator is intended to assist in the enhancement of the cost efficiency of the cross-matching process, avoid unnecessary additional workload on laboratory personnel and results in better management of blood stocks.

**Definition of Terms:**
- **Cross-match:** A compatibility test carried out on patient’s serum with donor red blood cells before blood is transfused.
- **Transfusion:** The infusion of cross-matched whole blood or red cell concentrates to the patient.
- **Cross-match transfusion ratio:** A ratio of the number of red blood cell units cross-matched to the number of red blood cells units transfused.

**Criteria:**
- **Inclusion:** All cross-matches done in blood bank.
- **Exclusion:** Safe Group O blood given without cross-match in an emergency situation

**Type of indicator:** Rate-based Process Indicator

**Numerator:** Number of red cell units cross-matched

**Denominator:** Number of red cell units transfused

**Formula:**
\[
\text{Numerator} / \text{Denominator}
\]

**Standard:** \( \leq 2.5 \)

**Data collection:**
1. **Where:** Data will be collected from the Blood Bank of the hospital.
2. **Who:** The Blood Bank staff/personnel will record and collect the data.
3. **How frequent:** 6 Monthly data collection.
4. **Who should verify:** All performance data must be verified by the Head of Department/ Head of Blood Bank Unit/ Hospital Director.
5. **How to collect:** Data collected from the registration book/record books/information system in the Blood Bank of the hospital.

**Remarks:**

### Indicator 11: Rate of Healthcare Associated Infections (HCAI)

**Element:** Internal Business Process

**Rationale:** Healthcare Associated Infections are preventable illnesses and the prevention of these infections continues to be the top priority. Therefore,
Definition of Terms: Healthcare Associated Infection: An infection occurring in a patient in a hospital or other healthcare facility in whom the infection was not present or incubating at the time of admission. This includes the infections acquired in the hospital, but appearing after discharge, and also occupational infections among staff of the facility.

Criteria:

Inclusion criteria:
All patients who were admitted to the ward before or at 8.00 am and were not yet discharged from the ward at the time of the survey.

Exclusion criteria:
Patients in Psychiatric Ward, Emergency Department, Labour Room, Outpatient Department, Day care.

Type of indicator: Rate-based Process Indicator

Numerator: Number of patients with HCAI in the hospital on the day of survey

Denominator: Number of hospitalised patients in the hospital on the day of survey

Formula: \[ \text{Numerator} \times 100\% \]

Denominator

Standard: < 5%

Data collection:
1. Where: Data will be collected from every ward of the hospital except the place in exclusion criteria.
2. Who: Data will be collected by the infection control personnel/team.
3. How frequent: 6 Monthly data collection. Data will be sent to JKN within 1 month after the survey.
4. Who should verify: All performance data must be verified by the Head of Department/Head of Unit/Chairman of the infection control committee or Hospital Director.
5. How to collect: Data is collected through hospital wide cross sectional point prevalence survey, which is conducted twice a year (i.e. One day in the month of March and September).

Remarks:

Indicator 12: Percentage of Root Cause Analysis (RCA) (of the Clinical Services) on Near Misses with corrective action taken

Element: Internal Business Process

Rationale: Most of the accidents in the hospital precede with a warning. Near miss is a serious error or mishap that has the potential to cause an adverse event, however, it was intercepted in time before any damage could occur. Near miss needs to be learnt and corrective action needs to be carried out for continuous improvement in the healthcare system.

Definition of Terms: Near Miss: A serious error or mishap that has the potential to cause an adverse event, however, it was intercepted in time before any damage could occur. For Medication Error, please refer to the Remark below.
Clinical Service: Service according to the services that listed in the KPIs requirement and any services that conform to the incident reporting requirement.

Corrective Action taken: Any remedial measures/ risk reduction strategies that had been carried out, evidenced by proper documentation, including any immediate effective corrective action has been acted on.

The duration or time frame: The time for the action to be acted on, i.e. referring to the time of all SIQ/ RCA reports need to be concluded (not later than 30 days).

Criteria:
- Inclusion: All near miss cases of which RCA has been carried out.
- Exclusion: NA

Type of indicator: Rate based process indicator

Numerator: Number of RCA on Near Misses with corrective action taken

Denominator: Total number of RCA on Near Misses

Formula: Numerator \( \times \) 100 \% / Denominator

Standard: \( \geq 80\% \)

Data collection:
- Where: Data will be collected from all departments
- Who: Data will be collected by the Officer/ staff in charge of the Unit/ Department assigned by the Hospital Director.
- Who should verify: All performance data must be verified by the Head of Unit/ Department/ Hospital Director.
- How to collect: Data will be collected from the record book/ registration book/ monitoring system in the unit/ department.

Remarks:
- It is suggested that Mini/ Full RCA to be done for all Near Miss cases, depending on the expected severity of the near miss cases.
- It is also suggested that ROOT CAUSE ANALYSIS (RCA) SIMPLIFIED REPORT; RCA.F: KPI Form to be used for the reporting purposes.
- For Pharmacy, (Medication Safety Technical Working Group Bil. 2/2016 on 18th August 2016):
  - Medication Error (ME) Report (BPF/104/ME/01) (Category A & B) based on Medication Error Reporting System (MERS) for Near Misses is accepted.
  - Pharmacy team of the hospital shall decide the need for RCA of Near Misses for Category A & B based on trending in that particular hospital.
  - RCA is compulsory for Near Miss that potentially have serious/ severe outcome.
<table>
<thead>
<tr>
<th>Indicator 13</th>
<th>Percentage of medication prescriptions dispensed within 30 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element</td>
<td>Customer Focus</td>
</tr>
<tr>
<td>Rationale</td>
<td>Long waiting time can adversely affect patient satisfaction.</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td><strong>Dispense:</strong> Process of delivering medication to the patient.</td>
</tr>
<tr>
<td></td>
<td><strong>Dispensed within 30 minutes:</strong> Time taken from the prescription received by the staff at the pharmacy counter to the time that the medication is delivered to the patient during office hours.</td>
</tr>
<tr>
<td>Criteria</td>
<td><strong>Inclusion:</strong> Prescriptions received from the Outpatient department/ Specialist Clinic/ Follow-up clinic.</td>
</tr>
<tr>
<td></td>
<td><strong>Exclusion:</strong> 1. Queried prescription:</td>
</tr>
<tr>
<td></td>
<td>- Incomplete prescription and/or prescription that requires intervention.</td>
</tr>
<tr>
<td></td>
<td>- Interruption of medicine supply due to medicines temporarily being out of stock or and medicines not in the MOH Drug Formulary/facility formulary lists.</td>
</tr>
<tr>
<td></td>
<td>2. Prescription received after office hours.</td>
</tr>
<tr>
<td></td>
<td>3. Prescription received during weekends/public holidays.</td>
</tr>
<tr>
<td>Type of indicator</td>
<td>Rate-based process indicator</td>
</tr>
<tr>
<td>Numerator</td>
<td>Number of prescriptions dispensed within 30 minutes</td>
</tr>
<tr>
<td>Denominator</td>
<td>Total number of prescriptions dispensed</td>
</tr>
<tr>
<td>Formula</td>
<td>Numerator x 100% / Denominator</td>
</tr>
<tr>
<td>Standard</td>
<td>≥ 95%</td>
</tr>
<tr>
<td>Data collection</td>
<td>1. <strong>Where:</strong> Data will be collected from the Pharmacy Department/Unit.</td>
</tr>
<tr>
<td></td>
<td>2. <strong>Who:</strong> Staff/personnel in the Pharmacy Department/Unit will record and collect the data.</td>
</tr>
<tr>
<td></td>
<td>3. <strong>How frequent:</strong> Monthly data collection.</td>
</tr>
<tr>
<td></td>
<td>4. <strong>Who should verify:</strong> All performance data must be verified by the Head of Department/Head of Unit/Hospital Director.</td>
</tr>
<tr>
<td></td>
<td>5. <strong>How to collect:</strong></td>
</tr>
<tr>
<td></td>
<td>- In hospitals without QMS (Queue Management System)/HIS (Hospital Information System)/other related system to monitor the performance, data collection is done for <strong>five full consecutive working days</strong>.</td>
</tr>
<tr>
<td></td>
<td>- In hospitals with QMS/HIS/other related system, it is suggested <strong>ALL</strong> dispensing time to be analysed.</td>
</tr>
<tr>
<td>Remarks</td>
<td>• Five consecutive working days for facility without QMS is to reflect the trend of patient’s attendance from various clinics in the facility.</td>
</tr>
<tr>
<td></td>
<td>• It is suggested that the CLOCK IN time (time of the prescription received) and CLOCK OUT time (time of the prescription dispensed to the patient, or the medication is ready to be dispensed and the patient was called) to be recorded at the Pharmacy Department/Unit.</td>
</tr>
</tbody>
</table>
## Indicator 14

**Percentage of hospital customers who were satisfied with the hospital services (based on the customer satisfaction survey)**

### Element
- **Customer Focus**

### Rationale
- Customer satisfaction survey is one of the tools that can be used in recognizing areas of improvement in the hospital services provided.

### Definition of Terms
- **Hospital customer**: Patients.
- **Satisfaction survey**: Refers to the survey that was conducted through SERVQUAL or any MOH gazetted customer satisfaction survey in the hospital.
- **Satisfied**:
  - Referring to the answer for Question Number 18 or 19 (i.e. satisfied or very satisfied)
  - Based on the latest accepted patient satisfaction status analysis by MOH.

### Criteria
- **Inclusion**: Customer who participates in the customer satisfaction survey.
- **Exclusion**:
  1. Hospital which involved in mass casualty incident/ disaster for more than 6 months.
  2. Hospital which involved in major renovations/ structural problems which result in service interruption.
  3. Psychiatric patients.
  4. Paediatric patients.

### Type of indicator
- Rate-based process indicator

### Numerator
- Number of participating hospital customers who were “satisfied” in the customer satisfaction survey

### Denominator
- Total number of customers who participated in the hospital customer satisfaction survey

### Formula
- $\text{Numerator} \times 100\% \over \text{Denominator}$

### Standard
- $\geq 80\%$

### Data collection
- **Where**: Data will be collected from every section of the hospital except from the paediatric and psychiatric clinic/ ward.
- **Who**: Data will be collected/ monitored by the officer/ person in-charge (Public Relation Officer) or by the personnel whom was assigned by the Hospital Director.
- **How frequent**: 6 monthly data collection. Customer Satisfaction Survey must be conducted twice a year at the hospital level.
- **Who should verify**: All performance data must be verified by the Head of Department/ Head of Unit/ Hospital Director.
- **How to collect**: Data will be collected from the customer satisfaction survey form using the SERVQUAL methodology.

### Remarks
## Indicator 15
**Percentage of Aduan Sederhana settled within 15 working days**

### Element
Customer Focus

### Rationale
Any complaint received by the hospital needs to be taken seriously to improve quality of services to the patient.

### Definition of Terms
**Aduan Sederhana**: Complaint which requires action that involves multiple Unit/Department/Agencies. It may require further investigation or visit to the scene and may require an establishment of an Investigation Committee and it could be a complaint of Clinical or Administration management. E.g. complaints that commonly involve staff etiquettes, communications, delayed treatment and healthcare facilities (E.g. dirty restaurant).

**Settled**: Complaint closed or resolved with the complainant received the feedback from hospital regarding the closure of the complaint.

**Official complaint**: Any complaint to the hospital in any form (letter/facsimile/email/poison pen letter/feedback in suggestion box/print media/social media/phone conversation/verbal/through the official website of the hospital) and been documented/recorded officially in iSPA.

### Criteria
**Inclusion**:
1. The complaint must be completed with name, address, contact number (home/office) and/or email address of the complainant.
2. The complaint must be through the Administrative Office, Public Relation Officer or any hospital staff.
3. The complaint is registered in the **Integrated Sistem Pemantauan Aduan Agensi Awam Bersepadu** (iSPA).

**Exclusion**:
1. Medicolegal cases.
2. Complaint that involved investigations that requires external enquiry board (i.e. panel from outside of the hospital).

### Type of indicator
Rate-based process indicator

### Numerator
Number of Aduan Sederhana settled within 15 working days

### Denominator
Total number of Aduan Sederhana received

### Formula
\[
\text{Numerator} \times 100% \\
\text{Denominator}
\]

### Standard*
\[ \geq 60\% \]

### Data collection
1. **Where**: Data will be collected from the Hospital Director Office
2. **Who**: Data will be collected/monitored by officer/personnel in-charge for complaint.
3. **How frequent**: 3 monthly data collection.
4. **Who should verify**: All performance data must be verified by the Hospital Director.
5. **How to collect**: Data will be collected from the record/registration book/generated through **Integrated Sistem Pemantauan Aduan Agensi Awam** (iSPA).

### Remarks
- In accordance to **Prosedur Pengurusan Aduan Awam KKM 2015** by Unit Komunikasi Korporat KKM based on Pekeliling Perkhidmatan Awam 2009.
### Indicator 16: Percentage of medical reports prepared within the stipulated period

**Element:** Customer Focus

**Rationale:** Medical report is a written document of a patient record of his/her medical examination and treatment. The preparation of this document within the time period is essential in ensuring the efficiency of the hospital in managing patient record and request, especially in regards to insurance claims, police investigations, court proceedings and medico-legal purposes.

**Definition of Terms:**
- **Stipulated period:** The preparation of a medical report according to the given time period (non-inclusive of public holidays and weekends):
  - State & Specialist Hospitals: ≤ 4 weeks
  - Other hospitals: ≤ 2 weeks

**Performance measurement:** The performance will be calculated at the end of the month on how many medical reports were completed within the stipulated period compared to the number of actual completed requests (i.e. medical report requests).

**Criteria:**
- **Inclusion criteria:** All medical reports include “plain reports” and reports for insurance claims.
- **Exclusion criteria:**
  1. Specialist report
  2. Report with requests for clarification on the previously prepared report.
  4. Post mortem report

**Type of indicator:** Rate-based process indicator

**Numerator:** Number of medical reports prepared within the stipulated period

**Denominator:** Total number of medical reports prepared in the surveillance month

**Formula:** Numerator \( \times 100 \% \) Denominator

**Standard:** \( \geq 90 \% \)

**Data collection:**
1. **Where:** Data will be collected in the medical record office/ unit/ department.
2. **Who:** Data will be collected by the Officer/ staff in-charge in medical record office/ unit/ department.
3. **How frequent:** Monthly data collection (cohort of previous month)
4. **Who should verify:** All performance data must be verified by the Head of Department/ Head of Unit/ Hospital Director.
5. **How to collect**: Data will be collected from the record book/registration book/monitoring system.

**Remarks**
- In order to streamline the data collection method, the performance of the present month will be calculated based on the numerator and denominator of the previous month (retrospective cohort). For example, the July performance will be based on the data in June.

**Indicator 17**: Percentage of patient age ≥ 75 year-old who attended Specialist Outpatient Clinic appointment with throughput time ≤ 90 minutes.

**Element**: Customer Focus

**Rationale**: By the year 2035, 15% of Malaysia population will be classified as Senior Citizens (age > 60 years) (source: Ministry of WFCD, 2016). By 2020, it is estimated that this group of people will contribute about 10% of the population (i.e. 3.4 million) (source: National Health Policy for Older Persons, 2011). Currently, the Elder Healthcare Act, aims to ensure quality care, have been put in motion and going through the due process. Thus, healthcare facilities, especially hospitals, play an important role in providing the best quality of care for the elderly in parallel to the National Health Policy for Older Persons, 2011.

**Definition of Terms**
- **Attended**: Came to the hospital for appointment and received consultation, treatment and medication at the same setting of the hospital visit.
- **Throughput time**: The amount of time a patient passing through a system or process (i.e. Specialist Outpatient Clinic Appointment – Registration, consultation, treatment, received medicine).
- **≤ 90 minutes**: Throughput time from the registration (arrived), consultation/treatment (seen) and medication served (leaving the hospital).

**Criteria**
- **Inclusion**:
  1. All patients age ≥ 75 years-old who came for outpatient follow-up at the Specialist Outpatient Clinic according to appointment given.
  2. All patients age ≥ 75 years-old who came for outpatient follow-up at the Visiting Specialist Outpatient Clinic according to appointment given.

- **Exclusion**:
  1. Patient who is planned for admission.
  2. Patient who did not come according to appointment.
  3. Patient who came for medical procedure that takes more than 30 minutes to be done (e.g. eye dilatation for fundal assessment, hearing assessment, POP removal, etc.)

**Type of indicator**: Rate-based process indicator

**Numerator**: Number of patients age ≥ 75 years-old who attended Specialist Outpatient Clinic appointment with throughput time ≤ 90 minutes

**Denominator**: Total number of patients age ≥ 75 years-old who attended Specialist Outpatient Clinic appointment.

**Formula**: Numerator \( \times 100\% \)

**Standard**: ≥ 80%
Data collection
1. Where: Data will be collected at the patient’s registration counter/ specialist outpatient clinic/ pharmacy registration counter.
2. Who: Data will be collected by the Officer/ staff in-charge of the counters.
4. Who should verify: All performance data must be verified by the Head of Department/ Hospital Director.
5. How to collect: Data will be collected from the record book/ registration book.

Remarks: • In accordance to top management mandate during Mesyuarat Pembentangan KPI YBMK 2017 in December 2016.

Indicator 18: Percentage of officers who were informed of their performance marks by the First Evaluating Officer (Pegawai Penilai Pertama (PPP)) for the Annual Performance Evaluation Report, (LNPT)

Element: Employee Satisfaction

Rationale: The Annual Performance Evaluation Report is an assessment tool to evaluate the employee performance and to understand the abilities of a person to further grow and develops within a period of one year. It is an important tool in maintaining the quality and productivity of every personnel in the hospital.

Definition of Terms:
Officer: Pegawai Yang Dinilai (PYD).
First Evaluating Officer: Pegawai Penilai Pertama (PPP).
Notification: PPP notifies PYD on the LNPT marks through HRMIS or via any other auditable method.
Notified: PYD acknowledged the LNPT marks through HRMIS or via any other auditable method.

Criteria:
Inclusion: All personnel whom being evaluated by the hospital.
Exclusion:
1. Staff who was transferred-in to the hospital for less than 3 months.
2. Staff undergoes training (e.g. master programme, post basic, PhD, etc.) for more than 6 months.
3. Staff whom being evaluated through the different system or a system whereby the acknowledgement component was not established.

Type of indicator: Rate-based process indicator
Numerator: Number of officers who were notified of their performance mark by the PPP
Denominator: Total number of officers evaluated by the PPP
Formula: Numerator x 100%
Denominator
Standard: ≥ 95%

Data collection
1. Where: Data will be collected in the administrative unit/department.
2. Who: Data will be collected by the Officer/ staff in-charge in HRMIS/ Human resource/ Administrative department/ unit.
### TECHNICAL SPECIFICATIONS OF HOSPITAL PERFORMANCE INDICATORS FOR ACCOUNTABILITY (HPIA) & SPECIFIC INDICATORS VERSION 5.0

<table>
<thead>
<tr>
<th>4. <strong>Who should verify:</strong></th>
<th>All performance data must be verified by the Head of Department/ Head of Human Resource/Administrative Unit/ Hospital Director.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. <strong>How to collect:</strong></td>
<td>Data will be collected from the record book/ registration book/ HRMIS system.</td>
</tr>
</tbody>
</table>

**Remarks**
- Data can be collected by including the total number of the hospital staff
- OR through a sampling of 25% of the hospital staffs inclusive of all categories (the format of the sampling shall be decided by the individual hospital).

<table>
<thead>
<tr>
<th>Indicator 19</th>
<th>Percentage of new hospital staffs who attended the Orientation Programme within 3 months of their placement at the Unit or Department in the hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Element</strong></td>
<td>Employee Satisfaction</td>
</tr>
<tr>
<td><strong>Rationale</strong></td>
<td>Orientation Programme is a platform used to provide information in regards to the institution/ hospital to the newcomers (i.e. staffs). This Orientation Program will assist the new staffs to be familiarized with the institution/ hospital, hence, indirectly it will boost their productivity and their self confidence in the new environment.</td>
</tr>
<tr>
<td><strong>Definition of Terms</strong></td>
<td><strong>New staffs:</strong> Newly reported personnel (transferred in/ newly appointed/ new placement) to the hospital/ institution. <strong>Orientation Program:</strong> A structured program organized/ conducted by the Hospital/ Institution/ Department/ Unit comprises of introduction of the system, work process and environment. <strong>3 months:</strong> The period (3 months) from the date of reporting.</td>
</tr>
<tr>
<td><strong>Criteria</strong></td>
<td><strong>Inclusion:</strong> Orientation Programme that was conducted by the Hospital/ Institution/ Department/ Unit <strong>Exclusion:</strong> 1. Staffs whom transferred out from the hospital ≤ 3 months after reporting for duty. 2. Staffs whom postponed their transfer-in/ appointment/ placement to the hospital.</td>
</tr>
<tr>
<td><strong>Type of indicator</strong></td>
<td>Rate-based process indicator</td>
</tr>
<tr>
<td><strong>Numerator</strong></td>
<td>Number of new staffs who attended the Orientation Program within 3 months of their placement in the hospital</td>
</tr>
<tr>
<td><strong>Denominator</strong></td>
<td>Total number of new staff reported to the hospital</td>
</tr>
<tr>
<td><strong>Formula</strong></td>
<td>Numerator x 100%</td>
</tr>
<tr>
<td><strong>Standard</strong></td>
<td>≥ 80%</td>
</tr>
</tbody>
</table>

**Data collection**
1. **Where:** Data will be collected in every unit/department/wards.
2. **Who:** Data will be collected by the Officer/ staff in-charge for the Orientation Program in each department/ unit/ ward (Administrative unit/ department responsible for the overall data collection)
3. **How frequent:** 6 monthly data collection.
4. **Who should verify**: All performance data must be verified by the Head of Department/ Head of Human Resource/Administrative Unit and Hospital Director (final verification).

5. **How to collect**: Data will be collected from the record book/ human resource record.

**Remarks**:
- Staff whom reported after 31st March or after 30th September of the current year will be carried to the next term/ year of the denominator which means:
  - 1st Term Evaluation: 1st October of the previous year to the 31st March of the current year.
  - 2nd Term Evaluation: 1st April of the current year to the 30th September of the current year.

---

**Indicator 20** : Percentage of *Hari Bertemu Warga Hospital* conducted by the Hospital Director in the corresponding year.

**Element** : Employee satisfaction

**Rationale** : Engagement of the Hospital Director with the hospital staffs is essential to ensure good partnership and maintain the harmony in the hospital. Thus, this occasion will be the platform for the Hospital Director to engage with various categories of the hospital staff.

**Definition of Terms**:
- *Hari Bertemu Warga Hospital*: A scheduled occasion by the Hospital Director to engage with the hospital staffs.
- *Warga Hospital*: All categories of staff.

**Criteria**:
- **Inclusion**: All scheduled *Hari Bertemu Warga Hospital*.
- **Exclusion**:
  1. *Perhimpunan Pagi*
  2. *Perhimpunan Bulanan*
  3. *Majlis Bersama Jabatan (MBJ)*

**Type of indicator** : Rate-based process indicators

**Numerator** : Number of *Hari Bertemu Warga Hospital* conducted by the Hospital Director

**Denominator** : Number of scheduled *Hari Bertemu Warga Hospital* conducted by the Hospital Director

**Formula** : Numerator x 100 %

**Standard** : ≥ 75%

**Data collection**:
1. **Where**: Data will be collected from the Hospital Director Office
2. **Who**: Data will be collected by the Officer/ staff in charge/ assigned by the Hospital Director.
3. **How frequent**: 6 Monthly data collection.
4. **Who should verify**: All performance data must be verified by the Deputy State Health Director (Medicine).
5. **How to collect**: Data will be collected from the record book/ registration book.

**Remarks**:
- Number of staffs who have attended the *Hari Bertemu Warga Hospital* must be recorded and documented for audit purposes.
It is suggested that *Hari Bertemu Warga Hospital* to be carried out in a closed area where close communications can be taken place with no external/public interruption whereby the staff can be one to one with the Hospital Director and open to all categories of staff.

It is also suggested that *Hari Bertemu Warga Hospital* to be carried out at least once in 3 months (4 times a year).

<table>
<thead>
<tr>
<th>Indicator 21</th>
<th>Percentage of paramedics in acute care areas who have a CURRENT trained status in Basic Life Support (BLS) in the corresponding year</th>
</tr>
</thead>
</table>

**Element**: Learning and Growth

**Rationale**: Basic Life Support is an important skill for all healthcare personnel to possess and it is an important element of the Continuous Professional Development. Therefore, continuous update of the healthcare personnel will ensure the current/latest management of patient care is being practiced.

**Definition of Terms**:
- **Acute care area**: Emergency and Trauma Department, and Intensive Care Area (ICU, CCU, OT, HDW, Labour Room, Burn Unit, PICU, NICU, Neuro ICU and Haemodialysis Unit).
- **CURRENT trained status**: The valid period of BLS certification (i.e. 5 years) according to the Policy on Resuscitation Training for Ministry of Health Hospitals.
- **Paramedic**: Refer to medical assistant and staff nurse who is currently working at the Intensive Care Area.

**Criteria**:
- **Inclusion**: Paramedic who is currently working in the intensive care area for more than 6 months.
- **Exclusion**:
  1. Paramedic who was transferred-in to the intensive care area for less than 6 months.
  2. Paramedic who is currently working in the intensive care area for less than 6 months.
  3. Paramedic who has been on medical leave for more than 6 months.

**Type of indicator**: Rate-based process indicator

**Numerator**: Number of paramedics in the acute care areas who have CURRENT trained status in Basic Life Support (BLS)

**Denominator**: Total number of paramedics in the acute care areas

**Formula**: Numerator \( \times \) 100% / Denominator

**Standard**: \( \geq 70\% \)

**Data collection**:
1. **Where**: Data will be collected at each acute care area.
2. **Who**: Data will be collected by the Officer/staff in-charge for the acute care area.
3. **How frequent**: 6 monthly data collection
4. **Who should verify**: All performance data must be verified by the Head of Department/Head of Unit and Hospital Director (final verification).
5. **How to collect**: Data will be collected from the record book/registration book from each unit/department/ward.
### Indicator 22

**Percentage of staffs who successfully attained the requirement of 7 days compulsory training in the corresponding year**

#### Element

**Learning and Growth**

#### Rationale

In accordance to Surat Pekeliling Perkhidmatan Bil. 6/2005 : Dasar Latihan Sumber Manusia Sektor Awam

#### Definition of Terms

**Staff:**
1. Administrative and Professional Group.
2. Support Group I.
3. Support Group II.

**7 days compulsory training:**
1. Number of training days, which is compulsory to be completed by the staff in the corresponding year.
2. Equivalent to 40 CPD points (MyCPD online).

#### Criteria

**Inclusion:**
1. All courses that were organized by MOH, local or external organization/private sector that is related to MOH/staff job descriptions.
2. Cumulative time on CME attendances conducted at hospital level or departmental level (6 hours equivalent to one (1) day course).

**Exclusion:**
1. Staffs who were transferred-in to the hospital less than 6 months by 31 December of the corresponding year.
2. Staffs who were unable to attend courses due to medical reasons.
3. Staffs who were on leave or not present in the hospital due to official affairs (e.g. master training, subspecialty training, external attachments) for more than 6 months.

#### Type of indicator

Rate-based Process Indicator

#### Numerator

Number of staffs who had successfully attained the 7 days compulsory training requirements

#### Denominator

Total number of staffs

#### Formula

\[ \frac{\text{Numerator}}{\text{Denominator}} \times 100\% \]

#### Standard

≥ 75%

#### Data collection

1. **Where:** Data will be collected from each unit/departments.
2. **Who:** Data will be collected by the Officer/staff in-charge for the training/course in each department/unit (Administrative unit/department is responsible for the overall data collection).
3. **How frequent:** Yearly data collection
4. **Who should verify:** All performance data must be verified by the Head of Department/Head of Unit and Hospital Director (final verification).
5. **How to collect:** Data will be collected from the record book of each unit/department, especially record from the Administrative Unit/Department.
TECHNICAL SPECIFICATIONS OF HOSPITAL PERFORMANCE INDICATORS FOR ACCOUNTABILITY (HPIA) & SPECIFIC INDICATORS VERSION 5.0

### Remarks
- Staffs who were on maternity leave are only required to attend the compulsory training proportionate to the duration of working in the corresponding year.

<table>
<thead>
<tr>
<th>Indicator 23</th>
<th>Percentage of medical officers with completed paper (study/ research/ case report) for postgraduate study application purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element</td>
<td>Learning and growth</td>
</tr>
<tr>
<td>Rationale</td>
<td>Postgraduate students will be required to do study/ research during their postgraduate training. A completed pre-postgraduate paper shows the candidates commitment in joining the Master Programme. Thus, it is crucial for the Hospital Director to ensure that only the potential candidates are worth the recommendation. Furthermore, this will be an early exposure and encouragement for the candidates to be involved in research.</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>Completed paper: Any study/ research conducted or case report done by the Medical Officer whom applying for the Master Programme. Postgraduate: Refers to Master Programme.</td>
</tr>
</tbody>
</table>
| Criteria     | **Inclusion:** All Medical Officers who apply for postgraduate programmes that need to be endorsed by the Hospital Director.  
**Exclusion:** Medical Officers who apply for external papers (e.g. MRCS/ MRCP) |
| Type of indicator | Rate-based Process Indicator |
| Numerator    | Number of Medical Officers with completed paper whom applying for postgraduate programmes |
| Denominator  | Number of Medical Officers applying for postgraduate programmes |
| Formula      | \[
\text{Numerator} \times 100\% \div \text{Denominator}
\] |
| Standard     | \(\geq 90\%\) |
| Data collection | 1. **Where:** Data will be collected from the Hospital Director Office/ Training Unit/ Human Resource Unit  
2. **Who:** Data will be collected by the Officer/ staff in charge of the Training/ Human Resource Unit/ Department or Unit that assigned by the Hospital Director.  
3. **How frequent:** Yearly data collection.  
4. **Who should verify:** All performance data must be verified by the Deputy State Health Director (Medicine)  
5. **How to collect:** Data will be collected from the record book/ registration book (study/ research/ case report file/ monitoring system). |
<p>| Remarks      | The study/ research/ case report is valid for the period of 4 years provided that the study/ research is related to the applied Master Programme. |</p>
<table>
<thead>
<tr>
<th>Indicator 24</th>
<th>Percentage of hospital vehicles that conformed to the Planned Preventive Maintenance (PPM) schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element</td>
<td>Financial and Office Management</td>
</tr>
<tr>
<td>Rationale</td>
<td>PPM is a scheduled maintenance of an asset or item of equipment of the hospital including the hospital vehicles. PPM provides the renewal of any elements of the asset before they fail. Having a detailed and well-casted PPM in place provides a level of comfort, possible significant future savings and allows hospital to spread maintenance costs over a planned period of time. Moreover, good PPM and asset maintenance will ensure the hospital vehicles will always be in an optimum condition in order to ensure the safety of the users.</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>Hospital vehicles: All vehicles that belong to the hospital (hospital assets). PPM schedule: Planned maintenance for each vehicle in a specific period of time. On schedule/ corresponding period: ± 5 working days or ± 500km.</td>
</tr>
<tr>
<td>Criteria</td>
<td>Inclusion criteria: All hospital vehicles, including ambulances. Exclusion criteria: 1. Hospital vehicles which currently under beyond economic repair (BER). 2. Hospital vehicles that were involved in an accident at the time of the PPM Schedule. 3. Hospital vehicle which is still under warranty.</td>
</tr>
<tr>
<td>Type of indicator</td>
<td>Rate-based process indicator</td>
</tr>
<tr>
<td>Numerator</td>
<td>Number of hospital vehicles that conformed to the PPM schedule</td>
</tr>
<tr>
<td>Denominator</td>
<td>Total number of hospital vehicles on the PPM schedule</td>
</tr>
</tbody>
</table>
| Formula      | \[
\frac{\text{Numerator}}{\text{Denominator}} \times 100\%\]
<p>| Standard     | ≥ 80% |
| Data collection | 1. <strong>Where</strong>: Data will be collected in the transport unit/ administrative unit/ departments or unit/ department assigned by the Hospital Director. 2. <strong>Who</strong>: Data will be collected by the Officer/ staff/ unit in-charge for Planned Preventive Maintenance (PPM) schedule. 3. <strong>How frequent</strong>: 3 monthly data collection 4. <strong>Who should verify</strong>: All performance data must be verified by the Head of Department/ Head of Unit/ Hospital Director. 5. <strong>How to collect</strong>: Data will be collected from the record book/ transport log book. |
| Remarks      | • The denominator is calculated based on 3-monthly schedule. • Each vehicle may have many PPM schedules based on the kilometres or the schedule date. |</p>
<table>
<thead>
<tr>
<th>Indicator 25</th>
<th>Percentage of personnel who confirmed in service within 3 years of their date of appointment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element</td>
<td>Financial and Office Management</td>
</tr>
<tr>
<td>Rationale</td>
<td>Service confirmation for the civil servant is a crucial step in ensuring the productivity of every personnel in the government. This is in accordance to the <em>Surat Pekeliling Suruhanjaya Perkhidmatan Awam Malaysia Bil. 3/ 2011: Prosedur dan Kaedah Pengesahan Dalam Perkhidmatan</em> – which stated that Seorang pegawai layak disahkan dalam perkhidmatan apabila telah berkhidmat dalam tempoh percubaan bagi tempoh satu (1) hingga tiga (3) tahun dan memenuhi syarat-syarat perkhidmatan. By conforming to the above circular, indirectly, it will reflect the efficiency of the Hospital Administration in managing their staff.</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>Personnel: Hospital staffs who fulfilled the requirements.</td>
</tr>
<tr>
<td></td>
<td>Confirmation in service: Confirmation by the SPA/ JPA or any authorized agency upon receiving the confirmation letter.</td>
</tr>
<tr>
<td></td>
<td>Date of appointment: The date stated in the appointment letter by SPA/ JPA or any authorized agency.</td>
</tr>
<tr>
<td></td>
<td>Within 3 years: ≤ 3 years from the date of appointment.</td>
</tr>
</tbody>
</table>
| Criteria | Inclusion:  
1. Staffs who were newly appointed or newly promoted to a higher post *(Kenaikan pangkat secara lantikan, KPSSL).*  
2. Staffs with an official appointment or promotion letter from MOH.  
Exclusion:  
1. Staffs with disciplinary action/ under probation.  
2. Staffs whom transferred in ≤ 6 months and the confirmation was not yet been processed by the previous *Pusat Tanggungjawab* (PTJ). |
| Type of indicator | Rate-based process indicator |
| Numerator | Number of personnel who confirmed in the service within 3 years from the date of appointment |
| Denominator | Total number of personnel who were scheduled for confirmation within 3 years from the date of appointment in the corresponding year |
| Formula | Numerator x 100%  
Denominator |
| Standard | ≥ 95% |
| Data collection | 1. Where: Data will be collected in the human resource/ administrative unit/ departments.  
2. Who: Data will be collected by the Officer/ staff/ unit in-charge for staff confirmation in service.  
3. How frequent: 3 monthly data collection (3-year cohort).  
4. Who should verify: All performance data must be verified by the Head of Administrative Department/ Unit/ Deputy Hospital Director (Administrative)/ Hospital Director.  
5. How to collect: Data will be collected from the record book/ monitoring system in human resource/ administrative unit. |
### Remarks
- **Cohort**: a group of subjects who have shared a particular event together during a particular time span and can be tracked over extended periods.
- It is suggested that the Hospital Administrative Unit to prepare a list of the staffs that conform to the above circular and be grouped into 3 monthly cohorts on the 1st of January of every year.

### Indicator 26
- **Percentage of paid bills by discharged patients from the inpatient revenue**

<table>
<thead>
<tr>
<th>Element</th>
<th>Financial and Office Management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rationale</strong></td>
<td>Being the main health care provider in Malaysia, government hospitals are providing their services with low charges. By making sure the arrears at the minimum, this will reflect a good hospital revenue management and will lighten the financial burden of the government hospitals per se.</td>
</tr>
<tr>
<td><strong>Definition of Terms</strong></td>
<td><strong>Inpatient</strong>: Patient who was admitted to the ward.</td>
</tr>
<tr>
<td></td>
<td><strong>Paid bill</strong>: Full payment/ settlement of the bill (of any amount that have been charged/ decided by the hospital).</td>
</tr>
<tr>
<td></td>
<td><strong>Discharged patient</strong>: Patients who were discharged from the ward.</td>
</tr>
</tbody>
</table>

| **Criteria**                 | **Inclusion**: All patients who were admitted to the ward and require to pay for the hospital bill upon discharge. |
|                              | **Exclusion**: Patients who were exempted from hospital bill based on the *Akta Fi*. |

| **Type of indicator**        | Rate-based outcome indicator |
| **Numerator**                | Number of paid bills by discharged patients (inpatient) |
| **Denominator**              | Total number of discharged patients (inpatient) |
| **Formula**                  | Numerator \( \times 100\% \) \( \frac{\text{Denominator}}{\text{Numerator}} \) |
| **Standard**                 | \( \geq 70\% \) |

| **Data collection**          | 1. **Where**: Data will be collected from *Unit Hasil*. |
|                              | 2. **Who**: Data will be collected by the Officer/staff in-charge. |
|                              | 3. **How frequent**: Monthly data collection. |
|                              | 4. **Who should verify**: All performance data must be verified by the Head of Unit/ Deputy Director (Management)/ Hospital Director. |
|                              | 5. **How to collect**: Data will be collected from the registration book or computerized record system. |

| **Remarks**                  | *Pengecualian bayaran mengikut Perintah Fi (Perubatan 1982)* |
|                              | *Garis Panduan Pelaksanaan Perintah Fi (Perubatan) (Kos Perkhidmatan) 2014* |
|                              | *Surat Pekelling Bahagian Kewangan Bil 2/2006* |
### Indicator 27

**Percentage of assets in the hospital that were inspected and monitored at least once a year**

**Element**: Financial and Office Management

**Rationale**: Keeping track of assets by utilizing an updated inventory is an essential task that facilitates hardware and software management, license compliance and regulatory compliance of the assets. A successful asset management solution (i.e. through organized inspection and monitoring system), indeed, could save a lot of hospital money and management hassle.

**Definition of Terms**:
- **Asset**: Hospital properties that are listed in the hospital inventory.
- **Inventory**: A complete list of items such as property, goods in stock, or the contents of the hospital.
- **Inspect and monitor**: Surveillance activity of the hospital assets (placement of the assets/ location of the assets/ function) with complete documentation.

**Criteria**:
- **Inclusion**: All assets in the hospital inventory
- **Exclusion**: Assets under beyond economic repair (BER)/ disposal/ investigation due to it being reported as lost.

**Type of indicator**: Rate-based process indicator

**Numerator**: Number of assets that were inspected and monitored

**Denominator**: Total number of asset and inventory that were listed in the inventory

**Formula**:
\[
\text{Percentage} = \left( \frac{\text{Numerator}}{\text{Denominator}} \right) \times 100\%
\]

**Standard**: 100%

**Data collection**:
1. **Where**: Data will be collected from the administration unit/ departments.
2. **Who**: Data will be collected by the Officer/ staff of the Administration unit in-charge for assets and inventory.
3. **How frequent**: Yearly data collection.
4. **Who should verify**: All performance data must be verified by the Head of Department/ Head of Administrative Unit/ Deputy Hospital Director (Administration) / Hospital Director.
5. **How to collect**: Data will be collected from the record book/ registration book/ monitoring system in the administrative unit/ department.

**Remarks**:
- It is suggested that the hospital assets inventory, should be generated early of the year.
- It is suggested that the final performance to be measured not later than 15th December of the corresponding year.

### Indicator 28

**Hospital possesses CURRENT Accreditation (MSQH) or MS ISO Certification Status**

**Element**: Financial and Office Management

**Rationale**: Quality is about meeting the needs and expectations of customers, i.e. the patients. In pursuing these measures of quality, possession of MSQH Accreditation or MS ISO standard certification proves the KKM hospital...
committee in delivering good quality healthcare with high standard of services.

### Definition of Terms

**CURRENT:** Belonging to the present time within the validity period of the certificate.

**Accreditation:** 1 year or 4-year status, by the MSQH.

**MS ISO:** ISO 9000 family of Standards by International Organisation for Standardization (ISO). It is an international consensus on good quality management practices.

**Criteria**

**Inclusion criteria:**
Hospital with Accreditation (MSQH) or MS ISO certification (any family of MS ISO)

**Exclusion criteria:** NA

**Type of indicator:** Sentinel outcome indicator

**Numerator:** Current Accreditation or MS ISO status: Attained or Renewed

**Denominator:** NA

**Formula:** Numerator Performance

**Standard:** Achieved or Sustained Accreditation/ MS ISO status (1)

**Data collection**

1. **Where:** Data will be collected from the Hospital Director’s Office or Unit/ Department assigned by the Hospital Director.
2. **Who:** Data will be collected by the Officer/staff of a Unit/department in-charge and assigned by the Hospital Director.
3. **How frequent:** Yearly data collection.
4. **Who should verify:** All performance data must be verified by the Hospital Director.
5. **How to collect:** Data will be collected from the record book/ Accreditation or MS ISO Certificate.

**Remarks**

- In general, hospitals are encouraged to undergo Accreditation. However, in the case of structural/infrastructure/financial issues which prevent the hospitals from undergoing Accreditation, it is suggested that these hospitals undergo MS ISO Certification instead.
- Although only a particular area or a specific department of the hospital is certified with the ISO Certification, it can be considered as the hospital performance.

### Indicator 29

**Definition of Terms**

**Complete documentation:**
- Refers to that all needed/required documents for promotion have been prepared.

<table>
<thead>
<tr>
<th>Indicator 29</th>
<th>Percentage of personnel with complete documentation three (3) months prior to their time-based promotion in the corresponding year.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Element</strong></td>
<td>Financial and Office Management</td>
</tr>
<tr>
<td><strong>Rationale</strong></td>
<td>Complete documentation within three (3) months prior to the time-based promotion of a personnel shows the efficiency of the hospital management. By ensuring the complete documentation, the promotion of a personnel will not be delayed.</td>
</tr>
<tr>
<td><strong>Definition of Terms</strong></td>
<td>Complete documentation:</td>
</tr>
<tr>
<td></td>
<td>- Refers to that all needed/required documents for promotion have been prepared.</td>
</tr>
</tbody>
</table>
- The monitoring and documents should be prepared by the Administrative/ Human Resource Unit

**Criteria**

- **Inclusion:**
  All eligible personnel.

- **Exclusion:**
  Staff who were transferred in less than 3 months.

**Type of indicator**

- Rate-based structural indicator

**Numerator**

- Number of eligible personnel with complete documentation three (3) months prior to time-based promotion

**Denominator**

- Total number of eligible personnel due for time-based promotion

**Formula**

\[
\text{Numerator} \times \frac{100}{\text{Denominator}}
\]

**Standard**

- ≥ 90%

**Data collection**

1. **Where:** Data will be collected from the administrative unit/ departments.
2. **Who:** Data will be collected by the Officer/ staff of the Administrative unit in-charge for time based promotion.
3. **How frequent:** 3 monthly data collection.
4. **Who should verify:** All performance data must be verified by the Head of Administrative Unit/ Human Resource Unit/ Deputy Hospital Director (Administrative)/ Hospital Director.
5. **How to collect:** Data will be collected from the record book/ monitoring system in the administrative/ Human Resource unit/ department.

**Remarks**

- It is suggested that the hospital to identify the staffs who are eligible to be promoted according to the time-based promotion in early of the year. Example: If an officer is scheduled to be promoted in July, the documentation must have been completed by April.

**Indicator 30**

- **Percentage of Sijil Perakuan Pelupusan Aset (PEP) Kew. PA-16 obtained within 3 months after BER 2 submission**

**Element**

- Financial and Office Management

**Rationale**

- Asset disposal is part and parcel of an operational institution including hospital. By ensuring the timeliness of the Sijil Perakuan Pelupusan Aset (PEP), asset disposal can be done on accordingly.

**Definition of Terms**

- **Sijil Perakuan Pelupusan Aset (PEP):** KEW.PA-16 (Official certified document pertaining to asset disposal).
- **Beyond Economic Repair 2 (BER 2):** A form submitted by the Hospital Engineering Unit to the State Engineering Unit for asset disposal purposes.

**Criteria**

- **Inclusion:**
  All assets for disposal with BER 2 submission.

- **Exclusion:** NA

**Type of indicator**

- Rate-based outcome indicator
### Indicator 31: Percentage of Utilities Bills Reduction in the Corresponding Year

<table>
<thead>
<tr>
<th>Element</th>
<th>Financial and Office Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rationale</td>
<td>1. Malaysia programme designed by Malaysian Prime Minister on 16 September 2010, calling for the cabinet, government agencies, and civil servants to strongly emphasise on ethnic harmony, national unity, and efficient governance. Malaysia's government has been positioned eighth as far as most efficient performance in the 2014-2015 Global Competitive Index (GCI) released by the World Economic Forum (WEF). As Health and Primary Education is being one of the 12 pillars of competitiveness, Ministry of Health plays an important role in ensuring the health services provided, hospitals in particular, to operate efficiently.</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>Utility Bill: A utility bill is a document sent to a legal address requesting payment for a public service, such as telephone, electric, gas, sewer or water. In general, utility bills are sent once per month. Utilities: Services that are necessary to operate a home or business. Reduction: The action or fact of making a specified thing smaller or less in amount, degree, or size. Referring to monthly 5% reduction (RM) from the total amount (RM) of bills of the previous month. Total amount: Refers to the total summation of the bills in Ringgit Malaysia.</td>
</tr>
</tbody>
</table>

### Technical Specifications of Hospital Performance Indicators for Accountability (HPIA) & Specific Indicators Version 5.0

<table>
<thead>
<tr>
<th>Numerator</th>
<th>Number of Sijil Perakuan Pelupusan Aset obtained within 3 months after BER 2 submission.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denominator</td>
<td>Number of Sijil Perakuan Pelupusan Aset obtained after BER 2 submission.</td>
</tr>
</tbody>
</table>
| Formula | Numerator \times 100\%  
Denominator |
| Standard | \geq 90\% |
| Data collection | 1. **Where**: Data will be collected from the Hospital Management Office and Hospital Engineering Unit.  
2. **Who**: Data will be collected by the Officer/staff assigned by the Hospital Director.  
3. **How frequent**: 6 monthly data collection.  
4. **Who should verify**: All performance data must be verified by the Deputy State Health Director (Medicine).  
5. **How to collect**: Data will be collected from the record book/registration book. |
| Remarks | |
## TECHNICAL SPECIFICATIONS OF HOSPITAL PERFORMANCE INDICATORS FOR ACCOUNTABILITY (HPIA) & SPECIFIC INDICATORS VERSION 5.0

<table>
<thead>
<tr>
<th>Type of indicator</th>
<th>Rate-based outcome indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numerator</td>
<td>Total amount (RM) of utilities bills in that particular month</td>
</tr>
<tr>
<td>Denominator</td>
<td>Total amount (RM) of utilities bills in the previous month</td>
</tr>
</tbody>
</table>
| Formula           | \[
\frac{\text{Numerator}}{\text{Denominator}} \times 100\%\] |
| Standard          | a) \( \geq 5\% \)  
                  | b) \( \geq 5\% \) |
| Data collection   | 1. **Where**: Data will be collected from the Hospital Management/ Administrative Office/ Finance Department.  
                  | 2. **Who**: Data will be collected by the Officer/ staff assigned by the Hospital Director.  
                  | 3. **How frequent**: 3 monthly data collection.  
                  | 4. **Who should verify**: All performance data must be verified by the Hospital Director.  
                  | 5. **How to collect**: Data will be collected from the meeting’s record/ record book/ financial record. |
| Remarks           | • Other bills are excluded due to the fact that the usage of other utilities (such as sewer and gas) are difficult to control by the Hospital.  
                  | • In the event of any disaster or any circumstances in which the hospital is unable to achieve the given standard (i.e. SIQ), the hospital is still required to write an SIQ Report with or without RCA (according to the HPIA Guideline 2014).  
                  | • Telephone bills (excluding Top Management/ JUSA/ Consultant/ Specialist) will be included in the future.  
                  | • If the standard of this KPI is not met, the Hospital Director needs to provide an honest explanation by using the SIQ form with or without RCA (according to the HPIA Guideline 2014) to allow measures that has been taken by other hospital can be duplicated to the particular hospital. |
| Indicator 32      | Percentage of expired consumables item in the corresponding year |
| Element           | Financial and Office Management |
| Rationale         | 1Malaysia programme designed by Malaysian Prime Minister on 16 September 2010, calling for the cabinet, government agencies, and civil servants to strongly emphasise on ethnic harmony, national unity, and efficient governance. Malaysia’s government has been positioned eighth as far as most efficient performance in the 2014-2015 Global Competitive Index (GCI) released by the World Economic Forum (WEF). As Health and Primary Education is being one of the 12 pillars of competitiveness, Ministry of Health plays an important role in ensuring the health services provided, hospitals in particular, to operate efficiently. |
| Definition of Terms | **Consumable**: A commodity that is intended to be used up relatively quick.  
                   | **Store**: A place where things (consumables) are kept for future use. This include hospital supply store (Main Store)/ Medical store/ ward store/ ED Store/ CSSD Store/ OT Store/ Clinic Store/ Unit Store/ Stationery Store/ Kitchen Store and any other storage area in the hospital. |
**TECHNICAL SPECIFICATIONS OF HOSPITAL PERFORMANCE INDICATORS FOR ACCOUNTABILITY (HPIA) & SPECIFIC INDICATORS VERSION 5.0**

| Indicator 33 | Percentage of Safety Audit findings identified whereby control measures had been taken in the corresponding year |
| Element      | Environmental (Technical) Support |
| Rationale    | To ensure safety of the patient and healthcare workers involved. |
| Definition of Terms | Safety Audit: An audit that is conducted by the hospital Safety and Health Committee (JKKK) / Person in charge of safety to assess the compliance of the hospital to safety and health. |

---

| Element | Environmental (Technical) Support |
| Rationale | To ensure safety of the patient and healthcare workers involved. |
| Definition of Terms | Safety Audit: An audit that is conducted by the hospital Safety and Health Committee (JKKK) / Person in charge of safety to assess the compliance of the hospital to safety and health. |

---

**Expired**: Cease to be valid or used after a fixed period of time based on the date that has been set/ written by the manufacturer.

**Number of expired consumable items**:  
- Item bought by boxes: 1 box = 1 item  
  (e.g. syringes/ sutures/ needles/ etc.)  
- Loose item: 1 item = 1 item

**Criteria**

- **Inclusion**:
  Consumables item:
  1. Any item that was bought through the Administrative Office under the consumables category (i.e. using the Consumables Budget) that has an expiry date (e.g. Printer Toner, Ink, glue, etc.) and kept in the store.
  2. Any item that was bought through the Pharmacy Department under the consumables category (i.e. using the specific Department/ Unit Consumables Budget) that has an expiry date (e.g. disposable operation’s instruments, catheters, sutures, needles, special syringes, etc.) and kept in the store.

- **Exclusion**:
  1. Non-expiry consumables item.

**Type of indicator**: Rate-based outcome indicator

**Numerator**: Number of expired consumables item in the hospital stores.

**Denominator**: Total number of consumable item in the hospital stores.

**Formula**

\[
\text{Numerator} \times 100\% / \text{Denominator}
\]

**Standard**: ≤ 10%

**Data collection**

1. **Where**: Data will be collected from the Hospital Management/ Administrative Office/ Finance Department/ Asset Department.
2. **Who**: Data will be collected by the Officer/ staff assigned by the Hospital Director.
3. **How frequent**: 3 monthly data collection.
4. **Who should verify**: All performance data must be verified by the Hospital Director.
5. **How to collect**: Data will be collected from the record book/ financial record/ inventory book/ KEW.PS-4/ KEW.PS-14.

**Remarks**

- Monitoring of this indicator requires a collaborative effort between the Hospital Top Managers (Pengarah/ Timbalan Pengarah Pengurusan/ Ketua Penyelia Jururawat/ Ketua Penyelia) and Store Managers (Ward Sister/ Nurses/ Asset Officer/ Pharmacy Department).
Safety Audit finding: Any item in the safety audit format OHU/ Audit/ BU (general) with score of 0 and 1.

Scoring scale:

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Not comply</td>
</tr>
<tr>
<td>1</td>
<td>Comply, but not complete</td>
</tr>
<tr>
<td>2</td>
<td>Comply, and complete</td>
</tr>
</tbody>
</table>

Control measures:
- Any effort to reduce the risk related to the hazard through various control measures such as elimination, substitution, engineering control (e.g. use automation or LEV), administrative control (e.g. SOP, policies or work rotation) and personal protective equipment (PPE).
- Multiple control measure can be used.

Taken: Action has been carried out as mentioned above.

Criteria:

Inclusion:
Hazardous areas, e.g. CSSD, kitchen, laboratory, Radiology or Diagnostic Imaging Department/ Unit, Cytotoxic Drug Reconstitution, Engineering Department (workshop), mortuary, wards, hospital compound.

Areas that must be included:
- Critical Care Area (ICU/ CCU/ NICU/ HDW)
- ED
- Pathology Laboratory
- Kitchen

Optional Areas:
- Radiology/ Diagnostic Imaging Department
- Cytotoxic Drug Reconstitution
- Engineering Department
- Wards – compulsory for hospital without Critical Care Area
- Mortuary
- Hospital compound
- Other area

Exclusion:
Areas under construction.

Type of indicator: Rate-based process indicator

Numerator: Number of Safety Audit findings identified during the safety audit whereby control measures had been taken

Denominator: Total number of Safety Audit findings that had been identified

Formula: Numerator x 100% / Denominator

Standard: ≥ 70%

Data collection:
1. Where: Data will be collected from the hospital’s Safety and Health Committee (JKKK) / OSH unit/ departments.
2. **Who:** Data will be collected by the hospital's Safety and Health Committee (JKKK) / Person in charge of safety (Safety Officer).

3. **How frequent:** Yearly data collection.

4. **Who should verify:** All performance data must be verified by the Head of Safety and Health Committee (JKKK) / OSH unit/ Hospital Director.

5. **How to collect:** Data will be collected from the record book/ audit finding report/ minutes regarding safety/ monitoring system by the hospital’s Safety and Health Committee (JKKK).

**Remarks**

- Based on the requirements in Occupational Safety and Health Act 1994 (Act 514), Safety and Health Committee must be established in the hospital.
- Safety audit needs to be conducted in the hospital.
- Based on the Safety Audit format given (OHU/ Audit/ BU form), the problem identified will be scored 0 or 1.
- After the control measure, had been acted upon, the Safety and Health Committee will need to discuss the effectiveness of the control measure.
- Any form of action taken to improve the safety audit finding, for example, a letter to the State Health Office, is accepted as a control measure had been taken.
- All the findings should be identified and documented during the assessment/ audit.
- Head of the OSH Unit needs to make sure that the Safety Audit Report is sent to the State KPAS officer.
- Safety Officer of the hospital must be appointed by Hospital Director.
- The audit findings must be presented to the Hospital Director before submission to the State Health Office.
- The report of the audit can only be submitted to the State Health Office after validation by the Hospital Director.

**Indicator 34:** Percentage of Facility Engineering Plant Room Inspection (EPR) with report submission done by Engineering Unit Personnel in the corresponding year

**Element:** Environmental (Technical) Support

**Rationale:** EPR allows the Engineer to identify any technical issues and problems with the hospital facilities. By doing a schematic inspection, it will ensure that FEMs in the hospital are well-maintained throughout the year.

**Definition of Terms:**

- **Facility Engineering Plant Room:** A room which facilitates all Facility Engineering Maintenance System (FEMs) that prolongs the life span and enhances the performance of equipment and facilities cost effectively.
- **Inspection:** Inspection done by the Engineer/ Assistant Engineer
- **Engineering Unit Personnel:** Engineer/ Assistant Engineer

**Criteria**

- **Inclusion:** All EPR done by the Engineering Unit Personnel
- **Exclusion:** EPR done by the concession company representative only.
**Type of indicator**: Rate-based process indicator

**Numerator**: Number of EPR for Facility Engineering Maintenance System (FEMs).

**Denominator**: Total number of EPR that are supposed to be carried out in the corresponding year:
- **52 times** annually (once per week) in hospital with Engineering resident (Engineer/Assistant Engineer/Technical assistant).
- **26 times** annually (fortnightly) in hospital without Engineering resident.

**Formula**: Numerator x 100%

**Denominator**

**Standard**: ≥ 80%

**Data collection**:
1. **Where**: Data will be collected from the hospital Engineering Unit/Department.
2. **Who**: Data will be collected by the Officer/staff in charge of the Engineering Unit/Department assigned by the Hospital Director.
3. **How frequent**: Monthly data collection.
4. **Who should verify**: All performance data must be verified by the Head of Engineering Unit/Hospital Director.
5. **How to collect**: Data will be collected from the record book/log book of inspection.

**Remarks**

**Indicator 35**: Percentage of meetings with Members of the Board of Visitors (Ahli Lembaga Pelawat) that were conducted by the Hospital in the corresponding year

- a. Psychiatric Institution/Hospital: ≥ 12 times/year
- b. Other Hospital: ≥ 4 times/year

**Element**: Environmental (Community) Support

**Rationale**: To strengthen the function of an intermediary body between the patient and the hospital management.

**Definition of Terms**: Meeting with Members of the Board of Visitors:
- MOH Hospitals are expected to conduct at least 4 meetings in a year with the Board of Visitors based on the circular by the MOH Secretary General (Pekeliling KSU Bil. 2/2006).
- Psychiatric Hospitals/Institutions are expected to conduct at least 1 meeting in a month with the Board of Visitors based on Mental Health Act 2001, Psychiatric and Mental Health Services Operational Policy MOH 2011 and the circular by the MOH Secretary General (Pekeliling KSU Bil. 3/2011).

**Members of the Board of Visitors**: Members who are appointed by MOH in parallel with the MOH Secretary General Circulars (KSU Bil. 2/2006, KSU Bil 1/2007 and KSU Bil. 3/2011).

**Criteria**

**Inclusion**: All meetings with Members of the Board of Visitors (Ahli Lembaga Pelawat) that were conducted by the hospital in the corresponding year

**Exclusion**: 
The period of time when the hospital unable to function because of mass casualty/ disaster/ crisis.

<table>
<thead>
<tr>
<th>Type of indicator</th>
<th>Rate-based structural indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numerator</td>
<td>Number of Board of Visitors meetings that were conducted by the hospital in a year</td>
</tr>
<tr>
<td>Denominator</td>
<td>Number of Board of Visitors meetings that were supposed to be conducted by the hospital in a year</td>
</tr>
<tr>
<td>Formula</td>
<td>Numerator $\times$ 100% Denominator</td>
</tr>
<tr>
<td>Standard</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Data collection

1. **Where**: Data will be collected at the Hospital Administrative Unit.
2. **Who**: Data will be collected by the Officer/ staff in-charge of the Administrative Unit.
3. **How frequent**: Yearly data collection.
4. **Who should verify**: All performance data must be verified by the Head of Administrative Unit/ Department/ Deputy Hospital Director (Administrative) / Hospital Director.
5. **How to collect**: Data will be collected from the record book/ verified meeting minutes in the Administrative Unit.

### Remarks

- A meeting is accepted as a performance if the verified minute is available.
- All hospitals/ institutions are required to establish a Board of Visitors according to the above circular/ act.

**Indicator 36**: Percentage of Fire Drill that has been carried out by the hospital in the corresponding year:

- a. **Fire Drill at hospital level**: Once a year
- b. **Tabletop Exercise at hospital level**: Twice a year (once in 6 month)

### Element

- Environmental (Technical) Support

### Rationale

Fire drills are essential in any workplace or public building for practicing what to do in the event of a fire (Terry Penney, 2016). Not only do they ensure that all staff, customers and visitors in the premise understand what they need to do in case of fire, but they also help to test how effective the fire evacuation plan is and to improve certain aspects of the fire provisions.

### Definition of Terms

**Fire Drill**: A practice of the emergency procedures to be used in case of fire.

**Fire Drill with multiple Agencies**: Fire Drill that involves Fire & Rescue Department or/and other agencies (e.g. St John Ambulance/ Red Crescent) with the hospital staff/ personnel.

**Tabletop exercise**: A meeting to discuss a simulated emergency situation. Members of the team/ hospital review and discuss the actions they would take in a particular emergency, testing their emergency plan in an informal, low-stress environment. Tabletop exercises are used to clarify roles and responsibilities and to identify additional campus mitigation and preparedness needs. The exercise should result in action plans for continued improvement of the emergency plan.
### TECHNICAL SPECIFICATIONS OF HOSPITAL PERFORMANCE INDICATORS FOR ACCOUNTABILITY (HPIA) & SPECIFIC INDICATORS VERSION 5.0

| Criteria                  | Inclusion: All hospital building.  
|                          | Exclusion criteria: Nil  
| **Type of indicator**     | Rate-based process indicator  
| **Numerator**             | a. Number of Fire Drill that has been carried out in the corresponding year.  
|                          | b. Number of Tabletop Exercise that has been carried out in the corresponding year.  
| **Denominator**           | a. Total number of Fire Drill that has been planned in the corresponding year.  
|                          | b. Total number of Tabletop Exercise that has been planned in the corresponding year.  
| **Formula**               | \( \frac{\text{Numerator}}{\text{Denominator}} \times 100\% \)  
| **Standard**              | 100\%  
| **Data collection**       | 1. **Where**: Data will be collected in the Administrative unit/ Safety department/ Engineering Department/ OSH Unit (depending on the hospital).  
|                          | 2. **Who**: Data will be collected by the Officer/ staff in-charge of the unit/ department.  
|                          | 3. **How frequent**: 6 monthly data collection.  
|                          | 4. **Who should verify**: All performance data must be verified by the Head of Administrative Unit/ Department/ Deputy Hospital Director (Administrative)/ Hospital Director.  
|                          | 5. **How to collect**: Data will be collected from the record book/ Action Report/ verified meeting minutes with the unit/ department.  

**Remarks**

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### TECHNICAL SPECIFICATIONS OF SPECIFIC INDICATORS

| Indicator 1 | Number of Uncontrolled Diabetes Mellitus (DM) patients admitted to MOH Hospital in the corresponding year  
| **Focus**   | Diabetes Care  
| **Rationale** | Diabetes is a leading cause of cardiovascular disease, blindness, kidney failure and lower limb amputation in many countries in the world (OECD 2014). By 2035, it is projected that approximately 600 million people will be diagnosed with diabetes. Thus, by looking at the burden of the disease in the health care setting, i.e. particularly in the hospital, this will allow the healthcare policy makers in taking more drastic measures in controlling the disease.  
| **Definition of Terms** | Uncontrolled Diabetes Mellitus (DM): Blood Glucose Level of a DM patient, who is on diabetic medication (oral/ injection), which is not within the acceptable range that requires hospital admission.  
| **Criteria** | Inclusion: All diabetic patients (on medication) who was admitted to the ward for uncontrolled DM as a primary or secondary diagnosis (including defaulters).  

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CLINICAL PERFORMANCE SURVEILLANCE UNIT (CPSU), MOH
**TECHNICAL SPECIFICATIONS OF HOSPITAL PERFORMANCE INDICATORS FOR ACCOUNTABILITY (HPIA) & SPECIFIC INDICATORS VERSION 5.0**

**Exclusion:**
1. Any patients who were diagnosed with uncontrolled DM secondary to tumour/ genetic diseases.
2. Patients with Gestational Diabetes Mellitus.

<table>
<thead>
<tr>
<th>Type of indicator</th>
<th>Sentinel outcome indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numerator</td>
<td>Number of Uncontrolled DM patients admitted to the hospital</td>
</tr>
<tr>
<td>Denominator</td>
<td>-</td>
</tr>
<tr>
<td>Formula</td>
<td>-</td>
</tr>
<tr>
<td>Standard</td>
<td>NA</td>
</tr>
</tbody>
</table>

**Data collection:**
1. **Where:** Data will be collected at the hospital registration counter (including ED Counter)/ Ward/ Medical Record.
2. **Who:** Data will be collected by the staff in-charge of the registration counter for admission to the ward / staff in charge in the ward and submit to the Quality Unit of the hospital for compilation.
3. **How frequent:** 6 monthly data collection.
4. **Who should verify:** All performance data must be verified by the Hospital Quality Coordinator/ Deputy Hospital Director (Medicine)/ Hospital Director.
5. **How to collect:** Data will be collected from the record book/ admission book.

**Remarks**

**Indicator 2**

<table>
<thead>
<tr>
<th>Focus</th>
<th>Diabetes Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rationale</td>
<td>Diabetes is a leading cause of cardiovascular disease, blindness, kidney failure and lower limb amputation in many countries in the world (OECD 2014). By 2035, it is projected that approximately 600 million people will be diagnosed with diabetes. Thus, by looking at the burden of the disease in the health care setting, i.e. particularly in the hospital, this will allow the healthcare policy makers in taking more drastic measures in controlling the disease.</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>A1c: Refers to glycated haemoglobin (A1c), which identifies the average plasma glucose concentration and it reflects the average blood glucose levels over 8-12 weeks. For diabetes patient, the acceptable reading for A1c &lt; 48 mmol/mol (6.5%).</td>
</tr>
<tr>
<td>Criteria</td>
<td>Inclusion: All DM patients who were on Diabetic medication (oral/ injection) with A1c ≤ 6.5% during the clinic visit.</td>
</tr>
<tr>
<td></td>
<td>Exclusion: 1. Patient whom defaulted the clinic follow-up &gt; 3 months. 2. Patients with Gestational Diabetes Mellitus.</td>
</tr>
<tr>
<td></td>
<td>Type of indicator Rate-based outcome indicator</td>
</tr>
</tbody>
</table>
### Technical Specifications of Hospital Performance Indicators for Accountability (HPIA) & Specific Indicators Version 5.0

#### Numerator
Number of DM patients who were under regular clinic follow-up with A1c ≤ 6.5%

#### Denominator
Total Number of DM patients who were under regular clinic follow-up with A1c blood monitoring

#### Formula
\[
\text{Numerator} \times 100\% \\
\text{Denominator}
\]

#### Standard
≥ 20%

#### Data Collection
1. **Where**: Data will be collected in the Diabetes follow-up Clinic/ Medical Specialist Clinic (MOPD).
2. **Who**: Data will be collected by the staff in-charge of the clinic and submit to the Quality Unit of the hospital for compilation.
3. **How frequent**: 6 monthly data collection.
4. **Who should verify**: All performance data must be verified by the Head of Department/ Deputy Hospital Director (Medicine) / Hospital Director.
5. **How to collect**: Data will be collected from the record book/ clinic registration book.

#### Remarks
- Target control for A1c in DM patient is ≤ 6.5%.
- Standard for tertiary healthcare facilities is ≥ 20%.

#### Indicator 3
**Number of Uncontrolled Hypertension patients admitted to MOH Hospital in the corresponding year**

**Focus**: Cardiovascular Care

**Rationale**
- Hypertension is defined as a persistent elevation of systolic BP of 140 mmHg or greater and/or diastolic BP of 90 mmHg or greater.
- The National Health and Morbidity Survey (NHMS) 2011 have shown that the prevalence of hypertension in Malaysia for adults ≥ 18 years has increased from 32.2% in 2006 to 32.7% in 2011. For those > 30 years old, the prevalence has increased from 42.6% to 43.5%.
- The relationship between BP and risk of cardiovascular events is continuous, consistent and independent of other risk factors. The higher the BP, the greater the chance of myocardial infarction, heart failure, stroke and kidney diseases. The presence of each additional risk factor, such as dyslipidemia, diabetes mellitus or smoking status, compounds the risk.

**Definition of Terms**
**Uncontrolled Hypertension**: The blood pressure of a hypertensive patient, who is on anti-hypertensive medication, which is poorly controlled (not within the acceptable range) that requires admission to the hospital.

**Criteria**
- **Inclusion**: Patients with uncontrolled hypertension who were admitted to the ward for Uncontrolled Hypertension as a primary or secondary diagnosis.
- **Exclusion**:
  1. Any patients who were diagnosed with Uncontrolled Hypertension secondary to tumour/ genetic diseases.
  2. Patients who are in pregnancy.

**Type of Indicator**: Sentinel outcome indicator
**TECHNICAL SPECIFICATIONS OF HOSPITAL PERFORMANCE INDICATORS FOR ACCOUNTABILITY (HPFA) & SPECIFIC INDICATORS VERSION 5.0**

<table>
<thead>
<tr>
<th>Numerator</th>
<th>Number of Uncontrolled Hypertension patients admitted to the hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denominator</td>
<td>-</td>
</tr>
<tr>
<td>Formula</td>
<td>-</td>
</tr>
<tr>
<td>Standard</td>
<td>NA</td>
</tr>
</tbody>
</table>
| Data collection               | 1. **Where**: Data will be collected at the hospital registration counter (including ED Counter)/ Ward/ Medical Record.  
                              | 2. **Who**: Data will be collected by the staff in-charge of the registration counter for admission to the ward / staff in charge in the ward and submit to the Quality Unit of the hospital for compilation.  
                              | 3. **How frequent**: 6 monthly data collection.  
                              | 4. **Who should verify**: All performance data must be verified by the Hospital Quality Coordinator/ Deputy Hospital Director (Medicine)/ Hospital Director.  
                              | 5. **How to collect**: Data will be collected from the record book/ admission book. |
| Remarks                       |                                                                        |

**Indicator 4**

**Focus**: Cardiovascular Care

**Rationale**:  
- Hypertension is defined as a persistent elevation of systolic BP of 140 mmHg or greater and/or diastolic BP of 90 mm Hg or greater.  
- The National Health and Morbidity Survey (NHMS) 2011 have shown that the prevalence of hypertension in Malaysia for adults ≥ 18 years has increased from 32.2% in 2006 to 32.7% in 2011. For those > 30 years old, the prevalence has increased from 42.6% to 43.5%.  
- The relationship between BP and risk of cardiovascular events is continuous, consistent and independent of other risk factors. The higher the BP, the greater the chance of myocardial infarction, heart failure, stroke and kidney diseases. The presence of each additional risk factor, such as dyslipidaemia, diabetes mellitus or smoking status, compounds the risk.  

**Definition of Terms**:  
**Regular Clinic follow-up**: Scheduled Outpatient Clinic follow-up for Hypertensive patients.

**Criteria**

**Inclusion**:  
All hypertensive patients who were on anti-hypertensive medication with BP control ≤ 140/90 during the clinic visit.

**Exclusion**:  
1. Patient whom defaulted the clinic follow-up > 3 months.  
2. Patients who are in pregnancy.

**Type of indicator**: Rate-based outcome indicator

<table>
<thead>
<tr>
<th>Numerator</th>
<th>Number of Hypertensive patients who were under regular clinic follow-up with BP control ≤ 140/90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denominator</td>
<td>Number of Hypertensive patients who were under regular clinic follow-up</td>
</tr>
<tr>
<td>Formula</td>
<td>Numerator x 100%</td>
</tr>
</tbody>
</table>

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CLINICAL PERFORMANCE SURVEILLANCE UNIT (CPSU), MOH
<table>
<thead>
<tr>
<th>Standard</th>
<th>≥ 70%</th>
</tr>
</thead>
</table>
| **Data collection** | 1. **Where**: Data will be collected in the Hypertension follow-up Clinic/ Medical Specialist Clinic (MOPD).  
2. **Who**: Data will be collected by the staff in-charge of the clinic and submit to the Quality Unit of the hospital for compilation.  
3. **How frequent**: 6 monthly data collection.  
4. **Who should verify**: All performance data must be verified by the Head of Department/ Deputy Hospital Director (Medicine) / Hospital Director.  
5. **How to collect**: Data will be collected from the record book/ clinic registration book. |

**Remarks**:

**Indicator 5**: Rate of patients who received their surgery within 48 hours following an admission for hip fracture in the corresponding year

**Focus**: Acute Care

**Rationale**: Early surgery for hip fracture is associated with better functional outcome and lower rates of non-union, shorter hospital stays and duration of pain, and lower rates of complications (deep vein thrombosis and pressure sores) and mortality. Although a delay to surgery may not unequivocally impact mortality, the advantages of early hip fracture surgery merit an early intervention.

**Definition of Terms**:

- **Received surgery**: Any form of orthopaedic surgeries (major/ minor) including skeletal traction and skin traction, that has been performed on the patients who were diagnosed with hip fracture in regards to the condition.
- **Hip fracture**: Any form of hip fracture, i.e. femoral neck fracture, intertrochanteric fracture, and sub-trochanteric fracture.

**Criteria**:

- **Inclusion**: All patients who were admitted for hip fractures.
- **Exclusion**:  
  2. Patients with medical co-morbidities requiring stabilization before surgery.  
  3. Patients whom the operation was delayed due to implant unavailability (> 48 hours).

**Type of indicator**: Rate-based outcome indicator

**Numerator**: Number of patients who received their surgery within 48 hours following an admission for hip fracture

**Denominator**: Total number of patients who were admitted for hip fracture

**Formula**:

\[
\text{Numerator} \times \frac{100}{\text{Denominator}}
\]

**Standard**: ≥ 70%

**Data collection**:

1. **Where**: Data will be collected in the Orthopaedic Ward/ Operation Theatre (OT).
2. **Who**: Data will be collected by the staff in-charge of the ward/ OT submit to the Quality Unit of the hospital for compilation.
| 3. **How frequent**: 6 monthly data collection. |
| 4. **Who should verify**: All performance data must be verified by the Head of Department/ Hospital Director. |
| 5. **How to collect**: Data will be collected from the patient’s record (operative note) / operative record book / OT operative book. |
| Remarks : |

**Indicator 6**: Number of inpatient suicide among people who were diagnosed with a mental disorder in the corresponding year

**Focus**: Mental Health Care

**Rationale**:
- Suicide is a global phenomenon in all regions of the world; in fact, 75% of global suicide occurred in low- and middle-income countries in 2012. Suicide accounted for 1.4% of all deaths worldwide, making it the 15th leading cause of death in 2012 (WHO, 2016).
- Effective and evidence-based interventions can be implemented at the population, sub-population and individual levels to prevent suicide and suicide attempts.
- Risk for death by suicide is increased if a person suffers from depression alongside schizophrenia, bipolar illness, personality disorder, substance abuse and anxiety disorders.

**Definition of Terms**:
- **Inpatient suicide**: An act of intentional taking of one’s own life while being admitted in the ward.
- **Mental disorder**: Any form of mental illness that was diagnosed by the Psychiatrist.

**Criteria**:
- **Inclusion**: All in-patients who were diagnosed with mental disorder.
- **Exclusion**: Patients who were already discharged, but committed suicide in the hospital compound.

**Type of indicator**: Sentinel outcome indicator

**Numerator**: Number of inpatient suicide among people who were diagnosed with a mental disorder

**Denominator**: -

**Formula**: -

**Standard**: NA

**Data collection**:
1. **Where**: Data will be collected in the Psychiatric Ward/ ward that cater patient with mental disorder.
2. **Who**: Data will be collected by the staff in-charge of the ward.
3. **How frequent**: 6 monthly data collection.
4. **Who should verify**: All performance data must be verified by the Head of Department/ Hospital Director.
5. **How to collect**: Data will be collected from the patient’s record / ward record book.

**Remarks**:
- The death must be verified by the Hospital Director as a suicidal death.
### Indicator 7: Colorectal Cancer Mortality in the corresponding year

**Focus**: Cancer Care

**Rationale**: Colorectal cancer is the second leading cancer among the general population in Malaysia (MOH, 2011). Mortality due to this cancer that occur in the hospital will indirectly reflect the burden of the disease in the hospital setting.

**Definition of Terms**: Colorectal Cancer Mortality: Patients who died of Colorectal Cancer.

**Criteria**:  
**Inclusion**: All colorectal cancer patients who died of Colorectal Cancer or its complications regardless of the stage.  
**Exclusion**: NA

**Type of indicator**: Sentinel outcome indicator

**Numerator**: Number of Colorectal Cancer patients who died in the hospital.

**Denominator**: -

**Formula**: -

**Standard**: NA

**Data collection**:  
1. **Where**: Data will be collected in every ward in the hospital/ ED.  
2. **Who**: Data will be collected by the staff in-charge of the ward/ ED and submit to the Quality Unit of the hospital for compilation.  
3. **How frequent**: 6 monthly data collection.  
4. **Who should verify**: All performance data must be verified by the Head of Department/ Hospital Director  
5. **How to collect**: Data will be collected from the patient’s record (operative note) / ward record book/ ED record book.

**Remarks**: -

### Indicator 8: Percentage of Obstetric Trauma following vaginal delivery without instrument in the corresponding year

**Focus**: Patient Safety

**Rationale**: Obstetric Trauma is a debilitating injury to the patient. The injury of third- and fourth-degree perineal tears during vaginal delivery extends to the perineal muscles, anal sphincter and bowel wall, and these require surgical treatment post-delivery. Possible long term complications include continued perineal pain and anal incontinence. These types of tears can be prevented/ reduced by employing appropriate labour management and care standards.

**Definition of Terms**: Obstetric Trauma: Refers to the perineal laceration/ tear during delivery in the hospital.

**Criteria**:  
**Inclusion**: Patients who underwent vaginal deliveries in the hospital:  
- without instrumentation.  
- sustained third (3rd) degree and fourth (4th) degree perineal laceration/ tear.

**Exclusion**: Patients who were delivered outside of the hospital.
**Type of indicator**: Rate-based outcome indicator

**Numerator**: Number of patients with Obstetric Trauma following vaginal delivery without instrument in the hospital

**Denominator**: Total number of vaginal deliveries without instrument in the hospital

**Formula**: Numerator x 100%

**Denominator**

**Standard**: NA

**Data collection**: 1. **Where**: Data will be collected in the Labour Room/ Operation Theatre (OT)/ any ward in the hospital.
   2. **Who**: Data will be collected by the staff in-charge of the Labour Room/ OT/ ward and submit to the Quality Unit of the hospital for compilation.
   3. **How frequent**: 6 monthly data collection.
   4. **Who should verify**: All performance data must be verified by the Head of Department/ Hospital Director.
   5. **How to collect**: Data will be collected from the patient’s record (operative note) / Labour Room record book.

**Remarks**: 

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**Nota**: Sila rujuk Garispanduan Pengukuhan Pelaksanaan dan Aplikasi Hospital Performance Indicator for Accountability (HPIA) dan Petunjuk Prestasi Utama (KPI) Perkhidmatan Klinikal Program Perubatan.

*Jika terdapat sebarang pertanyaan/ maklumat lanjut berhubung pemantauan indikator HPIA dan Specific Indicators sila hubungi;*

Urusetia/ Sekreteriat HPIA
Unit Survelan Pencapaian Klinikal (CPSU)
Cawangan Kualiti Penjagaan Perubatan
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