GENERAL MEDICINE				
NO	**INDICATOR**	**DIMENSION**	**STANDARD**	**SECONDARY DATA REPORTING FREQUENCY**
1a	Percentage of patients with waiting time of ≤ 60 minutes to see the doctor at General Medicine Outpatient Clinic **(Two or more registration areas involved)**	Timeliness	≥ 80%	Monthly
1b	Percentage of patients with waiting time of ≤ 90 minutes to see the doctor at General Medicine Outpatient Clinic **(Only one registration area involved)**	Timeliness	≥ 90%	Monthly
2	Non ST Elevation Myocardial Infarction (NSTEMI) Case Fatality Rate	Effectiveness	≤ 10%	3 Monthly
3	Percentage of medical patients with unplanned readmission to medical ward within (≤) 48 hours of discharge	Effectiveness	≤ 0.5%	3 Monthly

*For indicator 1, each department to report either 1a **OR** 1b, and not both. (Refer technical specification)

Indicator 1

*Either indicator 1a **OR** 1b is to be reported, based on how many registration counters are involved.

- **Two or more registration areas are involved:** If registration of patient is first done at hospital's main outpatient/ ACC complex registration counter with payment collection, following which the patient needs to re-register at the respective clinical department counter - Refer **Indicator 1a**.
- **Only one registration area is involved:** If registration of patient with payment collection is either done **ONLY** at clinical department counter **OR** it is done **ONLY** at hospital's main outpatient/ ACC complex registration counter with no further re-registration required at the clinical department counter- Refer **Indicator 1b**.

Discipline	:	**General Medicine**
Indicator 1a	:	**Percentage of patients with waiting time of ≤ 60 minutes to see the doctor at General Medicine Outpatient Clinic (Two or more registration areas involved)**
Dimension of Quality	:	Timeliness
Rationale	:	1. MOH aims for waiting time to see the doctor at outpatient services to be less than 90 minutes in line with patient centred services. Waiting time is time patient first registers in the hospital till the time patient is seen by doctor. (Reference: Director-General of Health Malaysia Circular No. 6/2004) 2. The waiting time is based on patient's experience from the time patient first registers at the first counter in the hospital till seen by doctor. In view of many counters are involved in some hospitals/ departments, some clinical departments have opted for monitoring of registration from department counter as any process prior to that appears out of the clinical department's control. Thus, due to involvement of 2 or more counters within the hospital, for monitoring of clinical services KPI, the target of waiting time is for less than 60 minutes within the department. This is applicable only if patient is being registered at another counter within the same hospital (i.e at hospital's main outpatient/ ACC complex registration counter) prior to the clinical department counter. 3. For hospital to eliminate or reduce waiting time, it is important to balance between the demand for appointments and the supply of appointments. One needs to identify opportunities for improvement by strengthening policy of outpatient service in hospital, applying Queuing Theory and having contingency plans.
Definition of Terms	:	**Two or more registration areas involved**: If registration of patient is first done at hospital's main outpatient/ ACC complex registration counter with payment collection, following which the patient needs to re-register at the respective clinical department counter: **Waiting time**: Time of registration counter at department counter or time of appointment given to patient (whichever is later) till the time the patient is first seen by the doctor, which is beginning of a consultation.
Criteria	:	**Inclusion**: 1. All outpatients of General Medicine Outpatient Clinic. **Exclusion**: 1. Patients who come without an appointment ("walk-in" patients). 2. Patients that need to do procedures on the same day before seeing the doctors (e.g. blood taking and imaging).

		Sampling: Using an average of total patients seen in a month, 30% of the patients in each month need to be sampled for this indicator. For example, in a case of 22 clinic days per month, 7 clinic days in a month need to be selected for data collection. Hospital/ department to ensure randomised sampling of data by ensuring each clinic day of the week is included to ensure proper representation of data.
Type of indicator	:	Rate-based process indicator
Numerator	:	Number of sampled patients with waiting time of ≤ 60 minutes to see the doctor at General Medicine Outpatient Clinic
Denominator	:	Total sample of patients seen by the doctor at the General Medicine Outpatient Clinic
Formula	:	$\frac{\text{Numerator}}{\text{Denominator}} \times 100\ \%$
Standard	:	≥ 80%
Data Collection & Verification	:	1. **Where**: Data will be collected in General Medicine Outpatient Clinic. 2. **Who**: Data will be collected by Officer/ Paramedic/ Nurse in-charge of the department/ unit. 3. **How to collect**: Data is suggested to be collected from patient's case notes/ appointment record book/ waiting time slip. 4. **How frequent**: Monthly data collection within department. Validated summarised secondary data to be sent monthly to Quality Unit of the respective hospital for monitoring. PVF to be sent 6 monthly to Quality Unit of hospital. 5. **Who should verify**:

	Prepared by	Validated by
Primary Data	Officer/ Paramedic/ Nurse in-charge	Supervisor of the person who prepared the data
Secondary Data	Officer/ Paramedic/ Nurse in-charge	Head of Department/ Specialist in-charge

PVF must be verified by Head of Department, Head of Quality Unit and Hospital Director.

Remarks	:	

Discipline	**:**	**General Medicine**
Indicator 1b	:	**Percentage of patients with waiting time of ≤ 90 minutes to see the doctor at General Medicine Outpatient Clinic (Only one registration area involved)**
Dimension of Quality	:	Timeliness
Rationale	:	1. MOH aims for waiting time to see the doctor at outpatient services to be less than 90 minutes in line with patient centred services. Waiting time is time patient first registers in the hospital till the time patient is seen by doctor. (Reference: Director-General of Health Malaysia Circular No. 6/2004) 2. The waiting time is based on patient's experience from the time patient first registers at the first counter in the hospital till seen by doctor. In view of many counters are involved in some hospitals/ departments, some clinical departments have opted for monitoring of registration from department counter as any process prior to that appears out of the clinical department's control.

		Thus, due to involvement of 2 or more counters within the hospital, for monitoring of clinical services KPI, the target of waiting time is for less than 60 minutes within the department. This is applicable only if patient is being registered at another counter within the same hospital (i.e at hospital's main outpatient/ ACC complex registration counter) prior to the clinical department counter. 3. For hospital to eliminate or reduce waiting time, it is important to balance between the demand for appointments and the supply of appointments. One needs to identify opportunities for improvement by strengthening policy of outpatient service in hospital, applying Queuing Theory and having contingency plans.
Definition of Terms	:	<u>If registration of patient with payment collection is done ONLY AT CLINICAL DEPARTMENT COUNTER:</u> **Waiting time**: Time of registration counter at department counter or time of appointment given to patient (whichever is later) till the time the patient is first seen by the doctor, which is beginning of a consultation. <u>If the registration is done ONLY AT HOSPITAL'S MAIN OUTPATIENT/ ACC COMPLEX REGISTRATION COUNTER, with no re-registration at the clinical department counter:</u> **Waiting time**: Time of registration counter at hospital's main outpatient/ ACC complex registration counter or time of appointment given to patient (whichever is later) till the time the patient is first seen by the doctor, which is beginning of a consultation.
Criteria	:	**Inclusion**: 1. All outpatients of General Medicine Outpatient Clinic. **Exclusion**: 1. Patients who come without an appointment ("walk-in" patients). 2. Patients that need to do procedures on the same day before seeing the doctors (e.g blood taking and imaging). **Sampling**: Using an average of total patients seen in a month, 30% of the patients in each month need to be sampled for this indicator. For example, in a case of 22 clinic days per month, 7 clinic days in a month need to be selected for data collection. Hospital/ department to ensure randomised sampling of data by ensuring each clinic day of the week is included to ensure proper representation of data.
Type of indicator	:	Rate-based process indicator
Numerator	:	Number of sampled patients with waiting time of ≤ 90 minutes to see the doctor at General Medicine Outpatient Clinic
Denominator	:	Total sample of patients seen by the doctor at the General Medicine Outpatient Clinic
Formula	:	<u>Numerator</u> x 100 % Denominator
Standard	:	≥ 90%
Data Collection & Verification	:	1. **Where**: Data will be collected in General Medicine Outpatient Clinic. 2. **Who**: Data will be collected by Officer/ Paramedic/ Nurse in-charge of the

		department/ unit. 3. **How to collect**: Data is suggested to be collected from patient's case notes/ appointment record book/ waiting time slip. 4. **How frequent**: Monthly data collection within department. Validated summarised secondary data to be sent monthly to Quality Unit of the respective hospital for monitoring. PVF to be sent 6 monthly to Quality Unit of hospital. 5. **Who should verify**: PVF must be verified by Head of Department, Head of Quality Unit and Hospital Director.
Remarks	:	

	Prepared by	Validated by
Primary Data	Officer/ Paramedic/ Nurse in-charge	Supervisor of the person who prepared the data
Secondary Data	Officer/ Paramedic/ Nurse in-charge	Head of Department/ Specialist in-charge

Discipline	:	**General Medicine**
Indicator 2	:	**Non ST Elevation Myocardial Infarction (NSTEMI) Case Fatality Rate**
Dimension of Quality	:	Effectiveness
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). It is the final main diagnosis written during discharge which is the cause of admission. It is not the admission diagnosis as it may change. **Death due to NSTEMI**: It is the death directly related to ACS/ NSTEMI as well as complications of NSTEMI such as Heart Failure, arrhythmia, sudden death, Heart Block, Cerebrovascular Accident (CVA), Pulmonary Embolism and Hospital Acquired Infection.
Criteria	:	**Inclusion:** **1.** Patients with ACS or NSTEMI as a main diagnosis.

<table>
<tr><td></td><td></td><td>Exclusion:
1. Patients with STEMI or Unstable Angina (UA) as a main diagnosis.
2. Patients who are ‘Brought In Dead’ (BID) to Emergency Department with or without resuscitation attempted.
3. Patients who developed ACS/ NSTEMI during their stay in hospital who were admitted for other reasons than ACS/ NSTEMI.</td></tr>
<tr><td>Type of indicator</td><td>:</td><td>Rate-based outcome indicator</td></tr>
<tr><td>Numerator</td><td>:</td><td>Number of patients diagnosed with ACS/ NSTEMI who died</td></tr>
<tr><td>Denominator</td><td>:</td><td>Total number of patients diagnosed with ACS/ NSTEMI</td></tr>
<tr><td>Formula</td><td>:</td><td>Numerator x 100%
Denominator</td></tr>
<tr><td>Standard</td><td>:</td><td>≤ 10%</td></tr>
<tr><td>Data Collection & Verification</td><td>:</td><td>1. Where: Data will be collected in pre-determined specified medical wards that cater for the above condition/ record office.
2. Who: Data will be collected by Officer/ Paramedic/ Nurse in-charge of the department/ unit.
3. How to collect: Data is suggested to be collected from admission & discharge record book/ Hospital Information System (HIS)
4. How frequent: 3 monthly data collection within department.
Validated summarised secondary data to be sent 3 monthly to Quality Unit of the respective hospital for monitoring.
PVF to be sent 6 monthly to Quality Unit of hospital.
5. Who should verify:
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<tr><td></td><td>Prepared by</td><td>Validated by</td></tr>
<tr><td>Primary Data</td><td>Officer/ Paramedic/ Nurse in-charge</td><td>Supervisor of the person who prepared the data</td></tr>
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<tr><td>Remarks</td><td>:</td><td>*This indicator is also being monitored as HPIA and Outcome Based Budgeting (OBB) indicator.</td></tr>
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Discipline	:	**General Medicine**
Indicator 3	:	**Percentage of medical patients with unplanned readmission to medical ward within (≤) 48 hours of discharge**
Dimension of Quality	:	Effectiveness
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 (main diagnosis) he or she was discharged, the admission was not scheduled and it is readmission to the same hospital. This does not include readmission requested by next-of-kin or other department. **Same clinical condition:** Same diagnosis as refer to the ICD 10.
Criteria	:	**Inclusion**: 1. All medical inpatient discharges from medical wards.

<table>
<tr><td></td><td></td><td>2. All subspecialty patients discharged from medical ward within the same general medicine department (Includes CCU, CRW, nephrology wards etc.).

Exclusion:
1. Patients of < 12 years of age.
2. AOR (at own risk) discharged patients during the first admission.
3. Patients that were discharged from wards under different department (e.g. Cardiology ward under Cardiology Department).</td></tr>
<tr><td>Type of indicator</td><td>:</td><td>Rate-based outcome indicator</td></tr>
<tr><td>Numerator</td><td>:</td><td>Number of medical patients with unplanned readmissions to medical department within (≤) 48 hours of discharge</td></tr>
<tr><td>Denominator</td><td>:</td><td>Total number of medical patients discharged during the same period of time the numerator data was collected</td></tr>
<tr><td>Formula</td><td>:</td><td>Numerator x 100 %
Denominator</td></tr>
<tr><td>Standard</td><td>:</td><td>≤ 0.5%</td></tr>
<tr><td>Data Collection & Verification</td><td>:</td><td>1. Where: Data will be collected in pre-determined specified medical wards that cater for the above condition/ record office.
2. Who: Data will be collected by Officer/ Paramedic/ Nurse in-charge of the department/ unit.
3. How to collect: For numerator, data is suggested to be collected on the day of readmission. For denominator, data is from admission & discharge record book/ Hospital Information System (HIS)
4. How frequent: 3 Monthly data collection within department.
Validated summarised secondary data to be sent 3 monthly to Quality Unit of the respective hospital for monitoring.
PVF to be sent 6 monthly to Quality Unit of hospital.
5. Who should verify:
<table>
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