



ENDOCRINOLOGY				
NO	INDICATOR	DIMENSION	STANDARD	SECONDARY DATA REPORTING FREQUENCY
1a	Percentage of patients with waiting time of ≤ 60 minutes to see the doctor at the Endocrine and Diabetes Outpatient Clinic (Two or more registration areas involved)	Timeliness	$\geq 80\%$	Monthly
1b	Percentage of patients with waiting time of ≤ 90 minutes to see the doctor at the Endocrine and Diabetes Outpatient Clinic (Only one registration area involved)	Timeliness	$\geq 90\%$	Monthly
2	Percentage of newly referred or newly diagnosed hypothyroid patients achieved euthyroid status on thyroxine replacement therapy after 6 months of follow up at Endocrine Clinic	Effectiveness	$\geq 80\%$	6 Monthly
3	Percentage of insulin-treated inpatients experiencing severe hypoglycaemia	Safety	$\leq 5\%$	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	: Endocrinology
Indicator 1a	: Percentage of patients with waiting time of ≤ 60 minutes to see the doctor at the Endocrine and Diabetes Outpatient Clinic (Two or more registration areas involved)
Dimension of Quality	: Timeliness
Rationale	: <ol style="list-style-type: none"> 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 <u>patient first registers in the hospital</u> 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 the patient first registers at the first counter in the hospital till seen by doctor. In view of many counters being 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 hospitals 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 the policy of outpatient services in hospital, apply Queuing Theory and having contingency plans.
Definition of Terms	: <p>Two or more registration areas involved: <u>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:</u></p> <p>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.</p>
Criteria	: <p>Inclusion:</p> <ol style="list-style-type: none"> 1. All outpatients of Endocrine and Diabetes Outpatient Clinic. <p>Exclusion:</p> <ol style="list-style-type: none"> 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 or imaging).



		<p>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.</p>									
Type of indicator	:	Rate-based process indicator									
Numerator	:	Number of sampled patients with waiting time of ≤ 60 minutes to see the doctor at the Endocrine and Diabetes Outpatient Clinic									
Denominator	:	Total sample of patients seen by the doctor at the Endocrine and Diabetes Outpatient Clinic									
Formula	:	$\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$									
Standard	:	≥ 80%									
Data Collection & Verification	:	<ol style="list-style-type: none"> Where: Data will be collected in the Endocrine and Diabetes Outpatient Clinic. Who: Data will be collected by Officer/ Paramedic/ Nurse in-charge of the department/ unit. How to collect: Data is suggested to be collected from patient's case notes/ appointment record book/ waiting time slip. 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. Who should verify: <table border="1"> <thead> <tr> <th></th> <th>Prepared by</th> <th>Validated by</th> </tr> </thead> <tbody> <tr> <td>Primary Data</td> <td>Officer/ Paramedic/ Nurse in-charge</td> <td>Supervisor of the person who prepared the data</td> </tr> <tr> <td>Secondary Data</td> <td>Officer/ Paramedic/ Nurse in-charge</td> <td>Head of Department/ Specialist in-charge</td> </tr> </tbody> </table> <p>PVF must be verified by Head of Department, Head of Quality Unit and Hospital Director.</p>		Prepared by	Validated by	Primary Data	Officer/ Paramedic/ Nurse in-charge	Supervisor of the person who prepared the data	Secondary Data	Officer/ Paramedic/ Nurse in-charge	Head of Department/ Specialist in-charge
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Remarks	:										

Discipline	:	Endocrinology
Indicator 1b	:	Percentage of patients with waiting time of ≤ 90 minutes to see the doctor at the Endocrine and Diabetes Outpatient Clinic (Only one registration area involved)
Dimension of Quality	:	Timeliness
Rationale	:	<ol style="list-style-type: none"> 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) The waiting time is based on patient's experience from the time the patient first registers at the first counter in the hospital till seen by doctor. In view of many counters being involved in some hospitals/ departments, some clinical



		<p>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.</p> <p>3. For hospitals 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 the policy of outpatient services in hospital, apply Queuing Theory and having contingency plans.</p>
Definition of Terms	:	<p><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.</p> <p><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.</p>
Criteria	:	<p>Inclusion:</p> <ol style="list-style-type: none"> All outpatients of the Endocrine and Diabetes Outpatient Clinic. <p>Exclusion:</p> <ol style="list-style-type: none"> Patients who come without an appointment ("walk-in" patients). Patients that need to do procedures on the same day before seeing the doctors (e.g. blood taking or imaging). <p>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.</p>
Type of indicator	:	Rate-based process indicator
Numerator	:	Number of sampled patients with waiting time of ≤ 90 minutes to see the doctor at Endocrine and Diabetes Outpatient Clinic
Denominator	:	Total sample of patients seen by the doctor at the Endocrine and Diabetes Outpatient Clinic
Formula	:	$\frac{\text{Numerator}}{\text{Denominator}} \times 100 \%$
Standard	:	$\geq 90\%$



Data Collection & Verification	:	<ol style="list-style-type: none"> Where: Data will be collected in the Endocrine and Diabetes Outpatient Clinic. Who: Data will be collected by Officer/ Paramedic/ Nurse in-charge of the department/ unit. How to collect: Data is suggested to be collected from patient's case notes/ appointment record book/ waiting time slip. 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. Who should verify: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Prepared by</th> <th>Validated by</th> </tr> </thead> <tbody> <tr> <td>Primary Data</td> <td>Officer/ Paramedic/ Nurse in-charge</td> <td>Supervisor of the person who prepared the data</td> </tr> <tr> <td>Secondary Data</td> <td>Officer/ Paramedic/ Nurse in-charge</td> <td>Head of Department/ Specialist in-charge</td> </tr> </tbody> </table> <p>PVF must be verified by Head of Department, Head of Quality Unit and Hospital Director.</p>		Prepared by	Validated by	Primary Data	Officer/ Paramedic/ Nurse in-charge	Supervisor of the person who prepared the data	Secondary Data	Officer/ Paramedic/ Nurse in-charge	Head of Department/ Specialist in-charge
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Discipline	:	Endocrinology
Indicator 2	:	Percentage of newly referred or newly diagnosed hypothyroid patients achieved euthyroid status on thyroxine replacement therapy after 6 months of follow up at Endocrine Clinic
Dimension of Quality	:	Effectiveness
Rationale	:	Restoring euthyroid state in hypothyroid patients following new diagnosis, radioiodine therapy or thyroidectomy should be achievable within 6 months.
Definition of Terms	:	<p>Hypothyroid patients: Patient who have hypothyroid symptoms accompanied by low serum free thyroxine (FT4) and/ or high TSH level.</p> <p>Euthyroid status: Absence of hypo or hyperthyroid symptoms accompanied by normal serum free thyroxine (FT4) and TSH level. Patient should be seen in Endocrine clinic at least once after 6 months and before 1 year from the time of first consultation of hypothyroid case to assess the post 6 months euthyroid status.</p>
Criteria	:	<p>Inclusion:</p> <ol style="list-style-type: none"> All newly referred hypothyroid patients from primary care/ other hospital departments with suboptimal control on thyroxine replacement. Post total thyroidectomy patients. Post-radioiodine therapy for benign thyroid disease. <p>Exclusion:</p> <ol style="list-style-type: none"> Patients on thyroxine suppression therapy for differentiated Thyroid Cancer. Hypothyroid patients on stable long term thyroxine replacement with optimal control. Patients who default the appointment or treatment.
Type of indicator	:	Rate-based outcome indicator
Numerator	:	Number of newly referred or newly diagnosed hypothyroid patients achieved



	:	euthyroid status on thyroxine replacement therapy after 6 months of follow up at Endocrine Clinic									
Denominator	:	Total number of newly referred or newly diagnosed hypothyroid patients with follow up at Endocrine Clinic									
Formula	:	$\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$									
Standard	:	≥ 80%									
Data Collection & Verification	:	<ol style="list-style-type: none"> Where: Data will be collected in Endocrine clinic. Who: Data will be collected by Officer/ Paramedic/ Nurse in-charge of the department/ unit. How to collect: Data is suggested to be collected from patient's case note/ appointment record book/ hypothyroid patient record book. How frequent: 3 monthly data collection within department. Validated summarised secondary data to be sent 6 monthly to Quality Unit of the respective hospital for monitoring. PVF to be sent 6 monthly to Quality Unit of hospital. Who should verify: <table border="1"> <thead> <tr> <th></th> <th>Prepared by</th> <th>Validated by</th> </tr> </thead> <tbody> <tr> <td>Primary Data</td> <td>Officer/ Paramedic/ Nurse in-charge</td> <td>Supervisor of the person who prepared the data</td> </tr> <tr> <td>Secondary Data</td> <td>Officer/ Paramedic/ Nurse in-charge</td> <td>Head of Department/ Specialist in-charge</td> </tr> </tbody> </table> <p>PVF must be verified by Head of Department, Head of Quality Unit and Hospital Director.</p> 		Prepared by	Validated by	Primary Data	Officer/ Paramedic/ Nurse in-charge	Supervisor of the person who prepared the data	Secondary Data	Officer/ Paramedic/ Nurse in-charge	Head of Department/ Specialist in-charge
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Remarks	:	For January-June 2021 data , it will be the patients that were first seen at Endocrine Clinic in January-June 2020 and started on thyroxine replacement therapy. These patients are then followed up after 6 months and before a year (July 2020-June 2021) to assess euthyroid status.									

Discipline	:	Endocrinology
Indicator 3	:	Percentage of insulin-treated inpatients experiencing severe hypoglycaemia
Dimension of Quality	:	Safety
Rationale	:	<ol style="list-style-type: none"> Severe hypoglycaemia can be avoided with structured insulin prescription and regular glucose monitoring in hospitalised patients. Severe hypoglycaemia is associated with serious morbidity such as cardiac arrhythmias and neurological complications such as seizures, reduce consciousness and coma.
Definition of Terms	:	<p>Insulin treated inpatients: Hospitalised patients treated with insulin therapy and managed by endocrinology team.</p> <p>Severe hypoglycaemia: Blood glucose < 3 mmol/L with severe cognitive impairment requiring treatment with intravenous dextrose.</p>
Criteria	:	<p>Inclusion:</p> <ol style="list-style-type: none"> All patients receiving insulin therapy managed by endocrine team. <p>Exclusion:</p> <ol style="list-style-type: none"> Patients on insulin therapy managed by other units (non-endocrine).



		2. Non-insulin mediated hypoglycaemia.									
Type of indicator	:	Rate-based outcome indicator									
Numerator	:	Number of patients experiencing severe hypoglycaemia while on insulin therapy									
Denominator	:	Total number of patients on insulin therapy									
Formula	:	$\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$									
Standard	:	≤ 5%									
Data Collection & Verification	:	<ol style="list-style-type: none"> Where: Data will be collected in wards where endocrine patients are managed. Who: Data will be collected by Officer/ Paramedic/ Nurse in-charge of the department/ unit. How to collect: Data is suggested to be collected from patient's case note. How frequent: 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. Who should verify: <table border="1"> <thead> <tr> <th></th> <th>Prepared by</th> <th>Validated by</th> </tr> </thead> <tbody> <tr> <td>Primary Data</td> <td>Officer/ Paramedic/ Nurse in-charge</td> <td>Supervisor of the person who prepared the data</td> </tr> <tr> <td>Secondary Data</td> <td>Officer/ Paramedic/ Nurse in-charge</td> <td>Head of Department/ Specialist in-charge</td> </tr> </tbody> </table> <p>PVF must be verified by Head of Department, Head of Quality Unit and Hospital Director.</p>		Prepared by	Validated by	Primary Data	Officer/ Paramedic/ Nurse in-charge	Supervisor of the person who prepared the data	Secondary Data	Officer/ Paramedic/ Nurse in-charge	Head of Department/ Specialist in-charge
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