



HAEMATOLOGY				
NO	INDICATOR	DIMENSION	STANDARD	SECONDARY DATA REPORTING FREQUENCY
1a	Percentage of patients with waiting time of $\leq 60$ minutes to see the doctor at Haematology Outpatient Clinic ( <b>Two or more registration areas involved</b> )	Timeliness	$\geq 80\%$	Monthly
1b	Percentage of patients with waiting time of $\leq 90$ minutes to see the doctor at Haematology Outpatient Clinic ( <b>Only one registration area involved</b> )	Timeliness	$\geq 90\%$	Monthly
2	Percentage of induction deaths from chemotherapy among newly diagnosed Acute Leukaemia/ Diffuse Large B-Cell Lymphoma (DLBL) patients	Safety	$\leq 10\%$	3 Monthly
3	Chemotherapy Extravasation Rate	Safety	$\leq 0.5\%$	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**.

<b>Discipline</b>	:	<b>Haematology</b>
<b>Indicator 1a</b>	:	<b>Percentage of patients with waiting time of ≤ 60 minutes to see the doctor at Haematology Outpatient Clinic (Two or more registration areas involved)</b>
<b>Dimension of Quality</b>	:	Timeliness
<b>Rationale</b>	:	<ol style="list-style-type: none"> <li>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)</li> <li>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.</li> <li>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.</li> </ol>
<b>Definition of Terms</b>	:	<p><b>Two or more registration areas involved:</b> If registration of patient is first done <u>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><b>Waiting time:</b> 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>
<b>Criteria</b>	:	<p><b>Inclusion:</b></p> <ol style="list-style-type: none"> <li>1. All outpatients of Haematology Outpatient Clinic.</li> </ol> <p><b>Exclusion:</b></p> <ol style="list-style-type: none"> <li>1. Patients who come without an appointment ("walk-in" patients).</li> <li>2. Patients that need to do procedures on the same day before seeing the doctors (e.g. imaging).</li> </ol>



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

<b>Discipline</b>	:	<b>Haematology</b>
<b>Indicator 1b</b>	:	<b>Percentage of patients with waiting time of ≤ 90 minutes to see the doctor at Haematology Outpatient Clinic (Only one registration area involved)</b>
<b>Dimension of Quality</b>	:	Timeliness
<b>Rationale</b>	:	<ol style="list-style-type: none"> <li>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)</li> <li>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,</li> </ol>



		<p>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 (e.g. at hospital's main outpatient/ ACC complex registration counter) prior to the clinical department counter.</p> <p>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.</p>
<b>Definition of Terms</b>	:	<p><u>If registration of patient with payment collection is done ONLY AT CLINICAL DEPARTMENT COUNTER:</u>  <b>Waiting time:</b> 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>  <b>Waiting time:</b> 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>
<b>Criteria</b>	:	<p><b>Inclusion:</b></p> <ol style="list-style-type: none"> <li>All outpatients of Haematology Outpatient Clinic.</li> </ol> <p><b>Exclusion:</b></p> <ol style="list-style-type: none"> <li>Patients who come without an appointment ("walk-in" patients).</li> <li>Patients that need to do procedures on the same day before seeing the doctors (e.g. imaging).</li> </ol> <p><b>Sampling:</b>                      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>
<b>Type of indicator</b>	:	Rate-based process indicator
<b>Numerator</b>	:	Number of sampled patients with waiting time of ≤ 90 minutes to see the doctor at Haematology Outpatient Clinic
<b>Denominator</b>	:	Total sample of patients seen by the doctor at the Haematology Outpatient Clinic
<b>Formula</b>	:	$\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$
<b>Standard</b>	:	≥ 90%
<b>Data Collection &amp; Verification</b>	:	<ol style="list-style-type: none"> <li><b>Where:</b> Data will be collected in Haematology Clinic.</li> <li><b>Who:</b> Data will be collected by Officer/ Paramedic/ Nurse in-charge of the department/ unit.</li> <li><b>How to collect:</b> Data is suggested to be collected from patient's case notes/</li> </ol>



	<p>appointment record book/ waiting time slip.</p> <p>4. <b>How frequent:</b> 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.</p> <p>5. <b>Who should verify:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 35%;">Prepared by</th> <th style="width: 35%;">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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<b>Remarks</b>	:									

<b>Discipline</b>	:	<b>Haematology</b>
<b>Indicator 2</b>	:	<b>Percentage of induction deaths from chemotherapy among newly diagnosed Acute Leukaemia/ Diffuse Large B-Cell Lymphoma (DLBL) patients</b>
<b>Dimension of Quality</b>	:	Safety
<b>Rationale</b>	:	<ol style="list-style-type: none"> <li>This is to ensure safety of treatment.</li> <li>Acute Leukaemia and Diffuse Large B-Cell Lymphoma (DLBL) are the two most common conditions treated in the Haematology Department/ Unit.</li> <li>A standard of 10% is derived based on International Standards for haematology services.</li> </ol>
<b>Definition of Terms</b>	:	<p><b>Acute Leukaemia:</b> Consist of Acute Myeloid Leukaemia (AML)/ Acute Lymphoblastic Leukaemia (ALL).</p> <p><b>Induction death:</b> It is the death due to any cause related to chemotherapy (direct/ indirect) following administration of chemotherapy. The duration of when it is considered induction death depends on the type of chemotherapy used (Which also based on whether it is Acute Leukaemia or DLBL as they have different regimes). For <u>Acute Leukaemia</u>, it is the death occurring within 28 days of induction chemotherapy and for <u>DLBL</u>, it is death occurring within 21 days of induction chemotherapy.</p>
<b>Criteria</b>	:	<p><b>Inclusion:</b></p> <ol style="list-style-type: none"> <li>Newly diagnosed AML/ ALL/ DLBL patients.</li> </ol> <p><b>Exclusion:</b></p> <ol style="list-style-type: none"> <li>Patients who defaulted before or those who were given chemotherapy in other hospitals.</li> <li>Patients with palliative intent.</li> </ol>
<b>Type of indicator</b>	:	Rate-based outcome indicator
<b>Numerator</b>	:	Number of induction deaths from chemotherapy among newly diagnosed Acute Leukaemia/ DLBL patients
<b>Denominator</b>	:	Total number of newly diagnosed Acute Leukaemia/ DLBL patients who were started on chemotherapy



<b>Formula</b>	:	$\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$									
<b>Standard</b>	:	≤ 10%									
<b>Data Collection &amp; Verification</b>	:	<ol style="list-style-type: none"> <li><b>Where:</b> Data will be collected in Haematology wards and Day Care.</li> <li><b>Who:</b> Data will be collected by Officer/ Paramedic/ Nurse in-charge of the department/ unit.</li> <li><b>How to collect:</b> Data is suggested to be collected from patient's case note/ Acute Leukaemia &amp; DLBL registry.</li> <li><b>How frequent:</b> 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.</li> <li><b>Who should verify:</b> <table border="1"> <thead> <tr> <th></th> <th>Prepared by</th> <th>Validated by</th> </tr> </thead> <tbody> <tr> <td>Primary Data</td> <td>Officer/ Paramedic/ Nurse in-charge</td> <td>Supervisor of the person who prepared the data</td> </tr> <tr> <td>Secondary Data</td> <td>Officer/ Paramedic/ Nurse in-charge</td> <td>Head of Department/ Specialist in-charge</td> </tr> </tbody> </table> <p>PVF must be verified by Head of Department, Head of Quality Unit and Hospital Director.</p> </li> </ol>		Prepared by	Validated by	Primary Data	Officer/ Paramedic/ Nurse in-charge	Supervisor of the person who prepared the data	Secondary Data	Officer/ Paramedic/ Nurse in-charge	Head of Department/ Specialist in-charge
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<b>Remarks</b>	:	Data collection to be done by 2 months retrospective cohort of data. For April 2021, it will be patients who were started on chemotherapy in February 2021.									

<b>Discipline</b>	:	<b>Haematology</b>
<b>Indicator 3</b>	:	<b>Chemotherapy Extravasation Rate</b>
<b>Dimension of Quality</b>	:	Safety
<b>Rationale</b>	:	<ol style="list-style-type: none"> <li>Extravasation is a potentially preventable complication of chemotherapy.</li> <li>This indicator reflects quality of service delivery and also safety of chemotherapy administration.</li> </ol>
<b>Definition of Terms</b>	:	<b>Chemotherapy extravasation:</b> Inadvertent leakage of intravenous drugs out of the vein into surrounding tissues. These are extravasation occurring following chemotherapy given to hematology patients in hematology ward and Day Care.
<b>Criteria</b>	:	<p><b>Inclusion:</b></p> <ol style="list-style-type: none"> <li>Infusion or IV bolus of chemotherapy.</li> </ol> <p><b>Exclusion:</b></p> <ol style="list-style-type: none"> <li>Non-chemotherapy extravasations (e.g. antibiotics).</li> <li>Local reaction/ chemical phlebitis caused by certain chemotherapy.</li> </ol>
<b>Type of indicator</b>	:	Rate-based outcome indicator
<b>Numerator</b>	:	Number of chemotherapy extravasation following chemotherapy
<b>Denominator</b>	:	Total number of administration of chemotherapy
<b>Formula</b>	:	$\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$
<b>Standard</b>	:	≤ 0.5%
<b>Data Collection &amp; Verification</b>	:	<ol style="list-style-type: none"> <li><b>Where:</b> Data will be collected in Haematology wards/ Day Care or wards that cater for the above condition.</li> </ol>



	<p>2. <b>Who:</b> Data will be collected by Officer/ Paramedic/ Nurse in-charge of the department/ unit.</p> <p>3. <b>How to collect:</b> Data is suggested to be collected from patient's case note/ chemotherapy record book.</p> <p>4. <b>How frequent:</b> 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.</p> <p>5. <b>Who should verify:</b></p> <table border="1" style="margin-left: 20px;"> <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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