



| OPHTHALMOLOGY |   |               |          |                                    |
|---------------|---|---------------|----------|------------------------------------|
| NO            | INDICATOR   | DIMENSION     | STANDARD | SECONDARY DATA REPORTING FREQUENCY |
| 1a            | Percentage of patients with waiting time of ≤ 60 minutes to see the healthcare worker at Ophthalmology Outpatient Clinic ( <b>Two or more registration areas involved</b> ) | Timeliness    | ≥ 80%    | Monthly                            |
| 1b            | Percentage of patients with waiting time of ≤ 90 minutes to see the healthcare worker at Ophthalmology Outpatient Clinic ( <b>Only one registration area involved</b> )     | Timeliness    | ≥ 90%    | Monthly                            |
| 2             | Percentage of patients without pre-existing ocular co-morbidity obtained visual acuity of 6/12 or better within (≤) 3 months following cataract surgery                     | Effectiveness | ≥ 90%    | 3 Monthly                          |
| 3             | Percentage of patients developed Infectious Endophthalmitis following cataract surgery  | Safety        | ≤ 0.2%   | 6 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>Ophthalmology</b>  |
| <b>Indicator 1a</b>         | : | <b>Percentage of patients with waiting time of ≤ 60 minutes to see the healthcare worker at Ophthalmology 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 (e.g. 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><u>If registration of patient is first done at hospital's main outpatient/ ACC complex registration counter with payment collection, following that patient needs to re-register at respective clinical department counter (Two or more registration areas involved):</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 healthcare worker who performed Ophthalmology related assessment (excluding vision taking) for the patient.</p> <p><b>Healthcare worker:</b> Any member of the Ophthalmology Team (Paramedic, Optometrist, Medical Officer or Ophthalmologist) that has the privileged to perform the assessment.</p>   |
| <b>Criteria</b>             | : | <p><b>Inclusion:</b></p> <ol style="list-style-type: none"> <li>1. All outpatients of Ophthalmology 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 non-ophthalmological procedures on the same day before seeing the doctors (e.g. blood taking and imaging).</li> </ol> <p><b>Sampling:</b></p> <p>Using an average of total patients seen in a month, 30% of the patients in each month need to be sampled for this indicator.</p> <p>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 healthcare worker at Ophthalmology Outpatient Clinic  |  |             |              |              |                                     |  |                |                                     |  |
| <b>Denominator</b>                        | : Total sample of patients seen by the healthcare worker at the Ophthalmology 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>1. <b>Where:</b> Data will be collected in Ophthalmology Outpatient Clinic.</li> <li>2. <b>Who:</b> Data will be collected by Officer/ Paramedic/ Nurse in-charge of the department/ unit.</li> <li>3. <b>How to collect:</b> Data is suggested to be collected from patient’s case notes/ appointment record book/ waiting time slip.</li> <li>4. <b>How frequent:</b> Monthly data collection within department.<br/>Validated summarised secondary data to be sent monthly to Quality Unit of the respective hospital for monitoring.<br/>PVF to be sent 6 monthly to Quality Unit of hospital.</li> <li>5. <b>Who should verify:</b> <table border="1" data-bbox="577 1339 1406 1507"> <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 |
|   | 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       |             |              |              |                                     |  |                |                                     |  |
| <b>Remarks</b>                            | :   |  |             |              |              |                                     |  |                |                                     |  |

|                             |   |
|-----------------------------|---|
| <b>Discipline</b>           | : <b>Ophthalmology</b>  |
| <b>Indicator 1b</b>         | : <b>Percentage of patients with waiting time of ≤ 90 minutes to see the healthcare worker at Ophthalmology Outpatient Clinic (Only one registration area involved)</b> |
| <b>Dimension of Quality</b> | : Timeliness  |
| <b>Rationale</b>            | : 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          |



|                                   |  |
|-----------------------------------|--|
|                                   | <p>patient first registers in the hospital till the time patient is seen by doctor. (Reference: Director-General of Health Malaysia Circular No. 6/2004)</p> <ol style="list-style-type: none"> <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> |
| <p><b>Definition of Terms</b></p> | <p>: <u>If registration of patient with payment collection is done only at clinical department counter:</u><br/> <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 healthcare worker who performed Ophthalmology related assessment (excluding vision taking) for the patient.</p> <p><u>If the registration is done only at hospital's main outpatient/ ACC complex registration counter with no re-registration at clinical department counter:</u><br/> <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 healthcare worker who performed Ophthalmology related assessment (excluding vision taking) for the patient.</p> <p><b>Healthcare worker:</b> Any member of the Ophthalmology Team (Paramedic, Optometrist, Medical Officer or Ophthalmologist) that has the privileged to perform the assessment.</p>   |
| <p><b>Criteria</b></p>            | <p>: <b>Inclusion:</b></p> <ol style="list-style-type: none"> <li>1. All outpatients of Ophthalmology 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 non-ophthalmological procedures on the same day before seeing the doctors (e.g. blood taking and imaging).</li> </ol> <p><b>Sampling:</b><br/> Using an average of total patients seen in a month, 30% of the patients in each month need to be sampled for this indicator.<br/> 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</p>   |



|   |                                     | proper representation of data.  |  |             |              |              |                                     |  |                |                                     |  |
|---|-------------------------------------|---|--|-------------|--------------|--------------|-------------------------------------|--|----------------|-------------------------------------|--|
| <b>Type of indicator</b>                  | :                                   | Rate-based process indicator  |  |             |              |              |                                     |  |                |                                     |  |
| <b>Numerator</b>                          | :                                   | Number of sampled patients with waiting time of $\leq 90$ minutes to see the healthcare worker at Ophthalmology Outpatient Clinic   |  |             |              |              |                                     |  |                |                                     |  |
| <b>Denominator</b>                        | :                                   | Total sample of patients seen by the healthcare worker at the Ophthalmology Outpatient Clinic   |  |             |              |              |                                     |  |                |                                     |  |
| <b>Formula</b>                            | :                                   | $\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$  |  |             |              |              |                                     |  |                |                                     |  |
| <b>Standard</b>                           | :                                   | $\geq 90\%$   |  |             |              |              |                                     |  |                |                                     |  |
| <b>Data Collection &amp; Verification</b> | :                                   | <ol style="list-style-type: none"> <li><b>Where:</b> Data will be collected in Ophthalmology 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 secondary data to be sent monthly to Quality Unit of hospital for monitoring. PVF to be sent 6 monthly to Quality Unit of hospital.</li> <li><b>Who should verify:</b> <table border="1" data-bbox="603 947 1366 1115"> <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 |
|   | 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  |  |             |              |              |                                     |  |                |                                     |  |
| <b>Remarks</b>                            | :                                   |   |  |             |              |              |                                     |  |                |                                     |  |

|                             |   |   |
|-----------------------------|---|---|
| <b>Discipline</b>           | : | <b>Ophthalmology</b>  |
| <b>Indicator 2</b>          | : | <b>Percentage of patients without pre-existing ocular co-morbidity obtained visual acuity of 6/12 or better within (<math>\leq</math>) 3 months following cataract surgery</b>  |
| <b>Dimension of Quality</b> | : | Effectiveness   |
| <b>Rationale</b>            | : | <ol style="list-style-type: none"> <li>Cataract is a preventable blindness.</li> <li>Cataract surgery is indicated to improve the quality of life. Therefore, by measuring this indicator, we can monitor the quality of service given.</li> </ol>  |
| <b>Definition of Terms</b>  | : | Pre-existing ocular comorbidities: <ul style="list-style-type: none"> <li>Diabetic Maculopathy.</li> <li>Advanced Diabetic Eye Disease.</li> <li>Macula Scar from any cause.</li> <li>Amblyopia.</li> <li>Optic neuropathy from any cause.</li> <li>Cornea opacities from any cause.</li> </ul> |
| <b>Criteria</b>             | : | <b>Inclusion:</b> <ol style="list-style-type: none"> <li>All elective cataract surgeries.</li> </ol> <b>Exclusion:</b>  |



|   |                                     | <ol style="list-style-type: none"> <li>1. Patients with pre-existing ocular co-morbidity that will affect visual outcome.</li> <li>2. All emergency and semi-emergency cataract surgeries.</li> </ol>   |  |             |              |              |                                     |  |                |                                     |  |
|---|-------------------------------------|---|--|-------------|--------------|--------------|-------------------------------------|--|----------------|-------------------------------------|--|
| <b>Type of indicator</b>                  | :                                   | Rate-based outcome indicator  |  |             |              |              |                                     |  |                |                                     |  |
| <b>Numerator</b>                          | :                                   | Number of patients without pre-existing ocular co-morbidity obtained visual acuity 6/12 or better within ( $\leq$ ) 3 months following cataract surgery   |  |             |              |              |                                     |  |                |                                     |  |
| <b>Denominator</b>                        | :                                   | Total number of patients without pre-existing ocular co-morbidity underwent cataract surgery  |  |             |              |              |                                     |  |                |                                     |  |
| <b>Formula</b>                            | :                                   | $\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$  |  |             |              |              |                                     |  |                |                                     |  |
| <b>Standard</b>                           | :                                   | $\geq 90\%$   |  |             |              |              |                                     |  |                |                                     |  |
| <b>Data Collection &amp; Verification</b> | :                                   | <ol style="list-style-type: none"> <li>1. <b>Where:</b> Data will be collected in the Ophthalmology Outpatient Clinic.</li> <li>2. <b>Who:</b> Data will be collected by Officer/ Paramedic/ Nurse in-charge of the department/ unit.</li> <li>3. <b>How to collect:</b> Data is suggested to be collected from National Eye Database.</li> <li>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.</li> <li>5. <b>Who should verify:</b> <table border="1" data-bbox="603 981 1385 1149"> <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 |
|   | 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  |  |             |              |              |                                     |  |                |                                     |  |
| <b>Remarks</b>                            | :                                   | <p>Data collection to be done by 3 months retrospective cohort of data. For January 2021, it will be patients who had cataract surgery done in October 2020; as patient needs to be reviewed during the next TCA to follow up on visual acuity.</p> <p>*This indicator is also being monitored as an Outcome Based Budgeting (OBB) indicator.</p>   |  |             |              |              |                                     |  |                |                                     |  |

|                             |   |  |
|-----------------------------|---|--|
| <b>Discipline</b>           | : | <b>Ophthalmology</b>   |
| <b>Indicator 3</b>          | : | <b>Percentage of patients developed Infectious Endophthalmitis following cataract surgery</b>  |
| <b>Dimension of Quality</b> | : | Safety   |
| <b>Rationale</b>            | : | <ol style="list-style-type: none"> <li>1. Infectious Endophthalmitis is a rare but devastating complication after cataract surgery which may lead to permanent blindness. Morbidity associated with post-operative Infectious Endophthalmitis can be substantial and is related not only to acute process but also to late sequelae.</li> <li>2. The causes can be multifactorial from patient to surgical environmental factors (contamination of sterilized instruments, disposable supplies, theatre environment, etc).</li> <li>3. Monitoring of this KPI is mandatory to ensure safety of the service.</li> </ol> |



|   | Reference: <ul style="list-style-type: none"> <li>NED report (2018).</li> <li>Royal College of Ophthalmology Guideline: RCOph(2016).</li> </ul>   |  |             |              |              |                                     |  |                |                                     |  |
|---|---|--|-------------|--------------|--------------|-------------------------------------|--|----------------|-------------------------------------|--|
| <b>Definition of Terms</b>                | : <b>Infectious Endophthalmitis:</b> Infection involving both the anterior and posterior segments of the eye after cataract surgery. A patient post cataract can develop Infectious Endophthalmitis any time after the cataract surgery.  |  |             |              |              |                                     |  |                |                                     |  |
| <b>Criteria</b>                           | : <b>Inclusion:</b><br>1. All elective cataract surgeries.<br><br><b>Exclusion:</b><br>1. All emergency and semi-emergency cataract surgeries.  |  |             |              |              |                                     |  |                |                                     |  |
| <b>Type of indicator</b>                  | : Rate-based outcome indicator  |  |             |              |              |                                     |  |                |                                     |  |
| <b>Numerator</b>                          | : Number of patients developed Infectious Endophthalmitis following cataract surgery  |  |             |              |              |                                     |  |                |                                     |  |
| <b>Denominator</b>                        | : Total number of patients underwent cataract surgery during the specified period   |  |             |              |              |                                     |  |                |                                     |  |
| <b>Formula</b>                            | : $\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$  |  |             |              |              |                                     |  |                |                                     |  |
| <b>Standard</b>                           | : $\leq 0.2\%$  |  |             |              |              |                                     |  |                |                                     |  |
| <b>Data Collection &amp; Verification</b> | : <ol style="list-style-type: none"> <li><b>Where:</b> Data will be collected in the Ophthalmology 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 National Eye Database.</li> <li><b>How frequent:</b> 6 monthly data collection within department.<br/>Validated summarised secondary data to be sent 6 monthly to Quality Unit of the respective hospital for monitoring.<br/>PVF to be sent 6 monthly to Quality Unit of hospital.</li> <li><b>Who should verify:</b> <table border="1" data-bbox="593 1279 1375 1447"> <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 |
|   | 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       |             |              |              |                                     |  |                |                                     |  |
| <b>Remarks</b>                            | : The incidence of Infectious Endophthalmitis is monitored by grouping patients in 6 months, based on their date of cataract surgery. For January-June 2021 (6 monthly data), it will be all patients that underwent cataract surgery in January-June 2021. The outcome of Infectious Endophthalmitis being a sentinel event will be captured as numerator.<br><br>*This indicator is also being monitored as an Outcome Based Budgeting (OBB) indicator.   |  |             |              |              |                                     |  |                |                                     |  |

+++++