



PAEDIATRIC SURGERY				
NO	INDICATOR	DIMENSION	STANDARD	SECONDARY DATA REPORTING FREQUENCY
1a	Percentage of patients with waiting time of ≤ 60 minutes to see the doctor at the Paediatric Surgery 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 Paediatric Surgery Outpatient Clinic (Only one registration area involved)	Timeliness	$\geq 90\%$	Monthly
2	Incidence rate of anastomotic leak requiring surgical intervention	Safety	$\leq 15\%$	6 Monthly
3	Incidence rate of white/ normal appendix during appendectomy	Safety	$\leq 5\%$	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**.

Discipline	:	Paediatric Surgery
Indicator 1a	:	Percentage of patients with waiting time of ≤ 60 minutes to see the doctor at the Paediatric Surgery 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 (e.g. 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><u>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:</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 Paediatric Surgery 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 Paediatric Surgery Outpatient Clinic									
Denominator	:	Total sample of patients seen by the doctor at the Paediatric Surgery 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 Paediatric Surgery 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" data-bbox="609 1108 1425 1281"> <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	:	Paediatric Surgery
Indicator 1b	:	Percentage of patients with waiting time of ≤ 90 minutes to see the doctor at the Paediatric Surgery 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 <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) 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



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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 Paediatric Surgery 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 Paediatric Surgery Outpatient Clinic
Denominator	:	Total sample of patients seen by the doctor at the Paediatric Surgery Outpatient Clinic
Formula	:	$\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$
Standard	:	$\geq 90\%$



Data Collection & Verification	<p>1. Where: Data will be collected in the Paediatric Surgery Outpatient Clinic.</p> <p>2. Who: Data will be collected by Officer/ Paramedic/ Nurse in-charge of the department/ unit.</p> <p>3. How to collect: Data is suggested to be collected from patient's case notes/ appointment record book/ waiting time slip.</p> <p>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.</p> <p>5. Who should verify:</p> <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	: Paediatric Surgery
Indicator 2	: Incidence rate of anastomotic leak requiring surgical intervention
Dimension of Quality	: Safety
Rationale	: <ul style="list-style-type: none"> 1. Measures clinical competency and judgement of the respective surgeon. 2. The aim is for reduction in anastomotic leak which in return minimizes morbidity and mortality.
Definition of Terms	: <p>Anastomosis: All anastomosis of gastrointestinal tract and biliary tract operations.</p> <p>Leak: It is a leak that requires <u>surgical intervention/ reoperation within 30 days.</u></p>
Criteria	: <p>Inclusion:</p> <ul style="list-style-type: none"> 1. All patients who underwent anastomosis and suture of gastrointestinal and biliary tract operations inclusive of neonate. 2. Both elective and emergency operations. <p>Exclusion:</p> <ul style="list-style-type: none"> 1. Anastomosis done in babies' weight less than 2 kg. 2. Genitourinary tract anastomosis.
Type of indicator	: Rate-based outcome indicator
Numerator	: Number of patients with anastomotic leak requiring surgical intervention after undergoing anastomosis of gastrointestinal and biliary tract operations
Denominator	: Total number of patients underwent anastomosis of gastrointestinal and biliary tract operations
Formula	: $\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$
Standard	: $\leq 15\%$
Data Collection & Verification	: <ul style="list-style-type: none"> 1. Where: Data will be collected in OT/ ICU/ CCU/ CRW/ NICU or wards that cater for the above condition.



	<ol style="list-style-type: none"> 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/ OT list/ OT record book. How frequent: 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	: Data collection to be done by 1 month retrospective cohort of data. For April 2021, it will be patients that underwent anastomosis of gastrointestinal and biliary tract operations in March 2021; in view of one month period where these patients can present with anastomotic leak.									

Discipline	: Paediatric Surgery
Indicator 3	: Incidence rate of white/ normal appendix during appendicectomy
Dimension of Quality	: Safety
Rationale	: <ol style="list-style-type: none"> To prevent unnecessary appendicectomy in children. To avoid wastages of consumables and human resources. Incidence of white/ normal appendix is quoted to be 5-10% internationally.
Definition of Terms	: White or normal appendix: It is appendix that looked normal at surgery. It must also be supported by histological (HPE) findings.
Criteria	: <p>Inclusion:</p> <ol style="list-style-type: none"> All appendicectomies done by Paediatric Surgery Department/ Unit. <p>Exclusion:</p> <ol style="list-style-type: none"> Incidental appendicectomy. Detection of other pathologies that required surgery (e.g. torsion of ovary, perforated Meckel diverticulum).
Type of indicator	: Rate-based outcome indicator
Numerator	: Number of white/ normal appendix during appendicectomy
Denominator	: Total number of appendicectomy performed
Formula	: $\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$
Standard	: $\leq 5\%$
Data Collection & Verification	: <ol style="list-style-type: none"> Where: Data will be collected in OT/ ICU/ CCU/ CRW/ NICU/ Paediatric Surgery Outpatient Clinic or wards that cater for the above condition. 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/



	<p>OT list/ OT record book. Histopathological reports of all patients are collected and reviewed to verify the results.</p> <p>4. How frequent: 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.</p> <p>5. Who should verify:</p> <table border="1" data-bbox="602 468 1433 638"> <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	: Data collection to be done by 3 month retrospective cohort of data. For April 2021, it will be patients operated in January 2021; to allow time for reviewing HPE results.									

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