KEMENTERIAN KESIHATAN MALAYSIA

TECHNICAL SPECIFICATIONS HOSPITAL PERFORMANCE INDICATORS FOR ACCOUNTABILITY (HPIA) MEDICAL PROGRAMME

2024

Date of Update	Element	Indicator	Notes
01/03/24	Health (Clinical Outcome)	Rate of Severity of Illness (SOI) 1 Death cases per 1,000 Severity of Illness (SOI) 1 Discharge Home cases	1. Add on remarks to indicates this indicator as a yearly indicator.
01/03/24	Health (Clinical Outcome)	Index of unplanned readmission	1. Changes on the Definition of Terms for all 3 sub indicators – removed the reference at end of each indicator. 2. Formula correction due to typing error. 3. Paediatric Readmission indicator: Changes in the criteria inclusion and exclusion to follow CliSQI. 4. Psychiatry Readmission indicator: Add on remarks
01/03/24	Health (Clinical Outcome)	Index of Patient Fall	1. Formula correction.
01/03/24	Health (Quality Care)	Percentage of recommendation proposed in Root Cause Analysis (RCA) report of patient safety incident that had been implemented in the corresponding year	1. Changes on the frequency details of PVF generation and report.
01/03/24	Health (Quality Care)	Index of paramedics who have a CURRENT trained status in Basic Life Support (BLS) in the corresponding year; A: acute care area B: non acute area	1. Changes on the Definition of terms for CURRENT trained status.
01/03/24	Health (Quality Care)	Percentage of fire drill that has been carried out by the hospital in the corresponding year	1. Changes on the Definition of terms by adding involvement of Fire & Rescue Department
01/03/24	Health (Quality Care)	Percentages of clinical department conducting clinical audit in the hospital/institution in the corresponding year	1. Add on inclusion criteria: Clinical audit conducted in the corresponding year or 1 year prior and completed 1st cycle in the corresponding year.

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			2. Add on remarks to indicates this indicator as a yearly indicator.
01/03/24	Responsiveness	Percentage of patients with waiting time of ≤ 90 minutes to see doctor at the Specialist Clinic	1. Changes on the definition and few other places regarding the term used; "time of patient is seen by **doctor**". 2. Changes on the definition of terms by removing procedure time and procedure. 3. Add on inclusion criteria; Visiting clinic for non-specialist hospitals. 4. Add on remarks regarding Outpatients Department (OPD) 5. Changes in indicator title and numerator.
01/03/24	Responsiveness	Percentage of Safety Audit findings identified whereby control measures had been taken in the corresponding year	1. Add on remarks regarding Pelan Tindakan Unit Keselamatan dan Kesihatan Pekerjaan (UKKP) Program Perubatan as reference
01/03/24	Fair Financing & Governance	Percentage of bills payment within 14 days	1. Changes on data collection – who should verify
01/03/24	Fair Financing & Governance	Percentage of assets in the hospital that were registered within 14 days	1. Add on remarks: Pekeliling Perbendaharaan - Tatacara Pengurusan Aset Alih Kerajaan
01/03/24	Fair Financing & Governance	Percentage of new hospital staffs who attended the Orientation Programme within 3 months of their placement at the Unit or Department in the hospital	2. Changes on data collection – who should verify
01/07/24	Health (Clinical Outcome)	Index of unplanned readmission	1. Definition of terms: This does not include readmission requested by next-of-kin or another

Date of Update	Element	Indicator	Notes
			department. (Applicable for General Medicine and Paediatric readmission only) 2. Add on remarks : PVF for each sub-indicator needs to be prepared and reported by the respective departments. 3. Add on remarks : Each sub-indicator's PVF needs to be compiled by appointed personnel to generate the overall hospital performance. 4. Add on remarks : SIQs for each sub-indicator need to be completed by the respective departments. 5. Add on remarks : The overall hospital performance SIQ will only need to use the SIQs from respective departments.
01/07/24	Health (Clinical Outcome)	Index of Patient Fall	1. Add on remarks: Malaysian Patient Safety Goal (MPSG) 2.0 Guideline
01/07/24	Health (Quality Care)	Index of paramedics who have a CURRENT trained status in Basic Life Support (BLS) in the corresponding year; A: acute care area B: non acute area	1. Change on the definition of terms: **CURRENT trained status:** The valid period of certification is determined by either the National Committee on Resuscitation Training (NCORT) or the relevant State/Hospital committee. 2. Add on remarks : Reporting for the period from January to June will

Date of Update	Element	Indicator	Notes
			use the cumulative data as of June. 3. Add on remarks : Reporting for the period from January to December will use the cumulative data as of December.
01/07/24	Responsiveness	Percentage of patients with waiting time of ≤ 90 minutes to see doctor at the Specialist Clinic	1. Add on remarks : PVF for each sub-indicator needs to be prepared and reported by the respective departments. 2. Add on remarks : Each sub-indicator's PVF needs to be compiled by appointed personnel to generate the overall hospital performance. 3. Add on remarks : SIQs for each sub-indicator need to be completed by the respective departments. 4. Add on remarks : The overall hospital performance SIQ will only need to use the SIQs from respective departments.
01/07/24	Fair Financing & Governance	Percentage of assets in the hospital that were registered within 14 days	1. Change on 14 days period to 2 weeks.
01/07/24	Fair Financing & Governance	Percentage of new hospital staffs who attended the Orientation Programme within 3 months of their placement at the Unit or Department in the hospital	1. Changes on definition of term: **3 months:** Period begins from the date of reporting or the date of postponement, whichever is later.
01/07/24	Satellite Indicators	Indeks Prevalen Jangkitan Aliran Darah berkaitan Penjagaan Kesihatan (bacteraemia) disebabkan	1. Add on remarks – Performance.

Date of Update	Element	Indicator	Notes
		oleh Multidrug-resistant organisms (MDROs) tertentu bagi setiap 10,000 kemasukan di hospital KKM.	
01/07/24	Satellite Indicators	Peratusan Bayi Baru Lahir yang Menjalani Saringan Pendengaran (Universal Newborn Hearing Screening) Dalam Tempoh 28 Hari Selepas Kelahiran di Hospital/ Fasiliti Kesihatan Kerajaan.	1. Add on remarks – List of 48 Hospitals

LIST OF HOSPITAL PERFORMANCE INDICATORS FOR ACCOUNTABILITY (HPIA)

	HPIA Element	Indicator
1	Health (Clinical Outcome)	1-3
2	Health (Quality Care)	4-7
3	Responsiveness	8-11
4	Fair Financing & Governance	12-14

SATELLITE INDICATORS

*** Satellite indicators encompass indicators from State Health Directors' KPIs or any top management's KPIs that need to be monitored by the hospital director. It is important to note that these indicators will be changed annually.

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Indicator 1	:	**Rate of Severity of Illness (SOI) 1 Death cases per 1,000 Severity of Illness (SOI) 1 Discharge Home cases**
Element	:	**Health (Clinical Outcome)**
Rationale	:	This KPI measures the quality level of health service delivery of a casemix hospital/ institutions. This can be seen in the ratio of the number of SOI 1 Death cases in every 1,000 SOI 1 home discharge cases, treated in KKM hospitals/ institutions. This also reflects the quality of data (casemix) and quality of care.
Definition of Terms	:	Generally, there are three classifications of severity of illness (Severity of Illness; SOI) that are treated in KKM hospitals/ institutions. **The severity of the disease is as follows:** a) Severity of Disease 1 (SOI 1): without comorbidities and/ or complications, b) Severity of Disease 2 (SOI 2): with comorbidities and/or complications, c) Severity of Disease 3 (SOI 3): with comorbid and/ or major complications. This degree of severity reflects the severity of the disease and the complexity of the treatment provided. The severity of the disease based on three main components which are: a) other diagnosis (comorbid and complications), b) treatment procedures given, and c) Length of stay in ICU The disease group with SOI 1 typically describes patients who have no complications and comorbidities and receive uncomplicated treatment. Cases like this should not result in death.
Criteria	:	**Inclusion:** 1. Inpatient services. 2. Patient discharge data between 1st January – 30th September of the assessed year. **Exclusion:** Not applicable
Numerator	:	Total no. SOI 1 death (in-patient)
Denominator	:	Total no. of SOI 1 discharged home
Formula	:	Numerator x 1000 Denominator

Standard	:	≤15 death cases per 1000 patient discharged (SOI 1)
Data collection	:	1. **Where**: Data will be collected in the respective department/ ward that caters the above condition. 2. **Who**: Data will be collected by the Officer/ Paramedic/ Nurse in-charge (Indicator Coordinator) of the department/ unit. 3. **How to collect**: Data is suggested to be collected from the record or log book/ patient's file 4. **How frequent**: PVF to be sent 6 monthly Quality Unit of hospital/ institutions 5. **Who should verify**: PVF must be verified by Head of Department, Head of Quality Unit and Hospital/ Institution Director.
Remarks	:	1. This a is yearly indicator. If the indicator is SIQ for Jan-Jun, SIQ form does not need to be filled. 2. Data is extracted from casemix application system on 1st week of January the following year to evaluate the achievement of January -September of the assessed year by taking into account the backlog data load of the last 3 months.

Indicator 2	:	Index of unplanned readmission
Element	:	Health (Clinical Outcome)
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:** It includes the following criteria: • Patient being readmitted for the management of the same clinical condition (main diagnosis) he or she was discharged. • Readmission was not scheduled. • Readmission to the same hospital. • This does not include readmission requested by next-of-kin or another department.(Applicable for General Medicine and Paediatric readmission only.) • This does not include patients were readmitted for different reason but have the same underlying conditions ('other diagnosis'). **Same condition:** Same diagnosis as refer to the ICD 11. Index of unplanned readmission will be assessed based on 3 indicators: 1. Percentage of medical patients with unplanned readmission to medical ward within (≤) 48 hours of discharge. 2. Percentage of paediatric patients with unplanned readmission to paediatric ward within (≤) 48 hours of discharge. 3. Percentage of patient readmitted to psychiatric ward within 3 months of last discharge. ● Please refer and follow the technical specification of each of the indicators above.
Criteria	:	**Inclusion:** 1. Performance of all indicators as above. **Exclusion**: Not applicable
Numerator	:	Total index for each indicator
Denominator	:	Total no of indicators applicable to the hospital/ institute
Formula	:	**Index of unplanned readmission:** Total of index for each indicator Total no. of indicator applicable SUMS OF INDEX 1,2,3 **Examples calculation of index 1:**

		Standard of indicator 1≤ 0.5% Performance of indicator 1: 0.2 % = 100-0.2 100-0.5 = 99.8 99.5 **Index = 1.003** **Examples calculation of index 2:** Standard of indicator 2 ≤ 0.5% Performance of indicator 2 :0.1% = 100-0.1 100-0.5 = 99.9 99.5 **Index = 1.004** **Examples calculation of index 3:** Standard of indicator 3 ≤ 25% Performance of indicator 3: 40% 100-40 100-25 = 60 75 **Index = 0.800** **Calculation for index of unplanned readmission:** Index 1+ Index 2 + Index 3 3 =1.003+1.004+0.800 3 **= 0.936**
Standard	:	≥1
Data collection	:	1. **Where**: Data will be collected in the respective department/ward that caters the above condition. 2. **Who:** Data will be collected by the Officer/ Paramedic/Nurse in-charge (Indicator Coordinator) of the department/unit 3. **How to collect:** Data is suggested to be collected from the record or log book/ patient's file. 4. **How frequent:** 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	:	1. PVF for each sub-indicator needs to be prepared and reported by the respective departments.

		2. Each sub-indicator's PVF needs to be compiled by appointed personnel to generate the overall hospital performance. 3. SIQs for each sub-indicator need to be completed by the respective departments. 4. The overall hospital performance SIQ will only need to use the SIQs from respective departments.

Additional notes: Technical specifications are based on Clinical Service Quality Indicators (CliSQi) and KPI Hospital Director (Institute of Psychiatric)

Discipline	:	General Medicine
Indicator	:	**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 admissionwas 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 11.
Criteria	:	**Inclusion**: 1. All medical inpatient discharges from medical wards. 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.
Type of indicator	:	Rate-based outcome indicator
Numerator	:	Number of medical patients with unplanned readmissions to medical department within (≤) 48 hours of discharge
Denominator	:	Total number of medical patients discharged during the same period of time the numerator data was collected
Formula	:	Numerator / Denominator x 100 %
Standard	:	≤ 0.5%
Data Collection & Verification	:	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 dayof readmission. For denominator, data is from admission & discharge record book/ Hospital Information System (HIS) 4. **How frequent**: 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	:	

Discipline	:	**Paediatric**
Indicator	:	**Percentage of paediatric patients with unplanned readmission to Paediatric 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**: It includes the following criteria: • Patient being readmitted for the management of the same clinical condition (main diagnosis) he or she was discharged. • Readmission was not scheduled. • Readmission to the same hospital. • This does not include readmission requested by next-of-kin or other department. • This does not include patients were readmitted for different reason but have the same underlying conditions ('other diagnosis'). **Same clinical condition**: Same diagnosis as refer to the ICD 11.
Criteria	:	**Inclusion**: 1. All paediatric inpatient discharges from Paediatric Ward. **Exclusion**: 1. Neonates of ≤28 days of life.
Type of indicator	:	Rate-based outcome indicator
Numerator	:	Number of patients with unplanned readmissions to Paediatric Ward within (≤) 48 hours of discharge
Denominator	:	Total number of paediatric patients discharged during the same period of time the numerator data was collected
Formula	:	Numerator x 100 Denominator
Standard	:	≤ 0.5%
Data Collection & Verification	:	1. **Where**: Data will be collected in Paediatric Ward. 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**: 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	:	*This indicator is also being monitored as an Outcome Based Budgeting (OBB) indicator.

Discipline	:	Psychiatry
Indicator	:	**Percentage of patient readmitted to psychiatric ward within 3 months of last discharge**
Rationale	:	The quality of psychiatric care is among all reflected by readmissions to psychiatric ward. This KPI had been implemented before with the target looking at readmission to psychiatric ward within 1 month after discharge. It had been achieved and later dropped. With the improvement of services provided, the duration of patients staying well in the community should also increase accordingly. Patients receiving good quality psychiatric care should not be readmitted within 3 months.
Definition of Terms	:	Percentage of psychiatric patients readmitted to the psychiatric ward within three months after the last discharged. **Within 3 months:** ≤3 months **Readmission:** The same patient readmitted in the same unit/ hospital ≤3 months of latest discharge. **Admission:** Admitted to psychiatric ward regardless of length of stay with psychiatric diagnoses. **Discharge:** Patient's name has been removed from ward/ hospital register To determine whether a patient currently admitted qualifies to be included, count backwards for the 3 calendar months from the date of current admission (e.g. 16.12.2022 look backward until 15.9.2022).
Criteria	:	**Inclusion:** 1. All involuntary admissions to psychiatric ward. **Exclusion**: 1. Voluntary admissions 2. Elective admission e.g. admission for maintenance ECT or CT-brain 3. Patients who are on home-leaves 4. Patients admitted to forensic ward. 5. Readmission after discharged from non-psychiatric ward.
Type of indicator	:	Rate-based outcome indicator
Numerator	:	Number of patients for the month readmitted within 3 months of last discharge
Denominator	:	Total number of patients admitted in the same month
Formula	:	$\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$
Standard	:	≤25%
Data collection	:	1. **Where**: Data will be collected in wards that cater for the above condition/ record office. 2. **Who**: Data will be collected by Officer/ Paramedic/ Nurse in-charge (indicator coordinator) of the department/ unit. 3. **How to collect**: Data is suggested to be collected from Record Book / Registration Book/ Monitoring System. 4. **How frequent**: 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	:	Admission to the psychiatric ward (institution/ hospital) is according to the Mental Health Act 2001.

Indicator 3	:	**Index of Patient Fall**
Element	:	**Health (Clinical Outcome)**
Rationale	:	Patient fall has the potential to cause severe harm. It can lead to prolong hospital stay, morbidity or even mortality. Patient fall is preventable with suitable safety measures such as safer environment, assessment of patient's risk and reducing the risk, close monitoring of patient. Based by recent data analysis E-incident Reporting in MOH Hospitals 2022 from Patient Safety Unit, Medical Care Quality Section, Medical Development Division MOH, the most reported incident was patient fall (2556 incidents- 30.1% of all patient safety incidents) followed by medication error (1979 incidents-23.3%) and obstetric related incidents (757 incidents-8.9%). The most common type of incidents reported for older age group was patient fall and it is second highest for pediatric age group up to adult.
Definition of Terms	:	Fall is an unintentional descent to a lower level, which may or may not result in injury. For the purpose of Malaysian Patient Safety Goals (MPSG) reporting, patient fall include witnessed and unwitnessed incidents occurring in all inpatient and outpatient healthcare facilities. However, it does not include fall due to events such as seizures, loss of consciousness, paralysis or cardiac arrest and due to external forces, non-injurious developmental fall among infant/ toddler or fall related to suicidal attempt. **Standard indicator based on Malaysian Patient Safety Goals 2.0 for Patient fall:** a) Rate Inpatient Patient Fall: ≤ 5 per 1000 patient-days b) Rate Outpatient Patient Fall: ≤ 5 %
Criteria	:	**Inclusion:** 1. Performance of all indicators as above.

		Exclusion: Not applicable
Numerator	:	Total index of each indicator
Denominator	:	2
Formula	:	**Index of Patient Fall:** Total of index for each indicator 2 **Examples: SUMS OF INDEX 1 AND 2** **Examples calculation of index 1:** Standard of indicator 1: ≤ 5 per 1000 patient-days Performance of indicator 1: 10 per 1000 patient-days = 100-10 100-5 = 90 95 **Indeks = 0.947** **Examples calculation of index 2:** Standard of indicator 2: ≤ 5 % Performance of indicator 2: 2% = 100-2 100-5 = 98 95 **Index = 1.032** **Calculation for index of patient fall:** = (Index 1+ Index 2)/2 = 0.947+1.032 2 = **0.989**
Standard	:	≥1
Data collection	:	1. **Where**: Data will be collected in the respective department/ward that caters the above condition. 2. **Who**: Data will be collected by the Officer/ Paramedic/Nurse in-charge (Indicator Coordinator) of the department/unit 3. **How to collect**: Data is suggested to be collected from the record or log book/ patient's file. 4. **How frequent**: 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	:	1. Malaysian Patient Safety Goal (MPSG) 2.0 Guideline

Indicator 4	:	Percentage Performance for Patient Safety Incident Reporting and Learning System and Root Cause Analysis and Action Plan (RCA^2) for Actual Patient Safety Incidents Resulting in Severe or Death Outcome in the corresponding year
Element	:	Health (Quality Care)
Rationale	:	To ensure the implementation of Patient Safety Incident Reporting and Learning System along with proper remedial action or risk reduction strategy, especially for Root Cause Analysis carried out for incidents resulting in severe or death outcome. This is to encourage reporting and ensure the safety of patients in the hospital by reducing or preventing future similar incidents.
Definition of Terms	:	**Recommendation:** Any corrective action, risk reduction strategy and remedial measure to prevent or reduce incident. Also known as 'Action Plan' in RCA report. Strength of 'Action Plan' is based on the 'Action Hierarchy' in the 2017 Guideline on Implementation of Incident Reporting and Learning System 2.0 and is classified into strong, intermediate and weak 'Action Plan'. **Root cause analysis (RCA^2):** Is a structured investigation that aims to identify the 'root cause' of the problem and actions necessary to eliminate it. It is a risk management tool to understand WHY the problem occurs. **Patient safety incident:** An event or circumstance which could have resulted, or did result, in unnecessary harm to a patient. An incident can be a reportable circumstance, near miss, no harm incident or harmful incident (adverse event). **Patient Outcome:** The impact on a patient, whether wholly or partially resulting from an incident. Severity, duration of harm and treatment implication is taken into account when determining the outcome. The classification of outcome is based on the 2017 Guideline on Implementation of Incident Reporting and Learning System 2.0 for Ministry of Health Hospitals.

Criteria	:	**Inclusion:** 1. For the purpose of monitoring of the indicator, only actual patient safety incidents which resulted in severe or death outcome will be taken into the calculation for action taken for RCA^2 within the time frame of the cohort (date taken is the date of incident reported). 2. The total number of all patient safety incidents (actual and near miss) reported is calculated by counting all incidents reported within the time frame of the cohort (date taken is the date of incident reported). **Exclusion:** 1. Recommendation in RCA^2 report that occur during disaster.
Formula	:	$\frac{\text{Total No. all of Patient Safety Incident Reported (x)*}}{\text{Incident Constant (k)}} \times \left(\frac{\text{Total no. of RCA}^2\text{ report (severe and death outcome) with at least 1 intermediate or strong action plan carried out (N)}}{\text{Total no. of RCA}^2\text{ report (severe and death outcome) (D)}} \right) \times 100$ *Where maximum of X = K
Total No. of Patient Safety Incident Reported (x)	:	Total numbers of all patient safety incident (actual and near miss) reported within the time frame of cohort (X) (date taken is the date of incident reported). The maximum number for (X) is capped to the Incident constant (K) in the formula.
Incident Constant (k)	:	The constant is derived from the median number of all patient safety incidents (actual and near miss) reported by hospital category for the previous year.
Numerator (N)	:	Total number of RCA^2 report for patient safety incidents resulting in severe and death outcome with at **least 1 intermediate or strong action plan carried out*** within the time frame of cohort (date taken is the date of incident reported). Note : The numerator is the number of RCA^2 report with at least 1 strong or intermediate action plan carried out. If the RCA^2 report had more than one strong or intermediate action plan carried out for the report, it is still counted as 1. ***An action plan is considered carried out if initial action toward its implementation is already in place**, which includes a request letter or writing of paperwork for implementation.

Denominator (D)	:	Total number of RCA^2 report for patient safety incidents resulting in severe and death outcome within the time frame of cohort (date taken is the date of incident reported).
Standard	:	≥ 70%
Data collection	:	1. **Where**: Data will be collected in the Quality Unit 2. **Who:** Data will be collected by the Quality Officer/ Paramedic/ Nurse in-charge (Indicator Coordinator) of the department/ unit. 3. **How to collect**: Data is collected from the Action Plan Table in the RCA report submitted to the Quality Unit. 4. **How frequent**: PVF to be generated 6 monthly by the Quality Unit of the hospital. The cohort for patient safety incident and RCA^2 report (date taken is the date of incident reported) is according to: • January - June: 1st October (previous year) to 31st March (current year) • July - December: 1st April (current year) to 30th September (current year) • January – December : Please refer to the generated performance based on the tool for calculation (excel) given. 5. **Who should verify**: PVF must be verified by Head of Quality Unit, and Hospital Director.
Remarks	:	Tool for calculation (excel) is available at: https://tinyurl.com/hpia-rca-23-kkm

Additional notes for implementation:

Note the strength of action and example of action plan in the Action Hierarchy table. The light blue shaded area in the table indicates strong and intermediate action plans that are easier to implement.

Action Hierarchy

	Action Category	Example
Stronger Actions (these tasks require less reliance on humans to remember to perform the task correctly)	Architectural/physical plant changes	Replace revolving doors at the main patient entrance into the building with powered sliding or swinging doors to reduce patient falls.
	New devices with usability testing	Perform heuristic tests of outpatient blood glucose meters and test strips and select the most appropriate for the patient population being served.
	Engineering control (forcing function)	Eliminate the use of universal adaptors and peripheral devices for medical equipment and use tubing/fittings that can only be connected the correct way (e.g., IV tubing and connectors that cannot physically be connected to sequential compression devices or SCDs).
	Simplify process	**Remove unnecessary steps in a process.**
	Standardize on equipment or process	**Standardize on the make and model of medication pumps used throughout the institution. Use bar coding for medication administration.**
	Tangible involvement by leadership	**Participate in unit patient safety evaluations and interact with staff; support the RCA2 process; purchase needed equipment; ensure staffing and workload are balanced.**
Intermediate Actions	Redundancy	Use two RNs to independently calculate high-risk medication dosages.
	Increase in staffing/decrease in workload	Make float staff available to assist when workloads peak during the day.
	Software enhancements, modifications	Use computer alerts for drug-drug interactions.
	Eliminate/reduce distractions	**Provide quiet rooms for programming PCA pumps; remove distractions for nurses when programming medication pumps.**
	Education using simulation- based training, with periodic refresher sessions and	**Conduct patient handoffs in a simulation lab/environment, with after action critiques and debriefing.**
	Checklist/cognitive aids	**Use pre-induction and pre-incision checklists in operating rooms. Use a checklist when reprocessing flexible fiber optic endoscopes.**
	Eliminate look- and sound-alikes	**Do not store look-alikes next to one another in the unit medication room.**
	Standardized communication tools	**Use read-back for all critical lab values. Use read-back or repeat-back for all verbal medication orders. Use a standardized patient handoff format.**
	Enhanced documentation, communication	**Highlight medication name and dose on IV bags.**
Weaker Actions (these tasks require more reliance on humans to remember to perform the task correctly)	Double checks	One person calculates dosage, another person reviews their calculation.
	Warnings	Add audible alarms or caution labels.
	New procedure/ memorandum/policy	Remember to check IV sites every 2 hours.
	Training	Demonstrate correct usage of hard-to-use medical equipment.

(Source: National Patient Safety Foundation. Improving Root Cause Analyses and Actions to Prevent Harm. Version 2, 2016; based on VA National Center for Patient Safety.)

Indicator 5	:	**Index of paramedics who have a CURRENT trained status in Basic Life Support (BLS) in the corresponding year** **A: acute care area** **B: non acute area**
Element	:	**Health (Quality Care)**
Rationale	:	Basic Life Support is an important skill for all healthcare personnel to have and it is an important element of the Continuous Professional Development. Therefore, continuous updating of this skill will ensure the current and latest management of patient care is being practised.
Definition of Terms	:	Index of paramedics who have a CURRENT trained status in Basic Life Support (BLS) will be assessed based on 2 indicators: 1. **Acute care area:** Emergency and Trauma Department, and Intensive Care Area (ICU, CCU, OT, HDW, Labour Room, Burn Unit, PICU, NICU, Neuro ICU and Haemodialysis Unit). **Standard in acute area: ≥ 70%** 2. **Non acute area:** all other clinical and administrative areas – e.g., Quality Unit, Public Health Unit, Occupational & Health Unit, Nursing Administrative Office. **Standard in non-acute area: ≥ 30%** **CURRENT trained status:** The valid period of certification is determined by either the National Committee on Resuscitation Training (NCORT) or the relevant State/Hospital committee. **Paramedic:** Refer to the medical assistant and nurse who work in the hospital.
Criteria	:	**Inclusion:** 1. Paramedic who is currently working in the acute/ non acute care area for more than 6 months **Exclusion:** 1. Paramedic who was transferred-in to the acute/ non acute care area for less than 6 months. 2. Paramedic who is currently working in the acute/ non acute care area for less than 6 months. 3. Paramedic who has been on medical leave for more than 6 months. 4. Paramedic who are not fit to perform resuscitation. e.g., spine problem, special needs.
Numerator	:	Total index of each indicator
Denominator	:	Total no. of indicator applicable

		* If the facility does not have acute area, ONLY indicator of non acute area is applicable.
Formula	:	Index of paramedics who have a CURRENT trained status in Basic Life Support (BLS): Total of index for each indicator Total no. of indicator applicable **Examples: SUMS OF INDEX 1 AND 2** **Examples calculation of index 1:** Standard of paramedics who have a CURRENT trained status in Basic Life Support (BLS) in acute areas: ≥ 70% Performance of indicator 1: 73% Measurement of index for indicator 1: = 73 70 **Index = 1.042** **Examples calculation of index 2:** Standard of paramedics who have a CURRENT trained status in Basic Life Support (BLS) in non-acute areas: ≥ 30% Performance of indicator 2: 28% Measurement of index for indicator 2: = 28 30 **Index = 0.9333** **Calculation for index of** paramedics who have a CURRENT trained status in Basic Life Support (BLS): = (Index 1+ Index 2)/2 = 1.042 + 0.9333 2 = **0.988**
Standard	:	A: Acute area ≥ 70% B: Non-Acute area ≥ 30% Index: ≥ 0.9
Data collection	:	1. **Where**: Data will be collected in the respective department/ ward that caters the above condition. 2. **Who**: Data will be collected by the Officer/ Paramedic/ Nurse in-charge (Indicator Coordinator) of the department/ unit 3. **How to collect**: Data will be collected from the record book from each unit/ department/ ward.

		4. **How frequent**: PVF to be sent 6 monthly to the Quality Unit of the hospital 5. **Who should verify**: PVF must be verified by Head of Quality Unit, and Hospital Director.
Remarks	:	1. This is a yearly indicator. If the indicator is SIQ for Jan-Jun, SIQ form does not need to be filled. 2. Reporting for the period from January to June will use the cumulative data as of June. 3. Reporting for the period from January to December will use the cumulative data as of December.

Indicator 6	:	Percentage of fire drill that has been carried out by the hospital in the corresponding year
Element	:	Health (Quality Care)
Rationale	:	Fire drills are essential in any workplace or public building for practicing what to do in the event of a fire. Not only do they ensure that all staff, customers, and visitors in the premises understand what they need to do in case of fire, but they also help to test how effective the fire evacuation plan is and to improve certain aspects of the fire provisions.
Definition of Terms	:	**Fire Drill:** A practice of the emergency procedures to be used in case of fire with the involvement of Fire & Rescue Department.
Criteria	:	**Inclusion:** 1. All fire drills that have been planned in the corresponding year **Exclusion:** Not applicable
Numerator	:	Number of fire drill that has been carried out according to the plan in the corresponding year
Denominator	:	1
Formula	:	Numerator x 100% Denominator
Standard	:	100%
Data collection	:	1. **Where**: Data will be collected in the respective department/ ward that caters the above condition. 2. **Who**: Data will be collected by the Officer/ Paramedic/Nurse in-charge (Indicator Coordinator) of the department/unit 3. **How to collect**: Data will be collected from the record book/ registration book from each unit/ department/ ward or any form of documentation. 4. **How frequent**: PVF to be sent 6 monthly to the Quality Unit of the hospital 5. **Who should verify**: PVF must be verified by Head of Quality Unit, and Hospital Director.
Remarks	:	1. This is a yearly indicator. If the indicator is SIQ for Jan-Jun, SIQ form does not need to be filled. 2. Any SIQ due to cancellation and/or postponement from Fire & Rescue Department will NOT be included in Hospital Report Card measurement.

Indicator 7	:	**Percentages of clinical department conducting clinical audit in the hospital/institution in the corresponding year**
Element	:	**Health (Quality Care)**
Rationale	:	Clinical audit is at the heart of clinical governance. It offers the mechanisms for reviewing the quality of care provided to patients. It addresses quality issues systematically and explicitly, providing reliable information and highlight the need for improvement.
Definition of Terms	:	**Clinical audit** Is a quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria and the implementation of change. Where indicated, changes are implemented and further monitoring is used to confirm improvements in healthcare delivery. (Source: National Institute for Clinical Excellence 2002)
Criteria	:	**Inclusion:** 1. All **CLINICAL** departments. 2. Clinical audit conducted in the corresponding year or 1 year prior and completed 1st cycle in the corresponding year. **Exclusion:** 1. New service that was established in less than 12 months.
Numerator	:	Number of clinical departments that conducted at least one clinical audit in the corresponding year
Denominator	:	Total number of clinical departments in the hospital/ institution
Formula	:	Numerator x 100% Denominator
Standard	:	≥ 30%
Data collection	:	1. **Where**: Data will be collected in the respective department/ ward that caters the above condition. 2. **Who**: Data will be collected by the Officer/ Paramedic/ Nurse in-charge (Indicator Coordinator) of the department/ unit 3. **How to collect**: Data is suggested to be collected from the record or log book/ patient's file/ etc 4. **How frequent**: PVF to be sent 6 monthly to the Quality Unit of the hospital 5. **Who should verify**: PVF must be verified by Head of Quality Unit, and Hospital Director.
Remarks	:	1. Clinical department for non-specialist hospital refers to Emergency & Trauma Department, Obstetrics &

		Gynaecology Ward, Paediatric Ward, Female Ward and Male Ward. (Total of 5 Departments for non-specialist hospital) 2. Clinical department for specialist hospital refers to all hospital that has resident specialist. 3. A subspecialty that has its own appointed Head of Department (HOD) is considered a clinical department and needs to conduct its own clinical audit. 4. Refer to Clinic Audit Guideline 2023. 5. This is a yearly indicator. If the indicator is SIQ for Jan-Jun, SIQ form does not need to be filled.

Indicator 8	:	Hospital with Bed Waiting Time ≤ 240 minutes (4 hours)
Element	:	Responsiveness
Rationale	:	Prolonged waiting time is a source of patient dissatisfaction in health care. In patient flow there are few indicators related to timely and efficient transitions in care. One of it is bed waiting time. Prolonged bed waiting time is one of the key factors contributing to Emergency Department (ED) overcrowding. Prolonged stay in Emergency Department also associated with higher inpatient mortality rates and longer hospital length of stay. Prolonged bed waiting time is also one of the result from inefficient discharge process. Managing demand for admission at Emergency Department to inpatients wards is one of the important aspects in Hospital Operation Management. Efforts to reduce may improve outcomes for Emergency Department patients who are admitted to the hospital. Every hospital must look into continuously improving it.
Definition of Terms	:	**Bed Waiting Time:** Measurement of the time between the decision to admit in the emergency department (ED) to physically transfer (admit) to an inpatient bed in the ward.
Criteria	:	**Inclusion:** 1. Patients who receive treatment in Emergency & Trauma Department and deemed for non-critical bed admission 2. Hospital with Emergency & Trauma Service. **Exclusion:** 1. Critical patient admitted to non-critical ward.
Numerator	:	Total number of patients with waiting time ≤ 240 minutes (4 hours) during the survey period. (one-week survey)
Denominator	:	Total number of patients (sample) during the survey period. (one-week survey)
Formula	:	Numerator x 100% Denominator
Standard	:	≥ 80%
Data collection	:	1. **Where**: Data will be collected in the Emergency & Trauma Department. 2. **Who**: Data will be collected by the Officer/ Paramedic/Nurse in-charge (Indicator Coordinator) of the department/unit

		3. **How to collect**: Data is suggested to be collected from the record or log book/ patient's file. Data to be collected twice a year for period of one week each with minimum sample size of 200 or universal sampling. 4. **How frequent**: PVF to be sent 6 monthly to the Quality Unit of the hospital 5. **Who should verify**: PVF must be verified by Head of Quality Unit, and Hospital Director.
Remarks	:	1. Reporting for the period of January – Disember will use the performance of July – Disember of the current year.

Indicator 9	:	Percentage of patients with waiting time of ≤ 90 minutes to see doctor at the Specialist Clinic
Element	:	Responsiveness
Rationale	:	1. MOH aims for waiting time for consultation at clinic to be less than 90 minutes, in line with patient-centered services. Waiting time is the time patient first registers in the hospital till the time patient is seen by doctor. 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. 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.
Definition of Terms	:	**Waiting time:** Time of registration or time of appointment given to patient (whichever is later) till the doctor consultation.
Criteria	:	**Inclusion:** 1. Patient coming for the purpose of doctor's consultation. 2. The first clinic consultation for patient with multidisciplinary clinic appointment. 3. Visiting clinic in non-specialist hospital. **Exclusion:** 1. Patients come without an appointment ("walk-in" patients). 2. Patients that need to do procedures in another department on the same day before seeing the doctors (e.g., blood taking or imaging). 3. Patient come to Opthalmology Specialist Clinic, Orthopaedic Specialist Clinic and Geriatric Specialist Clinic
Numerator	:	Number of patients with waiting time of ≤ 90 minutes for to see doctor at the Specialist Clinic
Denominator	:	Total number of patients at the Specialist Clinic
Formula	:	Numerator x 100% Denominator
Standard	:	≥ 90%
Data collection	:	1. **Where:** Data will be collected in the respective department/ward. 2. **Who:** Data will be collected by the Officer/ Paramedic/Nurse in-charge (Indicator Coordinator) of the department/unit.

		3. **How to collect:** Data is suggested to be collected from the record or log book/ patient's file/ waiting slip. Data will be collected for a whole week (5 Working Days: Monday – Friday or Sunday – Thursday) and will be done 4 times per year (Quarterly). 4. **How frequent:** PVF to be sent 6 monthly to Quality Unit of hospital. Quality Unit will compile the performance data of all Specialist Clinics to generate hospital performance. 5. **Who should verify:** PVF must be verified by Head of Department, Head of Quality Unit and Hospital Director.
Remarks	:	1. Outpatients Department (OPD) will be included only IF the Hospital does not have any visiting specialist clinic and OPD is operated by the Hospital. 2. PVF for each sub-indicator needs to be prepared and reported by the respective departments. 3. Each sub-indicator's PVF needs to be compiled by appointed personnel to generate the overall hospital performance. 4. SIQs for each sub-indicator need to be completed by the respective departments. 5. The overall hospital performance SIQ will only need to use the SIQs from respective departments.

<table>
<tr><td>Indicator 10</td><td>:</td><td>Percentage of Safety Audit findings identified whereby control measures had been taken in the corresponding year</td></tr>
<tr><td>Element</td><td>:</td><td>Responsiveness</td></tr>
<tr><td>Rationale</td><td>:</td><td>To ensure safety of the patient and healthcare workers involved.</td></tr>
<tr><td>Definition of Terms</td><td>:</td><td>Safety Audit: An audit that is conducted by the hospital's Safety and Health Committee (JKKK) / OSH unit.

Safety Audit finding: Any item in the safety audit format OHU/ Audit/ BU (general)/BR (radiology)/BM (laboratory)/ with score of 0 and 1.

Scoring scale:<table><tr><td>0</td><td>Not comply</td></tr><tr><td>1</td><td>Comply, but not complete</td></tr><tr><td>2</td><td>Comply, and complete</td></tr></table>
Control measures:
- Any effort to reduce the risk related to the hazard through various control measures such as elimination, substitution, engineering control (e.g., use automation or LEV), administrative control (e.g., SOP, policies or work rotation) and personal protective equipment (PPE).
- Multiple control measure can be used.

Taken: Action has been carried out as mentioned above.</td></tr>
<tr><td>Criteria</td><td>:</td><td>Inclusion:
Not applicable

Exclusion:
1. Areas under construction.</td></tr>
<tr><td>Numerator</td><td>:</td><td>Number of Safety Audit findings identified during the safety audit whereby control measures had been taken</td></tr>
<tr><td>Denominator</td><td>:</td><td>Total number of Safety Audit findings that had been identified</td></tr>
<tr><td>Formula</td><td>:</td><td>Numerator x 100%
Denominator</td></tr>
<tr><td>Standard</td><td>:</td><td>≥ 90%</td></tr>
<tr><td>Data collection</td><td>:</td><td>1. Where: Data will be collected from the hospital's Safety and Health Committee (JKKK) / OSH unit/ departments
2. Who: Data will be collected by the hospital's Safety and Health Committee (JKKK) / Person in charge of safety (Safety Officer).</td></tr>
</table>

		3. **How to collect**: Data will be collected from the record book/ audit finding report/ minutes regarding safety/ monitoring system by the hospital's Safety and Health Committee (JKKK). 4. **How frequent**: PVF to be sent 6 monthly to Quality Unit of hospital. 5. **Who should verify**: PVF must be verified by Head of Quality Unit, and Hospital Director.
Remarks	:	1. Based on the requirements in Occupational Safety and Health Act 1994 (Act 514), Safety and Health Committee must be established in the hospital. 2. Safety audit needs to be conducted in the hospital. 3. Based on the Safety Audit format given (OHU/ Audit/ BU form), the problem identified will be scored 0 or 1. 4. After the control measure had been acted upon, the Safety and Health Committee will need to discuss the effectiveness of the control measure. 5. Any form of action taken to improve the safety audit finding, for example, a letter to the State Health Office, is accepted as a control measure had been taken. 6. All the findings should be identified and documented during the assessment/ audit. 7. Head of the OSH Unit needs to make sure that the Safety Audit Report is sent to the State *KPAS* officer. 8. Head of the OSH Unit needs to make sure that the HPIA report is sent to *Penyelaras OSH, Bahagian Perubatan, JKN.* 9. Safety Officer of the hospital must be appointed by Hospital Director. 10. The audit findings must be presented to the Hospital Director before submission to the State Health Office. 11. The report of the audit can only be submitted to the State Health Office after validation by the Hospital Director. 12. This is yearly indicator. If the indicator is SIQ for Jan-Jun, SIQ form does not need to be filled. 13. *Pelan Tindakan Unit Keselamatan dan Kesihatan Pekerjaan (UKKP) Program Perubatan*

Indicator 11	:	Percentage of hospital or medical institutional staff undergo health screening for risk of Non-Communicable Disease (NCD)
Element	:	Responsiveness
Rationale	:	National Health Screening Initiative (NHSI) is one of the initiatives under the 3rd Pillar of *Agenda Nasional Malaysia Sihat* (ANMS) which is *Kawalan Kesihatan Kendiri*. Health screening allow early detection of NCD, offering early treatment and ensure productivity among staff.
Definition of Terms	:	**Health screening:** Test/ screening/ assessment to detect early symptoms of chronic disease, facilitating prevention and treatment of disease. **Compulsory test/ screening :** I. Body Mass Index (BMI). II. Waist circumference III. Random Blood Sugar (RBS) or Fasting Blood Sugar (FBS). IV. Blood Cholesterol V. Blood Pressure Measurement VI. Smoking status VII. Mental health screening **Frequency of screening :** Once a year **Risk of Non-Communicable Disease (NCD):** The main risk factor of NCD is unhealthy lifestyle such as unhealthy eating, inactivity, smoking, alcohol consumption and unhealthy stress. **Non-Communicable Disease (NCD):** NCD include hypertension, diabetic, heart disease and hyperlipidaemia **Staff :** Public servant working in hospital or medical institution under Ministry of Health (MOH) **Eligible staff :** Staff with unknown NCD and non-pregnant staff **Under Treatment:** Currently under follow up in hospital or clinic
Criteria	:	**Inclusion:** 1. Staff who is eligible for screening and working in hospital or medical institution as of 1st January of current year. **Exclusion:** 1. Staff who has established NCD such as hypertension, diabetic, heart disease and hyperlipidaemia 2. Pregnant staff

		3. Concession company staff.
Numerator	:	Number of staff working in hospital or medical institution as of 1st January of current year who has undergo screening.
Denominator	:	Number of staff who is eligible for screening and working in hospital or medical institution as of 1st January of current year.
Formula	:	$\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$
Standard	:	≥ 70%
Data collection	:	1. **Where**: Data will be collected from the OSH unit/ respective department. 2. **Who**: Data will be collected by the Officer/ Paramedic/Nurse in-charge (Indicator Coordinator) of the department/unit 3. **How to collect**: Data is suggested to be collected from record or log book. 4. **How frequent**: PVF to be sent 6 monthly to the Quality Unit of the hospital 5. **Who should verify**: PVF must be verified by Head of Quality Unit, and Hospital Director.
Remarks	:	1. This is yearly indicator. If the indicator is SIQ for Jan-Jun, SIQ form does not need to be filled.

Indicator 12	:	Percentage of bills payment within 14 days
Element	:	Fair Financing & Governance
Rationale	:	This refers to the percentage of bill payments settled within 14 days in accordance with Treasury Instruction (AP) 103(a). The Department Head must ensure that all bills are paid promptly within 14 days from the date of receipt, in a complete and accurate manner. More effective monitoring can be implemented at the department level to ensure that all payments are made promptly for better future financial planning.
Definition of Terms	:	**Within 14 days:** Time from all completed documents received until payment **Bills:** Complete documentation of all bills submitted to the financial department.
Criteria	:	**Inclusion:** 1. All bills received by the financial department **Exclusion:** Not applicable
Numerator	:	All bills paid by the financial department within 14 days
Denominator	:	All bills received by the financial department
Formula	:	Numerator x 100% Denominator
Standard	:	≥99%
Data collection	:	1. **Where**: Data will be collected in the administrative unit/financial unit 2. **Who**: Data will be collected by the Officer unit in-charge 3. **How to collect**: Data will be collected from from the registration book or computerized record system 4. **How frequent**: PVF to be sent 6 monthly to the Quality Unit of the hospital 5. **Who should verify**: PVF must be verified by *Penolong Pegawai Tadbir* / Deputy Director (Administration), and Hospital Director.
Remarks	:	1. Surat Pekeliling KSU KKM Bil.11 Tahun 2019

Indicator 13	:	Percentage of assets in the hospital that were registered within 2 weeks
Element	:	Fair Financing & Governance
Rationale	:	To assure the assets attained are safe for usage and is acceptable for maintenance by concession company (ie cost effectiveness of assets management and applied patient safety criteria)
Definition of Terms	:	**Assets:** Hospital properties that were received in the current year. **Registered within 2 weeks:** Upon completing and passing the process of testing and commissioning.
Criteria	:	**Inclusion:** Assets that must be registered are: 1. Asset received through purchase/hire purchase with government funds 2. Asset received as gifts or transfers 3. Asset through legal processes or agreements **Exclusion:** 1. Hospital that operated less 12 month 2. Hospital with big budget for the new block
Numerator	:	Number of assets that were registered within 2 weeks
Denominator	:	Total number of assets that were received in the current year
Formula	:	Numerator x 100% Denominator
Standard	:	100%
Data collection	:	1. **Where**: Data will be collected from the administration unit/ departments. 2. **Who**: Data will be collected by the Officer/ staff of the Administration unit in-charge for assets and inventory. 3. **How to collect**: Data will be collected from the record book/ registration book/ monitoring system in the administrative unit/ department. 4. **How frequent**: PVF to be sent 6 monthly to the Quality Unit of the hospital 5. **Who should verify**: PVF must be verified by *Penolong Pegawai Tadbir* / Deputy Director (Administration) and Hospital Director.
Remarks	:	1. Pekeliling Perbendaharaan - Tatacara Pengurusan Aset Alih Kerajaan

Indicator 14	:	**Percentage of new hospital staffs who attended the Orientation Programme within 3 months of their placement at the Unit or Department in the hospital**
Element	:	**Fair Financing & Governance**
Rationale	:	Orientation Programme is a platform used to provide information in regards to the institution/ hospital to the newcomers (i.e. staffs). This Orientation Program will assist the new staffs to be familiarized with the institution/ hospital, hence, indirectly it will boost their productivity and their self confidence in the new environment.
Definition of Terms	:	**New staffs:** Newly reported personnel (transferred in/ newly appointed/ new placement) to the hospital/ institution. **Orientation Program:** Program organized/ conducted by the Hospital/ Institution comprises of introduction of the system, work process and environment. **3 months:** Period begins from the date of reporting or the date of postponement, whichever is later.
Criteria	:	**Inclusion:** 1. Orientation Programme that was conducted by the Hospital/ Institution **Exclusion:** 1. Staffs whom transferred out/resigned from the hospital ≤ 3 months after reporting for duty. 2. Staffs who underwent training outside <1 year for training purpose
Numerator	:	Number of new staffs who attended the Orientation Program within 3 months of their placement in the hospital
Denominator	:	Total number of new staff reported to the hospital.
Formula	:	Numerator x 100% Denominator
Standard	:	100%
Data collection	:	1.**Where**: Data will be collected in every unit/ department/ wards. 2. **Who**: Data will be collected by the Officer/ staff in-charge for the Orientation Program in each department/ unit/ ward (Administrative unit/ department responsible for the overall data collection) 3. **How to collect**: Data will be collected from the record book/ human resource record.

		4. **How frequent**: PVF to be sent 6 monthly to the Quality Unit of the hospital 5. **Who should verify**: PVF must be verified by Head of Department/Unit, Head of Quality Unit, and Hospital Director.
Remarks	:	1. Staff who reported after 31st March or after 30th September of the current year will be carried to the next term/ year of the denominator which means; • 1st Term Evaluation: For staffs who reported duty on 1st October of the previous year to the 31st March of the current year. • 2nd Term Evaluation: For staffs who reported duty on 1st April of the current year to the 30th September of the current year.

TECHNICAL SPECIFICATIONS
SATELLITE INDICATORS

SATELLITE INDICATORS *** Satellite indicators encompass indicators from State Health Directors or any top management's KPIs that need to be monitored by the hospital director. It is important to note that these indicators will be changed annually.			
NO	INDICATORS	STANDARDS	PAGE
1.	Indeks Prevalen Jangkitan Aliran Darah berkaitan Penjagaan Kesihatan (*bacteraemia*) disebabkan oleh *Multidrug-resistant organisms* (MDROs) tertentu bagi setiap 10,000 kemasukan di hospital KKM. **(State Health Director's KPI 2024)**	≥ 1.00	37
2.	Peratusan Bayi Baru Lahir yang Menjalani Saringan Pendengaran (*Universal Newborn Hearing Screening*) Dalam Tempoh 28 Hari Selepas Kelahiran di Hospital/ Fasiliti Kesihatan Kerajaan. **(State Health Director's KPI 2024)**	≥80 %	43

INDIKATOR 1	:	**Indeks Prevalen Jangkitan Aliran Darah berkaitan Penjagaan Kesihatan (*bacteraemia*) disebabkan oleh *Multidrug-resistant organisms* (MDROs) tertentu bagi setiap 10,000 kemasukan di hospital KKM.** ***Prevalence Index of Healthcare-associated Bloodstream Infections (bacteraemia) due to selected Multidrug-resistant organisms (MDROs) per 10,000 admission in MOH hospitals.*** (State Health Director's KPI 2024)
TAFSIRAN	:	KPI ini adalah untuk memantau prevalen *Healthcare-associated Bloodstream Infection* (HA-BS1) yang disebabkan *oleh multidrug- resistant organisms* (MDROs) yang berlaku di dalam hospital. Pemantauan KPI ini adalah perlu dalam usaha menangani peningkatan kejadian HA-BSI yang disebabkan oleh MDROs. Ia juga bagi memenuhi keperluan *Sustainable Development Goals* (SDG) dan *Malaysian Action Plan on Antimicrobial Resistance* (MyAP-AMR) 2022-2026.
DEFINISI ISTILAH	:	Definisi kes: Definisi **kes MDRO** mesti memenuhi ketiga-tiga kriteria berikut: 1. Isolasi MDRO daripada mana-mana bahagian badan (termasuk *colonizer*). 2. Kes tersebut mestilah kes pesakit dalam. 3. Kes itu mestilah kes "baharu dikenal pasti". Kes "**baharu dikenal pasti**" termasuk: 1. MDRO dikenal pasti buat kali pertama semasa kemasukan ke hospital. 2. Kes yang telah dikenal pasti dengan MDRO (jangkitan / *colonizer*) di fasiliti sendiri tetapi memperoleh 'jangkitan atau *colonizer* baharu' dengan MDRO yang berbeza. *Case definitions:* *MDRO case definition must fulfill all of the following three criteria:* 1. *Isolation of MDRO from any sites of the body (including colonizer).* 2. *The case must be an inpatient case.* 3. *The case must be a "newly identified" case.* *A "newly identified" case includes:* • *MDROs identified for the first time during current hospital admission.*

		Cases that have been identified with MDROs (infection I colonisation) at own facility but acquire 'new infection or colonisation' with different MDROs.
JUSTIFIKASI KPI		*Healthcare-associated infections (HCAIs) are among the most frequent adverse events occurring in the context of health service delivery worldwide. Most of the HCAIs are caused by multidrug-resistant organisms (MDROs) which cause harm to patients, visitors and healthcare workers (HCWs) . It also causes a significant burden on health systems, including the associated increased costs.* *The rise of Healthcare-associated MDROs (HA-MDROs) significantly hampers the efforts to contain antimicrobial resistance (AMR), a global public health threat that continues to pose major health and economic consequences in human and veterinary health. The emergence of drug- resistant pathogens in the community and healthcare settings can affect a considerable portion of the population as once-treatable microorganisms develop resilience against existing treatments. The persistence of AMR exacerbates the duration of illnesses, drives up healthcare expenses and financial burdens, leads to loss of life, and influences trade and global security. Moreover, the absence of suitable measures to curb preventable and manageable diseases is considered a grave and imminent risk to health security. If not promptly dealt with, the global spread of AMR could potentially lead to the breakdown of worldwide healthcare systems.* *In view of the impact caused by Healthcare-associated Bloodstream Infections (HA-BSIs), bloodstream infections due to selected antimicrobial-resistant organisms has been included as one of the indicators under the Sustainable Development Goals (SDG) 3 - Good Health and well-being. In addition, reduction in HCAI is also a part of the core indicators under Strategic Objective 3 - Safety of clinical processes in the Global patient safety action plan 2021- 2030, WHO. Nationally, reducing HA-BSI due to selected antimicrobial-resistant organisms by 30% from the current level by 2026, is one of the outcome indicators of MyAP-AMR 2022-2026 .* *Based on the Ministry of Health (MOH) "Infection Prevention and Control (IPC) and Antimicrobial Resistance (AMR)*

		Annual Report 2022", the majority of HA-MDRO infections were due to bloodstream infection (BSI) which accounts up to 32% of all HCAIs. *Methicillin-Resistant Staphylococcus Aureus (MRSA), Carbapenem- resistant Enterobacterales (CRE) and Acinetobacter baumannii are the most commonly found MDROs in hospitals. Furthermore , MRSA, CRE and Acinetobacter baumannii bacteremia often reflect the state of infection control or antibiotic misuse and overuse in the healthcare facility. Hence, by monitoring HA-BSI, it will indicate the effectiveness of the IPC and Antimicrobial stewardship (AMS) programmes in hospitals.*
KRITERIA	:	**Kriteria Inklusi:** Semua pesakit dalam dengan *Healthcare-associated Bloodstream Infections (Bacteraemia)* disebabkan oleh *Methicillin-resistant Staphylococcus aureus (MRSA*) , *Carbapenem-resistant Enterobacterales (CRE)* dan *Acinetobacter baumannii.* ***Inclusion Criteria:*** *All inpatients with Healthcare-associated Bloodstream Infections (Bacteraemia) due to MRSA, CRE and Acinetobacter baumannii.* **Kriteria Eksklusi:** 1. Kes daripada Jabatan Kecemasan, klinik atau perkhidmatan pesakit luar. 2. Kes-kes yang telah dikenal pasti sebelum ini di hospital/ fasiliti kesihatan yang lain. *3.* Kes yang masuk semula di wad dengan *jangkitan Multidrug resistant organisms* (MDROs) yang sama dalam tempoh satu tahun. 4. Kes saringan KECUALI untuk mengenalpasti kontak kepada pesakit dengan MDRO (kes indeks). *5.* Pesakit dalam dengan *Healthcare-associated Bloodstream Infections (Bacteraemia)* disebabkan selain daripada MRSA, CRE dan *Acinetobacter baumannii.* ***Exclusion Criteria:*** *1. Cases from Department of Emergency, clinic or other outpatient services* *2. Cases previously identified at other acute care facilities / hospitals.* *3. Cases re-admitted with the same MDROs within one year*

		4. *Screening cultures that were done NOT for contacts of index patient with MDROs.* 5. *Inpatients with Healthcare-associated Bloodstream Infections (Bacteraemia) due to other than MRSA, CRE and Acinetobacter baumannii.*
KAEDAH PENGUKURAN	:	**Numerator:** A. Jumlah pesakit dengan jangkitan HA-MRSA bacteraemia bagi tahun berkaitan B. Jumlah pesakit dengan jangkitan HA-CRE bacteraemia bagi tahun berkaitan C. Jumlah pesakit dengan jangkitan HA-Acinetobacter baumannii bacteraemia bagi tahun berkaitan ***Numerator:*** *A. Number of patients with HA-MRSA bacteraemia infection for the relevant year* *B. Number of patients with HA-CRE bacteraemia infection for the relevant year* *C. Number of patients with HA- Acinetobacter baumannii bacteraemia infection for the relevant year* **Denominator:** Jumlah kemasukan pesakit dalam bagi tahun yang berkaitan ***Denominator:*** *Total inpatient admissions for the relevant year* **Kaedah Pengiraan:** Jumlah pesakit dengan jangkitan HA-MRSA **A=** *bacteraemia* bagi tahun berkaitan X 10,000 Jumlah kemasukan pesakit dalam bagi tahun yang berkaitan Di mana (A) merujuk kepada prevalen bacteraemia disebabkan oleh HA-MRSA Jumlah pesakit dengan jangkitan HA-CRE **B=** *bacteraemia* bagi tahun berkaitan X 10,000 Jumlah kemasukan pesakit dalam bagi tahun yang berkaitan Di mana (B) merujuk kepada prevalen bacteraemia disebabkan oleh HA-CRE

Jumlah pesakit dengan jangkitan HA-
C =A.Baumanii *bacteraemia* bagi tahun berkaitan x 10,000
Jumlah kemasukan pesakit dalam bagi tahun yang berkaitan

Di mana (C) merujuk kepada prevalen *bacteraemia* disebabkan oleh HA- A.Baumanii

Calculation method:

A=Number of HA-MRSA bacteraemia in year t x10,000
Total number of patient admission in year t

Where, (A) refers to prevalence of bacteraemia due to HA-MRSA

B=Number of HA-CRE bacteraemia in year t x 10,000
Total number of patient admission in year t

Where, (B) refers to prevalence of bacteraemia due to HA-CRE

$$C = \frac{\text{Number of HA- A. baumannii bacteraemia in year t}}{\text{Total number of patient admission in year t}} \times 10{,}000$$

Where, (C) refers to prevalence of bacteraemia due to HA-A.baumannii

Pengiraan INDEKS:
Indeks A= (100 - (A))/ (100 - 5)
Indeks B = (100 - (B)) / (100 - 5)
Indeks C = (100 - (C)) / (100 - 8)

INDEX Calculation:
Index A= (100- (A)) I (100- 5)
Index B = (100- (B) I (100- 5)
Index C = (100- (C)) I (100- 8)

INDEKS PURATA
= (Indeks A + Indeks B + Indesk C)/ 3

FINAL AVERAGE INDEX
= (Index A + Index B + Index C) I 3

TREN PENCAPAIAN	:	<table><tr><th>Tahun</th><th>Sasaran</th><th>Pencapaian</th></tr><tr><td>2019</td><td>-</td><td>-</td></tr><tr><td>2020</td><td>-</td><td>-</td></tr><tr><td>2021</td><td>-</td><td>-</td></tr><tr><td>2022</td><td>-</td><td>1.03</td></tr><tr><td>2023</td><td>1</td><td>1.03</td></tr></table>
SASARAN 2024	:	≥ 1 Standards bagi setiap sub-indikator: *A. HA-MRSA bacteraemia ≤ 5 bagi setiap 10,000 kemasukan di hospital* *B. HA-CRE bacteraemia ≤ 5 bagi setiap 10,000 kemasukan di hospital* *C. HA-Acinetobacter baumannii bacteraemia ≤ 8 bagi setiap 10,000 kemasukan di hospital* *Standards for each sub-indicator:* *A. HA-MRSA bacteraemia ≤ 5 per 10,000 admissions* *B. HA-CRE bacteraemia ≤ 5 per 10,000 admissions* *HA-Acinetobacter baumannii bacteraemia ≤ 8 per 10,000 admissions*
JUSTIFIKASI SASARAN	:	Sasaran ditetapkan berdasarkan trend pencapaian semasa dan pada tahun 2023
DOKUMEN SOKONGAN	:	1. *MDRO Surveillance Manual, 3rd Edition 2022* 2. *Infection Prevention & Control and Antimicrobial Resistance Containment Program Annual Report* 3. *Sustainable Development Goals* 4. *Global patient safety action plan 2021-2030: towards eliminating avoidable harm in health care. Geneva: World Health Organization; 2021* 5. *Malaysian Action Plan on Antimicrobial Resistance (MyAP-AMR) 2022-2026*
FREKUENSI PELAPORAN DATA	:	Tahunan
CATATAN	:	<u>Pencapaian</u> Pencapaian bagi Januari sehingga Disember bagi Jangkitan Aliran Darah berkaitan Penjagaan Kesihatan (bacteraemia) disebabkan oleh Multidrug-resistant organisms (MDROs) tertentu bagi setiap 10,000 kemasukan di hospital KKM adalah

		menggunakan data Januari sehingga Jun yang telah diverifikasi oleh Unit Kawalan Infeksi, Cawangan Kualiti Penjagaan Perubatan, Bahagian Perkembangan Perubatan, KKM. ***Performance*** *The performance for January to December for Bloodstream Infections related to healthcare-associated infections (bacteraemia) caused by specific Multidrug-resistant organisms* (MDROs) *per 10,000 hospital admissions in the Ministry of Health hospitals is based on January to June data verified by the Infection Control Unit, Medical Care Quality Branch, Medical Development Division, Ministry of Health.*

INDIKATOR 2	:	**Peratusan Bayi Baru Lahir yang Menjalani Saringan Pendengaran (*Universal Newborn Hearing Screening*) Dalam Tempoh 28 Hari Selepas Kelahiran di Hospital/ Fasiliti Kesihatan Kerajaan.** (State Health Director's KPI 2024)
TAFSIRAN	:	KPI ini mengukur tahap kadar liputan (*coverage rate*) saringan pendengaran bagi bayi yang baru lahir di 48 hospital yang telah memulakan program saringan pendengaran bayi (UNHS). Secara amnya, semua bayi baru lahir perlu menjalani saringan pendengaran sebelum berumur 1 bulan supaya pengesanan masalah pendengaran dan intervensi awal dapat dilakukan. Mengikut *Joint Committee on Infant Hearing* (JCIH) 2019, penanda aras bagi Program Saringan Pendengaran Bayi ialah peratusan bayi yang disaring sebelum berumur 1 bulan mencapai 95%. Di dalam mesyuarat khas Ketua Pengarah Kesihatan Kementerian Kesihatan Malaysia Bil 2/2022 pada 29 April 2022, YBhg. Tan Sri KPK mengarahkan untuk melaksanakan program Saringan Pendengaran Bayi (UNHS) di semua hospital KKM sebagaimana yang disasarkan oleh YB Menteri Kesihatan iaitu meningkatkan kadar Saringan Pendengaran Bayi dari 62% kepada 95%. Justeru beliau mengarahkan penglibatan Pengarah Kesihatan Negeri dan pemantauan dari Pengarah Perkembangan Perubatan serta Pengarah Pembangunan Kesihatan Keluarga bagi memastikan program ini berjaya dan akhirnya dapat meningkatkan kadar saringan pendengaran bayi kepada 95%. Sasaran jangka Panjang ialah semua bayi baru lahir di Malaysia akan menjalani ujian saringan pendengaran.
DEFINISI ISTILAH	:	<u>Saringan Pendengaran Bayi</u> Kaedah saringan secara objektif bagi mengenalpasti bayi yang mungkin mempunyai masalah pendengaran dan memerlukan ujian pendengaran lanjutan atau diagnostik. Terdapat dua jenis ujian saringan pendengaran bayi iaitu *Automated Auditory Brainstem Response* (AABR) dan *Otoacoustic Emission* (OAE). Ujian ini boleh dijalankan oleh Petugas Saringan Pendengaran Bayi yang terlatih daripada anggota kesihatan paramedic. <u>Bayi Baru Lahir (Neonate)</u> Bayi yang baru lahir sehingga berumur 28 hari.
JUSTIFIKASI KPI		Prevalens masalah pendengaran dalam kalangan bayi adalah sebanyak 4 dalam 1000 kelahiran di Malaysia (JKTA, 2020).

		Masalah pemdengaran dalam kalangan bayi merupakan *neurodevelopmental emergency* yang boleh menjejaskan pemerolehan bahasa dan pertuturan, perkembangan kognitif, interaksi sosial, literasi dan pencapaian akademik sekiranya tidak dikesan seawal mungkin untuk diberi intervensi. Matlamat saringan pendengaran bayi adalah menjalankan saringan pendengaran sebelum bayi berusia 1 bulan, diagnosis sebelum 3 bulan dan intervensi diberikan sebelum 6 bulan.
KRITERIA	:	**Kriteria Inklusi:** 1. Sebanyak 48 hospital yang terlibat dalam program UNHS (rujuk lampiran). 2. Semua bayi yang dilahirkan hidup di hospital merujuk kepada daftar kelahiran yang didaftarkan dan dilaporkan oleh Jabatan Obstetrik dan Ginekologi. **Kriteria Eksklusi:** 1. Bayi yang lahir hidup di hospital lain (bukan di 48 hospital). 2. Bayi yang tidak boleh disaring sebelum/ pada usia 28 hari disebabkan komplikasi atau rawatan perubatan. 3. Bayi yang tidak boleh disaring disebabkan telah meninggal dunia sebelum/ pada usia 28 hari. 4. Bayi yang ditahan di NICU/ SCN sehingga melebihi usia 28 hari dan belum menjalani saringan pendengaran.
KAEDAH PENGUKURAN	:	**Numerator:** Jumlah bayi lahir hidup di hospital dan menjalani saringan pendengaran sebelum/ pada umur 28 hari. **Denominator:** Jumlah kelahiran hidup di hospital **Kaedah Pengiraan:** Jumlah bayi yang menjalani saringan pendengaran sebelum/ pada umur 28 hari _____ x 100 % Jumlah kelahiran hidup di hospital
TREN PENCAPAIAN	:	70%
SASARAN 2024	:	Kadar liputan bagi program saringan pendengaran bayi adalah ≥ 80%.
JUSTIFIKASI SASARAN	:	Pengesanan masalah pendengaran dalam kalangan bayi masih rendah kerana kadar liputan saringan pendengaran yang masih tidak mencapai sasaran ≥95% seperti yang ditetapkan oleh *Joint Committee on Infant Hearing (JCIH)*.

		Program saringan pendengaran yang mencapai sasaran JCIH dijangka dapat mengenalpasti bayi dan kanak-kanak bermasalah pendengaran dengan lebih banyak dan intervensi awal dapat diberikan seterusnya membantu mereka mencapai potensi diri sepanjang hayat mereka.
DOKUMEN SOKONGAN	:	*Guideline for neonatal hearing screening MOH* (2022) *JCIH Position Statement 2019*. Senarai 48 hospital yang menjalankan program saringan pendengaran bayi (UNHS).
FREKUENSI PELAPORAN DATA	:	6 Bulanan Pelaporan Januari-Jun menggunakan kohort data Disember 2023 sehingga Mei 2024. Pelaporan Januari-Disember menggunakan kohort data Disember 2023 sehingga November 2024
CATATAN	:	**Senarai 48 Hospital Yang Terlibat Dalam Program UNHS**

Negeri	Hospital	Negeri	Hospital
Perlis	1. H. Tuanku Fauziah	Melaka	25. H. Melaka
Kedah	2. H. Sultanah Bahiyah	Johor	26. H. Pakar Sultanah Fatimah
	3. H. Sultan Abdul Halim		27. Hospital Segamat
	4. H. Kulim		28. Hospital Enche' Besar Hajjah Khalsom
	5. H. Baling		29. Hospital Sultanah Nora Ismail
	6. H. Sultanah Maliha		30. Hospital Sultanah Aminah
P. Pinang	7. H. Pulau Pinang		31. Hospital Sultan Ismail
	8. H. Balik Pulau	Pahang	32. H. Tengku Ampuan Afzan

	9. H. Seberang Jaya		33. H. Sultan Haji Ahmad Shah
	10. H. Bukit Mertajam		34. H. Kuala Lipis
Perak	11. H. Raja Permaisuri Bainun	Terengganu	35. H. Sultanah Nur Zahirah
	12. H. Taiping		36. H. Kemaman
	13. H. Teluk Intan	Kelantan	37. H. Raja Perempuan Zainab Ii
Selangor	14. H. Ampang		38. H. Pasir Mas
	15. H. Selayang		39. H. Tanah Merah
	16. H. Sungai Buloh		40. H. Sultan Ismail Petra
	17. H. Tengku Ampuan Rahimah		41. H. Machang
	18. H. Shah Alam		42. Hospital Gua Musang
	19. H. Serdang	Sabah	43. H. Wanita Dan Kanak Kanak Sabah
Wilayah	20. H. Tunku Azizah		44. H. Tawau
	21. H. Putrajaya		45. H. Duchess Of Kent
Negeri Sembilan	22. H. Tuanku Ja'afar	Sarawak	46. H. Sibu
	23. H. Rembau		47. H. Umum Sarawak
	24. H. Tuanku Ampuan Najihah		48. H. Miri