

# PERIOPERATIVE MORTALITY REVIEW (POMR) 2022

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MEDICAL CARE QUALITY SECTION  
MEDICAL DEVELOPMENT DIVISION MOH



# CLINICAL AUDIT DEFINITION

“A quality improvement process that seeks to improve patient care and outcomes through a systematic review of care against explicit criteria and the implementation of change. Aspects of the structure, processes and outcomes of care are selected and systematically evaluated against explicit criteria. Where indicated changes are implemented at an individual, team or service level and further monitoring is used to confirm improvement in healthcare delivery.”

Principles for Best Practice in Clinical Audit, National Institute of Clinical Excellence (NICE), 2002

# TYPES OF CLINICAL AUDIT

## STANDARD BASED AUDIT

A cycle which involved defining standards, collecting data to measure current practice against those standards and implementing any changes deemed necessary.

## ADVERSE OCCURRENCE SCREENING AND CRITICAL INCIDENT MONITORING

Peer review cases which have caused concern / unexpected outcome.  
The multi-disciplinary team discusses individual anonymous cases to reflect upon the way the team functioned and to learn for the future.

## PEER REVIEW

An assessment of the quality of care to improve clinical care. Individual cases are discussed by peers to determine whether the best care was given, include interesting or unusual. Mortality and morbidity review is a specific peer review process that looks at specific, non-random cases with adverse outcomes such as death or injury to see what lessons can be drawn.

## PATIENT AND SERVICE USER SURVEYS

In terms of clinical audit, surveys can be a useful tool where measuring compliance against your criteria requires information that can only be obtained from the patient and or the service user.

# GLOBAL SURGERY 2030: KEY MESSAGES

## (The Lancet April 2015)



- 5 BILLION people lack access to safe, affordable surgical & anaesthesia care when needed.
- 143 MILLION additional procedures needed annually to fill unmet need.
- 33 MILLION USD per year face catastrophic expense after surgical care.
- Investment in surgical & anaesthesia care saves lives and promotes economic growth
- Surgery is an indivisible, indispensable part of healthcare

# LANCET METRICS

Category	Indicator	Definition	Target by 2030
Timeliness Capability	2-hour access to 3 Bellwether procedures	%age of population <2 hours from surgical facility	Min. 80% coverage
Capability Capacity	SAO provider density	No of SAO providers per 100,000 pop'n	20 per 100,000 pop'n
Capacity	Surgical volume	No of procedures per 100,000 pop'n	5000 per 100,000 population
Safety Quality	Perioperative mortality rate	No of in-hospital deaths per total surgical procedures	100% tracking
Affordability	Protection against impoverishing expenditure	%age of population protected	100% protection
Affordability	Protection against catastrophic expenditure	%age of population protected	100% protection

# WORLDBANK INDICATORS

## 2h Access

Access to timely  
essential surgery

## Surgical Volume

Procedures done in  
an operating room  
per 100,000

## Impoverishing Expenditure

Protection against  
impoverishing  
expenditure

## SAO/100,000

Specialist surgical  
workforce density

## POMR

All-cause death prior  
to discharge patients

## Catastrophic Expenditure

Protection against  
catastrophic  
expenditure

# DEFINITION

Any death occurring within the total length of hospital stay within the same admission of a surgical or gynaecological procedure done under general or regional anaesthesia including death in operation theatre (OT) before induction of anesthesia.

# PRINCIPLES

POMR

71 HOSPITALS

1 INSTITUTE



**CONFIDENTIAL**

- Reports and data

**ANONYMITY**

- Doctors reporting deaths
- Patients involved
- Doctors involved

**OBJECTIVE**

- Assessment
- Case review

**EVALUATION**

- Quality of care

**PROFESSIONAL  
STANDARD**

- CPG
- Clinical Pathway
- Audit



# OBJECTIVES

Highest possible standard quality of care

1

Awareness & Understanding



3

Objective and independent assessment

assessment is to **INCREASE** quality.



5

Assist in legal requirement (potential Medicolegal)



2

Identify issues and problems



4

Identify avoidable factor and risk



4

Regulate plan of action



# DIRECTIVES



**KETUA PENGARAH KESIHATAN MALAYSIA  
DIRECTOR GENERAL OF HEALTH MALAYSIA**

Kementerian Kesihatan Malaysia  
Aras 12, Blok E7, Kompleks E,  
Pusat Pentadbiran Kerajaan Persekutuan  
62590 PUTRAJAYA

Tel.: 03-8000 8000  
Faks: 03-8889 5542  
Email: anhisham@moh.gov.my

Ruj. Tuan:  
Ruj. Kami: KKM.600-28/2/2 Jld. 4 (15)  
Tarikh: 13 Julai 2022

**SEPERTI SENARAI EDARAN**

*YBhg. Dato' Indera/ Datuk/ Dato'/ Datin/ Tuan/ Puan,*

**PELAKSANAAN GARIS PANDUAN IMPLEMENTATION OF  
PERIOPERATIVE MORTALITY REVIEW (POMR) (3rd EDITION) 2022**

Adalah saya dengan segala hormatnya merujuk kepada perkara di atas.

2. Sebagaimana maklum, kadar *perioperative mortality* dan kadar pelaporan *perioperative mortality* telah digariskan sebagai salah satu daripada enam indikator bagi inisiatif *Global Surgery 2030* dimana menjelang tahun 2030 kadar pelaporan POMR disasarkan pada kadar 100%. Sehingga Jun 2022, POMR sebagai salah satu aktiviti audit klinikal kebangsaan telah pun dilaksanakan di 72 buah hospital berpakar Kementerian Kesihatan Malaysia (KKM). Ia bertujuan untuk memastikan kualiti perkhidmatan dan penjagaan perawatan pesakit yang menjalani pembedahan adalah mengikut tatacara yang telah digariskan oleh KKM. Di samping itu, ia juga dapat mengenal pasti kekangan yang dihadapi dalam penjagaan pesakit pembedahan agar langkah-langkah

Bersama-sama ini dilampirkan sesalinan Garis Panduan *Implementation of Perioperative Mortality Review (POMR) (3rd Edition) 2022* dan Garis Panduan Pengisian Borang POMR 2022 (Edisi ke-2) buat pihak YBhg. Dato' Indera/ Datuk/ Dato'/ Datin/ Tuan/ Puan. Untuk maklumat lanjut boleh berhubung dengan Sekretariat POMR, Unit Audit Klinikal, Cawangan Kualiti Penjagaan Perubatan, Bahagian Pembangunan Perubatan (Dr. Faizah Muhamad Zin/ Dr. Puteri Fajariah Mohd Ghazali/ Dr. Zawariah Brukan Ali) di talian 03-88831210/ 03-88831523; atau e-mel: cau.mdd@moh.gov.my. Kerjasama daripada pihak YBhg. Dato' Indera/ Datuk/ Dato'/ Datin/ Tuan/ Puan amatlah dihargai dan diucapkan dengan ucapan ribuan terima kasih.

Terima kasih.

**AWASAN KEMAKMURAN BERSAMA 2030'**

**'PERKHIDMAT UNTUK NEGARA'**

*Yang Kiblas,*

DATO' DR. ASMAYANI BT KHALIB  
(MNC : 27022)  
Timbalan Ketua Pengarah Kesihatan (Perubatan)  
Kementerian Kesihatan Malaysia

**DATO' SRI DATO' SERI DR. NOOR HISHAM BIN ABDULLAH**



**GUIDELINE**  
IMPLEMENTATION OF  
PERIOPERATIVE MORTALITY REVIEW (POMR)  
IN THE MINISTRY OF HEALTH MALAYSIA  
(3<sup>rd</sup> Edition)

**2022**

CLINICAL AUDIT UNIT  
MEDICAL CARE QUALITY SECTION  
MEDICAL DEVELOPMENT DIVISION  
MINISTRY OF HEALTH MALAYSIA



**GARIS PANDUAN**  
**PENGISIAN BORANG VPOMR**  
(Edisi ke-2)

**2022**

UNIT AUDIT KLINIKAL  
CAWANGAN KUALITI PENJAGAAN PERUBATAN  
BAHAGIAN PERKEMBANGAN PERUBATAN  
KEMENTERIAN KESIHATAN MALAYSIA

# INCLUSION CRITERIA

## 1.1 Inclusion Criteria

- i. All perioperative deaths (pre-, intra- and post-operative).
- ii. Patient had surgery performed elsewhere or during the previous admission and was readmitted (related to previous procedure) within 30 days of surgery and died.
- iii. Referred case whereby patient had surgery elsewhere (at the referral centre) and died at the primary hospital (the referring hospital), i.e., operated on and sent back to the referring hospital.

# EXCLUSION CRITERIA

## 1.2 Exclusion Criteria

- i. Diagnostic or therapeutic procedures carried out by physician and other non- surgeons
- ii. Radiological procedures performed solely by the Radiologist without a surgeon's involvement
- iii. Endoscopy (e.g., OGDS/ Colonoscopy/ ERCP) performed under sedation or local anaesthesia (LA)
- iv. Surgery performed outside OT complex, e.g., Procedure Room
- v. Obstetric deaths

# ANAESTHESIA REPORT IS REQUIRED

For Death Category 1 or 2

Death in the Intensive Care Unit (ICU)/ High Dependency Ward (HDW)

Death in the Operation Theatre (OT)/ Recovery Room/ Lock Bay/ Air Lock

Report which is requested by the Surgeon

# DEATH CATEGORY

CATEGORY		DESCRIPTION
Category 1		Anaesthesia is a major contributing factor in death.
Category 2		Deaths caused by anaesthesia and surgical factors.
Category 3		Surgery is a major contributing factor in death.
Category 4	Category 4A	High-risk mortality for which treatment does not meet the standards (substandard).
	Category 4B	High-risk mortality for which the treatment meets the standard.
Category 5		Unexpected mortality in which patient is expected to full recovery (e.g., AMI, PE).
Category 6		The cause of death is uncertain due to lack of information regarding the case.
Category 7		Death caused by the pre-admission factor of the ward, for which the treatment provided does not meet the standards (substandard).



# DEPARTMENT CODE

Code		Discipline / Fraternity
01 General Surgery	<b>a</b>	General Surgery
	<b>b</b>	Breast & Endocrine
	<b>c</b>	Vascular
	<b>d</b>	Plastic and Reconstructive
	<b>e</b>	Hepatobiliary
	<b>f</b>	Colorectal
	<b>g</b>	Upper Gastrointestinal
	<b>h</b>	Thoracic
<b>02</b>	Paediatric Surgery	
<b>03</b>	Cardiothoracic Surgery	
<b>04</b>	Urology	
<b>05</b>	Gynaecology	
<b>07</b>	Orthopaedic	
<b>08</b>	Ophthalmology	
<b>09</b>	Otorhinolaryngology	
<b>10</b>	Neurosurgery	
<b>17</b>	Burn and Trauma	
<b>18</b>	Others	



# COMMITTEE

The implementation of POMR requires commitment from the State Health Department (SHD) and the specialist hospitals (including cluster hospitals) under their purview.

Every SHD is required to form a POMR Committee at the state and hospital level (for cluster hospitals, only the lead hospital and cluster hospitals with resident specialists)

# COMMITTEE (NATIONAL)

## 3.1 MOH level (National):

Advisor 1	Deputy Director General of Health (Medical)
Advisor 2	Director of Medical Development Division
Chairman	Senior Consultant (Surgeon/ Anaesthetist)
Deputy Chairman 1	Senior Consultant Surgeon (Surgical Based)
Deputy Chairman 2	Senior Consultant Anaesthetist
Secretariat	Deputy Director, Medical Care Quality Section
	Clinical Audit Unit, Medical Care Quality Section
Assessor	Senior Consultant Surgeons
	Senior Consultant Anaesthetists
*Representative (by invitation, no appointment)	Medical Services Development Section
	Medicolegal Section
	Specialist Hospital

- Appointment is by the Advisor. Appointment tenure is 3 years. Refer Appendix 1.

# COMMITTEE (STATE)

## 3.2 State level:

Advisor	State Health Director
Chairman	Deputy State Health Director (Medical)
Deputy Chairman 1	State Chief Surgeon (Surgical Based)
Deputy Chairman 2	State Chief Anaesthetist
Secretary	State POMR Coordinator
Member	Surgeons (Surgical based)/ National Assessor
	Anaesthetist/ National Assessor
	State Quality Officer
	State Matron/ Sister/ Nurse
	State Assistant Medical Officer
	Hospital's POMR Coordinator

- Appointment is by the Advisor. Appointment tenure is 3 years.

# COMMITTEE (HOSPITAL)

## 3.3 Hospital level:

Chairman	Hospital Director
Deputy Chairman 1	HOD/ Senior Consultant Surgeon (Surgical Based Discipline)
Deputy Chairman 2	*HOD/ Senior Consultant Anaesthetist
Secretary	Hospital POMR Coordinator
Member	Hospital Deputy Director (Surgical Directorate)
	*HOD Surgical Based Disciplines
	Surgeons (Surgical based)/ National Assessor
	Anaesthetist/ National Assessor
	Hospital Quality Officer
	Ward Matron/ Sister/ Nurse
	Assistant Medical Officer

- Appointment is by the Chairman. Appointment tenure is 3 years.
- \*HOD = Head of Department

# NATIONAL COMMITTEE (ASSESSORS)

## 5. POMR ASSESSOR

### 5.1 Background

- 5.1.1 Assessors are selected based on their background of expertise in the field and sense of Commitment to the program.
- 5.1.2 The appointment of an Assessor is through the nomination and approval of the Head of Service of the respective clinical fraternity and POMR Chairman.
- 5.1.3 Head of Service of the Surgical based discipline and Anesthesiology will automatically be appointed as an Assessor.

# NATIONAL COMMITTEE (ASSESSORS)

## 5.2 Term of Reference

- 5.2.1 POMR Assessor must be a practicing clinician of various levels of experience and expertise in the Ministry.
- 5.2.2 The appointment is based on the Head of Service recommendation.
- 5.2.3 The appointment is exclusive to the holder and no representative is allowed to attend the POMR business meeting.
- 5.2.4 The appointment is valid in accordance with the date stated in the appointment letter or until the date of the retirement of an Assessor.
- 5.2.5 Failure to attend three (3) consecutive meetings may result in discontinuation of the appointment as an assessor.
- 5.2.6 All travel expenses (e.g., transportation fares/ mileage claim, lodging food and beverages) are under the responsibility of the respective department (PTJ) of the assessor.

# NATIONAL COMMITTEE (ASSESSORS)

## **5.3 Roles and Responsibilities**

- 5.3.1 Assessors must agree to the POMR Assessor's Code of Conduct and Ethics (Appendix 1) of the POMR Committee.
- 5.3.2 Assessors are expected to review POMR cases. They are expected to make objective decisions on the quality of care based on evidence-based medicine, scientific data as well as local circumstances which may be peculiar to the hospital. Assessment of cases should not be delegated to other staff in the department, but it does not preclude the reviewer from obtaining views from other specialists.
- 5.3.3 Assessors are expected to prepare case summaries and reviews of selected cases, so that they may be published in the POMR bulletin on a regular basis. Such commentaries should be based on current accepted practice and evidence-based; references should preferably be quoted. Such an approach will enhance the scientific validity of the review.

# NATIONAL COMMITTEE (ASSESSORS)

- 5.3.4 Assessors will be expected to prepare POMR reports.
- 5.3.5 Assessors are encouraged to publish or present POMR papers at local and international meetings or conferences.
- 5.3.6 Assessors will be expected to assist the hospital nursing coordinators at their respective hospitals to ensure the smooth process of POMR reporting.
- 5.3.7 Assessors are expected to play a proactive role in liaising with the hospital directors and other clinicians to ensure the recommendations of the POMR can be implemented.
- 5.3.8 Assessors are expected to aid in education, training and awareness of POMR activities at the hospital, state or national level.
- 5.3.9 Assessors are expected to participate and contribute in POMR activities such as Conference, Workshop, Audit and Roadshow.



# FORMS

Lock

**PERI-OPERATIVE MORTALITY REVIEW  
MINISTRY OF HEALTH MALAYSIA  
(ANAESTHESIA FORM. V5)**

Print

## INTRODUCTION

This form is to be filled for all deaths occurring within total length of hospital stay following a surgical or gynecological procedure performed under general or regional anesthesia. Also included are death in operation theatre prior to the induction of anaesthesia.

## CASE PROFILE

----- POMR COORDINATOR -----

Name of Hospital

ICD Code

Date of Birth

Date of Mortality

Date of admission

Ethnicity

# FORMS

Lock

**PERI-OPERATIVE MORTALITY REVIEW  
MINISTRY OF HEALTH MALAYSIA  
(SURGICAL FORM. V5)**

Print

## INTRODUCTION

This form is to be filled for all deaths occurring within total length of hospital stay following a surgical or gynecological procedure performed under general or regional anesthesia. Also included are death in operation theatre prior to the induction of anaesthesia.

## CASE PROFILE

----- POMR COORDINATOR -----

Name of Hospital

Case Code

Date of Birth

Date of Mortality

Date of admission

Ethnicity

# FORMS

TO BE FILLED IN BY POMR ASSESSORS ONLY

## Committee Decision



Preventable Death



Non Preventable Death



## Assessors comment

# HOW?



# WHAT WE DO...

1

COMMITTEE



2

EDUCATION &  
TRAINING



3

VPOMR  
REPORTING



4

ANALYSIS



5

POMR REPORTS/  
BULLETIN



# GAPS

CONTINUITY OF CARE

SYSTEMATIC DATA COLLECTION

DATA SCARCITY

POMR REPORT/ BULLETIN  
DISSEMINATION



TRAINING & COMPETENCIES

SAFETY AND QUALITY OF CARE

DATA MANAGEMENT & ANALYSIS

ACTION ON REPORT AND  
RECOMMENDATIONS

# LAMAN SESAWANG

GARIS PANDUAN & ARAHAN SURAT : <https://www.moh.gov.my/>

The screenshot shows the homepage of the Ministry of Health Malaysia. At the top, there is a navigation bar with links for HALAMAN UTAMA, INFO KORPORAT, DIREKTORI, PENERBITAN, KERJAYA, and ARKIB. A search bar is also present. The main content area features a large banner for a survey titled "KAJI SELIDIK WORK CULTURE IMPROVEMENT" running from May 2022 to June 2022. Below the banner, there are several service categories: SWASTA and WARGA KKM. A vertical menu on the left lists various services such as "Penerbitan Utama KKM", "Garis Panduan", "Rujukan", "Laporan", "Pengurusan Anti Rasuah", "MaHTAS", "Organ Tissue and Cell Transplantation", "Program Bebas Kesakitan", "Panduan Amalan Klinikal (CPG)", "Perkhidmatan Rawatan Harian", "Perkhidmatan Pembedahan", "Pengurusan Aset Alih Dan Stor", and "Buletin". At the bottom, there are several quick links: "MAKLUMAT TERKINI", "TENDER/SEBUTHARGA", "PEKELILING, AKTA DAN POLISI", "STATISTIK KESIHATAN", "PERKHIDMATAN ONLINE", "Perioperative Mortality Review (POMR)", "Twitter KKM", and "Portal COVID-19". A red arrow points to the "Perioperative Mortality Review (POMR)" link.

# LAMAN SESAWANG

BULLETIN/ REPORTS: [www.medicaldev.moh.gov.my/ckpp](http://www.medicaldev.moh.gov.my/ckpp)

The screenshot shows a web browser window with the URL [medicaldev.moh.gov.my/ckpp/](http://medicaldev.moh.gov.my/ckpp/). The page features a dark navigation bar with the following menu items: LAMAN UTAMA, INFO CKPP, UNIT CKPP, DOKUMEN & MEDIA, and HUBUNGI KAMI. A search bar is also present. The main content area displays the logo of the Department of Quality Assurance in Health Services (Cawangan Kualiti Penjagaan Perubatan) and the Ministry of Health Malaysia (Kementerian Kesihatan Malaysia). A dropdown menu is open under 'UNIT CKPP', listing several units: Unit Akreditasi & Piawaian, Unit Surveilan Pencapaian Klinikal, Unit Keselamatan Pesakit, Unit Kawalan Infeksi, Unit Keselamatan & Kesihatan Pekerjaan, Unit Audit Klinikal, and Unit Nilai & Etika Perubatan. The 'KAJIAN MORTALITI' link is highlighted with a red dashed box and a red arrow pointing to it. Below the main content, the text 'CAWANGAN KUALITI PENJAGAAN PERUBATAN' is visible. At the bottom, there are links for 'PENCAPAIAN', 'UNIT KAWALAN INFEKSI', and 'AKREDITASI & PIAWAIAN'.

Unit Akreditasi & Piawaian >

Unit Surveilan Pencapaian Klinikal >

Unit Keselamatan Pesakit

Unit Kawalan Infeksi >

Unit Keselamatan & Kesihatan Pekerjaan

Unit Audit Klinikal

Unit Nilai & Etika Perubatan

KAJIAN MORTALITI

PAIN FREE HOSPITAL

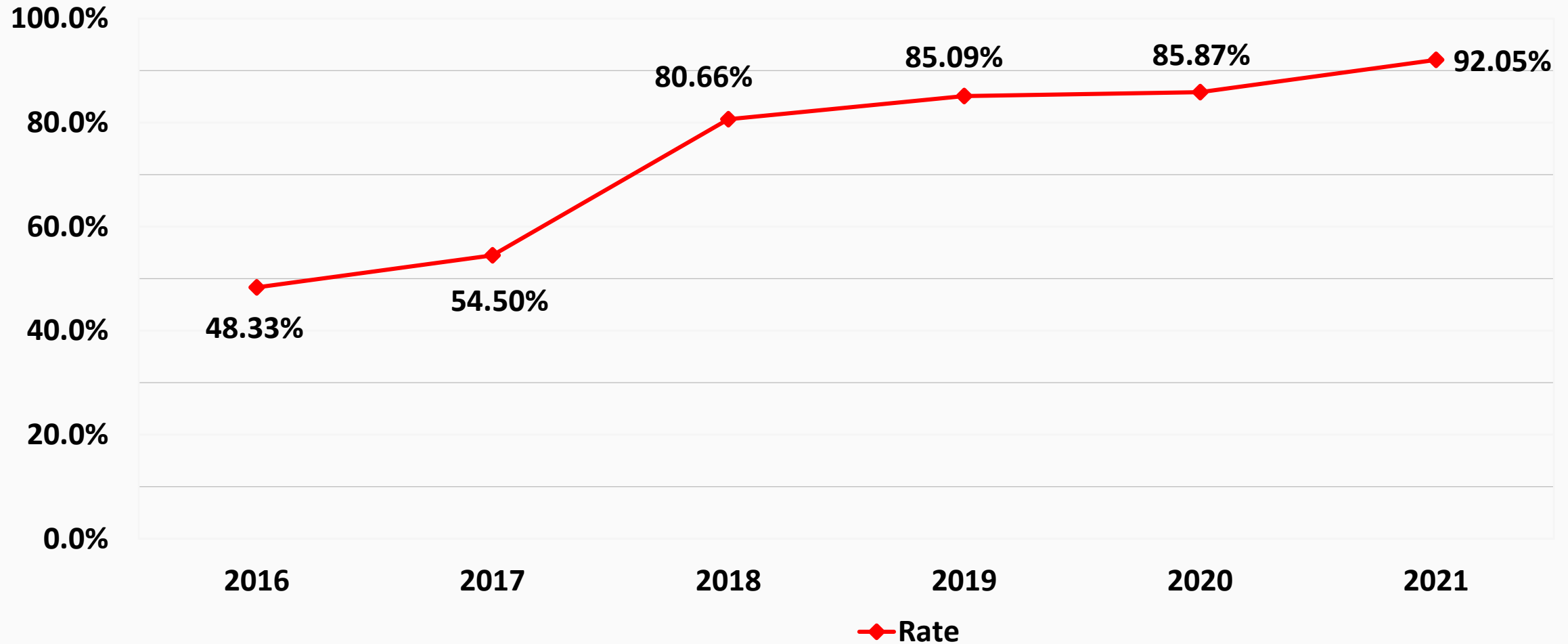
CAWANGAN KUALITI PENJAGAAN PERUBATAN

[PENCAPAIAN](#) [UNIT KAWALAN INFEKSI](#) [AKREDITASI & PIAWAIAN](#)

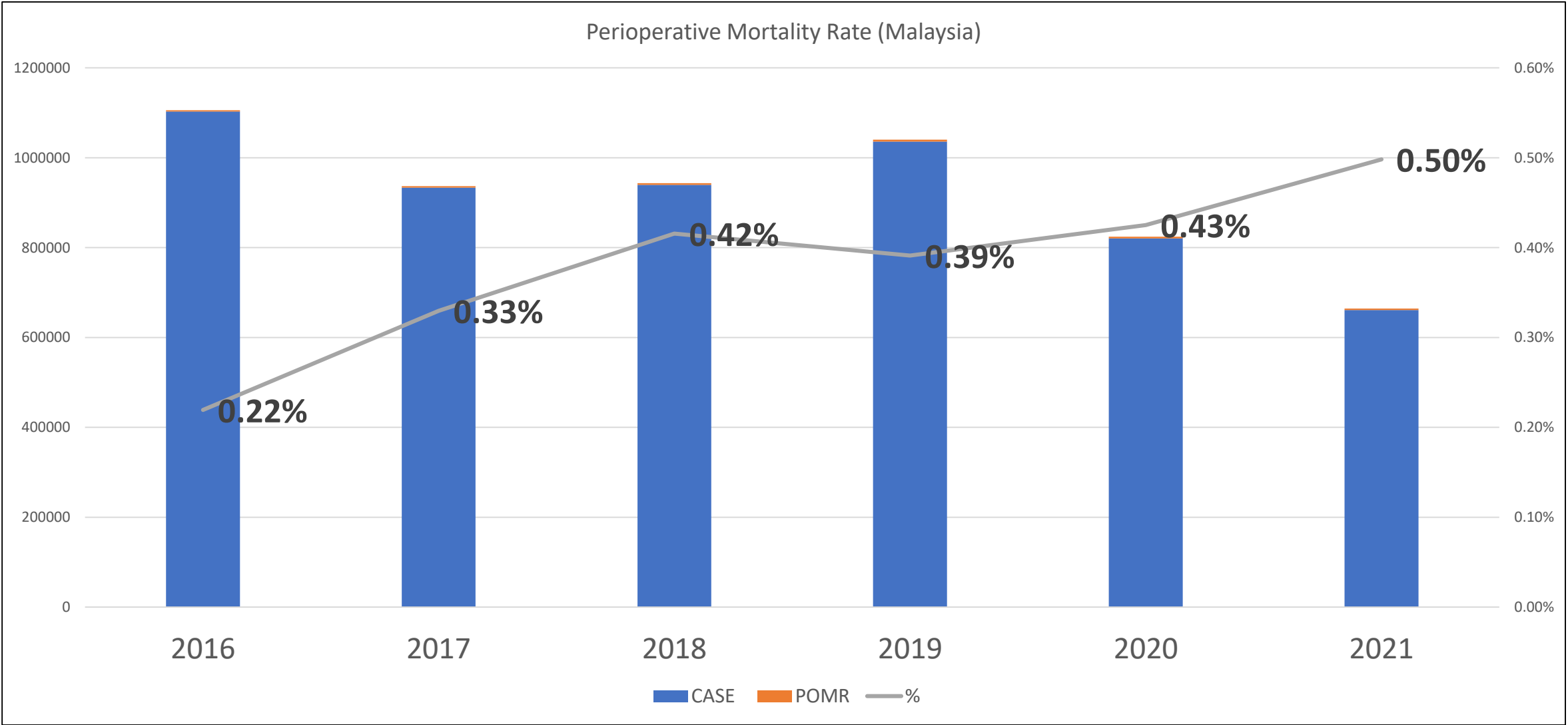


# NATIONAL POMR REPORTING RATE 2016 – 2021

## MALAYSIA



# NATIONAL PERIOPERATIVE MORTALITY RATE 2016 – 2021



Source: Clinical Audit Unit, MOH

THANK YOU