

# **GUIDELINE**

# IMPLEMENTATION OF PERIOPERATIVE MORTALITY REVIEW (POMR) IN THE MINISTRY OF HEALTH MALAYSIA (3rd Edition)

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

#### 1. INTRODUCTION

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

Perioperative Mortality Review (POMR) is a form of clinical audit and a confidential enquiry into perioperative deaths at the Ministry of Health (MOH) Hospital. The review will be carried out in accordance with the following principles:

- i. Confidentiality of reports and data.
- ii. Anonymity of parties involved (i.e., doctors, patients, and staff)
- iii. Objectivity in assessment and the review of cases.
- iv. Evaluation of the quality of care.
- v. Based on a professional standard and evidence-based standard.

#### 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.

#### 1.2 Exclusion Criteria

- 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

# 1.3 Death Category

All perioperative mortality needs to be reported and below is the Category of Death:

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 the 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).

# **1.4 POMR Case Requiring Anaesthetist Report**

- 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.
- Upon request by the Surgeon involved.

# 1.5 Departmental Code (Based on Discipline/ Fraternity)

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

# 1.6 Type of Error in POMR Reporting

#### 1.6.1 Major Error

Form with major error will be rejected and needs to be resubmitted by the coordinator within one (1) week. Criteria of major error include:

- No / Incomplete narrative
- No Death Category by HOD
- No HOD Signature
- Form submitted in a scanned form
- Form submitted in a wrong format

#### 1.6.2 Minor Error

Form with minor error will not be rejected but the coordinator will be informed by the Secretariat. Criteria of minor error include:

- Unlock form
- No Coordinator's signature
- Wrong information (i.e., mortality date, department coding, incomplete case code)
- Documentation of confidentiality items (i.e., patient's name, doctor's name, relative's name)

#### 2. OBJECTIVES

# 2.1 General Objective

To ensure highest standard of care is being practiced improving quality of healthcare delivery.

#### 2.2 Specific Objectives

- 2.2.1 To create awareness and better understanding regarding the importance of POMR reporting.
- 2.2.2 To identify issues and problems faced by hospitals in providing quality care in operative field.
- 2.2.3 To ensure an objective and independent assessment by local team (operating and administration) and national assessors.
- 2.2.4 To identify avoidable factors contributing to surgical mortality through risk management analysis and audit.
- 2.2.5 To assist in legal requirement aspect of potential medicolegal cases.
- 2.2.6 To regulate plan of action (e.g., amendment of Clinical Practice Guideline (CPG) etc.) based on the review.

#### 3. POMR 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). For the formation of the POMR Committee, representatives as per below:

## 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	Medical Services Development Section		
(by invitation, no	Medicolegal Section		
appointment)	Specialist Hospital		

<sup>-</sup> Appointment is by the Advisor. Appointment tenure is 3 years.

#### 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.

#### 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

#### 4. ROLES AND RESPONSIBILITIES

#### 4.1 Advisor

Act as a mentor and provides guidance on matters pertinent to POMR and its recommendations under the purview of the respective Committee.

#### 4.2 Chairman

- 4.2.1 Provides leadership and governance of the respective Committee to create the conditions for overall effectiveness and ensures that the Committee discusses all key and appropriate issues in a timely manner.
- 4.2.2 Promotes effective relationships and open communication and creates an environment that allows constructive debates and challenges pertaining to POMR related issues.
- 4.2.3 Ensures the strategies and recommendations agreed by the Committee are effectively implemented.
- 4.2.4 Ensures the attendance of the Committee member is in accordance with the Committee requirement.

- 4.2.5 To recommend an annual schedule of the date, time and location of Committee meetings. Frequency of the meeting:
  - 4.2.5.1 At National Level: Minimum of three (3) times a year.
  - 4.2.5.2 At State Level: Minimum of two (2) times a year.
  - 4.2.5.3 At Hospital Level: Minimum of two (2) times a year.
- 4.2.6 To review and validate minutes of Committee meetings.
- 4.2.7 To call for a special meeting of the Committee where appropriate.
- 4.2.8 To call for a meeting of any POMR deaths at the hospital level especially that involve potential medicolegal issues and whenever if the needs arise and discussion of cases (where applicable).
- 4.2.9 Hospital Director, in addition:
  - 4.2.9.1 Must receive the previous month's QA/POM-2 form before the 21st of every month.
  - 4.2.9.2 Ensure the QA/POM-2 is sent by the Hospital POMR Coordinator on or before the 22nd of every month:
    - a. To MOH Secretariat.
    - b. To State POMR Committee
    - c. To implement (where applicable), the POMR recommendations and circular from MOH at the hospital level.

#### 4.3 Deputy Chairman 1 & 2

- 4.3.1 The main duty of the Deputy Chairman is to step in as acting Chairman of the Committee, should this become necessary.
- 4.3.2 The Deputy Chairman should therefore possess the relevant competencies and interests to take over the Chairman role. Under normal circumstances, the Deputy Chairman may simply act as an ordinary board member.
- 4.3.3 Deputy Chairman 1 & 2 are interchangeable between Surgeon and Anaesthetist based on the needs of the Committee.

#### 4.4 Secretary

- 4.4.1 The Secretary must be the State/ Hospital POMR Coordinator who may be a Medical Doctor, nurse (i.e., Matron/ Sister), or Assistant Medical Officer, depends on the suitability of the Committee.
- 4.4.2 The role of the Secretary is to support the Committee in ensuring the smooth running of the meeting and work closely with the respective Quality Unit at the state/ hospital level.
- 4.4.3 The Secretary is responsible for ensuring meetings are effectively organized and minuted.
- 4.4.4 The Secretary is responsible in maintaining effective administration records including call letter of the meeting, minutes of the meeting and the attendance list.
- 4.4.5 At the hospital level, Hospital POMR Coordinator:
  - 4.4.5.1 Receives the previous month's QA/POM-2 form by 21st of every month from respective surgical departments in the hospital.
  - 4.4.5.2 Ensure the QA/POM-2 is sent to MOH Secretariat and State POMR Committee by 22nd of every month.
  - 4.4.5.3 Ensure the v-POMR (Surgical Form V5 and Anaesthesia Form V5) Reporting and Parallel Reporting System are complete and being filled accordingly (Please refer to *Garis Panduan Pengisian Borang POMR* 2022).

#### 4.5 Member

- 4.5.1 At the State Level
  - 4.5.1.1 Provides technical input in terms of implementation and recommendations, which were addressed at the National POMR Committee Meeting, to be executed at the hospital level.
  - 4.5.1.2 Failure to attend two (2) consecutive meeting may result in discontinuation of the appointment as a member of the State Committee, within the discretion of the Chairman.
  - 4.5.1.3 State Quality Officer, in addition:

- a. Aid in the implementation of POMR at the state level including training especially in the aspect of POMR reporting at the State Level.
- b. To work closely with the State POMR Coordinator.

#### 4.5.2 At the Hospital Level

- 4.5.2.1 Provides technical input in terms of implementation and recommendations, which were addressed at the National/ State POMR Committee Meeting.
- 4.5.2.2 Failure to attend two (2) consecutive meeting may result in discontinuation of the appointment as a member of the State Committee, within the discretion of the Chairman.
- 4.5.2.3 Head of Department/ Specialists, in addition:
  - a. Ensure that the staff understand the significance of POMR and encourage active participation and involvement by conducting CME/ training at the Department level.
  - b. Ensure the punctuality of the reports, reporting rates and the quality of reports.
  - c. POMR reports that were written by Medical Officer is counter-checked by Specialist or Head of Department.
  - d. Ensure adherence to the MOH circular concerning of POMR-related issues.

# 4.5.2.4 Sister in Charge of Ward, in addition:

- a. Document any perioperative mortality death in ward by filling up the QA/POM-1 form.
- b. Submit QA/POM-1 form to POMR Hospital Coordinator by the 1st working day of the following month (even if there is no POMR death).

# 4.5.2.5 Hospital Quality Officer, in addition:

- a. Aid in the implementation of POMR at the hospital level including training especially in the quality aspect of the POMR reporting.
- b. To work closely with the Hospital POMR Coordinator.

#### 4.6 POMR Secretariat

- 4.6.1 Receive the completed QA/POM-2 and v-POMR forms from the POMR Coordinators.
- 4.6.2 Assist in the analysis of POMR findings
- 4.6.3 Publish the 2-year (Biennial) POMR Reports as well as publishing the yearly POMR Bulletin.
- 4.6.4 Maintain a record of all perioperative deaths from the Parallel reporting System.
- 4.6.5 Provides briefing and training on POMR to all hospitals involved.
- 4.6.6 Provide continuous training at National Level.
- 4.6.7 Ensuring the execution of the POMR agenda (e.g., meetings, conference, etc.) and the actions required based on recommendations at the National Level.
- 4.6.8 Ensuring the smooth running of the POMR program.
- 4.6.9 Responsible for the appointment of Assessors.
- 4.6.10 Aid in the implementation of additional initiative by the clinical fraternity involved.

### 4.7 Representative

Officer who will be invited to attend the meeting by 'invitation only' on time-to-time basis, based on the needs of the National Committee. Does not require any appointment by the Advisor.

#### 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.

#### **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.

#### 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.
- 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.

# PERIOPERATIVE MORTALITY REVIEW (POMR) COMMITTEE

#### ASSESSOR'S CODE OF CONDUCT AND ETHICS

Assessors are representatives of the Ministry of Health Malaysia in the performance of their functions as stipulated in the Guideline. You are thus duty bound to observe the following in carrying out your duties to the best of your abilities:

- 1. Being aware of the privileges extended to them.
- 2. Responding matters of confidentiality.
- 3. Being impartial, fair, and objective in decision making process.
- 4. Avoiding any situations where conflict of interests may arise.
- 5. Maintaining professional standards of conduct at all times.
- 6. Observing the Guideline principles of the POMR.

The Assessors have a very important role in improving the quality of healthcare services provided in Malaysia and being appointed as an assessor is indeed a great honor upon the person conferred this position.

Adherence to this code of conduct is vital to the integrity of the POMR in discharging its duty in a confidential and non-punitive manner for the betterment of the quality of care. Any breach of this Code of Conduct may result in the withdrawal of the appointment of the offending assessors.

"I hereby solemnly declare that I will, to the best of my abilities, abide by the Code of Conduct of an Assessor of Perioperative Mortality Review."

Signature	
Name/ Official Name Stamp: (I/C Number:	 Chairman of the POMR Committee
Position and Grade: Email address:	
Date:	 Date:

#### NATIONAL POMR COMMITTEE

(2022 - 2023)

Chairman : Dato' Dr. Fitjerald Henry

Pakar Perunding Kanan Pembedahan Kolorektal

Hospital Selayang

Deputy Chairman : Dato' Dr. Norly binti Ismail

Pakar Perunding Kanan Anestesiologi Kardiotorasik

& Perfusi

Hospital Serdang

Member/ Assessor :

#### **GENERAL SURGERY**

Dato' Seri Dr. Mohamed Yusof bin Hj. Abdul Wahab Pakar Perunding Kanan Pembedahan Am Hospital Tengku Ampuan Rahimah, Klang

Dato' Dr. Jiffre bin Din Pakar Perunding Kanan Pembedahan Am Hospital Tengku Ampuan Afzan, Kuantan

Dato' Dr. Ahmad Shanwani bin Mohamed Sidek Pakar Perunding Kanan Pembedahan Am Hospital Raja Perempuan Zainab II, Kota Bahru

Dr. Hanif bin Hussein Pakar Perunding Kanan Pembedahan Vaskular Hospital Kuala Lumpur

Dr. Manisekar a/l K. Subramaniam Pakar Perunding Kanan Pembedahan Hepatobiliari Hospital Sultanah Bahiyah, Alor Setar

Dr. Narasimman a/l Sathiamurthy Pakar Perunding Kanan Pembedahan Torasik Hospital Kuala Lumpur Dr. Hans Alexander Mahendran Pakar Perunding Kanan Pembedahan (Upper GI) Hospital Sultanah Aminah, Johor Bahru

Dr. Rizal Imran bin Alwi Pakar Perunding Kanan Pembedahan Trauma Hospital Sultanah Aminah, Johor Bahru

Dr. Chuah Jitt Aun Pakar Perunding Kanan Pembedahan Am Hospital Queen Elizabeth, Kota Kinabalu

Dr. Nik Azim bin Nik Abdullah Pakar Perunding Kanan Pembedahan Am Hospital Umum Sarawak, Kuching

Dr. Nor Aishah binti Mohd Arif Pakar Perunding Kanan Pembedahan Am Hospital Ampang

Dr. Ramesh a/l Thangaratnam Pakar Perunding Kanan Pembedahan Am Hospital Serdang

Dr. Tuan Nur' Azmah binti Tuan Mat Pakar Perunding Kanan Pembedahan Am Hospital Sultanah Aminah, Johor Bahru

Dr. Rashide bin Yaacob Pakar Perunding Kanan Pembedahan Am Hospital Sultan Abdul Halim, Sungai Petani

Dr. Yap Lee Ming Pakar Perunding Kanan Pembedahan Am Hospital Melaka

Dr. Hussain bin Mohamad Pakar Perunding Kanan Pembedahan Am Hospital Sultanah Nur Zahirah, Kuala Terengganu Dr. Azhan Bin Yusoff Pakar Perunding Kanan Pembedahan Am Hospital Raja Perempuan Zainab II, Kota Bahru

#### PAEDIATRIC SURGERY

Dr. Mohd Yusof bin Abdullah Pakar Perunding Kanan Pembedahan Pediatrik Hospital Tunku Azizah, Kuala Lumpur

Dr. Mohd Tarmizi bin Md Nor Pakar Perunding Kanan Pembedahan Pediatrik Hospital Raja Perempuan Zainab II, Kota Bahru

Dr. Nurdaliza binti Mohd Badarudin Pakar Perunding Kanan Pembedahan Pediatrik Hospital Raja Permaisuri Bainun, Ipoh

Dr. Mohd Fauzi bin Sharudin Pakar Perunding Kanan Pembedahan Pediatrik Hospital Sultanah Aminah, Johor Bahru

Dr. Hazlina binti Mohd Khalid Pakar Perunding Kanan Pembedahan Pediatrik Hospital Wanita dan Kanak-kanak Likas

#### CARDIOTHORACIC SURGERY

Dato' Dr. Basheer Ahamed bin Abdul Kareem Pakar Perunding Kanan Pembedahan Kardiotorasik Hospital Pulau Pinang

Dato' Dr. Mohammed Arif bin Muhammad Nor Pakar Perunding Kanan Pembedahan Kardiotorasik Hospital Serdang

Dato' Dr. Faisal bin Ismail Pakar Perunding Kanan Pembedahan Kardiotorasik Hospital Tengku Ampuan Afzan, Kuantan Dr. Jong Yuan Hsun Pakar Perunding Kanan Pembedahan Kardiotorasik Pusat Jantung Sarawak

Dr. Sotheenathan a/l Krishinan Pakar Perunding Kanan Pembedahan Kardiotorasik Hospital Pulau Pinang

#### **OBSTRETRIC & GYNAECOLOGY**

Datuk Dr. Soon Ruey Pakar Perunding Kanan Obstetrik & Ginekologi Hospital Wanita dan Kanak-kanak Likas

Dr. Wan Ahmad Hazim bin Wan Ghazali Pakar Perunding Kanan Obstetrik & Ginekologi Hospital Putrajaya

Dr. Krishna Kumar a/l Hari Krishna Pakar Perunding Kanan Obstetrik & Ginekologi Hospital Tuanku Ja'afar, Seremban

Dr. Sharmini Diana a/p Parampalam Pakar Perunding Kanan Obstetrik & Ginekologi Hospital Pulau Pinang

Dr. Vicknesh a/l Visvalingam Pakar Perunding Kanan Obstetrik & Ginekologi Hospital Selayang

Dr. Daniel Roza bin Duski Pakar Perunding Kanan Obstetrik & Ginekologi Hospital Sultan Ismail, Johor Bahru

#### **ORTHOPAEDIC**

Dr. Saadon bin Ibrahim Pakar Perunding Kanan Ortopedik Hospital Sultan Ismail, Johor Bahru Dr. Azuhairy bin Azid Pakar Perunding Kanan Ortopedik Hospital Pulau Pinang

Dr. Mohamad Fauzlie bin Yusof Pakar Perunding Kanan Ortopedik Hospital Melaka

Dr. Nur Rahimah binti Abdul Rahim Pakar Perunding Kanan Ortopedik Hospital Shah Alam

Dr. Teh Hak Lian Pakar Perunding Ortopedik Hospital Sultanah Bahiyah, Alor Setar

Dr. Shukur bin Ahmad Pakar Perunding Kanan Ortopedik Hospital Teluk Intan

Dr. Jasvindar Singh a/l Jagindar Singh Pakar Perunding Kanan Ortopedik Hospital Taiping

Dr. Zamri bin Ab Rahman Pakar Perunding Kanan Ortopedik Hospital Tuanku Ja'afar, Seremban

Dr. Muhamad Rashidee bin Ab Rashid Pakar Perunding Kanan Ortopedik Hospital Raja Perempuan Zainab II, Kota Bahru

Dr. Aaron Gerarde Paul Pakar Perunding Kanan Ortopedik Hospital Queen Elizabeth, Kota Kinabalu

#### OTORHINOLARYNGOLOGY

Dr. Zulkifli bin Yusof Pakar Perunding Kanan Otorinolaringologi Hospital Sultanah Bahiyah, Alor Setar

Dr. Zakinah binti Yahaya Pakar Perunding Kanan Pembedahan Otorinolaringologi Hospital Kuala Lumpur

Dr. Hashimah binti Ismail Pakar Perunding Kanan Pembedahan Otorinolaringologi Hospital Raja Perempuan Zainab II, Kota Bahru

Dr. Halimuddin bin Sawali Pakar Perunding Kanan Pembedahan Otorinolaringologi Hospital Queen Elizabeth, Kota Kinabalu

#### **NEUROSURGERY**

Dato' Dr. Azmin Kass bin Rosman Pakar Perunding Kanan Neurosurgeri Hospital Sungai Buloh

Dr. Azmi bin Alias Pakar Perunding Kanan Neurosurgeri Hospital Kuala Lumpur

Dr. Lim Swee San Pakar Perunding Kanan Neurosurgeri Hospital Umum Sarawak, Kuching

Dr. Mohd Sofan bin Zenian Pakar Perunding Kanan Neurosurgeri Hospital Queen Elizabeth, Kota Kinabalu

Dr. Mohd Azhari bin Omar Pakar Perunding Kanan Neurosurgeri Hospital Raja Permaisuri Bainun, Ipoh Dr. Mohammad Azman bin Mohammad Raffiq Pakar Perunding Kanan Neurosurgeri Hospital Pulau Pinang

Dr. Chan Chee Kong Pakar Perunding Kanan Neurosurgeri Hospital Sultanah Aminah, Johor Bahru

Dr. Mohd Aidil bin Mohd Nor Pakar Perunding Kanan Neurosurgeri Hospital Tengku Ampuan Afzan, Kuantan

Dr. Liew Boon Seng Pakar Perunding Kanan Neurosurgeri Hospital Sungai Buloh

#### PLASTIC AND RECONSTRUCTIVE SURGERY

Dr. Salmi binti Mohamed Sukur Pakar Perunding Kanan Pembedahan Plastik & Rekonstruktif Hospital Kuala Lumpur ANAESTHESIOLOGY

Dato' Dr. Mortadza bin Ramli Pakar Perunding Kanan Anestesiologi Hospital Sultanah Bahiyah, Alor Setar

Dato' Dr. Yong Chow Yen Pakar Perunding Kanan Anestesiologi Hospital Pulau Pinang

Datin Dr. Tan Li Kuan Pakar Perunding Kanan Anestesiologi Hospital Wanita dan Kanak-kanak Likas

Datin Dr. Vanitha a/p M. Sivanaser Pakar Perunding Kanan Anestesiologi Hospital Kuala Lumpur Datin Dr. Usha a/p V.R. Nair Pakar Perunding Kanan Anestesiologi Hospital Raja Permaisuri Bainun, Ipoh

Dr. Zalina binti Abdul Razak Pakar Perunding Kanan Anestesiologi Hospital Kuala Lumpur

Dr. Hamidah binti Ismail Pakar Perunding Kanan Anestesiologi Hospital Tunku Azizah, Kuala Lumpur

Dr. Intan Zarina binti Fakir Mohamed Pakar Perunding Kanan Anestesiologi Hospital Tunku Azizah, Kuala Lumpur

Dr. Azrin bin Mohd Azidin Pakar Perunding Kanan Anestesiologi Hospital Kuala Lumpur

Dr. Mohd Rohisham bin Zainal Abidin Pakar Perunding Kanan Anestesiologi Hospital Tengku Ampuan Rahimah, Klang

Dr. Anita binti Alias Pakar Perunding Kanan Anestesiologi Hospital Tuanku Ja'afar, Seremban

Dr. Hasmizy bin Muhammad Pakar Perunding Kanan Anestesiologi Kardiotorasik & Perfusi Pusat Jantung Sarawak

Dr. Ismail Tan bin Mohd Ali Tan Pakar Perunding Kanan Anestesiologi (Intensivis) Hospital Kuala Lumpur

Dr. Mazelan bin Omar Pakar Perunding Kanan Anestesiologi Hospital Raja Perempuan Zainab II, Kota Bahru Dr. Ruwaida binti Isa Pakar Perunding Kanan Anestesiologi Hospital Tunku Azizah, Kuala Lumpur

Dr. Tuan Norizan binti Tuan Mahmud Pakar Perunding Kanan Anesthesiologi Hospital Sultanah Nur Zahirah, Kuala Terengganu

Dr. Zainal Abidin bin Othman Pakar Perunding Kanan Anestesiologi Hospital Melaka

Dr. Khadijah binti Zulkifli Pakar Perunding Kanan Anestesiologi Hospital Sultan Abdul Halim, Sungai Petani

Dr. Mohamad Hanafi bin Mohd Pakar Perunding Kanan Anestesiologi Kardiotorasik & Perfusi Hospital Pulau Pinang

Dr. Normah binti Abdullah Pakar Perunding Kanan Anestesiologi Hospital Slim River

Dr. Mohd Sany bin Shoib Pakar Perunding Kanan Anestesiologi Hospital Ampang

Dr. Wan Marzuki bin Wan Ramli Pakar Perunding Kanan Anestesiologi Hospital Tengku Ampuan Afzan, Kuantan

Dr. Teo Shu Ching Pakar Perunding Kanan Anestesiologi Hospital Umum Sarawak

Dr. Mustaffa Kamil bin Zainal Abidin Pakar Perunding Kanan Anestesiologi Hospital Umum Sarawak Dr. Shazharn bin Muhammad Zain Pakar Perunding Kanan Anestesiologi Hospital Queen Elizabeth, Kota Kinabalu

Dr. Anuwar Ariff bin Mohamed Omar Pakar Perunding Kanan Anestesiologi Hospital Melaka

#### SEKRETARIAT POMR KKM

Dr. Nor Hayati binti Ibrahim Timbalan Pengarah Cawangan Kualiti Penjagaan Perubatan Bahagian Perkembangan Perubatan

Dr. Faizah binti Muhamad Zin Ketua Unit Audit Klinikal Cawangan Kualiti Penjagaan Perubatan Bahagian Perkembangan Perubatan

Dr. Puteri Fajariah binti Megat Mohd Ghazali Ketua Penolong Pengarah Kanan Unit Audit Klinikal Cawangan Kualiti Penjagaan Perubatan Bahagian Perkembangan Perubatan

Dr. Zawaniah binti Brukan Ali Ketua Penolong Pengarah Kanan Unit Audit Klinikal Cawangan Kualiti Penjagaan Perubatan Bahagian Perkembangan Perubatan

Dr. Herbert Leslie (Latihan Sangkut) Ketua Penolong Pengarah Unit Audit Klinikal Cawangan Kualiti Penjagaan Perubatan Bahagian Perkembangan Perubatan Dr. Muhamad Azrin bin Omar @ Nawi Timbalan Pengarah 2 Institut Kanser Negara

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