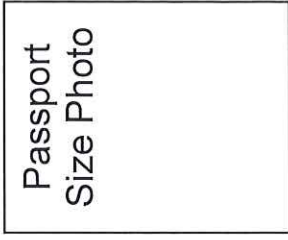


**CREDENTIALING & PRIVILEGING OF
ASSISTANT MEDICAL OFFICER
MINISTRY OF HEALTH MALAYSIA**

CARDIOLOGY

CLINICAL PRACTICE RECORD

PARTICULARS OF APPLICANT



- 1. NAME:
- 2. IC NO:
- 3. POSITION AND GRADE:.....
- 4. WORKING ADDRESS:
.....
.....
.....
- 5. DATE OF JOINING CARDIOLOGY UNIT:
- 6. DURATION PREVIOUS EXPERIENCE:
- 7. YEAR OF PASSING ADVANCED DIPLOMA IN CARDIOVASCULAR HEALTHCARE(TECHNOLOGY) :
- 8. TRAINING FOR CREDENTIALING:
DATE START:..... DATE END:

I hereby confirm that the above information is true.

Signature: **Date:**

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GENERAL INFORMATION

1. Assistants Medical Officer working in accredited Cardiology facility should be credentialed for core procedures in cardiology.
 2. Credentialing can be applied by Assistants Medical Officer with recognize Advanced Diploma in Cardiovascular Healthcare (Technology) or from other accredited college/center and currently working in accredited facility .
 3. Proficiency of staff performance for required skills must be assessed based on observation by the assessor. An assessor must be:
 - 3.1. Assistant Medical Officer with recognised Advanced Diploma in Cardiovascular Healthcare (Technology) from accredited college.
 - 3.2. Credentialed Assistants Medical Officer working in accredited facility must:-
 - 3.2.1. complete log book within 6 month
 - 3.2.2. Acknowledged by Head of Department
 4. Assistants Medical Officer must apply for credentialing using AHP1, AHP2 form and log book
 5. The validity of the credential is 3 years after certification and need to be renewed
- 1. OBJECTIVES**
- 1.1. Provide a process of training, evaluation and assessment of competency of AHP in performing specific tasks safely in the PHCS environment.
 - 1.2. Identification of AHP whom have achieved the necessary competency to perform specific tasks safely in the PHCS environment.
 - 1.3. Creation of AHP whom can role models and subject matter experts to other staff in the service.

Operational Definition

1. Accredited Invasive and Non Invasive Cardiology services and facility -
 - a. Must have Cardiologist /Physician
 - b. Must have Assistants Medical Officer with Advanced Diploma in Cardiovascular Healthcare (Technology) / Post Basic Coronary Care Nursing from accredited college
 - c. Minimum of 6 months service in the center
 - d. Private centre must be licensed
2. Accredited college
 - a. College with Malaysian Qualification Agency (MQA) certification

**Professional Statement
Assistant Medical Officer (AMO)**

Description of Profession

Assistant Medical Officer in cardiology field is an allied health profession which specifically focuses in diagnosis and treatment of patients with cardiac and vascular diseases. At International level they are well known as a cardiovascular technologist (CVT). Dealing with specific high-technology equipment and at the direction and supervise under a qualified Physician or Cardiologist. Assistant Medical Officer in cardiology service performs specific cardiovascular examination and procedures to create an easily definable data, from which correct anatomic and physiologic diagnosis may be developed for each individual patient. The Assistant Medical Officer in cardiology therefore is a highly specialized diagnostician of the various presentations of cardiovascular diseases.

The scope of duty for Assistant Medical Officer in cardiology encompasses four sub speciality areas which include:-

1) Non-Invasive cardiovascular

Assistant Medical Officer in Cardiology service independently performs the following non-invasive cardiovascular investigation procedures include, but are not limited to:-

- 1.1 Electrocardiography (ECG)**
- 1.2 Exercise Stress Testing (Treadmill)**
- 1.3 Echocardiography**
 - 1.3.1 Basic Echocardiography (2D Echo)
 - 1.3.2 Advanced Echocardiography (3D,4D, TDI, Strain)
 - 1.3.3 Portable Echocardiography
- 1.4 Transoesophageal Echocardiography - assisting Physician/Cardiologist**
- 1.5 Stress Echocardiography (Pharmacological/ exercise)**
- 1.6 Ambulatory Electrocardiography Monitoring :-**
 - 1.6.1 Holter Monitoring : Hook-up & Analyze
 - 1.6.2 Rhythm Card : Hook-up & Analyze
 - 1.6.3 Loop Electrocardiography Monitoring/ King of Heart
 - 1.6.4 Ambulatory Patch Monitoring (Leadless/ wireless)
 - 1.6.5 Kardia Mobile Monitoring

1.7 Ambulatory Blood Pressure monitoring (ABPM)

1.8 Pacemaker programming (interrogation)

1.9 Tilt Table Testing

1.10 Attending emergency resuscitation procedure whenever needed

2) Invasive cardiovascular

In an invasive cardiovascular laboratory (ICL), Assistant Medical Officer in Cardiology have collaboration with other allied professionals such as Cardiac Angiographers and Nurses in supporting Cardiologists to perform the diagnostic and interventional cardiac catheterization procedures. The roles of Assistant Medical Officers in invasive cardiac labs include, but are not limited to:-

2.1. Monitor patient's haemodynamic & vital signs

2.2 Transducer Set-up & Calibration

2.3 Advanced Haemodynamic Intracardiac Monitoring and Computer Assisted Recording & Analysis :-

2.3.1 Diagnostic Angiography (Coronary/peripheral Angiogram)

2.3.2 Catheterization (Left & Right Heart Catheterization)

2.3.3 Interventional (Percutaneous Coronary Intervention, Device Closure, Percutaneous Peripheral Angioplasty, Structural Heart Intervention)

2.4 Assisting various Adjunctive invasive procedure in Cardiovascular interventions such as (but not limited to):-

2.4.1 Intra Aortic Balloon Pump (IABP)

2.4.2 Intravascular Ultrasound (IVUS)

2.4.3 Optical Coherence Tomography (OCT)

2.4.4 Resting Flow Reserve(RFR), Fractional Flow Reserve(FFR/iFR)

2.4.5 Transesophageal Echocardiogram (TOE)

2.4.6 Preparing and assisting the Rotational Atherectomy (PTCRA) procedure

2.4.7 Other New CardioVascular Technology Advances

2.5 Performing Transthoracic Echocardiogram

2.6 Analyzing blood sample for blood gas analysis (ABG) and Intracardiac shunt study

2.7 Monitoring Activated Clotting Time Test

2.8 Actively attending Emergency resuscitation procedure when necessary

3). Cardiac Rhythm Management & Electrophysiology

The duties of the Assistant Medical Officers in this subspecialty area are divided into invasive electrophysiology laboratory and non-invasive electrophysiology laboratory. Their roles in invasive electrophysiology laboratory include, but are not limited to:-

3.1. Cardiac Rhythm Management/ Cardiac Pacing

- 3.1.1 Assisting and support in Permanent Pacemaker Implantation
- 3.1.2 Assisting and support in Implantable Cardiac Defibrillator (ICD) Implantation
- 3.1.3 Assisting and support in Biventricular Pacemaker Implantation
- 3.1.4 Assisting and support in Temporary Pacemaker Implantation and programming

3.2. Electrophysiology

- 3.2.1 Assisting and support in Invasive Electrophysiology Study (EPS)
- 3.2.2 Assisting and support in Radiofrequency Ablation (RFA)
- 3.3 Conducting the follow-up clinic for interrogation, programming and reprogramming of the implantable devices such as:-
 - 3.3.1 Pacemaker (PPM)
 - 3.3.2 Implantable Cardioverter defibrillator (ICD)
 - 3.3.3 Biventricular pacemaker (CRTd/ CRTp)

3.4 Emergency resuscitation procedure when necessary

**POLICY AND PROCEDURES ON TRAINING,
CREDENTIALING AND PRIVILEGING
OF ASSISTANT MEDICAL OFFICER IN CARDIOLOGY KKM**

This will be developed logbook divided into two section A & section B whereby Section A will cover for all Non-Invasive procedures while Section B focus on Invasive Cath. Lab Procedures. All Practical / Hand-on training must be document in this logbook and Local Supervisor will make an evaluation at the end of each procedures.

Minimum requirement for each procedures state as below :

**SECTION A : Non-Invasive Cath.
Laboratory (NICL)**

PROCEDURES	Observer	Assisting		Performing (1st Operator)
		(2nd Operator)		
Transthoracic Echocardiogram (TTE)	50 Cases	50 Cases		100 Cases
Treadmill Exercise Stress Test (EST)	25 Cases	25 Cases		50 Cases
24 Hours Holter Monitoring	25 Cases	25 Cases		50 Cases
Stress Echocardiogram (Pharmacological/ Exercise)	5 Cases	5 Cases		50 Cases
OPTIONAL PROCEDURES:		5 Cases		0 Cases
I. 3D Echocardiogram				
II. Portable Echocardiogram				
III. Transeosophageal Echocardiogram (TOE)				
IV. Loop Event Recorder				
V. Tilt Table Test				

SECTION B : Invasive Cath. Laboratory (ICL)

- This section including of Haemodynamic monitoring & assisting cardiologist in related procedures

PROCEDURES	Observer	Assisting (2nd Operator)		Performing (1st Operator)
Haemodynamic Monitoring (Coronary Angiogram)	25 Cases	25 Cases	100 Cases	
Haemodynamic Monitoring (Percutaneous Coronary Intervention)	25 Cases	25 Cases	100 Cases	
Haemodynamic Monitoring (Right Heart Catheterization)	5 Cases	5 Cases	10 Cases	
Haemodynamic Monitoring (Coronary Angiogram)	5 Cases	5 Cases	10 Cases	
Haemodynamic Monitoring (Percutaneous Coronary Intervention)	5 Cases	5 Cases	10 Cases	
Haemodynamic Monitoring (Right Heart Catheterization)	5 Cases	5 Cases	10 Cases	
Optional Procedures :				
I. Device Closure				
II. Percutaneous Transluminal Angioplasty (PTA)				
III. Structural Heart Intervention				
IV. Rotational Atherectomy				

SECTION C: Cardiac Rhythm Management & Electrophysiology Study

PROCEDURES	Observer	Assisting (2nd Operator)	Performing (1st Operator)
Cardiac Rhythm Management/ Cardiac Pacing	25 Cases	25 Cases	50 Cases
Conducting the follow-up clinic for interrogation, programming and reprogramming of the implantable devices	25 Cases	25 Cases	50 Cases
Electrophysiology Study (EPS)	5 Cases	5 Cases	10 Cases
Radiofrequency Ablation (RFA)	5 Cases	5 Cases	10 Cases
Cryo Ablation	5 Cases	5 Cases	10 Cases

**PROGRESS REPORT
CLINICAL PRACTICE RECORD**

Name :

No. I/C :

Month :

*Note: This summary clinical practice record has to be prepared at the end of each month.

**POLICY AND PROCEDURES ON TRAINING,
CREDENTIALING AND PRIVILEGING
OF ASSISTANT MEDICAL OFFICER IN CARDIOLOGY KKM**

This well being developed logbook divided into three section A, B & C:

- Section A: Non-Invasive Cardiac Laboratory procedures
- Section B: Invasive Cardiac Laboratory Procedures
- Section C: Cardiac Rhythm Management & Electrophysiology Study

All Practical / Hands-on training must be document in this logbook and Local Supervisor will make an evaluation at the end of each procedure. Minimum requirement for each procedure state as below:

SECTION A: Non-Invasive Cardiac Laboratory (NICK)

PROCEDURES	Required			Done		
	O	A	P	O	A	P
Transthoracic Echocardiogram (TTE)	50	50	100			
Treadmill Exercise Stress Test (EST)	25	25	50			
24 Hours Holter Monitoring	25	25	50			
Stress Echocardiogram (Pharmacological/ Exercise)	5	5	10			

Comments By Head Of Department/Cardiologist:

Signature of Assessor :

Verified by Head Of
Department/ Cardiologist

.....

.....

Name / Stamp)

(Name / Stamp)

Date :

Date :

SECTION B : Invasive Cath. Laboratory (ICL)

- This section including of Haemodynamic monitoring & assisting cardiologist in related procedures

PROCEDURES	Required			Done		
	O	A	P	O	A	P
Haemodynamic Monitoring (Coronary Angiogram)	25	25	100			
Haemodynamic Monitoring (Percutaneous Coronary Intervention)	25	25	100			
Haemodynamic Monitoring (Right Heart Catheterization)	5	5	10			
Intra-Aortic Balloon Pump (IABP)	5	5	10			
Intravascular Ultrasound (IVUS)	5	5	10			
Fractional Flow Reverse (FFR/IFR)	5	5	10			

Comments By Head Of Department/Cardiologist:

Signature of Assessor :

Verified by Head Of
Department/ Cardiologist

.....

.....

(Name / Stamp)

(Name / Stamp)

Date :

Date:

SECTION C: Cardiac Rhythm Management & Electrophysiology Study

PROCEDURES	Required			Done		
	O	A	P	O	A	P
Cardiac Rhythm Management/ Cardiac Pacing	25	25	50			
Conducting the follow-up clinic for interrogation, programming and reprogramming of the implantable devices	25	25	50			
Electrophysiology Study (EPS)	5	5	10			
Radiofrequency Ablation (RFA)	5	5	10			
Cryo Ablation	5	5	10			

Comments By Head Of Department/ Cardiologist:

Signature of Assessor :

Verified by Head Of
Department/ Cardiologist

.....

.....

Name / Stamp)

(Name / Stamp)

Date :

Date: