

MODULE OF SKILL ACTIVITY

TOPIC : HANDLING MICROSCOPE INSTRUMENT

I. GENERAL OBJECTIVE

After finishing skill practice of using microscope instrument the student will be able to perform the procedure with appropriate technique

II. SPECIFIC OBJECTIVES

At the end of skill practices, the student will be able to:

- a. Describe the principles of the procedures.
- b. Describe the equipments and reagents needed for the test
- c. Demonstrate the procedure properly
- d. Intepret the test's result and their relation with patient's clinical condition

III. SYLLABUS DESCRIPTION

3.1 Expected Competencies

- a. Students describe the principles of the procedures
- b. Students describe the equipments and reagents needed for the test
- c. Students demonstrate the procedure properly
- d. Students interpret the test's result and their relation with patient's clinical condition

3.2 Methods

- a. Presentation
- b. Demonstration
- c. Coaching
- d. Self Practices with blood specimen

3.3 Laboratory Facilities

- a. Equipment and reagent for the test
- b. Trainers
- c. Student Learning Guide
- d. Trainer's guide
- e. References

3.4 Venue

Skill Laboratory

3.5 Organizer

Biomedial 3, Freshmen Year Program, Medical School Universitas Islam Bandung

3.6 Evaluation

- a. Skill demonstration
- b. Point nodal evaluation
- c. OSCE

IV Laboratory Arrangement

A set of laboratory equipment and reagents for the procedures

- a. Microscope
- b. Prepared blood smears / stained normal blood smears
- c. Immersion oils
- d. Xylol
- e. Tissue Paper



V. LEARNING GUIDE OF HANDLING MICROSCOPE INSTRUMENT PROCEDURES

No	Procedures	Performance Scale		Comment
		S	U	
Assessment:				
1.	Asses the slide (blood smear, tissue)			
Planning				
2.	Wash your hand thoroughly by using antiseptic hand soap, put on gloves			
3.	Check the instrument and materials needed			
Implementation				
4.	Identify the patient, including: name, medical record, date of birth and sex			
5.	Set up the equipment's			
PROCEDURES				
Step of the Procedure				
6.	a. Hold a properly labeled and stained slide, observe for the object. Place this slide on the microscope stage			
	b. Bring the slide into focus under the low power (10x) objective. (condensor at low position, diaphragm closed). Focus using a coarse adjustment (macrometer) for distribution of cells/tissue			
	c. For the tissue can directly use objective(40x) (condensor at top position, diaphragm open) using focus fine adjustment (micrometer), until tissue can clearly be seen.			
	d. Apply a drop of immersion oil on the smear/tissue			
	e. Rotate the oil immersion objective (100 x) carefully into position			
	f. Focus, using the fine adjustment			
	g. Scan the slide to observe			
Cleaning and Safety				
7.	a. Return the object glass to proper storage box			
	b. Remove and discard gloves			
	c. Wash hand with antiseptic hand soaps			

VII. CRITERIA OF PERSONAL PERFORMANCE EVALUATION

SCALE	PERFORMANCE ACHIEVEMENT	COMMENT
1.	If the students are doing the task that only fill less than 35% From whole items for each step precisely	LOW
2.	If the students are doing the task that only fill 35% -60% from the whole items for each step precisely	MILD
3.	If the students are doing the task that only fill 60% - 78 % from whole items for each step precisely	MODERATE
4.	If the students are doing the task that fill at least 80% from whole items for each step precisely	EXCELLENT

TOPIC : BLOOD PRESSURE AND PULSE EXAMINATION

I. GENERAL OBJECTIVE

After finishing skill practice of physical examination on adult, the student will be able to perform blood pressure and pulse technique correctly

II. SPESIFIC OBJECTIVE

At the end of skill practice, the student will be able to :

Perform measurement of vital sign correctly, including blood pressure and pulse rate

III. SYLLABUS DESCRIPTION

3.1 Sub Model Objective

After finishing skill practice of physical examination on adult, student will be able to perform measurement of vital sign, blood pressure, and pulse.

3.2 Expected Competencies

1. Student demonstrate procedure of blood pressure measurement
2. Student demonstrate procedure of pulse rate measurement

3.3 Topics

1. Vital sign measurement
2. Blood pressure and pulse measurement on adult

3.4 Methods

1. Presentation
2. Demonstration
3. Coaching
4. Self practice

3.5 Laboratory facilities

1. Skill laboratory
2. Trainers
3. Student learning guide
4. Trainer's guide
5. References
6. Equipment

3.6 Venue

Skill laboratory of Medical School of Universitas Islam Bandung at Hariangbanga campus

3.7 Organizer

Block of Biomedic 3

Clinical Skill Program

Medical School of Universitas Islam Bandung

3.8 Evaluation

1. Nodal point evaluation
2. OSCE

IV. EQUIPMENT ARRANGEMENT

Physical examination on adult requires some equipment, including :

1. Sphygmomanometer
2. Stethoscope
3. Watch



V. LEARNING GUIDE OF TOPIC : BLOOD PRESSURE AND PULSE EXAMINATION PROCEDURES

NO	Procedure	Performance Scale			
		0	1	2	3
PRECAUTION					
1.	The patient should be comfortable				
2.	Explain what are you doing				
THE EXAMINATION					
3.	Observe the patient appearance: a. Level of consciousness (onscious, somnolent, soporus, comatus) b. General health c. Measure height and weight				
Vital sign					
Preparation:					
1	The patient is not using an effort or stressed, in a quiet place, and after a rest (lying down) of approximately 5 minutes.				
2	The measurement is usually carried out on the dominant arm.				
3	The arm selected should be resting and free of the clothing.				
4	The device of the measurement : A cuff which contains an inflatable pocket (the bladder) a dial of measurement or manometer a sthetoscope (parts of sthetoscope: bell, diafragma, tubing,earpieces)				
The Pulse Rate					
Technique :					
5	Place the index, middle, and fouth finger over the under side of the opposite wrist, bellow the base of the tumb				
6	With the flat part of the finger press firmly until you feel the pulse in the radial artery				
7	Count the number of beats for 15 seconds and multiply by 4 to get the beats per minute				
8	When the rhythm is irregular, count it for 60 seconds and the rate should be evaluated by cardiac auscultation, because beats that accur earlier than other may not be defected peripherally				
Measurement of the blood preasure:					
Technique:					
9.	The position the arm so that the brachial artery (at the antecubital crease) is heart level.				
10.	Centre the inflatable over the brachial artery.				
11	The lower border of the cuff should be about 2,5 cm above the antecubital crease and secure the cuff snugly				
12	Position the patient's arm so that it is slightly flexed at the elbow				
13	Estimate the sysyolic pressure by palpation to determine how high to raise the cuff pressure. As you feel the artery radial with the fingers of one hand, rapidly inflate the cuff until the radial pulse dissapears. When using a mercury sphygmomanometer, keep the manometer vertical (unless you are using a tilted floor model) and make all readings at eye level with the meniscus.				
14	Read this pressure on the manometer and add 30 mmHg to it. Use of this sum as the target for subsequent inflations prevents discomfort from unnecessarilly high cuff pressure.				

15	Deflate the cuff promptly and completely and wait 15 to 30 seconds.				
16	Place the bell of a stethoscope lightly over the brachial artery. Inflate the cuff rapidly again to the level just determined, and then deflate it slowly at a rate about 2 to 3 mmHg per second. Note the level at which you heard the sound is the systolic pressure.				
17	Continue to lower the pressure slowly until the sounds become muffled and then disappear. The disappearance point, provide the best estimate of true diastolic pressure in adult.				
18	A series of three measurement of the blood pressure is carried out, wait 2 or more minute and repeat, an donly the average of the last two measurement is considered.				

