

**FACULTY OF HEALTH SCIENCES
DEPARTMENT OF NURSING SCIENCE**



PROGRAMME : FURTHER NATIONAL HIGHER DIPLOMA IN PRIMARY HEALTH CARE: CLINICAL NURSING, DIAGNOSIS, TREATMENT AND CARE

SUBJECT : PAPER 1:
MODULE 3: EAR, NOSE, THROAT, MOUTH AND DENTAL, EYES, SKIN, HAIR, NAILS AND LYMPH NODES
MODULE 4: RESPIRATORY SYSTEM AND CARDIOVASCULAR SYSTEM

CODE : GGP2037

DATE : SUPPLEMENTARY EXAMINATION JANUARY 2018

DURATION : 3 HOURS

WEIGHT : 50:50

TOTAL MARKS : 100

EXAMINERS : DR KF MEINTJES (UJ)

MODERATOR : MR.V. MOKOKOTLELA

NUMBER OF PAGES : THIS PAPER CONSISTS OF SIX (6) PAGES AND ONE ANNEXURE

INSTRUCTIONS : PLEASE ANSWER ALL THE QUESTIONS
ALL MARKS ARE EQUIVALENT TO HALF ($\frac{1}{2}$) MARK PER FACT OR MOTIVATION, UNLESS OTHERWISE STATED

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QUESTION 1

A 5yr old female child is brought to the clinic by a neighbour and states that the child has an itchy skin rash all over the body. This is not the first episode.

- 1.1 Differentiate between scabies and atopic eczema on history taking (symptoms) and physical examination (signs) of the skin. ($\frac{1}{2} \times 36$)=(18)

After history taking and physical examination you diagnose atopic eczema with no secondary infection.

- 1.2 Describe the primary health care management of atopic eczema according to the childhood atopic eczema consensus document. ($\frac{1}{2} \times 20$)=(10)

***[28]**

QUESTION 2

A 10-month old baby is brought in by the mother. She says he has a hoarse voice and cough, initially dry, now productive, for three (3) days.

On examination:

General condition: Ill child

Vital signs: Temperature: 37.7°C Pulse: 130 beats/minute

Respiration rate: 48 breaths/minute

Chest: No signs of respiratory distress

Slightly reduced air entry (L)

Inspiratory and expiratory stridor

- 2.1 State the most likely diagnosis and grade the stridor. (2x1)=(20)

- 2.2 Discuss the management of this child. (12x $\frac{1}{2}$)=(6)

- 2.3 Describe the signs on physical examination that will indicate the child is suffering from epiglottitis. (6x $\frac{1}{2}$)=(3)

***[11]**

QUESTION 3

A 20-year old male complains of a runny nose for 1 week.

- 3.1 Analyse the differences and similarities on history taking and physical examination between viral rhinitis and allergic rhinitis. **You may tabulate your answer.** (24x½)=(12)

This same male comes back after two days. He still has a runny nose it is now purulent. He also complains of a sore ear.

On examination:

General condition: Fair

Vital signs:

Temperature: 37.7°C

Pulse: 82 beats/minute

Blood pressure: 120/80mmHg

Respiration rate: 18 beaths/minute

Ear, nose and throat system:

- Ears:
 - Left ear – no problems.
- Right ear:
 - No tenderness on pressing the trachus or pulling the pinna.
 - Ear canal not inflamed and minimal wax
 - Tympanic membrane:
 - Bulging, red and cone of light not reflecting
- Nose:
 - Both turbinates inflamed and enlarged
 - Green discharge visible
- Mouth:
 - dental carries and
 - blister-like sores on his lip
- Throat and tonsils – no problems.

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3.2 List the diagnosis/ses and problem/s from the scenario. (½x4)=(2)

3.3 Discuss the relevant management of this patient. (30x½)=(15)

***[29]**

QUESTION 4

A 56-year old female complains of shortness of breath that is progressively becoming worse. She has a dry cough for years, sometimes with wheezing. She is a heavy smoker – more than 20 cigarettes per day for many years.

4.1 List the differential diagnosis/ses and problems and motivate your answer from the above scenario. (10x½)=(5)

On examination of this 56 year old female:

General condition: Fair

Vital signs:

BP 130/85mmHg

Pulse: 78 beats/minute, regular

Respiration rate: 20 breaths/minute

Temperature: 36.5°C

PEAK FLOW: 160, 150, 150L/minute;

After administering beta² agonist (salbutamol): 170, 170, 160L/minute

Respiratory and Cardiovascular system:

Wheezes auscultated in apices of both lungs.

No other abnormalities detected.

4.2 State the final diagnosis and motivate your answer from the findings on examination and your calculations using annexure A. (6x½)=(30)

4.3 Describe the management of the patient. (12x½)=(6)

***[14]**

QUESTION 5

Read the scenarios given below, and for each of the following health problems:

- (i) Give the most likely diagnosis, and
- (ii) State whether you would (write A, B or c, do not re-write the treatment)
 - A. Treat the patient and discharge home (no referral)
 - B. Treat the patient and refer to hospital/doctor the same day (urgent referral)
 - C. Treat the patient and refer when convenient/later (non-urgent referral)
- (iii) **And**, for each management chosen, motivate/give a reason why A, B or C.

- 5.1 A 57-year female, who is a known diabetic, complains of her eyesight becoming progressively worse. (1½)
- 5.2 A 5-year old child with a thick green nasal discharge only from the right nostril. (1½)
- 5.3 A 10-year old with vascularity over the handle of malleus on the tympanic membrane (L) ear. (1½)
- 5.4 A 6-year old boy has difficulty in eating. On examination a tender swelling below the ears at the angle of the jaw is noted. (1½)
- 5.5 A 30-year old male presents with painful swollen gums. (1½)
- 5.6 A 45-year female complains of hoarseness of the voice that has been there for more than one (1) month. (1½)
- 5.7 7-year old child is presenting with a dry, barking type of cough. This is the third day. (1½)
- 5.8 7- months baby is brought to the clinic with a productive cough for 2 (two) days.

On examination you find: Temperature: 38.8°C; Pulse: 155 beats/minute; Respiratory rate: 60 breaths per minute. The baby is grunting. (1½)

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- 5.9 A 55-year old male, who is a known hypertensive patient, complains of chest pains which are recurring every few days and which are not responding to sublingual nitrates. (1½)
- 5.10 A 60-year old female presents with a severe headache and visual disturbances. Her BP is 190/130mmHg. (1½)
- 5.11 45-year old hypertensive female patient complains of shortness of breath, even when only cleaning the house. On examination: Blood Pressure 160/100; Pulse 92 beats per minute. Respiration rate 20 breaths/minute. Apex beat displaced to the left and forceful. (1½)
- 5.12 A 55-year old known hypertensive patient with a BP of 150/100, who is fully complaint on step 4 treatment and no symptoms or signs of target organdamage. (1½)

***[18]**

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CALCULATING % PREDICTED PEAK FLOW RATE

- Take the best of 3 of the patient's observed peak flow rate:
e.g. 200, 180, 190 performed – so take 200.
- Find the patient's sex, age and height predicted value from nomogram or table:
e.g. 440 for a woman of age 25 years and height 167 cm
- Divide patient's observed peak flow rate over their predicted peak flow rate:
e.g. $200/440 = 0.45$
- Multiply by 100:
e.g. $0.45 \times 100 = 45\%$

So, in this example, the patient's observed peak flow rate is 45% of predicted.

CALCULATING PEAK FLOW VARIABILITY

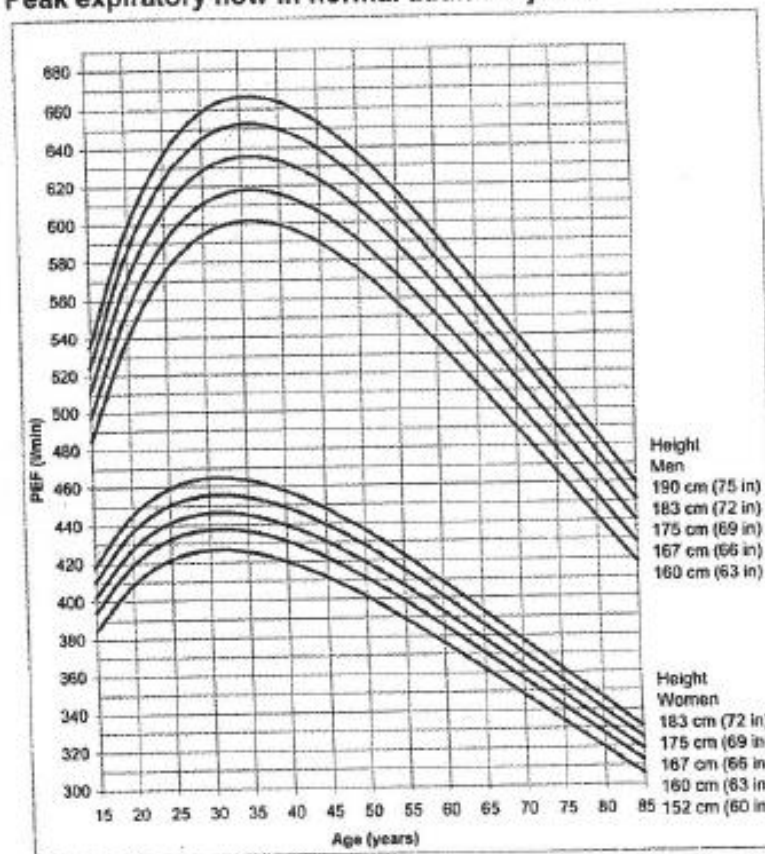
There are a number of methods for calculating PEF variability.

One method is described below:

- Subtract the lowest from the highest reading.
- Divide by the highest reading.
- Multiply by 100.

So, in this example, where a patient has readings of 300 to 400, the variability is 25%. If these readings were taken before and after a test dose of salbutamol, asthma is diagnosed. (See Section 17.1.2 Chronic asthma).

Peak expiratory flow in normal adult subjects



Adapted with kind permission from Nunn AJ Gregg I, Br Med J 1989;298:1068-70 and Clement Clarke International.