

How mast cell stabilizer reverse the action of corticosteroid?

Mechanism of action of Methylxanthines in Asthma

- ❖ Inhibition of Phosphodiesterase enzyme (PDE)
- ❖ Antagonism of Adenosine receptors A_1 A_{2B}
- ❖ Activation of Histone Deacetylase (HDAC)
- ❖ Stimulation of CNS and Respiratory center.

- ❖ Theophylline
- ❖ Aminophylline
- ❖ Etophylline
- ❖ Doxophylline

Activation of Histone Deacetylase (HDAC) reverses the resistance offered to offered to anti-inflammatory effects of corticosteroids. Histone deacetylase (HDAC) is an enzyme that removes the acetyl group from histone proteins on DNA, making the DNA less accessible to transcription factors.

Ligature strangulation model
Hanging and its types

1. Classification according to suspension

a. Complete hanging: used when the whole body is suspended and the feet DO NOT touch the ground; the whole body weight acts as the constricting force

b. Incomplete/partial hanging: used when body is not completely suspended and the feet touch the ground; weight of the body's head is the only constricting force

2. Classification according to position of the knot

a. Typical hanging: used when knot lies at the back directly over the occipital region and ligature is situated in middle of neck above the thyroid cartilage; death is due to occlusion of the carotid arteries

b. Atypical hanging: used when point of suspension is anywhere else; death is due to occlusion of...

- Carotid arteries

- Vertebral arteries (due to lateral flexion)

Drowning and its types

1. Typical drowning (aka wet)

2. Atypical drowning (dry drowning, immersion syndrome, submersion of unconscious, + near drowning)

Inhalers type

1. Metered dose inhaler

2. Dry powder inhaler (rotahaler)

3. Soft mist inhalers

How to counsel patient that inhaler is best than oral drugs??

Prescription for MI

Prescription for Pulmonary TB

Cardiac poisons classification

1. Digitalis

2. Oleander

3. Aconite

4. Nicotine

5. Cerebra odollam

Anti asthmatic drugs classification

Classification of Antiasthmatic Drugs

1. Bronchodilators

(a) Sympathomimetics

(i) *Selective* β_2 -adrenergic agonists: Salbutamol and terbutaline (short-acting); bambuterol, salmeterol and formoterol (long acting).

(ii) *Nonselective*: Adrenaline.

(b) *Methylxanthines*: Theophylline, aminophylline, etophylline, doxophylline.

(c) *Anticholinergics*: Ipratropium bromide, tiotropium bromide.

2. Leukotriene receptor antagonists: Zafirlukast, montelukast, zileuton.

3. Mast cell stabilizers: Sodium cromoglycate, ketotifen.

4. Glucocorticoids

(a) *Inhaled glucocorticoids*: Beclomethasone, budesonide, fluticasone, ciclesonide.

(b) *Systemic glucocorticoids*: Hydrocortisone, prednisolone, methylprednisolone.

5. Anti-IgE monoclonal antibody: Omalizumab.

MOA of mast cell stabilizers

Ex. sodium cromoglycate, ketotifen (they are NOT bronchodilators)

Inhibit release of mediators like histamine, LTs, PGs, PAF by stabilizing the mast cell membrane

(prevent degranulation)

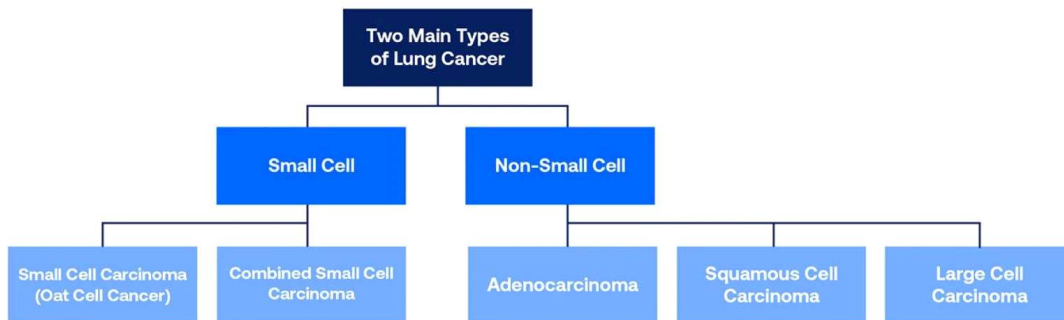
Reduce bronchial hyperreactivity to some extent but AG:AB reaction is not affected

Slow onset of action

DOTS

"directly observed therapy" (DOT): health care workers observe patient taking the medication

4 types of CA lungs



2 common causing community acquired pneumonia

Streptococcus pneumoniae, Staph aureus, Haemophilus influenzae

4 types of emphysema

1. Centriacinar: central/proximal part of acini is affected (more common in upper lobes; seen in smokers)
2. Panacinar/panlobular: entire acini is enlarged (lower lungs affected; seen in α 1-antitrypsin deficiency)
3. Distal acinar/paraseptal: proximal part of acinus is normal, distal part is mainly involved (more severe in upper half of lungs; seen in areas of fibrosis, scarring, or atelectasis; common in young adults w/spontaneous pneumothorax)
4. Irregular: acinus is irregularly involved (associated with scarring from inflammatory disorders; clinically asymptomatic; most common form of emphysema)

Name 2 beta agonoist having partial function

partial agonistic activity, they stimulate B-receptors partially in absence of catecholamines (pindolol, acebutolol, labetalol, celiprolol, + carteolol)

Signs of traumatic asphyxia

S pneumonia and H. Influenza

Hypersensitivity of tuberculin test is of which type?

1- cardiac enzymes released post MI.

Myoglobin, CK-MB, CK, Troponin T, AST, LDH

2- Osler nodes, Janeway lesions, splinter hemorrhages, are signs of?

Bacterial endocarditis

3- four conditions in tetralogy of Fallot.

- 1. Right ventricular hypertrophy**
- 2. Pulmonary stenosis**
- 3. Overriding aorta**
- 4. VSD**

4- Virchow's triad.

- 1. stasis in blood flow**
- 2. hypercoagulability**
- 3. endothelial cell damage**

5- one major and one minor criteria for diagnosis of endocarditis.

Infective endocarditis – modified Duke criteria	
Diagnostic criteria for IE	<p>Major criteria</p> <ul style="list-style-type: none">• Blood culture positive for typical microorganism• (eg, <i>Staphylococcus aureus</i>, <i>Enterococcus</i>, viridans streptococci)• Echocardiogram showing valvular vegetation <p>Minor criteria</p> <ul style="list-style-type: none">• Predisposing cardiac lesion• Intravenous drug use• Temperature >38 C (100.4 F)• Embolic phenomena• Immunologic phenomena (eg, glomerulonephritis)• Positive blood culture not meeting above criteria <p>Definite IE</p> <ul style="list-style-type: none">• 2 major OR 1 major + 3 minor criteria <p>Possible IE</p> <ul style="list-style-type: none">• 1 major + 1 minor OR 3 minor criteria

6- two modifiable and 2 non modifiable risk factors for atherosclerosis.

Non-modifiable: age, gender, genetics

Modifiable: HTN, hypercholesterolemia (LDL), smoking, diabetes

Cardiac poisons
Strangulation types

- 1. Manual strangulation (throttling)**
- 2. Strangulation by ligature**
- 3. Mugging (choke-hold)**
- 4. Garroting**
- 5. Bandsola**

Lynching

Method of homicidal hanging in South America in which a group of people act together to overpower an individual and hang him by means of a rope to a nearby tree (or other object)

Signs of antemortum drowning

- 1. Positive diatom test**
- 2. Fine froth**
- 3. Cadaveric spasm: presence of weeds in the hands**
- 4. Water/mud in stomach or intestine**
- 5. Middle ear + mastoid air cell gave hemorrhages**
- 6. Rib markings on the lungs**
- 7. Emphysem aquosum: term used to describe hyperexpanded and 'waterlogged' lungs**

Beta blockers having partial agonistic activity

Ace inhibitors names

losartan, irbesartan, candesartan, olmesartan, valsartan, + telmisartan

Characteristics of chronic nicotine use

Results from continued use of tobacco by chewing, smoking, or exposure during processing/storage of nicotine

- 1. Those who chew tobacco: chronic cough, laryngitis, pharyngitis, + bronchitis**
- 2. Those who handle it: dermatitis**
- 3. Stains teeth + bad breath**
- 4. Amblyopia, blindness**
- 5. Cardiac arrhythmia w/extrasystole + chest pain**

6. Occlusive thromboangiitis obliterans is common

7. Increased incidence of mouth, tongue, throat, larynx, + lung cancer

8. Non-thrombocytopenic purpura after smoking mentholated cigs

Types of asthma

1. Atopic asthma (most common; IgE mediated type 1 HS reaction)

2. Non-atopic asthma: resp infections due to viruses, inhaled air pollutants

3. Drug-induced asthma: aspirin

4. Occupational asthma

Types of pneumoconiosis

Silicosis, anthracosis, asbestosis, byssinosis, bagassosis, tabaccosis, farmer's lung, siderosis

Modifiable and non modifiable risk factors of cvs diseases

DOTS

Imp of DOTS

It is the solution to noncompliance (patients who fail to complete the course of therapy)

Prevents development of resistant strains of TB

why patients leave tb drugs

Side effects, long duration of treatment

Complications of pneumoconiosis

Chronic obstructive pulmonary disease, hemoptysis, pneumothorax, pleural disease, tuberculosis, autoimmune disease, anthracofibrosis, chronic interstitial pneumonia, and malignancy

Quarantine vs isolation

Isolation: separation of a person suffering from communicable disease in order to prevent transmission

Quarantine: measure directed towards isolation of a healthy traveler from an infected area, for at least the longest incubation period of the disease

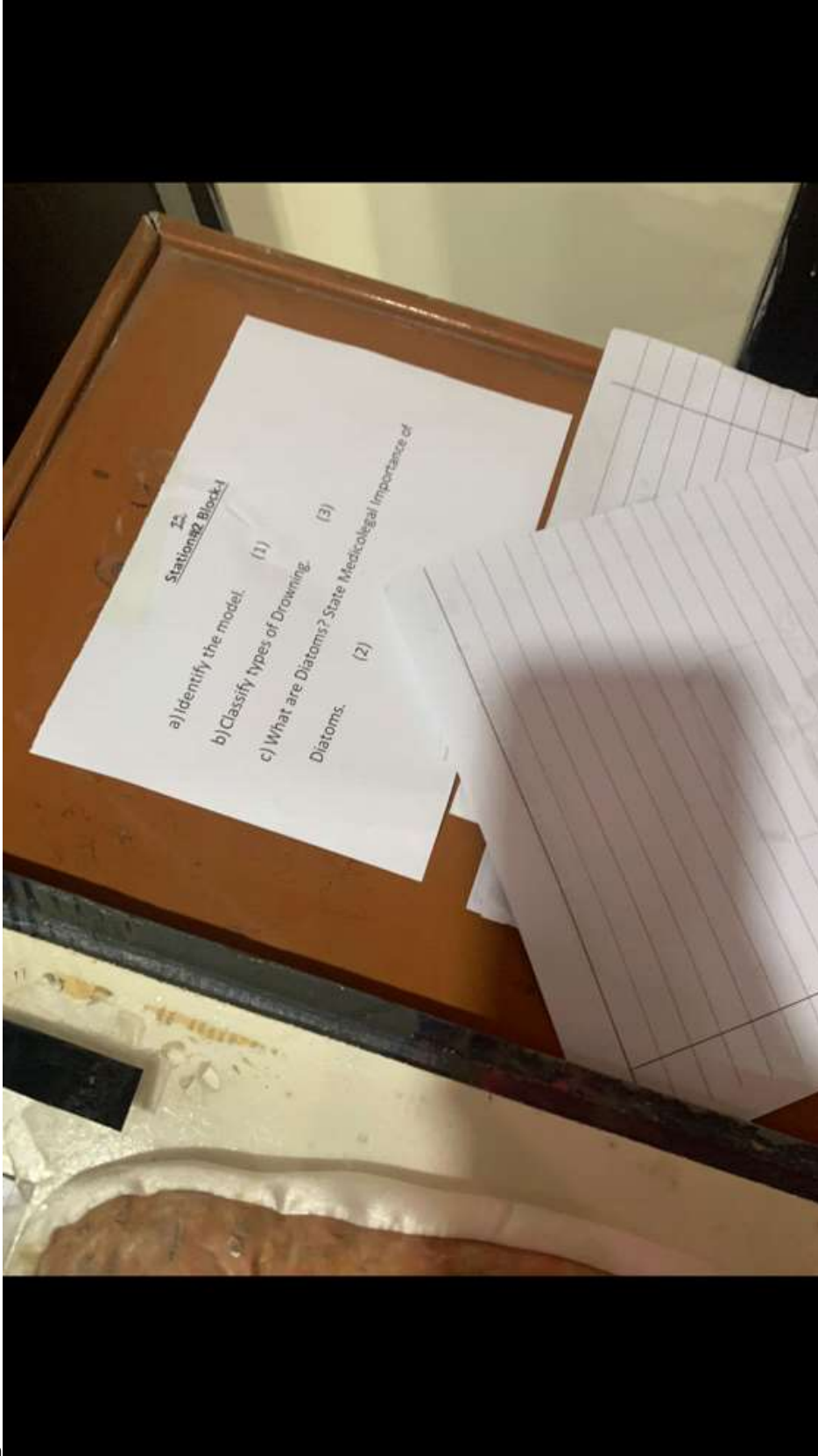
Diseases caused by influenza virus

1. Sinus + ear infections (otitis media)

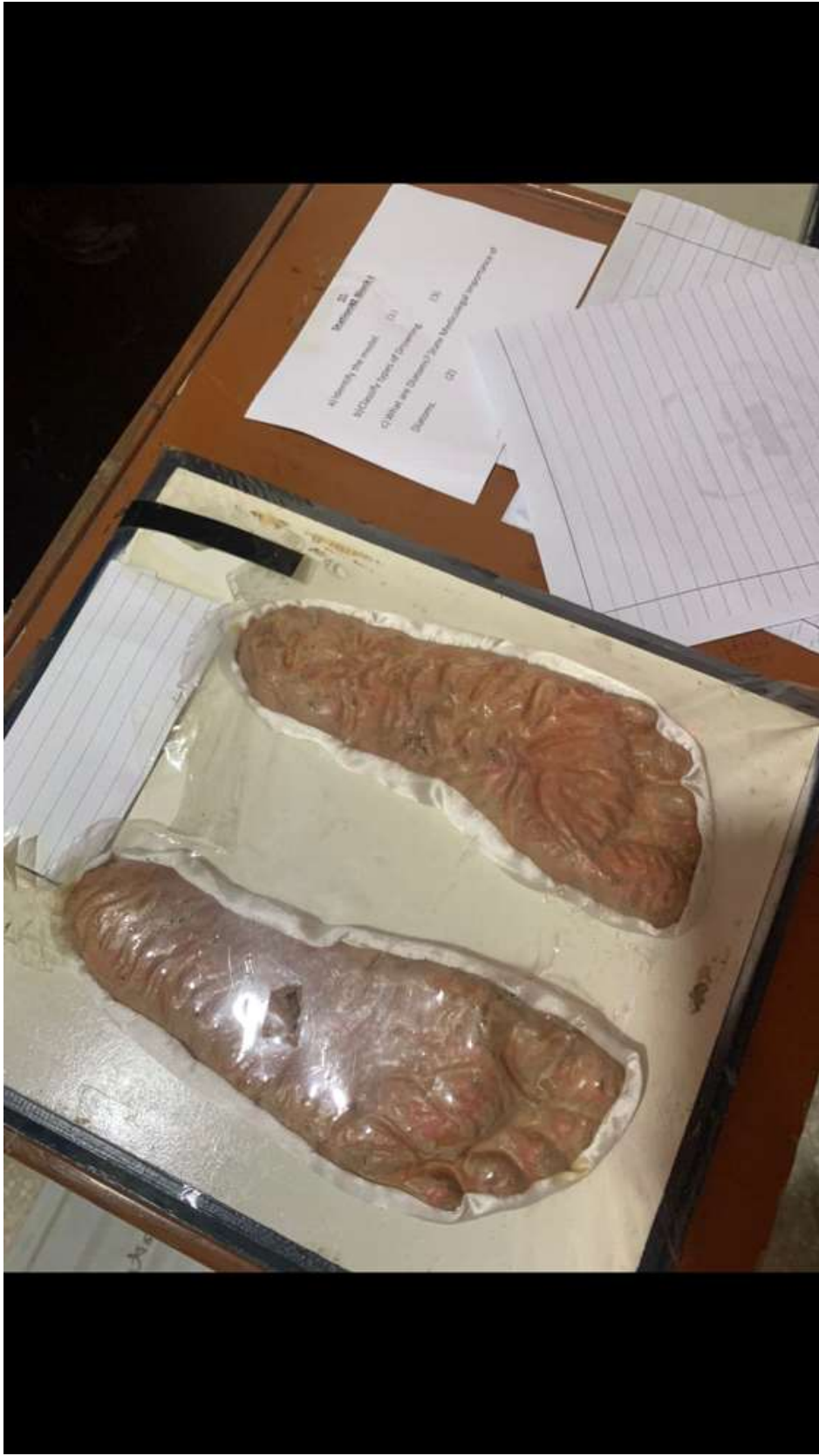
- 2. Pneumonia**
- 3. Sepsis (due to severe resp tract infections)**

Preventions for people with occupational asthma

- 1. Reduce exposure**
- 2. Use of PPE**



Nan



Station : 11

A 55 years old lady Nazeeran came to the clinic with the complaints of fever and sweating in the evening for last 1 month. She was given diagnosis of pulmonary tuberculosis after investigations.

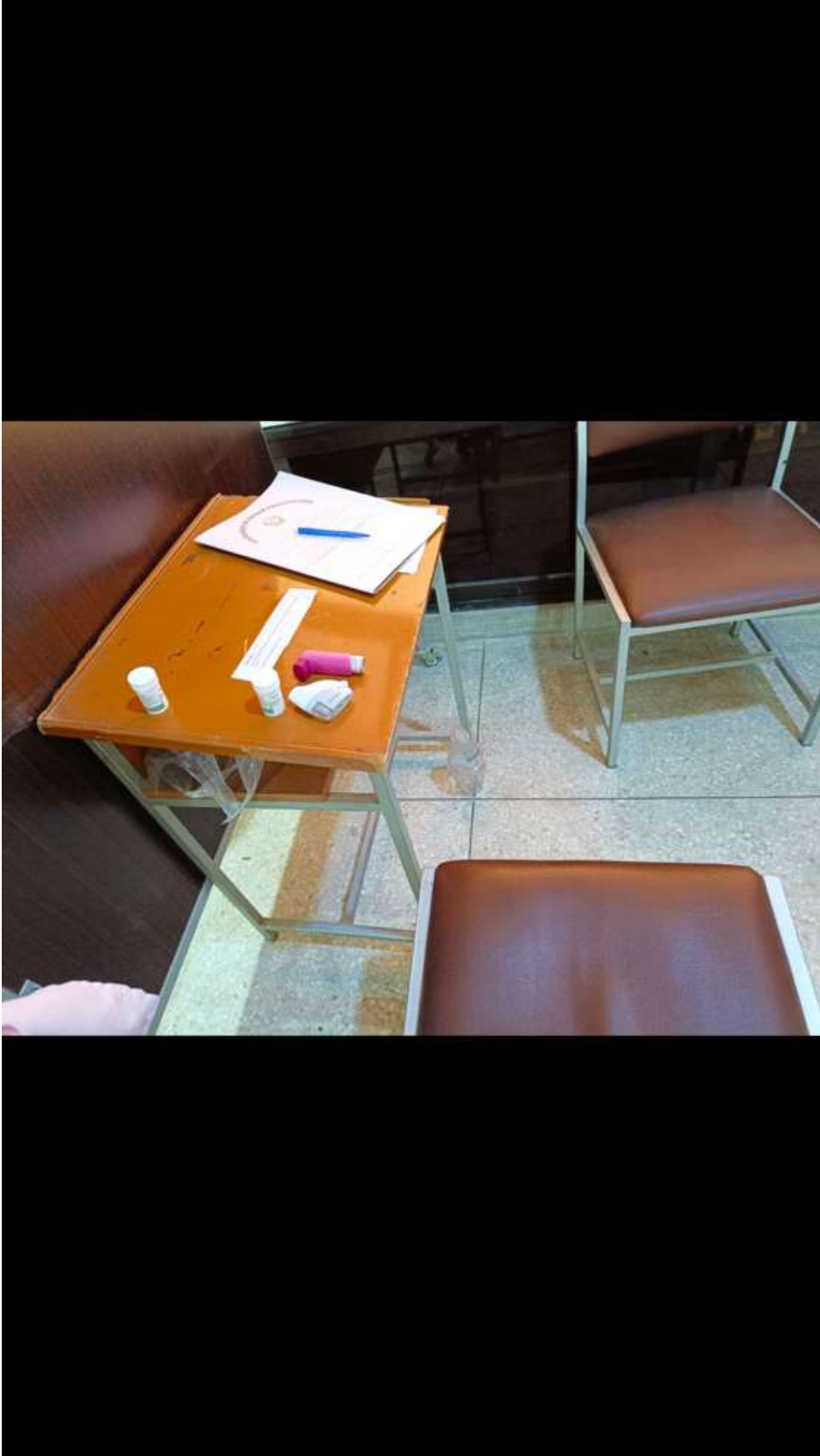
Write treatment with 1st line ATT in proper prescription format.

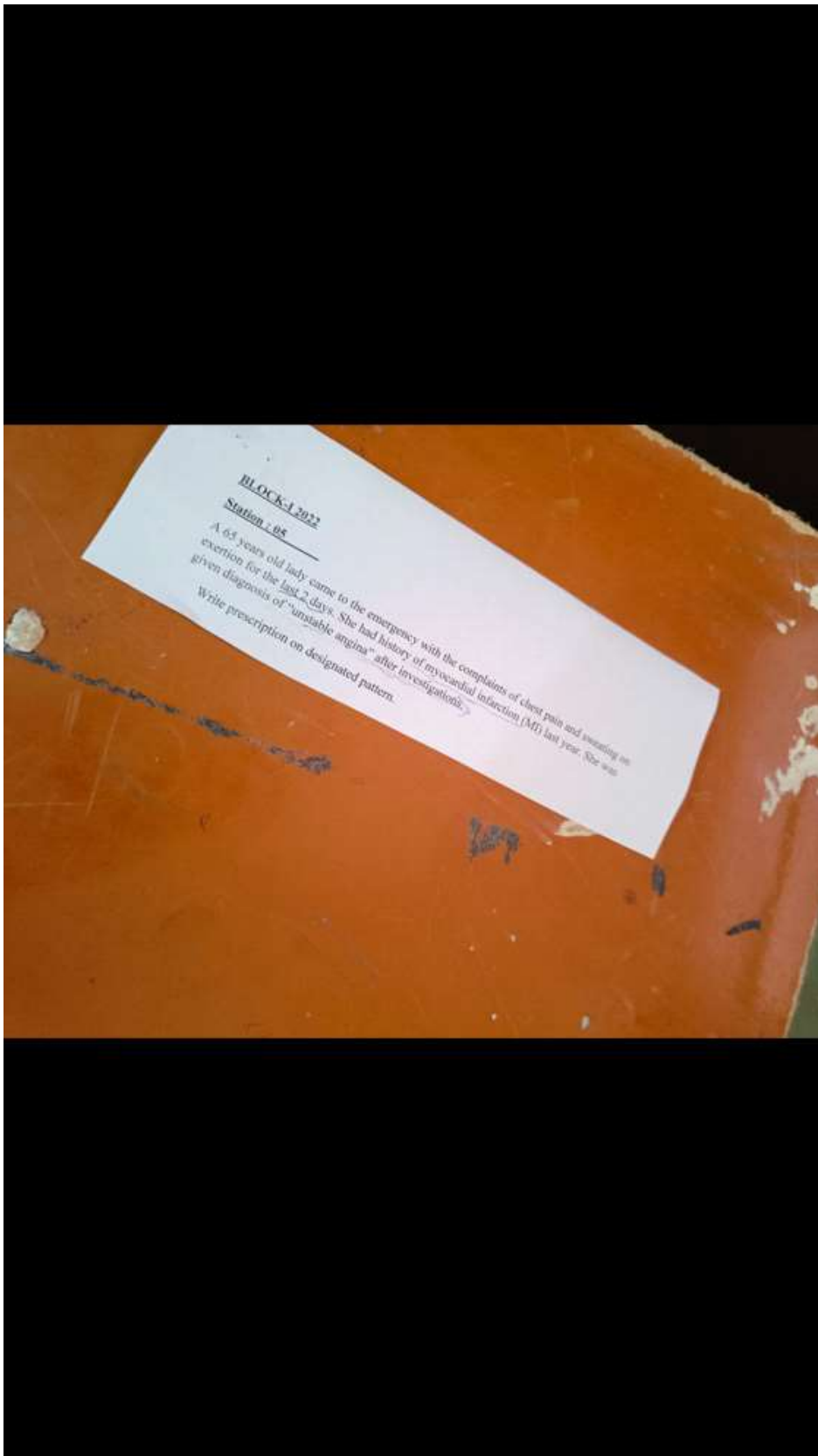
~~(Do not mention doctor's specification)~~



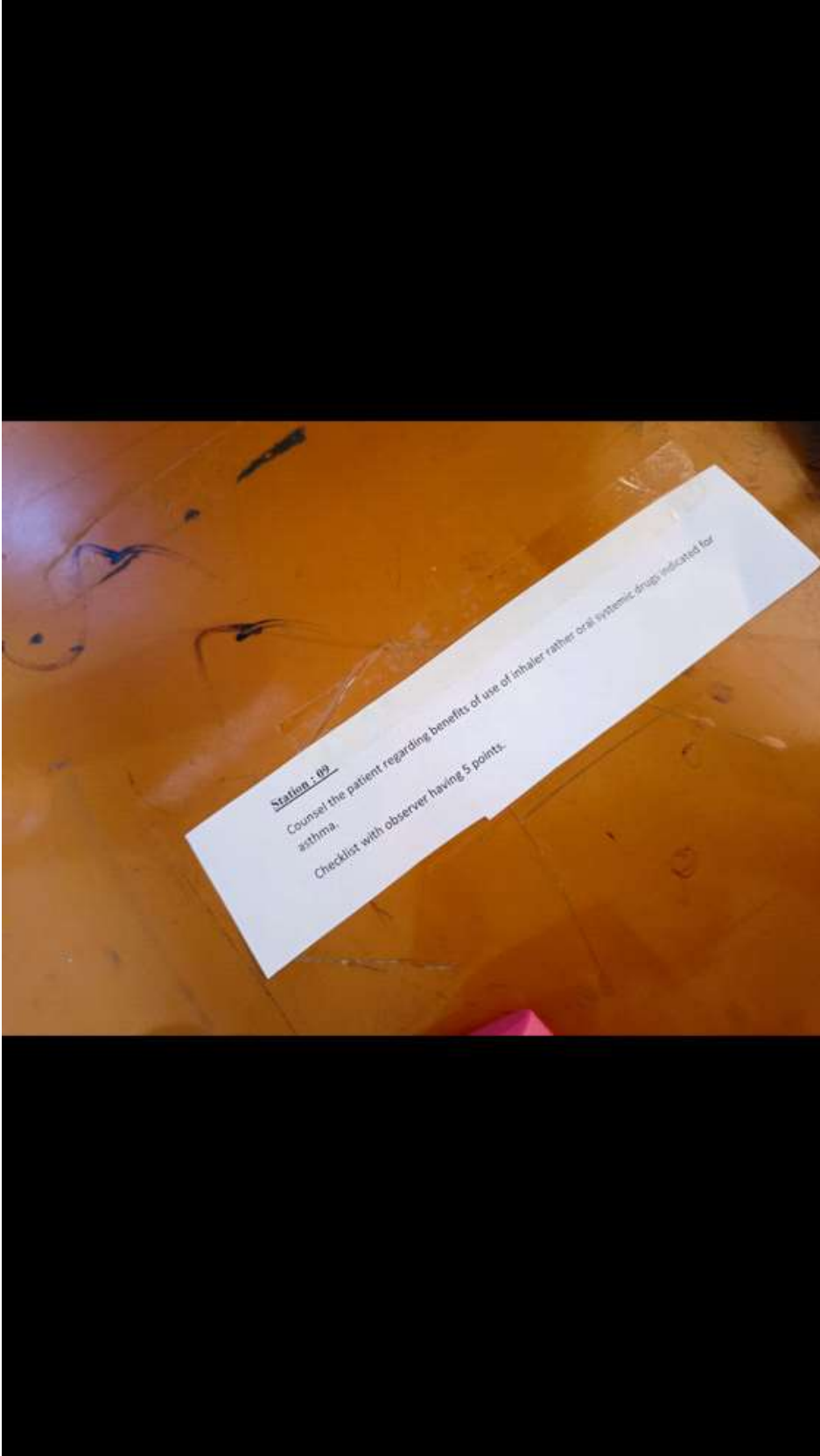
KHYBER GIRLS MEDICAL COLLEGE PE

Continuation Sheet





BLOCK-1 2022
Station 1.05
A 65 years old lady came to the emergency with the complaints of chest pain and sweating on exertion for the last 2 days. She had history of myocardial infarction (MI) last year. She was given diagnosis of "unstable angina" after investigation.
Write prescription on designated pattern.





RESPIRATORY SYSTEM VIVA QUESTIONS

1. Enumerate types of emphysema? (0.25+0.25+0.25+0.25)
2. Enumerate types of asthma? (0.25+0.25+0.25+0.25)
3. Enumerate any two minerals/dust causing lung diseases? (0.5 +0.5)
4. Name any two organisms causing community acquired pneumonia? (0.5+0.5)
5. Which type of hypersensitivity reaction occurs in tuberculin test in diagnosis of tuberculosis?(1)
6. Enumerate 4 types of CA lung?(0.25+0.25+0.25+0.25)

3

MBBS 4th Professional

Pre-Prod Examination "Block 1"
Third Year
November 2022

Time Allowed: 30 Minutes

Marks: 05



For candidate:
Carefully examine the given photograph and answer the following question.

1. Identify the lesion.
2. What is the most common organism responsible for this lesion?
3. Name any two complications of this condition.
4. What type of lesion would occur in children and older persons?

CVS VIVA QUESTIONS

1. Name the specific cardiac enzymes, which are raised post-MI in blood? (01)
2. What are the four major cardiac defects in tetralogy of fallot? (0.25+0.25+0.25+0.25)
3. Osler nodes, Janeway lesions, splinter hemorrhages and petechiae are the skin lesions which occur as a result of which type of heart disease? (01)
4. What is one major and one minor criteria for the diagnosis of infective endocarditis? (01)
5. What are three basic components of Virchow's triad in pathogenesis of thrombosis? (01)
6. Name 2 modifiable and 2 non-modifiable risk factors for atherosclerosis? (01)

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