

Why aspirin in therapeutic doses is not used in gout?

**At low doses, aspirin and other salicylates are anti-uricosuric
Salicylates (in therapeutic doses) inhibit urate secretion into renal tubules and increase plasma urate levels**

In high doses, salicylates inhibit reabsorption of uric acid in renal tubules + produce uricosuric effect

Sympathomimetics classification

DIRECT ACTING – Epinephrine, Norepinephrine, Isoproterenol, Dopamine, Fenoldopam, Dobutamine, Oxymetazoline, Phenylephrine, Midodrine, Clonidine, Albuterol

INDIRECT ACTING – Amphetamine, Tyramine, Cocaine

MIXED ACTING – Ephedrine, Pseudoephedrine

CATECHOLAMINES: those w/catechol nucleus are called "catecholamines"

Ex. adrenaline, noradrenaline, dopamine, isoprenaline, + dobutamine

Non-catecholamines: those that lack catechol nucleus

Ex. tyramine, ephedrine, amphetamine, phenylephrine, + salbutamol

- 1. Direct acting: directly stimulate adrenergic receptors**
- 2. Indirect acting: act by releasing NA from adrenergic nerve endings**
- 3. Mixed acting: act both directly + indirectly**

Types of osteomyelitis and definitions?

Osteomyelitis is inflammation of bones, most often caused by bacteria

Types of osteomyelitis:

- 1. Pyogenic (bacterial) osteomyelitis
- 2. Tuberculous osteomyelitis
- 3. Syphilitic osteomyelitis

RISK FACTOR	ASSOCIATED INFECTION
Assume if no other information is available	<i>S aureus</i> (most common overall)
Sexually active	<i>Neisseria gonorrhoeae</i> (rare), septic arthritis more common
Sickle cell disease	<i>Salmonella</i> and <i>S aureus</i>
Prosthetic joint replacement	<i>S aureus</i> and <i>S epidermidis</i>
Vertebral involvement	<i>S aureus</i> , <i>Mycobacterium tuberculosis</i> (Pott disease)
Cat and dog bites	<i>Pasteurella multocida</i>
IV drug abuse	<i>Pseudomonas</i> , <i>Candida</i> , <i>S aureus</i> are most common

Types

1. Hematogenous Osteomyelitis

- Bacterial seeding from the blood.
- Seen primarily in **Children**.
- The most common **site**
 - **Metaphysis** at the growing end of **Long** Bones in **Children**
 - **Vertebrae** in **Adults**; involving two adjacent vertebrae with intervertebral disk (may occur pelvis, long bones and clavicle)

2. Direct Inoculation Osteomyelitis

- Its osteomyelitis complicating **open fracture** or **surgical** operation, in which organisms gain entry directly through the wound.
- Tend to involve **multiple organisms**. but mainly S.Aureus

Osteonecrosis and its causes i guess???

Osteonecrosis is caused by infarction of bone and marrow (most common site is the femoral head)

The causes of osteonecrosis may be remembered with the mnemonic "CAST Bent LEGS":

C: Corticosteroids

A: Alcoholism

S: Sickle cell disease

T: Trauma (most common)

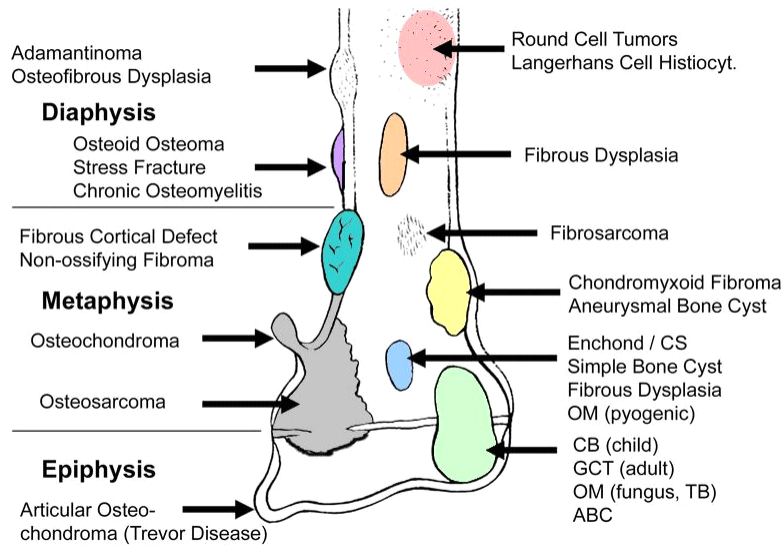
Bent: "Bends" (Caisson disease)

LE: Legg-Calve-Perthes disease

G: Gaucher disease

S: Slipped capital femoral epiphysis

Bone, cartilage and unknown origin tumors



Premalignant skin tumors?

- 1) Actinic keratosis (SCC in situ)
- 2) Bowen's disease
- 3) Xeroderma pigmentosum (AR disorder where nucleoside excision repair is defective)
- 4) Cutaneous Horn
- 5) keratoacanthoma (well differentiated tumor that mimics SCC)

Nevicellular nevi

A benign melanocytic nevus is a cutaneous condition characterised by well-circumscribed, pigmented, round or ovoid lesions, generally measuring from 2 to 6 mm in diameter.

Rabbit performance

Post OP patient given inhaled anesthetics are given due to which he got blood in urine what is antidote?

Dantrolene

Heparin and warfarin antidots

Heparin: protamine sulfate

Warfarin: fresh frozen plasma + Vit K1

Warfarin mechanism of action

Inhibits epoxide reductase enzyme thus preventing activation of VitK (which means that gamma carboxylation of clotting factors 2, 7, 9, and 10 does not occur)

Antidote of heparin is given for LMW heparin or HMW heparins?? **for HMW heparin bcux LMW heparin doesnt cause toxicity**

And there's no effective antidote available for LMW heparin

Heparin MOA

Exerts its effects by activating antithrombin III, which decreases the action of factors IIa and Xa

Natural anticoagulants

Protein C + S, antithrombin III, Heparin (obtained from ox lung + pig intestinal mucosa), ginger/garlic?

Prescription for inflammatory joints

Prescription for child having anemia

Drug is given..(adrenaline)

Which class of drug?

Directly acting nonselective sympathomimetic (catecholamine)

MOA?

THERAPEUTIC USES?

***ABCDE**

1. Anaphylactic shock: life saving drug (0.3-0.5 mL given i.m)

2. Bronchial asthma: powerful bronchodilator that has rapid onset + short duration of action (used in acute severe asthma; use has declined though b/c of dangerous cardiac stimulant effect)

3. Cardiac resuscitation: treatment of cardiac arrest due to drowning/electrocution, its given IV

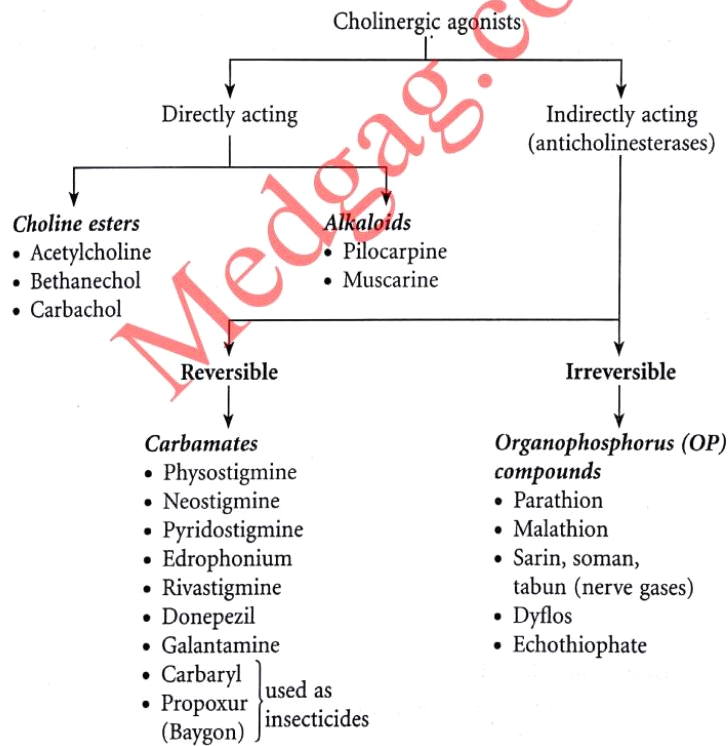
4. Prolongs duration of local anesthesia: adrenaline given w/lignocaine (due to vasoconstrictor effect of adrenaline it delays absorption)

5. Controls epistaxis + other capillary oozing: adrenaline is used as a local hemostatic to control bleeding following tooth extraction

6. Glaucoma: prodrug (dipivefrine) is given

Cholinomimetics classification

Classification



Methacoline MOA?

Methacholine is a cholinergic agonist which stimulates the muscarinic receptors of bronchial smooth muscles to induce bronchoconstriction.

***Used for asthma testing**

ADRENALINE MOA?

Parasympathetic action on GIT?

Promotes digestion

Noradrenaline and adrenaline uses?

Organophosphorous antidot?

Atropine

Marbelling model

Reason of marbelling?

Marbling is a color change seen in the form of mosaic like pattern or network on the skin where veins converge

Mechanism of Marbling: $\text{Hb} + \text{H}_2\text{S} \rightarrow \text{Sulph} - \text{Meth} - \text{Hb}$ (Blue Green color in the veins of the skin)

Site: Right iliac fossa, roots of limbs and neck

Medicolegal significance of rigor mortis?

- Sure sign of death
- We can determine the time since death but it is not reliable
- May give clue about position of body at time of death

Objectives of autopsy?

- To identify the dead
- To know cause, manner, mode of death
- To determine weapon causing injury
- Time between injury and death
- To determine whether injury is antemortem or postmortem
- To provide facts and information to the relatives and media
- To separate natural and unnatural cause of death
- To separate birth of live or dead child

Bruise mode

Types of bruise?

1. True bruise
2. False bruise
3. Superficial bruise
4. Deep bruise
5. Ectopic bruise
6. Anti mortem bruise
7. Post mortem bruise

Entry and exit wound difference?

Pedestrian injuries types?primary impact secondary impact secondary injuries?and run over injuries

Primary impact: caused by direct impact between vehicle and pedestrian

Secondary impact: due to fall of victim on road after impact

Tertiary impact/ secondary injury: Run over injuries that occurs when victim is on ground and is run over by another or same vehicle. Characteristic of this is tire mark

Define death?

It is the permanent and irreversible loss of function of the three vital systems of the body i.e. CVS, CNS and respiratory system

Importance of cellular death

Define rigor mortis?

Rigor mortis is characterized by stiffening and slight shortening of all muscle fibers of body after death.

Firearm types?

1. Rifled firearms – rifles, revolvers, pistols etc
2. Smooth bored firearms – shotguns, muskets etc
3. Air pistols

What does rifling mean?

In rifled firearms, the inside of the bore is rifled i.e. cut longitudinally with number of spiral grooves (4-7) which run parallel but spirally from end of chamber to muzzle.

Due to rifling, bullet gets more gyroscopic stability, more power and slow loss of energy.

Autopsy types

1. Medical autopsy
2. Medico legal autopsy
3. Psychological autopsy
4. Negative autopsy
5. Oral autopsy
6. Mini autopsy

Techniques?

- R. Virchow's technique
- C. Rokitansky's Technique
- M. Letulle's technique
- A. Ghon's technique
- Evisceration

BRUISE COLORS

Oxyhemoglobin – Red (fresh bruise)

Deoxy Hb – Blue (24 hrs)

Hemosiderin – Bluish black to brown (2-4 days)

Hemotoidin – Green (5-7 days)

Bilirubin – Yellow (7-10 days)

Begins to disappear – 14 – 15 days

Abrasion types

1. Moving abrasions: Scratches, Grazes
2. Friction Abrasions
3. Imprint Abrasions

Types of ballistics?

1. Interior ballistics – study of physical forces acting on projectile when it is inside the weapon
2. Exterior ballistics – study of forces acting on projectile outside the weapon after it has been fired
3. Terminal ballistics – force acting on projectile when it hits the body or enters the body

Maceration

Aseptic autolysis of dead fetus in uterus is called maceration.

Rancid odor, no gas formation, skin is brownish

Late signs of death?

- Putrefaction
- Mummification
- Adipocere formation

Carcinogen

A carcinogen is a substance, organism or agent capable of causing cancer.

Chemical carcinogens name?

CHEMICAL CARCINOGENS

- Alkylating Agents: Direct, used in chemotherapy of cancer
 - Cyclophosphamide: can cause leukemia, lymphoma
- Polycyclic aromatic hydrocarbons: Indirect & very strong, can cause cancer in the region of contact (lung and bladder cancer), it is found in tobacco smoke, smoked meats and fish.
- Aflatoxin B1: Naturally occurring carcinogen present in fungus (*Aspergillus flavus* → Hepatocellular CA)

Difference between immunization and vaccination?

Vaccination



Vaccination is the process by which a vaccine is introduced (mainly through injection) into the individual to protect it from any disease.

Immunization



Immunization is the process by which the body produces antibodies against pathogens that are inserted through vaccines.

Passive smoking?

Passive smoking is the inhalation of tobacco smoke, called passive smoke, secondhand smoke or environmental tobacco smoke, by individuals other than the active smoker.

How to prevent RTA

Some of the tried and tested measures to reduce RTAs are:

- Avoiding over-speeding and following speed limits
- Avoiding drunken driving
- Using helmets by two-wheeler drivers
- Using seat belts and child restraints in cars
- Improving visibility, appropriate headlights and road lightings

Musculoskelton disorders and its types

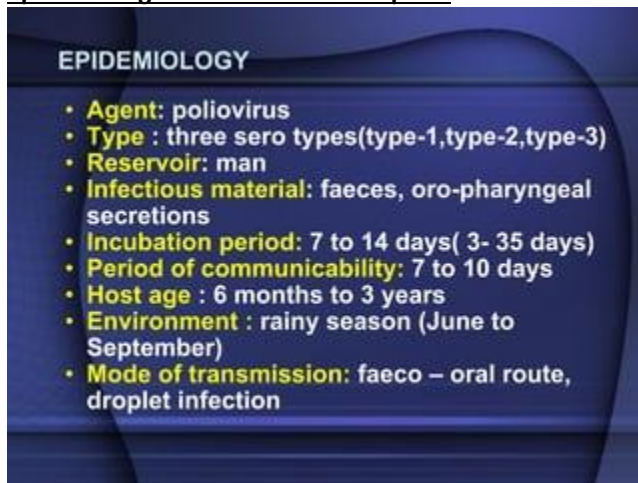
Polio mode of transmission

Humans are the only known reservoir for polio virus. The virus is transmitted via droplets or aerosols from the throat and by faecal contamination of hands, utensils, food and water. The majority of transmissions occur via person-to-person contact or the faeco-oral route, although the oro-oral route is also possible.

Define polio

Poliomyelitis (polio) is a highly infectious viral disease that largely affects children under 5 years of age. Mainly affects nerves in spinal cord and brain

Epidemiological determinants of polio



Blood borne diseases?

There are many different bloodborne pathogens, including malaria, syphilis, and brucellosis, and most notably Hepatitis B (HBV), Hepatitis C (HCV) and the Human Immunodeficiency Virus (HIV).

Peds histroy 3yr old chil having fever, breathlessness and ak oor masla?

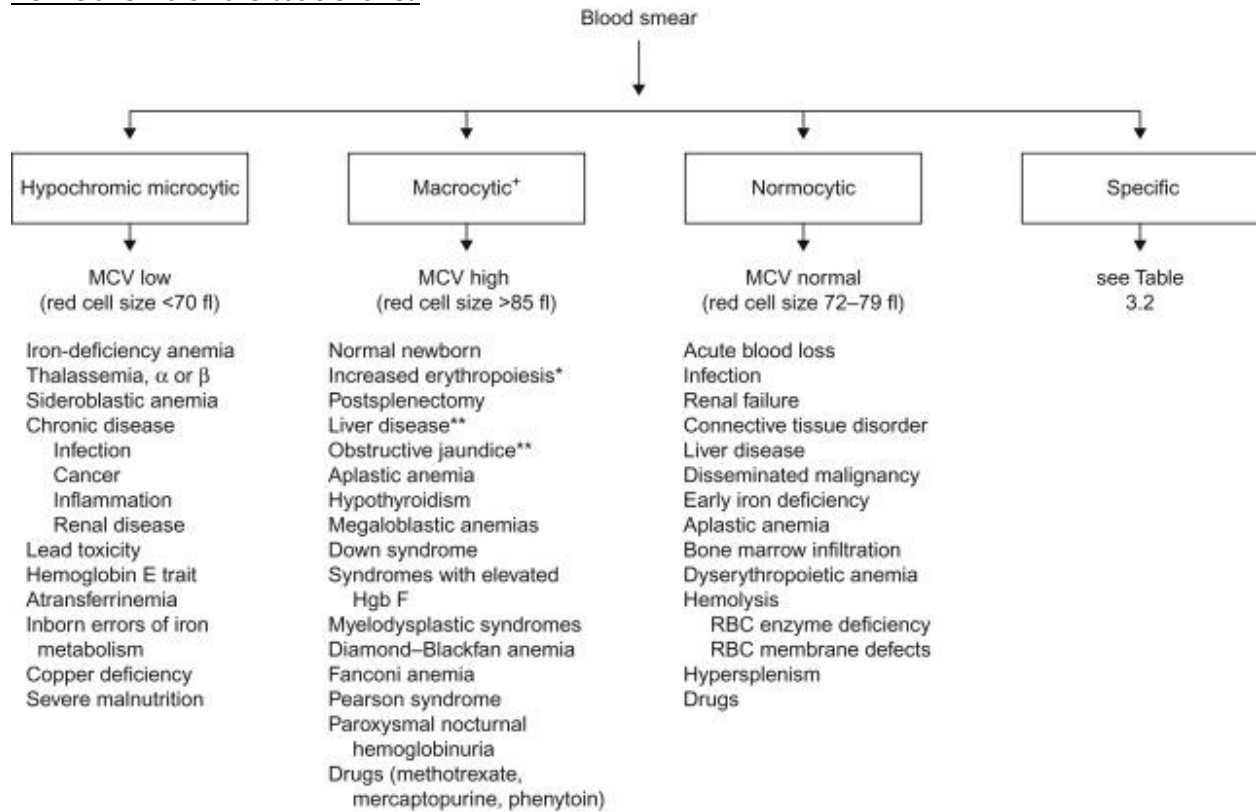
Medicine histroy joint pain

Chronic leukocytic leukemia wala slide?identification

Define the above image give

Description of image

Define anemia on the basis of size?



Beta thalasmia major is dominant or recessive??

Recessive

Multiple myeloma features?

MULTIPLE MYELOMA

- Multiple myeloma is a malignant disease arising from neoplastic transformation of plasma cells.
- Normally plasma cells produce polyclonal immunoglobulins in response to antigenic stimulation.
- In multiple myeloma, neoplastic plasma cells abnormally produce immunoglobulin of monoclonal origin called paraproteins.
- Most common type of paraprotein is of IgG type.
- In some cases, only light chains are produced which appear in urine (Bence Jones protein).

Clinical Features

- Myeloma is a disease of older adults.
- Important clinical presentations are anemia, bone pain and infections.
- Bone pain is more common in back and ribs. Pathological fracture is common.
- Patient may also present with renal failure, spinal cord compression and neuropathy.

Define the rash?

Measles

Measles causes symptoms like a bad cold or the flu. It also causes a flat, red rash. The rash usually starts on your face and spreads all over your body.

RUBELLA

The main symptom of rubella is a spotty rash that starts on the face or behind the ears and spreads to the neck and body. The rash takes 2 to 3 weeks to appear after getting rubella. The rash looks red or pink on white skin. It can be harder to see on brown or black skin, but might feel rough or bumpy.

What type of injury is it?

Enumerate its various types

Fire arm entry and exit wound difference

Methotrexate belongs to which group?

Antimetabolites anti cancer

Antiproliferatory and anti inflammatory use of methotrexate.

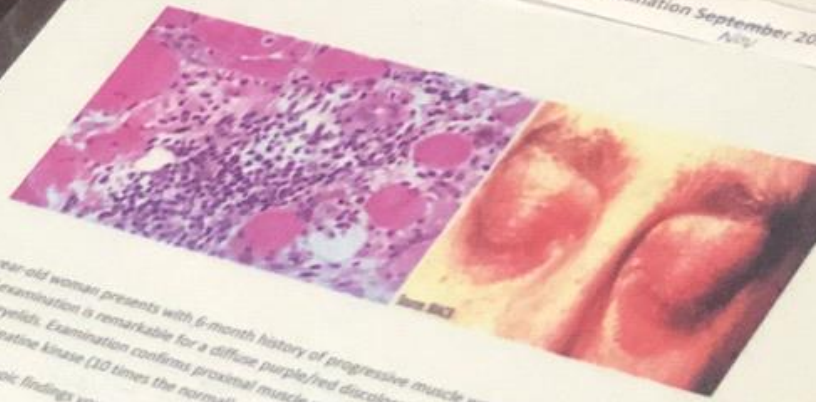
Although methotrexate was first introduced as an antiproliferative agent that inhibits the synthesis of purines and pyrimidines for the therapy of malignancies, it is now clear that many of the anti-inflammatory effects of methotrexate are mediated by adenosine

Used in inflammatory diseases such as severe psoriasis, Crohn disease, rheumatoid arthritis

Methotrexate adverse effect k ly kya karenge .

Should be given with folic acid and Vit B12 supplements to reduce hematologic and GI toxicities

OSPE STATION



A 52-year-old woman presents with 6-month history of progressive muscle weakness and a skin rash. Physical examination is remarkable for a diffuse purple/red discoloration of the skin over her cheeks, nose, and eyelids. Examination confirms proximal muscle weakness. Laboratory findings show an increase in creatine kinase (10 times the normal).

1. What microscopic findings you will observe in this case? 2
2. Name the rash you can see on the patients face especially around the eyes 1
3. What is your Diagnosis? 1
4. What group of muscles are involved in this type of myopathy? 1
5. What other specific feature you can see in patients suffering from this type of myopathy? 1

BLOCK-H 2022

Station : 07

A 45 yrs old female presented with symmetrical knee joint pain, swelling, morning stiffness and low grade fever. On examination, her interphalangeal joints are swollen and deformed. Anti CCP Antibodies positive. What drugs can be prescribed for acute inflammation as well as disease modification?

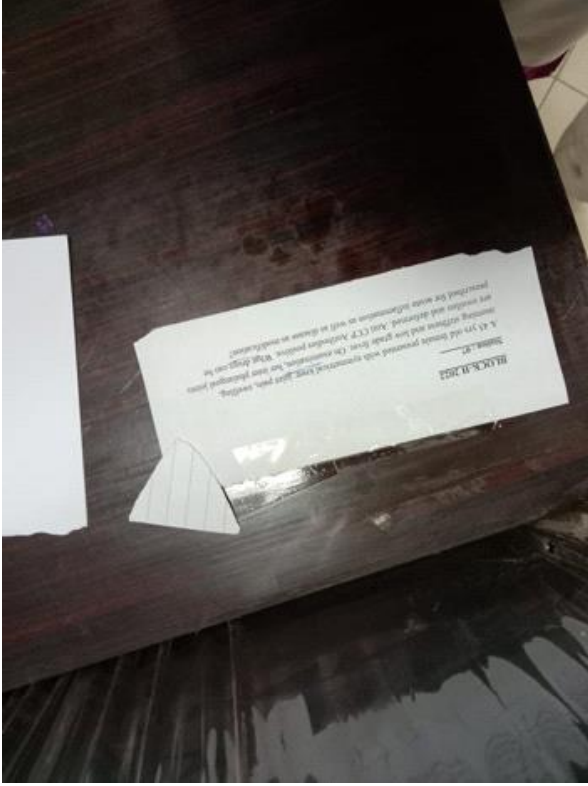


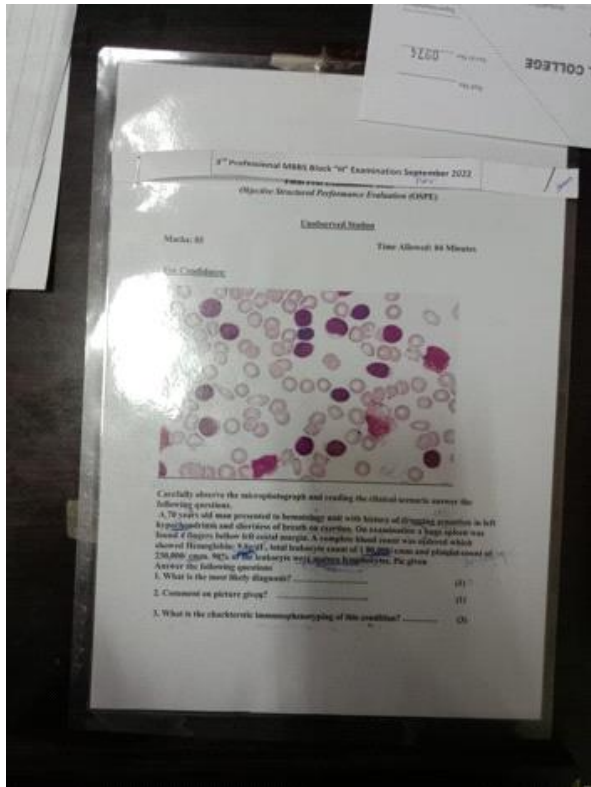
QUESTION 1 (9)

1. To which group of drug it belongs to?
2. Write the mechanism of action?
3. Give 3 major therapeutic uses of this drug?

Station : 10

A 7yrs old child came from hayatabad with complaint of pallor, fatigue, weakness and dizziness.
Blood complete picture shows Hb=8.9g/dl, MCV=65fl and HCT=25%. Write prescription for him?



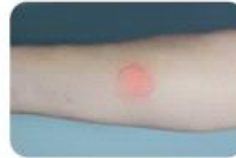


Evidence Collection - Forensic Odontology

[Visit](#)

Images may be subject to copyright. [Learn more](#)

Related content



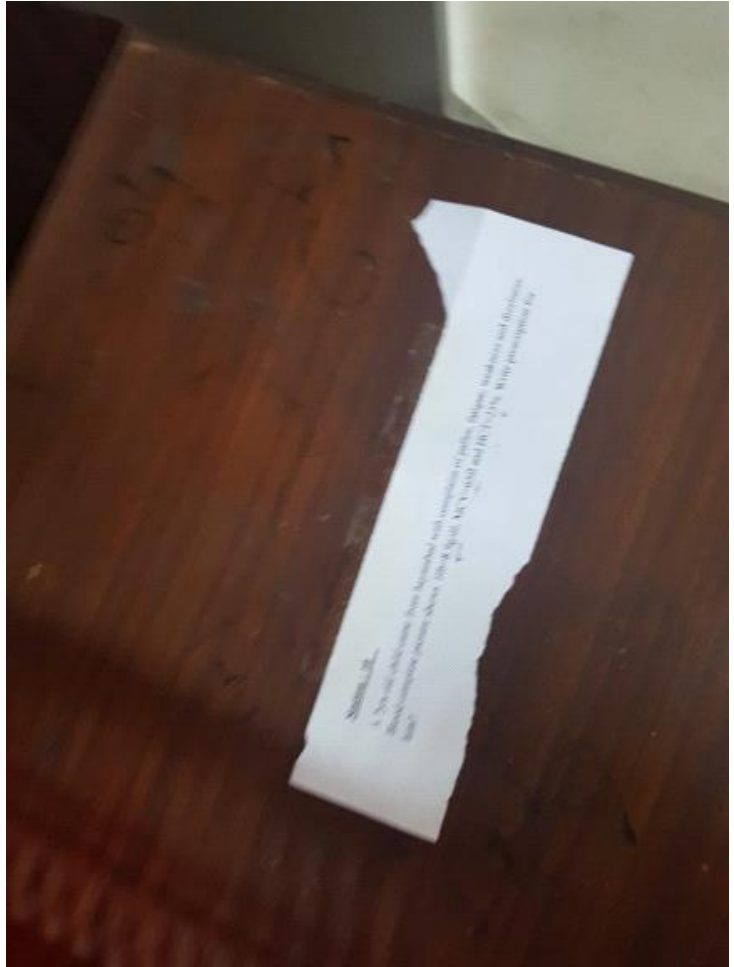
The Legal Examiner
Most agree bitemark...



Science | HowStuffWorks
Bite Mark Analysis -...

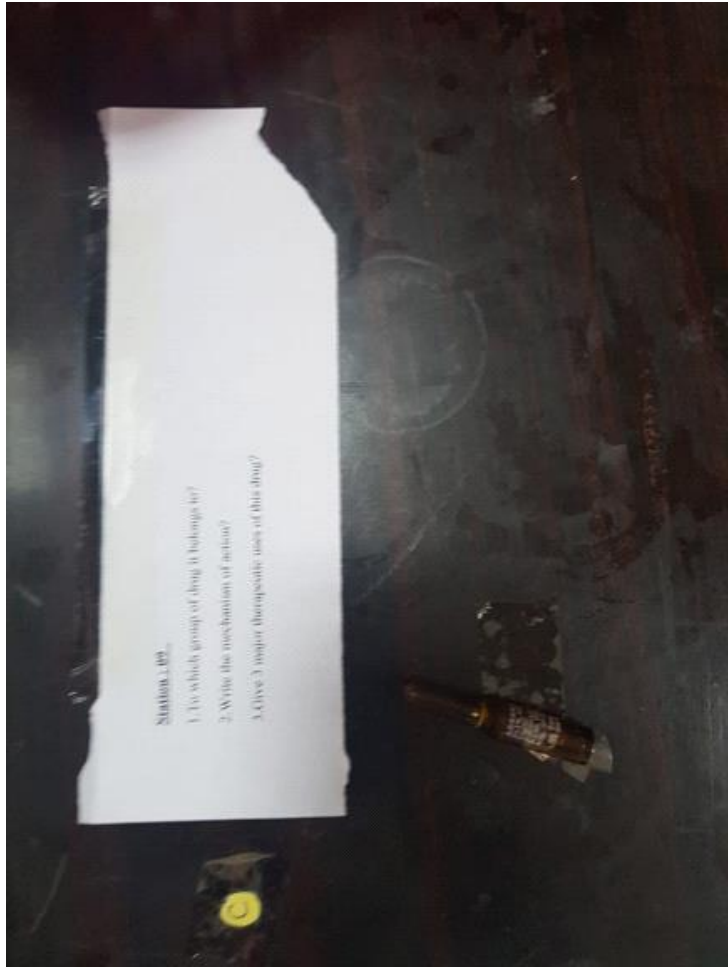


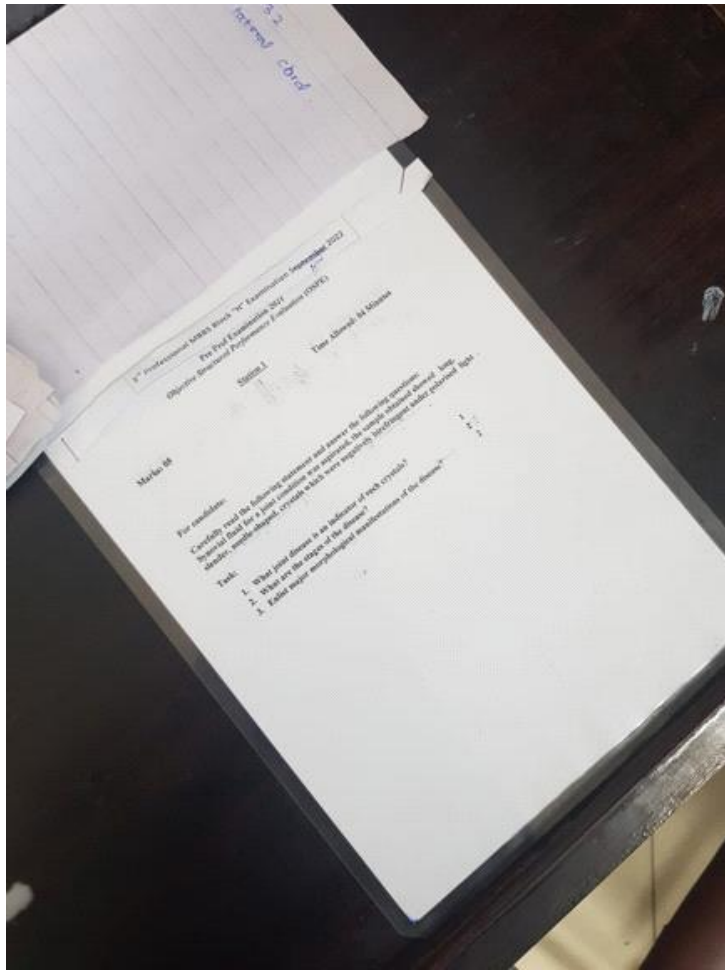
Nan



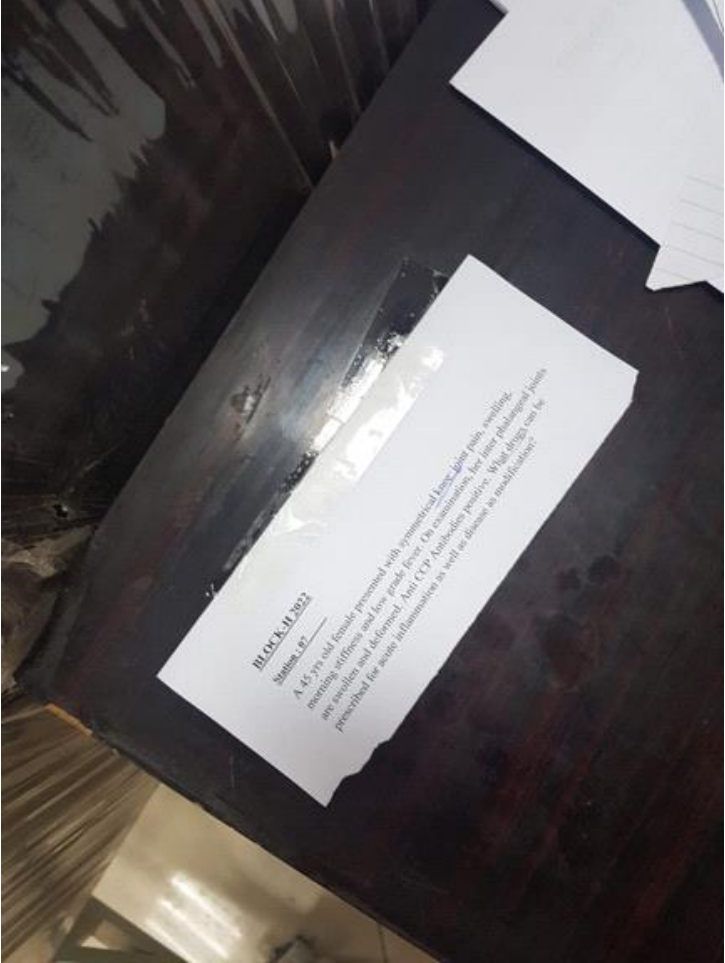
Station 1, 47.

1. To which group of drug is belongs to?
2. Write the mechanism of action?
3. Give 3 major therapeutic uses of this drug?





Red, tender, hot, swollen joint



BLOCK II 2022
Stemcell 1.9

A 25-year-old female presented with symmetrical lower limb pain, swelling, morning stiffness and fever (peak 1 year). On examination, her interphalangeal joints are swollen and deformed. Anti-CCP antibodies positive. What drugs can be prescribed for acute inflammation in such a disease as rheumatoid?