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2nd Edition

VISUAL MNEMONICS

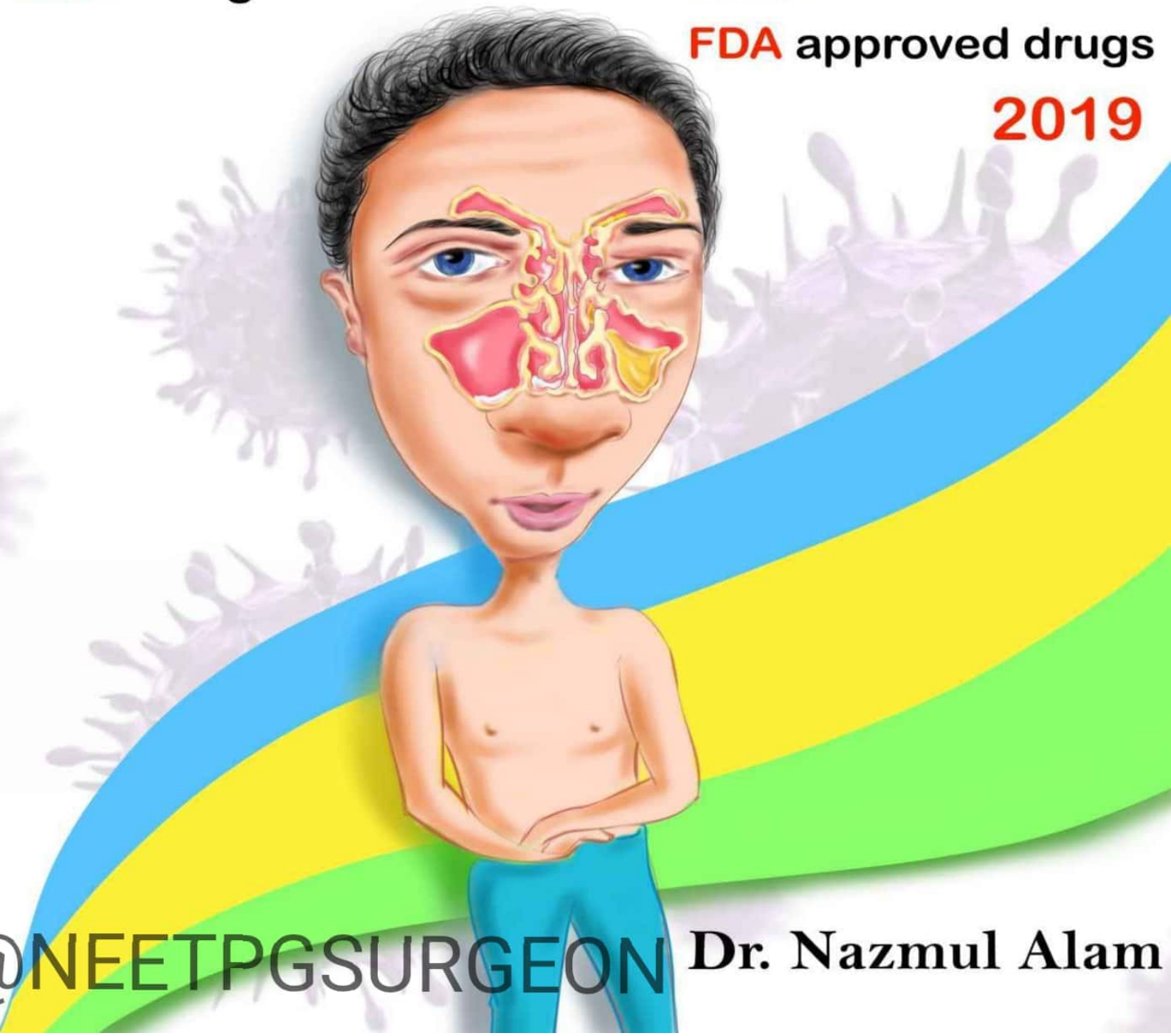
MEDICINE

500+ Drug of Choice

200+ mnemonics

FDA approved drugs

2019



@NEETPGSURGEON

Dr. Nazmul Alam

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MED NAZ

REVIEWS

susanth09
Me
Today, 10:27 AM

Thank you, Got it. Really appreciate your help Doctor. Your work is commendable. Helps to keep abreast of what one has learned. Thank you and stay blessed.

Show more

Adrish Biswas
To: Nazmul Alam
Today at 9:02 PM
AB

Hey , I have been following you for some time now and I must say I am a big fan of your work . Just bought the Pharmacology and Microbiology Mnemonic Combo and it's amazing . Looking forward to more interesting stuff from you! Thanks a bunch!

Top Reviews

Pawan Pilania

★★★★★ **Redefining Imagination of a Medico. Worth It.**
6 March 2019

When those bugs eat your brain and you close that bulky textbook. There you Need Mnemonics to Visualise and remember stuffs.
Great piece of work with awesome illustrations. Thanks a Lot Dr Nazmul 🙌

Helpful | Comment | Report abuse

Jennifer

★★★★★ **Very good**
6 March 2019

Thank you for such an awesome book. Learning micro with the help of this book, is just like a cake walk. Worth it👍

Helpful | Comment | Report abuse

Sohail Zaman
To: NAZMUL ALAM
Re: link
Today at 8:32 PM
SZ

Wow Mr Nazmul Alam for ur such an amazing Book of immunology.... special thing about ur content is that u organize them so well that nobody did it before....and through beautifull diagrams and mnemonics make the topic very easy and make the memory sharp....God bless ur brother for providing such a conceptual and Most easyiest book...
I would recommend it to everyone and specially to those who want some extra achievements in his/her medical carrier..... Once again Thanks for ur efforts....Lots of love from Pakistan❤❤❤👌👌👌

See More from NAZMUL ALAM

susanth09
Me
Today, 10:27 AM

Thank you, Got it. Really appreciate your help Doctor. Your work is commendable. Helps to keep abreast of what one has learned. Thank you and stay blessed.

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REVIEWS

Sir immunology books are tooo goooddd😍😍
Thank you so much

Sir aab tak 9 books bane hai na
Great work sir
Learning made easy🙌🙌

Message...

Sir just now I got it

It's awesome...

Thank you very much for the appreciation 👍

Definitely it's useful for us to study in smart way and easily to remember thanx u so much sir...

For ur excellent work👍

Message...

already get it

Thank you so muchhh

The book so good 👍

Message...

I got email, sorry for bothering and thank you for your great work. ❤️

Hey.. just noticed your message. Sorry for the late response. Thank you very much for the appreciation and support. Have a great day. 👍

Message...

Thank you..I just my 2nd attempt to purchase successfully..the books are just awesome..I had interest in buying the books after u uploaded those screen shots of few pages from the books..In that I found a sentence saying IL-1 aks osteoclast activating factor..asap I thought that this is some high yield book and I have to go for it..so in future please do upload few screen shots from ur further books ...a big Congo to ur efforts

Typing...

Message...

Thank you for the payment. Please check your email

Thx for all the PDFs. They are awesome!!

Message...

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MED JNAZ

INDEX

- Cardiovascular system
- Endocrine system
- Gastroenterology
- Haematology
- Infectious diseases
- Integumentary system
- Liver and Biliary system
- Musculoskeletal system
- Nervous system
- Psychiatry
- Renal system
- Reproductive system
- Respiratory system
- Drug of choice
- FDA approved drugs 2019

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Cardiovascular System

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Acute MI treatment

www.medinaz.com

Glycerol trinitrate
Oxygen
Aspirin
Cyclomorph

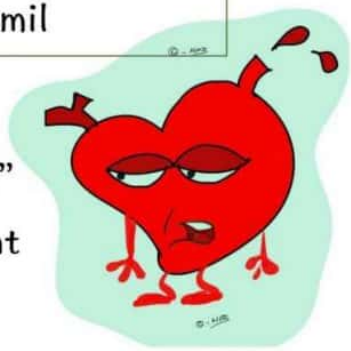
"GOA Calling"

Anti-arrythmics for AV nodes

www.medinaz.com

Beta blockers
Adenosine
Digoxin
Verapamil

"BAD Ventricle"
needs treatment



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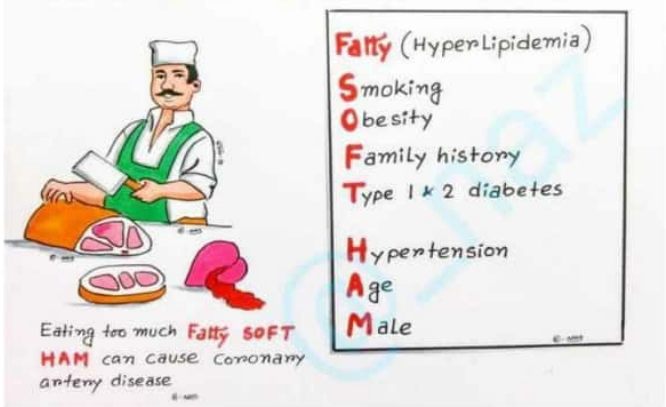
Coronary artery disease risk factors



Fatty (HyperLipidemia)
Smoking
Obesity
Family history
Type 1 & 2 diabetes

Hypertension
Age
Male

Aortic Dissection risk factors

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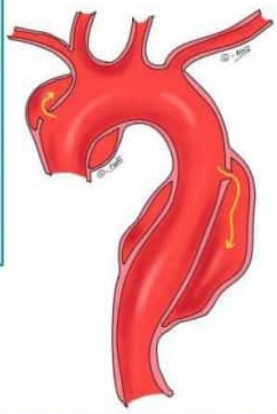
"A,B,C"

Atherosclerosis, Ageing,
Aortic aneurysm
Blood pressure high,
Baby (pregnancy)
Connective tissue disorders
(Marfan's, Ehlers-danlos),
Cystic medial necrosis

Aortic dissection



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Beck's triad (Cardiac tamponade)

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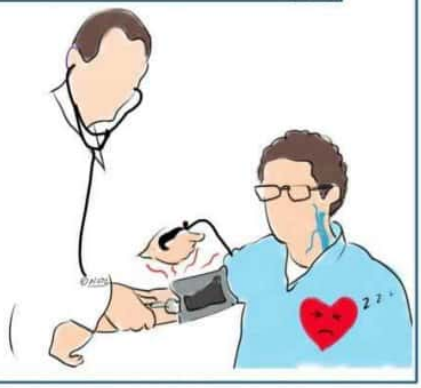
Distant heart sound

Distended jugular veins

Decreased arterial pressure

3D's



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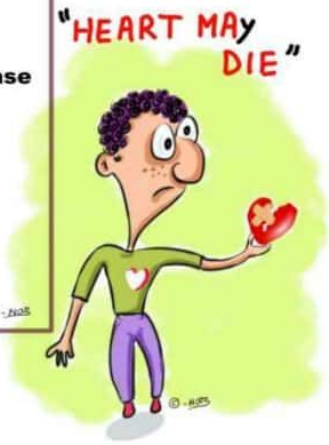
Heart Failure Causes

Hypertension
Embolism
Anemia
Rheumatic heart disease
Thyrotoxicosis
Myocardial infarction
Arrhythmia
Diet and lifestyle
Infection
Endocarditis



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Kawasaki Disease

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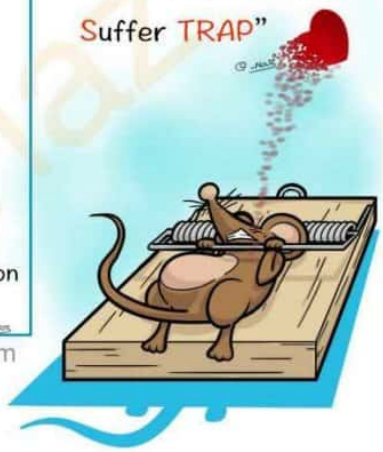
MI Complications

Arrhythmias
Congestive heart failure
Pericarditis
Shock cariogenic
Thromboembolism
Rupture
Aneurysm cardiac
Post myocardial infarction syndrome

"All Cardiac Patients Suffer TRAP"



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Pericarditis Causes

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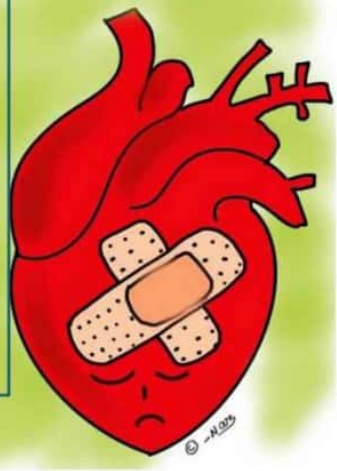
- Collagen vascular disease
- Aortic dissection
- Radiation
- Drugs
- Infections
- Acute renal failure
- Cardiac (MI)
- Rheumatic fever
- Injury
- Neoplasms
- Dressler syndrome

"CARDIAC RIND"



Raised JVP differential

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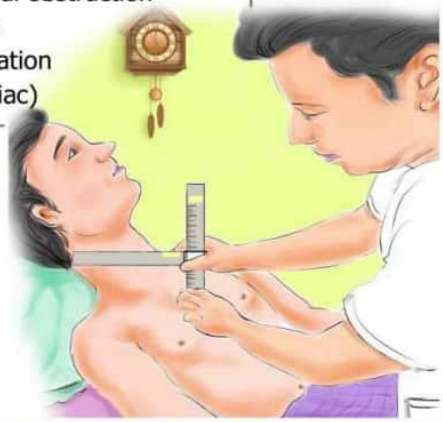
- Pericardial effusion
- Quantity of fluid raised (fluid over load)
- Right heart failure
- Superior vena caval obstruction
- Tricuspid stenosis
- Tricuspid regurgitation
- Tamponade (cardiac)

"PQRST"



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Right to Left Shunt

4 "T"

Tetralogy of fallot

Tricuspid atresia

Truncus arteriosus

Transposition of great vessels

Angina precipitating factors

4 E's

Exertion

Eating

Emotional distress

Extreme temperature

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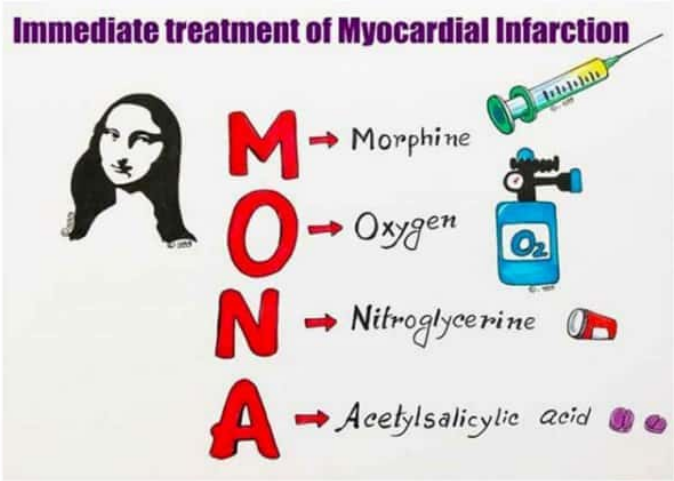
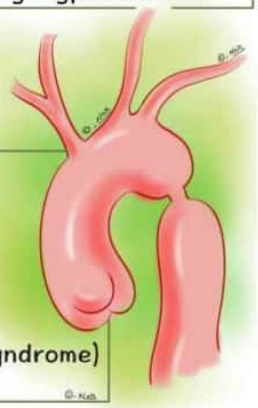


Secondary Hypertension Causes

www.medinaz.com

"Pathological Aorta Causes Secondary Hypertension"



Pheochromocytoma
Aortic coarctation
Cushing syndrome
Stenosis of renal arteries
Hyperaldosteronism (Conn syndrome)

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Turner Syndrome

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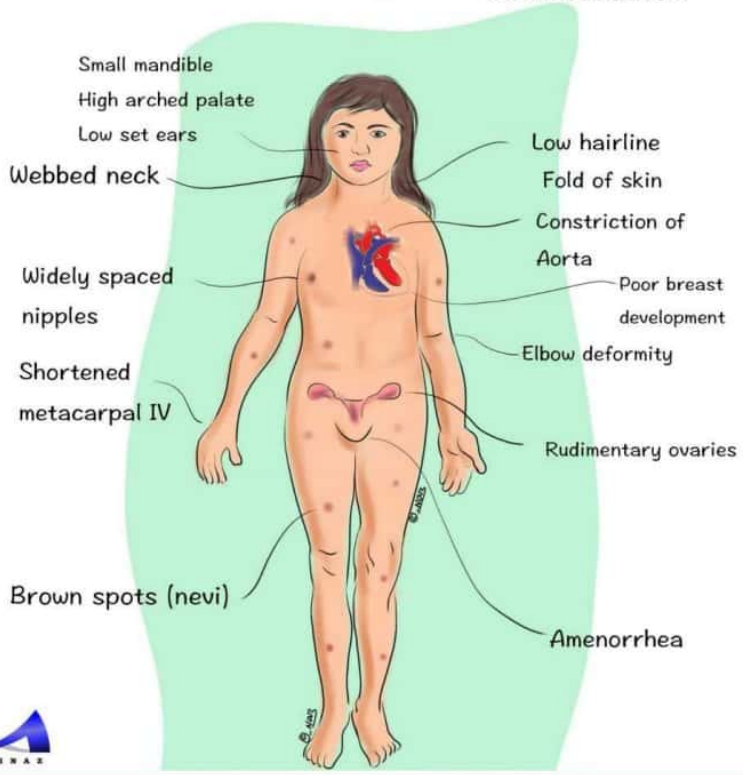

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Endocrine System

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Acromegaly Symptoms

Arthralgia / **A**rthritis
Blood pressure raised
Carpal Tunnel **S**yndrome
Diabetes
Enlarged Organs
Field Defect

"ABCDEF"

4 "S" of Adrenal Crisis Management

Salt : 0.9% saline
Steroids : I.V. cortisone 100 mg
Support
Search for the underlying illness

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Prolactin **P**roduce **Milk**

Oxytocin **O**oze (release) **Milk**

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Addison's **D**isease

Adrenal **D**eficiency

Cushing **S**yndrome

Cortisol **S**urge

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Adrenal Crisis Management

4 "S"

Salt - 0.9% saline
Steroids - IV hydrocortisone 100mg q 8 h
Support
Search underlying causes

Cretinism occurs in **C**hildren

Myxoedema occurs in **M**ature people

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CUSHING SYNDROME

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"CUSHING"

Central obesity, Collagen finer weakness,
Comedones (acne)
Urinary free cortisol and glucose increase
Striae, Suppressed immunity
Hypercortisolism, Hypertension,
Hyperglycemia, Hypercholesterolemia
Iatrogenic (Increased administration of corticosteroid)
Noniatrogenic (Neoplasms)
Glucose intolerance, Growth retardation

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DIABETES MELLITUS

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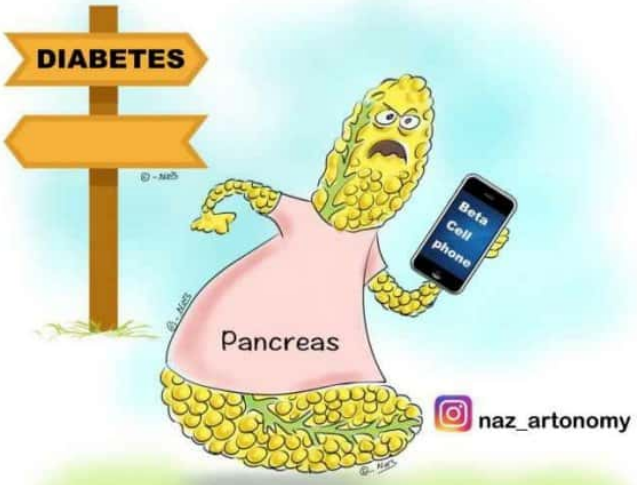

No signal…What the Hell !!!

Diabetes Complications

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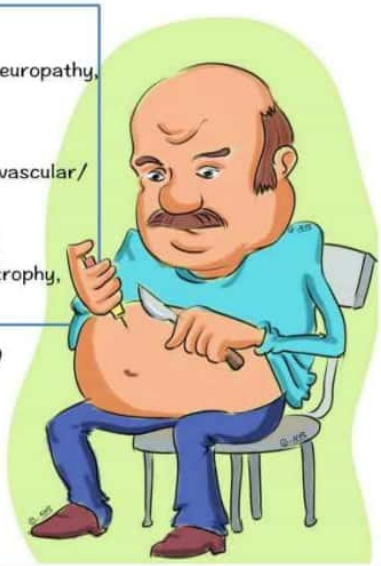
Kidney – nephropathy
Neuromuscular – peripheral neuropathy, mononeuritis, amyotrophy
Infective – UTIs, TB
Vascular – coronary/cerebrovascular/ peripheral artery disease
Eye – cataracts, retinopathy
Skin – lipohypertrophy/lipoatrophy, necrobiosis lipoidica

"KNIVES"



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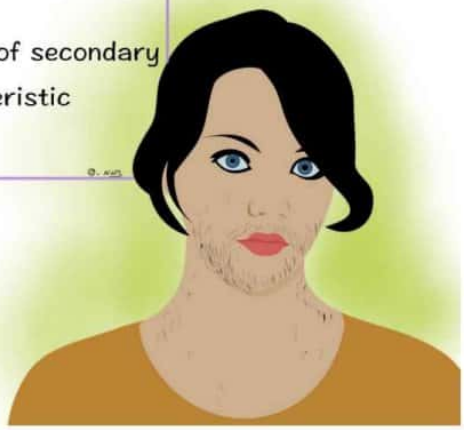
Hirsutism

Hair on body like a male

Virilism

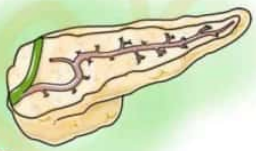
Voice & rest of secondary sexual characteristic like a male



MEN 1 affects

'P' Organs

Pituitary



Pancreas

Parathyroid

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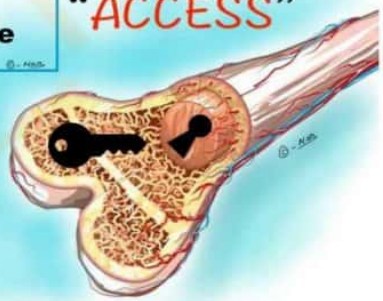
Osteoporosis Causes

Alcohol
Corticosteroid
Calcium deficiency
Estrogen deficiency
Smoking
Sedentary lifestyle

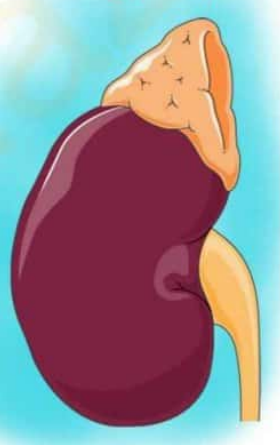
"ACCESS"



5 P's of Pheochromocytoma

Pressure (BP)
Pain (headache)
Perspiration
Palpitations
Pallor

5 "P"



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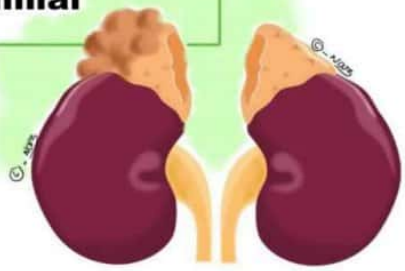
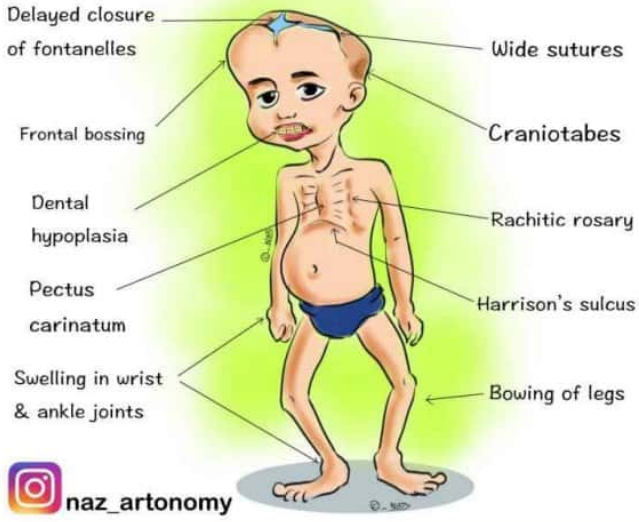
10% Rule of PHEOCHROMOCYTOMA

10% extra-adrenal
10% bilateral
10% malignant
10% in children
10% familial



Rickets Clinical Features

www.medinaz.com



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Rickets Clinical Features

www.medinaz.com

"RICKETS"

R = Rachitic rosary
I = pIgeon chest
C = Craniotabes
K = Knock knees
E = End of long bones become wide
T = Teeth-delayed eruption & hypoplasia
S = Skull-Frontal bossing & delayed closure of fontanelles

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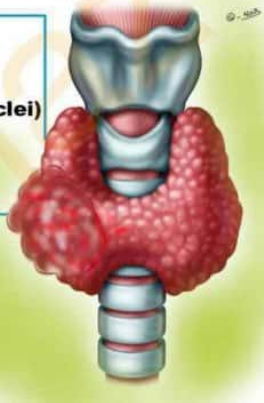
Thyroid Neoplasms

5 "p"s

Papillary most popular
Papillae (branching)
Pupil nuclei (Orphan Annie nuclei)
Psammoma bodies
Positive prognosis



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Gastrointestinal System

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Abdominal pain causes during pregnancy

www.medinaz.com

"LARA CROFT"

- Labour
- Abruption of placenta
- Rupture (eg. ectopic/uterus)
- Abortion
- Cholestasis
- Rectus sheath hematoma
- Ovarian tumor
- Fibroids
- Torsion of uterus

Causes of Abdominal swelling

9 Fs

- **Fat**
- **Fluid**
- **Full bladder**
- **Full-sized tutor**
- **False pregnancy**
- **Feces**
- **Flatus**
- **Fetus**
- **Fibroids**

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Insulin-independent glucose uptake

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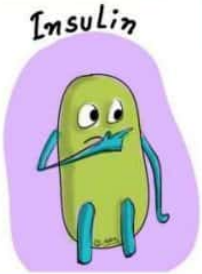
Brain
RBCs
Intestine
Cornea
Kidney
Liver
Islet (β) cells
Placenta
Spermatocytes

"BRICK LIPS"



Leptin vs Ghrelin

www.medinaz.com

Leptin keeps you thin

Ghrelin makes you hunghre and ghreow (grow)

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Pyloric Stenosis

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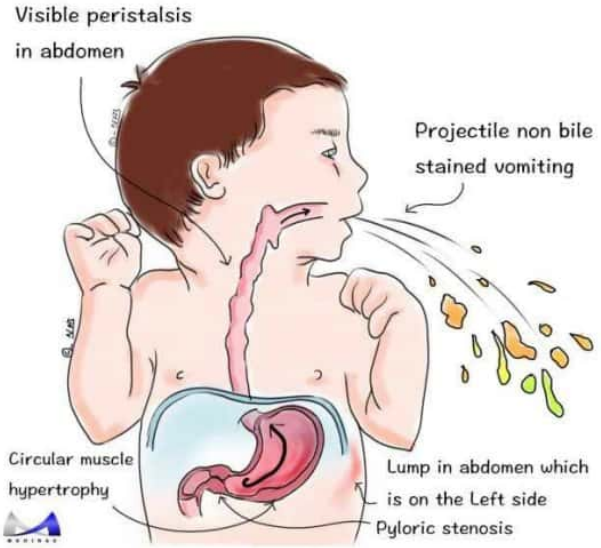

Pyloric Stenosis

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Peristalsis (Visible peristalsis in abdomen)
Yuck! So the kid vomits everything he eats (non bile stained vomiting)
Lump in abdomen which is on the Left side
Olive mass, Doughnut sign on USG
Ramstedt's pyloromyotomy (treatment)
Imbalance of electrolytes
Circular muscle hypertrophy

"PYLORIC"

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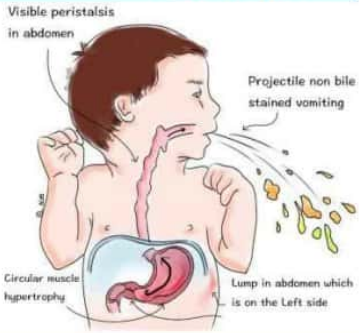

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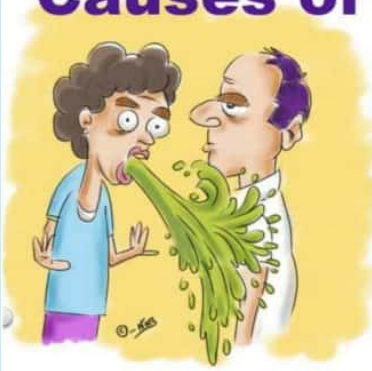
Causes of Vomiting



V	Vestibular / Vagal reflex
O	Opiates
M	Migraine / Metabolic (DKA)
I	Infection
T	Toxicity (cytotoxic,digoxin)
I	Increased ICP / Ingested alcohol
N	Neurogenic
G	GI / Gestation

Gastric Ulcer
Greater Pain

Duodenal Ulcer
Decrease Pain

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Somatostatin vs Somatomedin

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Somatostatin keeps your growth static
Somatomedin mediates your growth

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Zenker diverticulum

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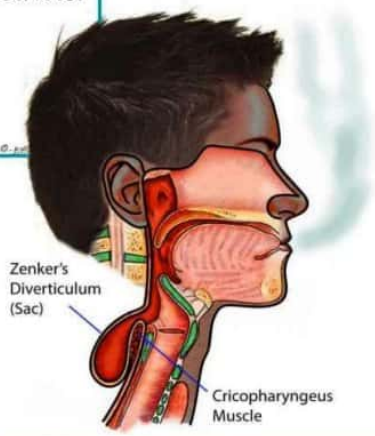
Elderly
Males
Inferior pharyngeal constrictor
Killian triangle
Esophageal dysmotility
Halitosis

"Elder MIKE has bad breath"



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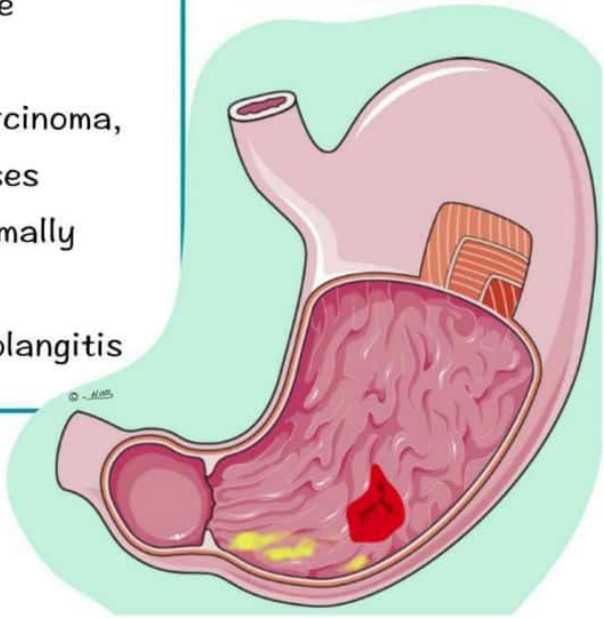
Ulcerative colitis

www.medinaz.com

"ULCCCERS"

Ulcers
Large intestine
Continuous,
Colorectal carcinoma,
Crypt abscesses
Extends proximally
Red diarrhea
Sclerosing cholangitis



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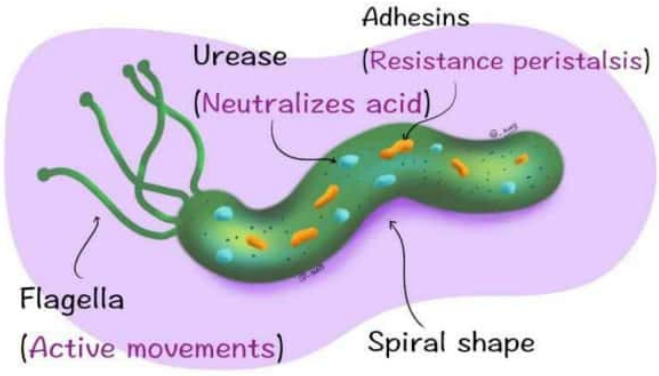
Helicobacter pylori

www.medinaz.com



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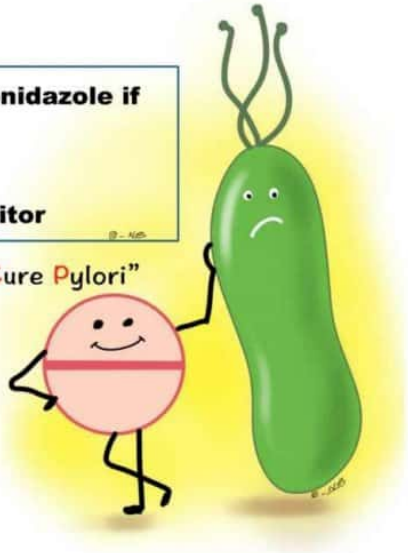
Helicobacter pylori

www.medinaz.com

Triple therapy..

Amoxicillin (metronidazole if penicillin allergy)
Clarithromycin
Proton pump inhibitor

"Antibiotics Cure Pylori"



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Haematology

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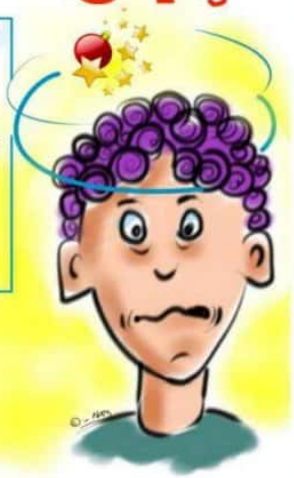
Acute Intermittent Porphyria

www.medinaz.com

5 Ps

Pain in abdomen
Polyneuropathy
Psychological abnormalities
Pink urine
Precipitated by medicines (sulphur containing drugs)



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Battle's Sign

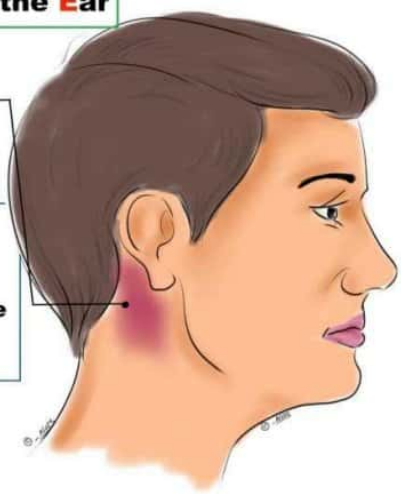
www.medinaz.com

BattlE = Behind the Ear

Battle's Sign

4 B's

Battle Sign
Bruises Seen
Basilar Skull fracture
Behind the ear



MEDINAZ

Causes of high ESR

Neoplasia
Anemia, Autoimmune
Pregnancy
Kidney disease
Infection, Inflamation
Neoplasm

ALso **R**em**E**mber
L Giant cell arteritis // Macroglobulinemia // Allergic Vasculitis
Hyperfibrinogenemia // Necrotizing vasculitis

Parenteral anti-coagulants

HEPARIN
ENOXAPRIN
ARGATROBAN
DALTEPARIN

MEDINAZ

Kawasaki Disease

www.medinaz.com

Apply "Warm CREAM" in Kawasaki disease

Warm = Fever >5 days
C = Conjunctivitis (non-exudate)
R = Rash
E = Edema / Erythema of hands & feet
A = Adenopathy cervical
M = Mucositis, strawberry tongue

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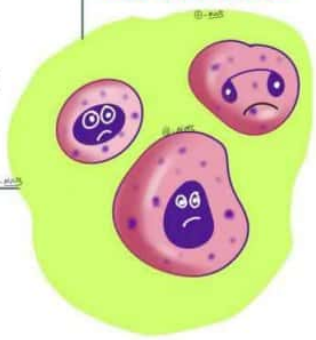
Leukaemia signs & symptoms

www.medinaz.com

Light skin (pallor)
Enlarged spleen, liver lymph nodes
Underweight
Kidney failure
Excess heat (fever)
Mottled skin (haemorrhage)
Infections
Anaemia

"LEUKEMIA"



MEDINAZ

Thrombocytopenia Causes

Platelet disorders
(TTP,ITP,DIC)
Leukemia
Anaemia
Trauma
Enlarged spleen
Liver disease
Ethanol
Toxins
(Benzene,Heparin,Aspirin)
Sepsis

@_naz

Thrombotic Thrombocytopenic Purpura

"PARTNERS"

Platelet count low
Anemia (microangiopathic hemolytic)
Renal failure
Temperature rise
Neurologic deficits
ER admission (emergency)
Schistocytes

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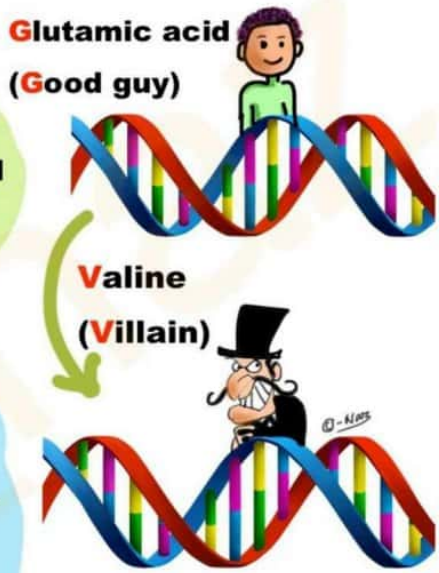
MEDINAZ

Sickle cell anaemia

In Sickle cell anaemia
Glutamic acid is replaced
by Valine

Sickle cell anaemia is
a disease (bad condition).

So Villain replaces
Good guy.



MEDINAZ

Infectious Disease

@NEETPGSURGEON

MEDINAZ

Aedes-carried Diseases

www.medinaz.com

Dengue
Rift valley fever
Yellow fever
Chikungunya

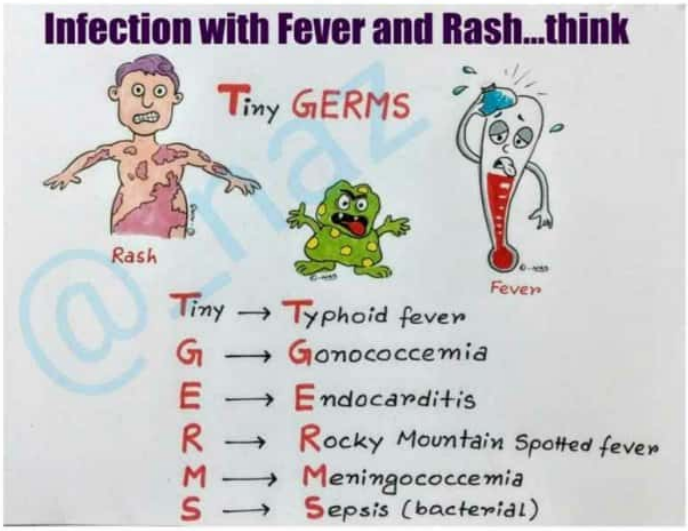
Aedes like
"DRY Chicken"

Falciparum malaria complications

"CHAPLIN"

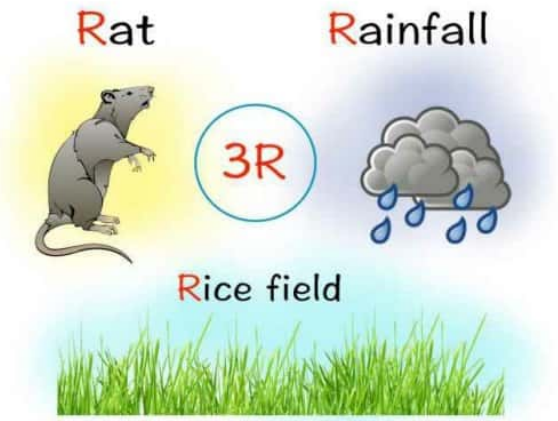
Cerebral malaria / **C**oma
Hypoglycemia
Anaemia
Pulmonary edema
Lactic acidosis
Infections
Necrosis of renal tubules

MEDINAZ



Leptospirosis is associated with..

www.medinaz.com



MEDINAZ

Aspergillus

A. niger → Otomycosis

A. nigER **Ear**

Infection

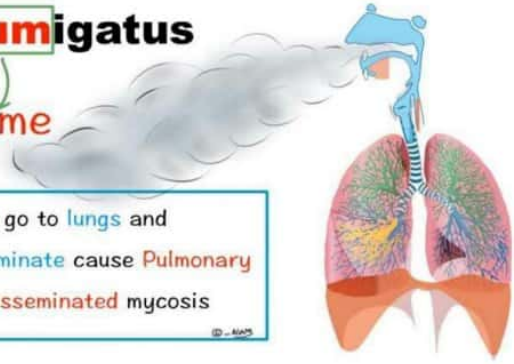
Aspergillus

A.fumigatus →

- Pulmonary aspergillosis
- Invasive aspergillosis
- Keratomycosis

A.fumigatus

fume

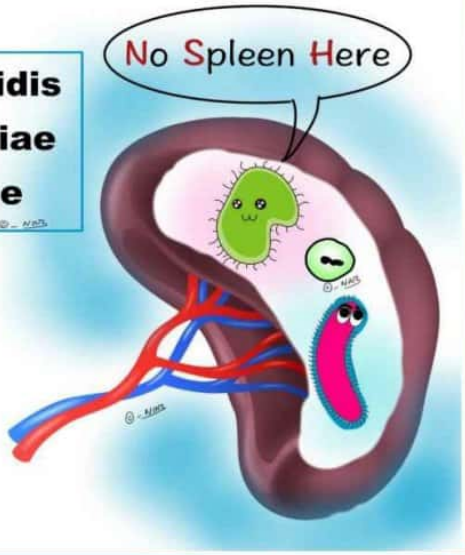


Fumes go to lungs and disseminate cause Pulmonary and Disseminated mycosis

MEDINAZ

Asplenics need vaccines
to protect against....

N meningitidis
S pneumoniae
H influenzae



Botulism Symptoms
www.medinaz.com

Diplopia
Dysarthria
Dysphagia
Dyspnea

"4 D's"

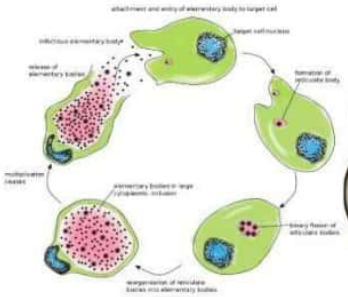
MEDINAZ

Chlamydiae

www.medinaz.com

Elementary body (small, dense) is "Enfectious" and Enters cell via Endocytosis; transforms into reticulate body

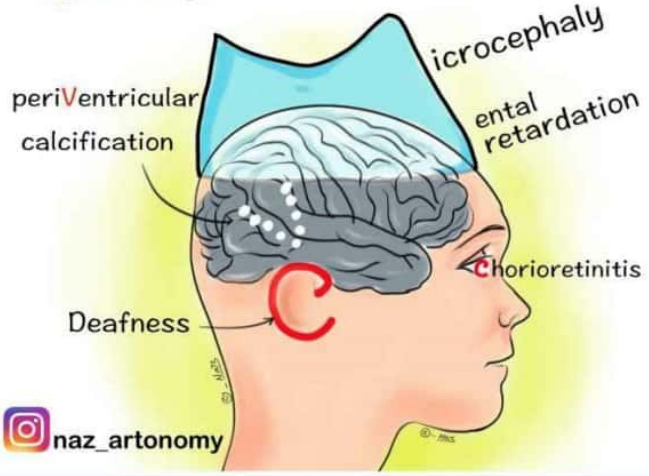
Reticulate body Replicates in cell by fission; Reorganizes into elementary bodies.



Cytomegalovirus infection in Newborn

www.medinaz.com

C M = CMV



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MEDINAZ

Endemic Mycosis

www.medinaz.com

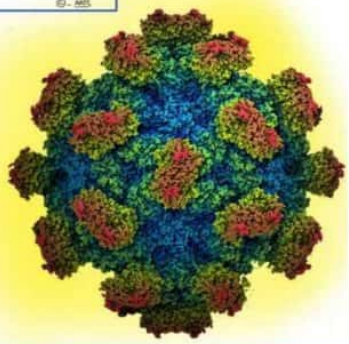
"Pakistan Cricket Board Headquarter"

Paracoccidioidomycosis
Coccidioidomycosis
Blastomycosis
Histoplasmosis

Hepatitis A virus

www.medinaz.com

Asymptomatic
Acute
Alone (No carrier state)



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Hepatitis B virus

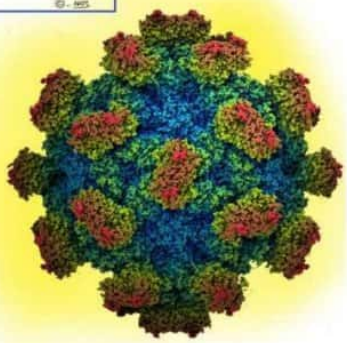
www.medinaz.com

Transmission

Blood

Baby- making (sexual)

Birthing (perinatal)



Hepatitis C virus

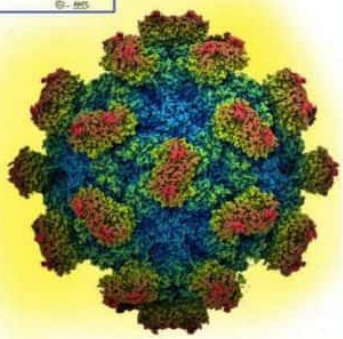
www.medinaz.com

Cirrhosis

Carcinoma

Chronic

Carrier state (very common)



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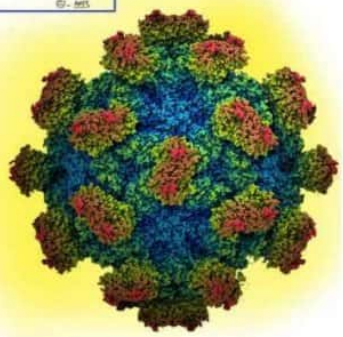
Hepatitis D virus

www.medinaz.com

Defective virus
Depends on
HBV HBsAg coat for
entry into hepatocytes



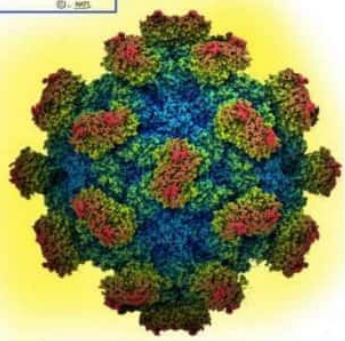
Hepatitis E virus

www.medinaz.com

Expectant (pregnant)

(Fulminant hepatitis in women)

Enteric
Epidemic



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HIV Infection

www.medinaz.com

Four stages of untreated infection:

Flu-like (acute)

Feeling ne (latent)

Falling count

Final crisis

Measles (rubeola)

www.medinaz.com

Cough

Coryza

Conjunctivitis

"3 C's"

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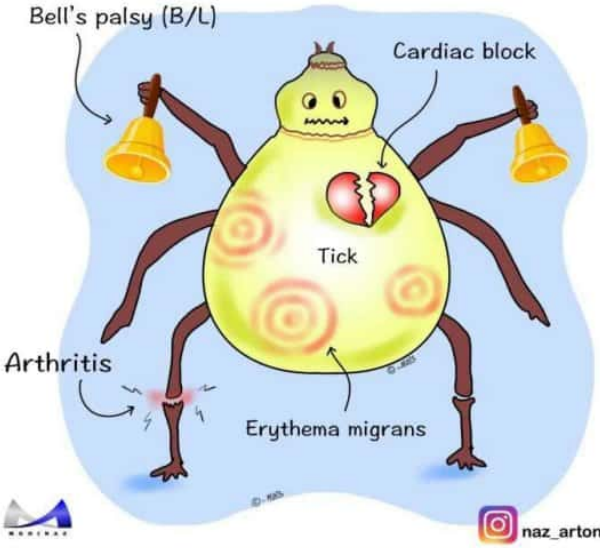
Lyme Disease

www.medinaz.com



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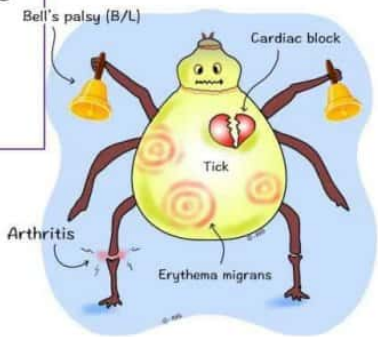
Lyme Disease

www.medinaz.com

Bell's palsy (B/L)
Erythema migrans
Arthritis
K(c)ardiac block

"BEAK"



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Mumps Symptoms

www.medinaz.com

Parotitis
Orchitis
aseptic **M**eningitis
Pancreatitis

"Mumps makes your parotid glands and testes as big as POM-Poms"

Mumps Complications

"SOAP"

Salpingitis
Orchitis
Oophoritis
Aseptic meningitis
Pancreatitis

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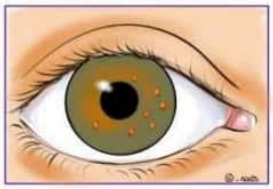
Neurofibromatosis type 1 (NF1)

www.medinaz.com

Lisch nodules



Skin fold Freckling

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Diagnostic criteria for Neurofibromatosis

Relative (1st degree)
Osseous fibromas
Neurofibromas
Axillary freckling
Lisch nodules in eye
Dime size cafe au lait spots
Optic gliomas

"RONALDO"

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MEDINAZ

Pseudomona

Pseudomona aeruginosa

can produce Green pus

Pseudomonas aeruginosa Treatment

www.medinaz.com

Carbapenems
Aminoglycosides
Monobactams
Polymyxins (eg, polymyxin B, colistin)
Fluoroquinolones (eg, ciprofloxacin, levofloxacin)
ThIRd- and fourth-generation cephalosporins (eg, ceftazidime, cefepime)
Extended-spectrum penicillins (eg, piperacillin, ticarcillin)

"CAMPFIRE"

MEDINAZ

Day of appearance of rash in febrile patient

Varicella - day 1
Scarlet fever - day 2
Pox (small) - day 3
Measles - day 4
Typhus - day 5
Dengue - day 6
Typhoid - day 7

"Very Sick Person Must Take Double Tablets"

Rickettsia Vs Typhus Rash

www.medinaz.com

Rickettsia on the wRist

(Rash starts on hand and feet)

Typhus on the Trunk

(Rash starts centrally and spreads out, sparing palms and soles)

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Palm & Sole Rash

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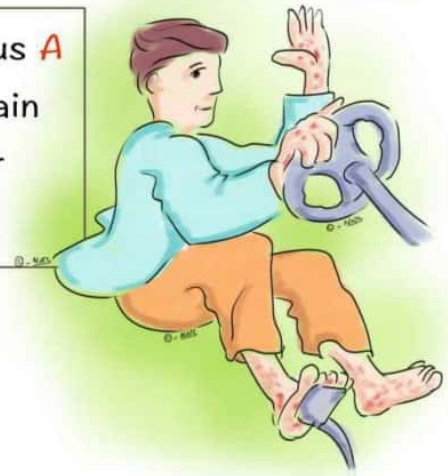
"We drive CARS using our Palms and Soles"

Coxsackievirus A
Rocky mountain spotted fever
Syphilis



Therapeutic use of Interferons

Interferon Alpha → Viruses — HBV,HCV,HHV-8,HTLV-2

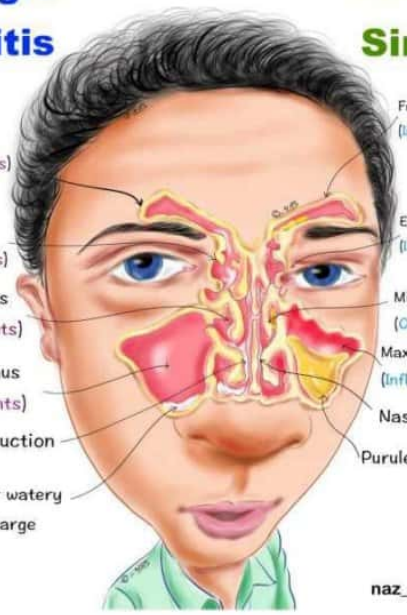
Interferon Beta → Multiple Sclerosis

Interferon Gamma → Granulomatous disease (Chronic)

MEDINAZ

Allergic Rhinitis

Acute Sinusitis



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Streptococcus pneumoniae

www.medinaz.com

Most common cause of

- Meningitis
- Otitis media (in children)
- Pneumonia
- Sinusitis

Mnemonic

MOPS can spread pneumonia

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Staphylococcus aureus causes

www.medinaz.com

Skin infections
Osteomyelitis
Food poisoning
Toxic shock syndrome
Pneumonia
Acute endocarditis
Infective arthritis
Necrotizing fasciitis
Sepsis

"SOFT PAINS"

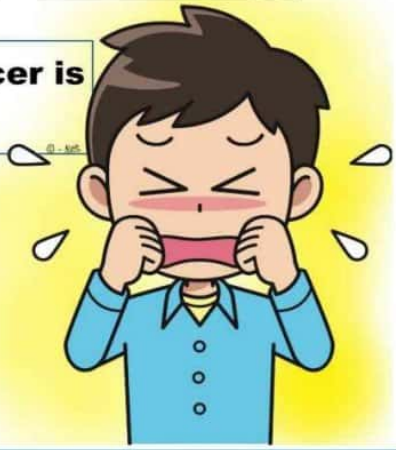
MEDINAZ

Syphilis vs H. ducreyi

www.medinaz.com

In du-crey-i, you do cry
(Because the ulcer is painful)

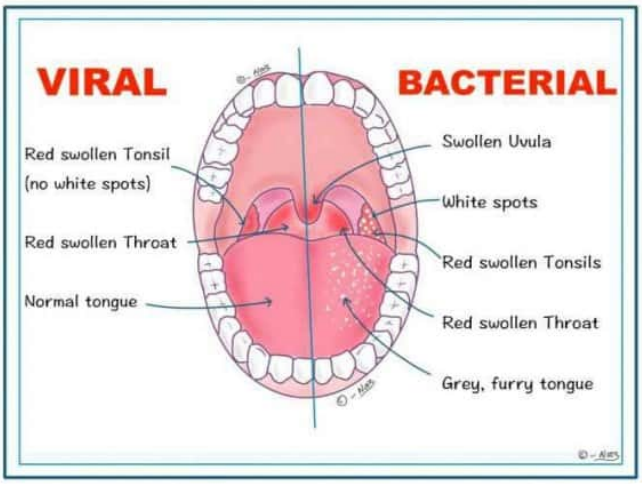
Syphilitic ulcer is
Painless



MEDINAZ

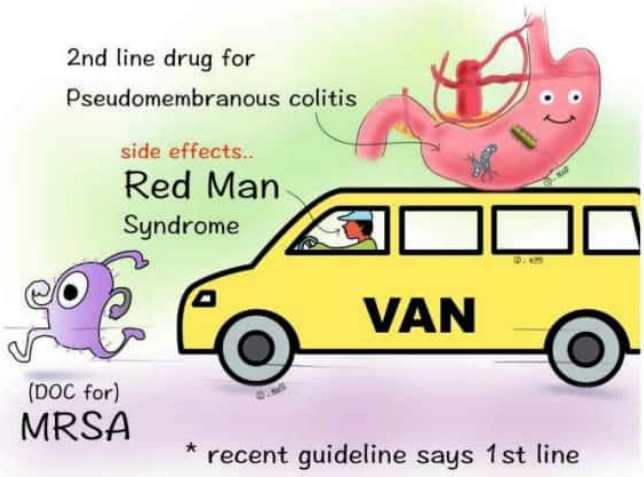
MEDINAZ

THROAT INFECTION



Vancomycin

www.medinaz.com



* recent guideline says 1st line

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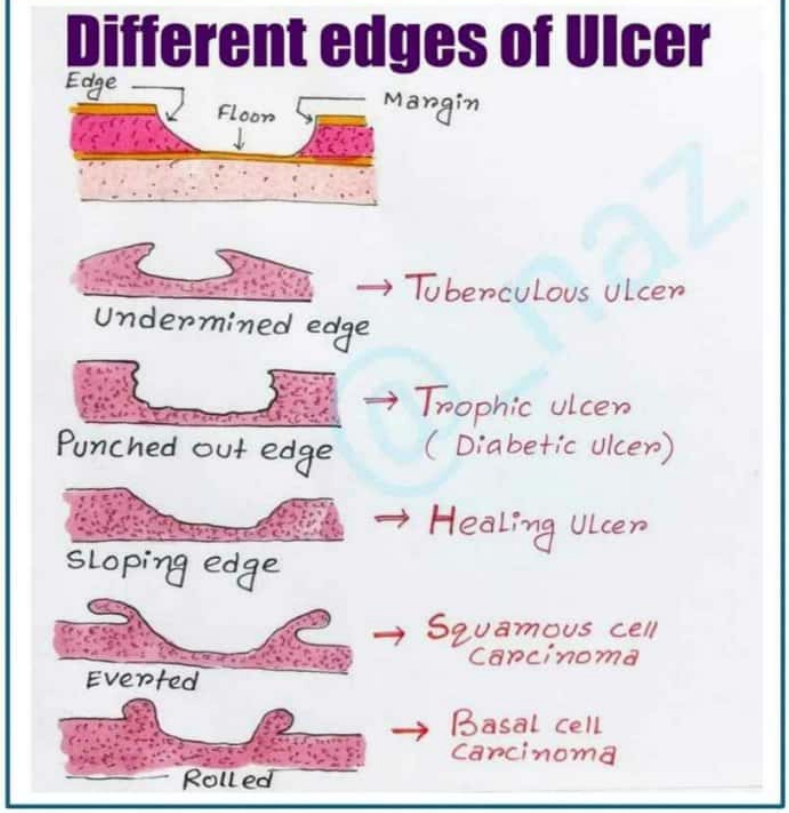
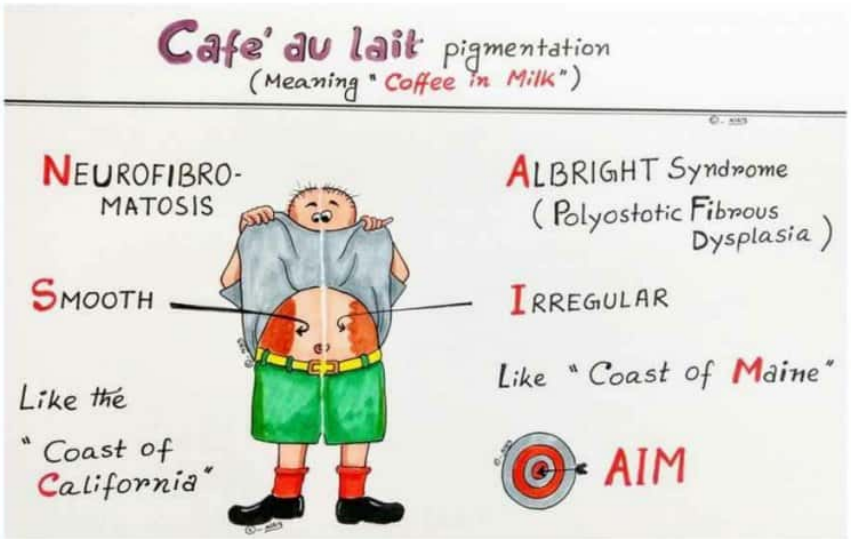
Integumentary system


Different edges of Ulcer
Edge
Floor
Margin
Undermined edge
→ Tuberculous ulcer
Punched out edge
→ Trophic ulcer
(Diabetic ulcer)
Sloping edge
→ Healing ulcer
Everted
→ Squamous cell carcinoma
Rolled
→ Basal cell carcinoma


Cafe' au lait pigmentation
(Meaning "Coffee in Milk")
NEUROFIBRO-MATOSIS
SMOOTH
Like the "Coast of California"
ALBRIGHT Syndrome
(Polyostotic Fibrous Dysplasia)
IRREGULAR
Like "Coast of Maine"
AIM

MEDINAZ

Café-Au-Lait Pigmentation

Commonly seen...

"He Never Played (with) Pigments"

Hypothyroidism

Neurofibromatosis (type 1)

Polyostotic fibrous dysplasia

Peut-Jegher's syndrome

Erythema nodosum causes

www.medinaz.com

NO cause (60% idiopathic)
Drugs: sulfa, iodide
Oral contraceptives
Sarcoidosis
Ulcerative colitis/Crohn disease
Microbiology (TB, leprosy, histoplasmosis, chronic infection)

"NODOSUM"

MEDINAZ

SIX (6) "P's" of LICHEN PLANUS

Purple
Polygonal
Pruritic
Planar
Papules
Plaques

TYPES OF LICHEN PLANUS

Reticular
Erythematous
Papular & **P**laque type
Ulcerative
Bullous
lic = lichen planus

MEDINAZ

Diagnostic criteria for Neurofibromatosis

Relative (1st degree)
Osseous fibromas
Neurofibromas
Axillary freckling
Lisch nodules in eye
Dime size cafe au lait spots
Optic gliomas

"RONALDO"

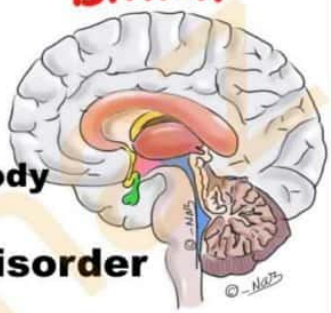
SLE

Serositis
Oral ulcer
Arthritis
Photo-sensitivity

MEDINAZ

SLE

"BRAIN"



BLood disorders

Renal disease

Antinuclear antibody

Immunologic disorder

Neurologic disorder

SLE

Malar rash

Discoid rash

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Drugs causing SLE

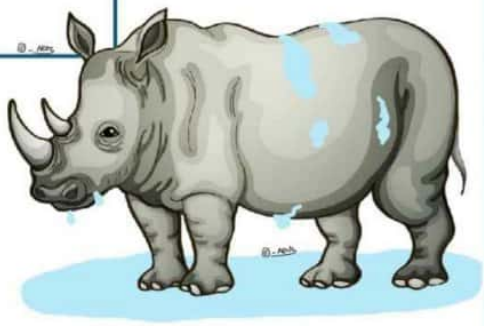
S = Sulfonamide
H = Hydralazine
I = INH
P = Phenytoin
P = Procanamide

SLE criteria

www.medinaz.com

Discoid rash
ANA (+)
Malar rash
Photosensitivity
Arthritis
Serositis (pleural, pericardial)
Renal involvement
Hematologic abnormality
Immunologic abnormality
Neurologic abnormality (seizures, psychosis)
Oral / nasal ulcer, Observed

"DAMP AS RHINO"



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Biliary System

@NEETPGSURGEON

MEDINAZ

Charcot's Triad

www.medinaz.com

Colour change (jaundice)
Colic (biliary pain) / RUQ pain
Chills & fever

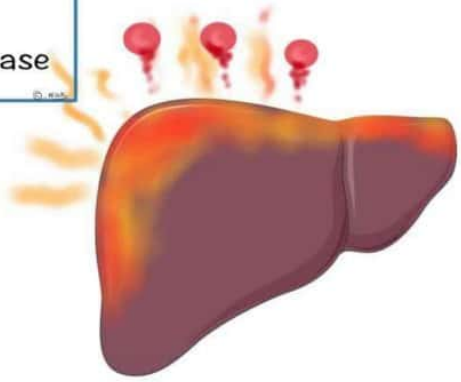
3C's

Elevated bilirubin common causes

www.medinaz.com

Hemolysis
Obstruction
Tumor
Liver disease

"HOT Liver"



MEDINAZ

Chronic liver failure signs

(found on the arms)

www.medinaz.com

Clubbing
Leukonychia
Asterixis
Palmar erythema
Scratch marks

"CLAPS"

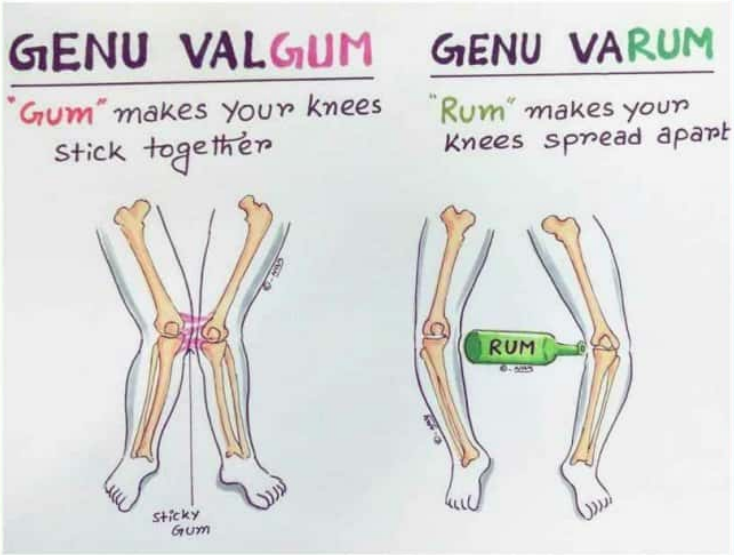
MEDINAZ

MEDINAZ

Musculoskeletal system

@NEETPGSURGEON

MEDINAZ


GENU VALGUM
"Gum" makes your knees stick together
GENU VARUM
"Rum" makes your knees spread apart
RUM
Sticky Gum

Carpal tunnel syndrome
(causes)
Myxoedema
Edema Premenstrually
Diabetes
Idiopathic
Acromegaly
Neoplasm
Trauma
Rheumatoid arthritis
Amyloidosis
Pregnancy
Compressed Median nerve

MEDINAZ

Congenital myopathy features

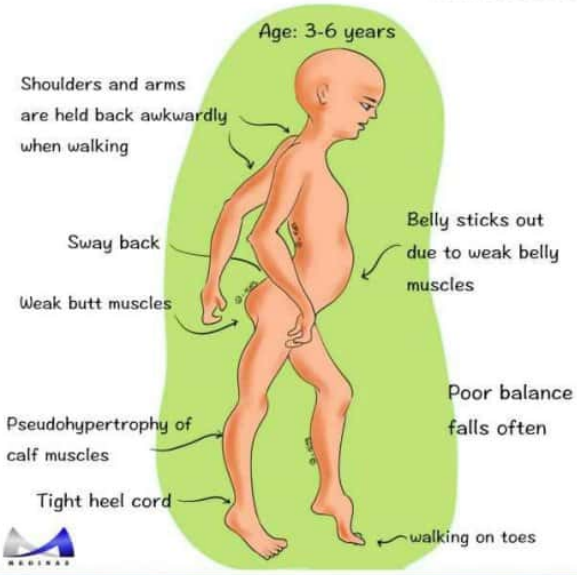
www.medinaz.com

Dominantly inherited
Reflexes decreased
Enzymes normal
Apathetic floppy baby
Milestones delayed

"DREAM"

Duchenne Muscular Dystrophy

www.medinaz.com



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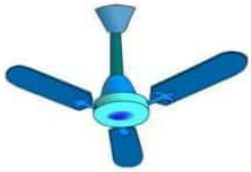
Ectopia Lentis

www.medinaz.com

marFAN syndrome
FAN is up
Superior dislocation



homocystinURIA
URINE goes down
Inferior dislocation

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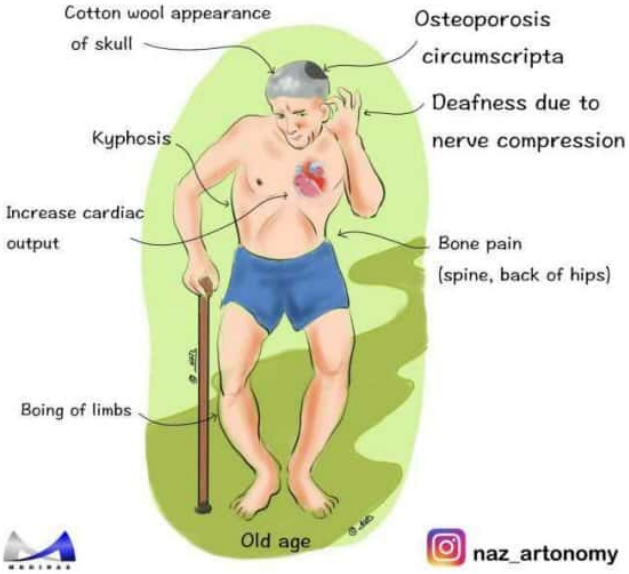
weill-MARCHesani syndrome
we will **MARCH** forward
Anterior dislocation

Paget's disease

www.medinaz.com



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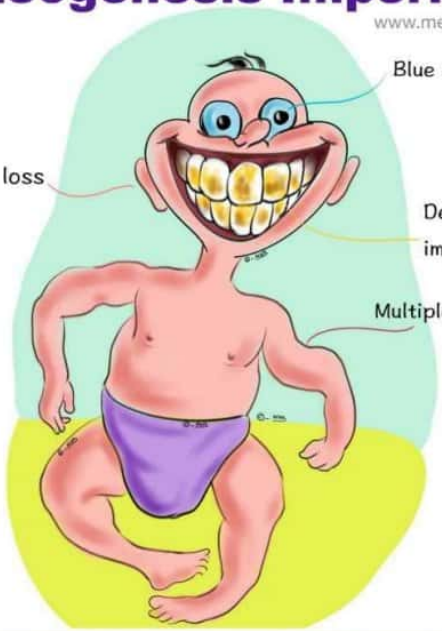
Osteogenesis Imperfecta

www.medinaz.com

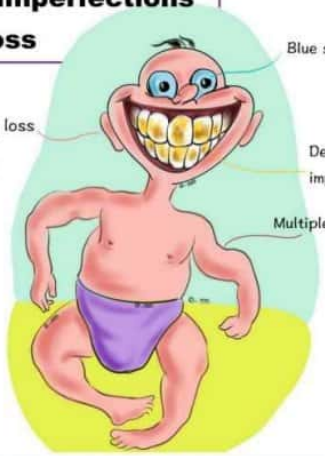


Osteogenesis Imperfecta

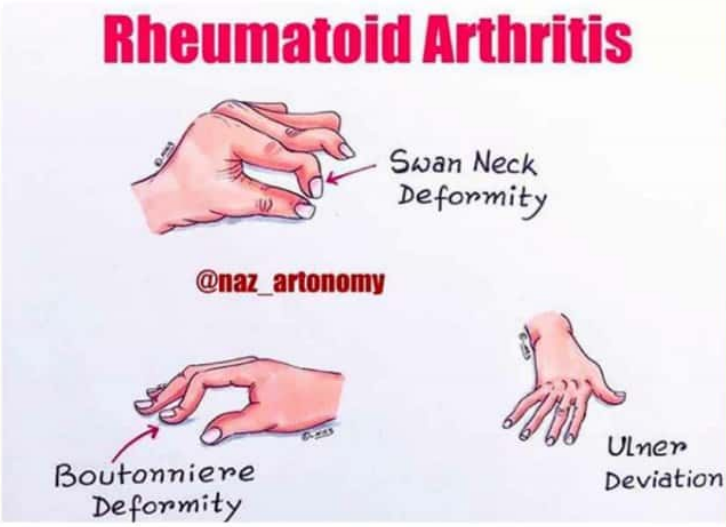
www.medinaz.com

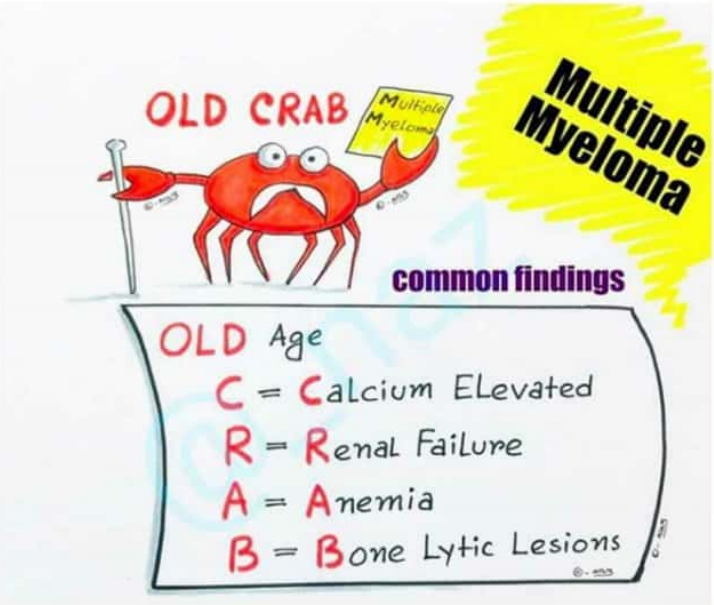
Bones = multiple fractures
I (eye) = blue sclerae
Teeth = dental imperfections
Ear = hearing loss

"BITE"



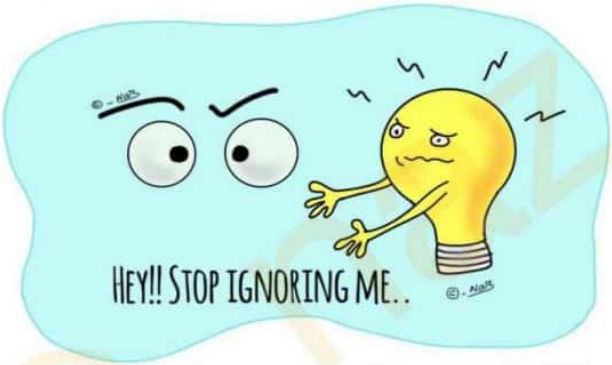
MEDINAZ


Rheumatoid Arthritis
Swan Neck Deformity
@naz_artonomy
Boutonniere Deformity
Ulner Deviation


OLD CRAB
Multiple Myeloma
Multiple Myeloma
common findings
OLD Age
C = Calcium ELevated
R = Renal Failure
A = Anemia
B = Bone Lytic Lesions

MEDINAZ

Argyll Robertson Pupil



Argyll Robertson Pupil (ARP)

ARP

→ **Accommodation Reflex Present (ARP)**

← **Pupillary Reflex Absent (PRA)**

AUTISM

Affect isolation
Unrelated to others
Twiddle
I/You confusion in speech
Self-mutilation
Temper tantrums
Inconsistent development
Concrete thinking
Perceptual difficulties
Echolalia
Oderly
Physical motor disorder
Lack language skills
Excessive activity

"AUTISTIC PEOPLE"

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Balint's Syndrome

www.medinaz.com

Simultagnosia
Optic ataxia
Ocular apraxia
Tunnel vision

"ShOOT"

Bell's Palsy Symptoms

"BELL'S Palsy"

Blink reflex abnormal
Earache
Lacrimation
Loss of taste
Sudden onset
Palsy of 7th
nerve muscles

All symptoms are **Unilateral**

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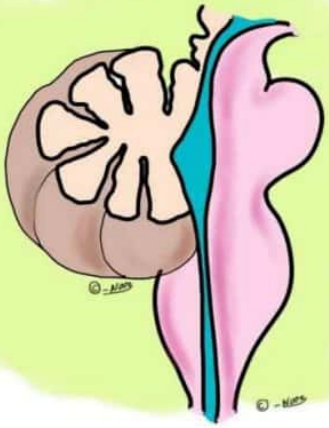
Signs of Cerebellar Damage

Vertigo
Ataxia
Nystagmus
Intentional tremor
Slurred speech
Hypotonia
Exaggerated broad based gait
Dysdiadochokinesia

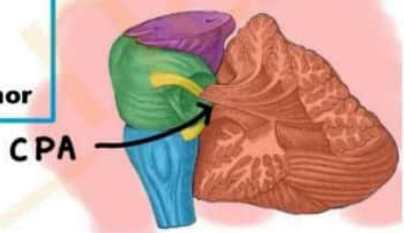
"VANISHED"



Cerebellopontine angle Tumors

Glomus tumor
Acoustic neuroma
Arachnoid cyst
Aneurysm
Meningioma
Metastasis
Epidermoid tumor

"GAME"



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Chorea Common Causes

www.medinaz.com

- Sydenhams
- Vascular
- Increased RBCs (polycythemia)
- Toxins: CO, Mg, Hg
- Uremia
- SLE
- Senile chorea
- Drugs
- APLA syndrome
- Neurodegenerative conditions : HD
- Neuroacanthocytosis, DRPLA
- Conception related: Pregnancy, OCPs
- Endocrine: Hyperthyroidism, Hypo & Hyperglycemia

"St. VITUS'S DANCE"

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Decrease level of Consciousness
(Metabolic causes) www.medinaz.com

Major end organs (liver, kidney)
Endocrine / Electrolytes
Toxins
Acid-Base disorders
Oxygenation
Lung (PE, pneumonia)
Infection / Inflammation
Calcium

"METABOLIC"

Meniere's Disease

Fluctuating hearing loss
Aural fullness
Tinnitus
Episodic vertigo

"FATE"

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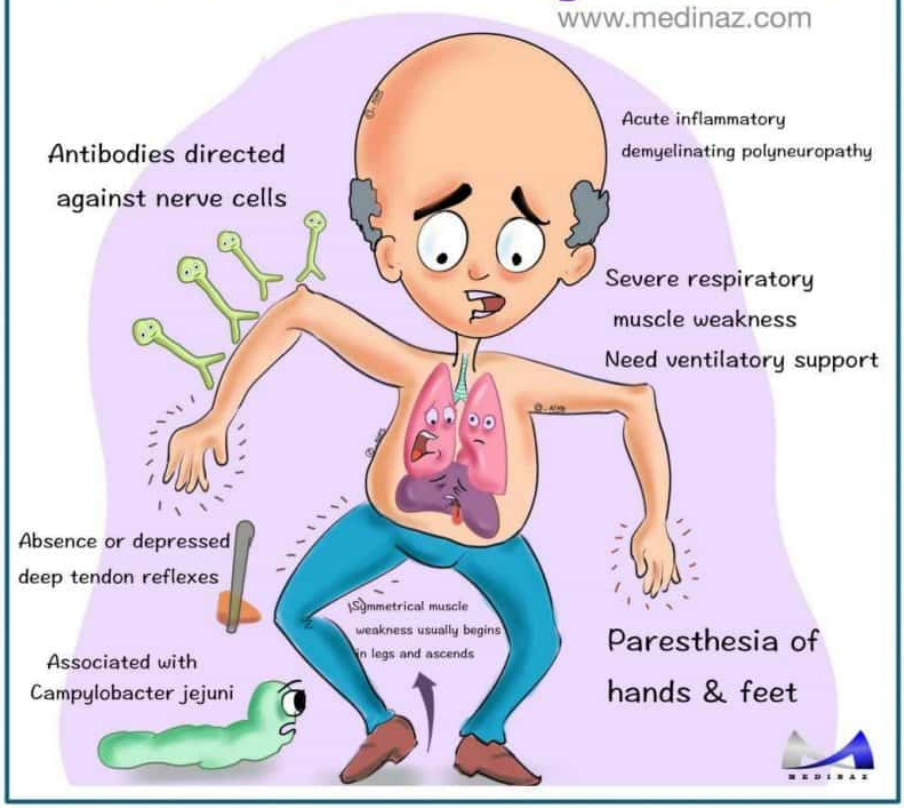
Guillain-Barré syndrome

www.medinaz.com



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Parkinson's Disease

www.medinaz.com

Be Bending / forward tilt

S Shuffling gait

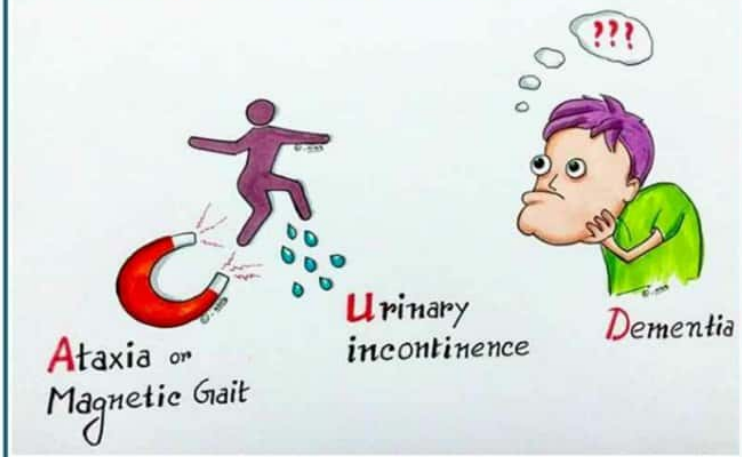
M Mask like face

A Akinesia

R Rigidity

T Tremor

Normal Pressure Hydrocephalus



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Seizure Causes

www.medinaz.com

"VITAMINS"

Vascular - Stroke, bleeding, aneurysm
Infectious - Meningitis, encephalitis, brain abscess
Trauma
Autoimmune - CNS vasculitis
Metabolic - Hypoxia, hypoglycemia, hypocalcemia, hypo & hypernatremia
Idiopathic
Neoplastic
p**S**ychiatric

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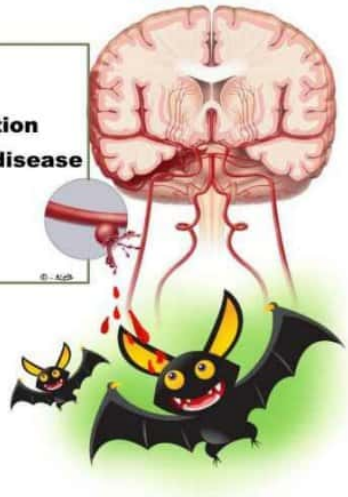
Subarachnoid hemorrhage causes

www.medinaz.com

"BATS"

Berry aneurysm
Arteriovenous malformation
Adult polycystic kidney disease
Trauma
Stroke



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Syncope causes (CNS)

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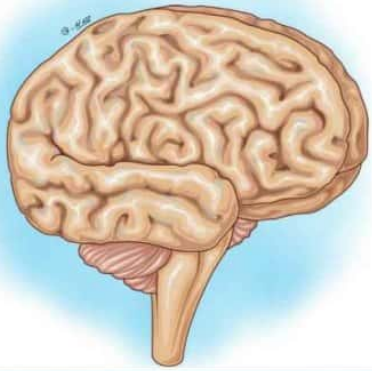
Hypoxia/Hypoglycemia
Epilepsy
Anxiety
Dysfunctional brain stem (basivertebral TIA)

"HEAD"



Syncope causes (Vascular)

www.medinaz.com

Vasovagal
Ectopic (reminds one of hypovolemia)
Situational
Subclavian steal
ENT (glossopharyngeal neuralgia)
Low systemic vascular resistance (Addison's, diabetic vascular neuropathy)
Sensitive carotid sinus

"VESSELS"

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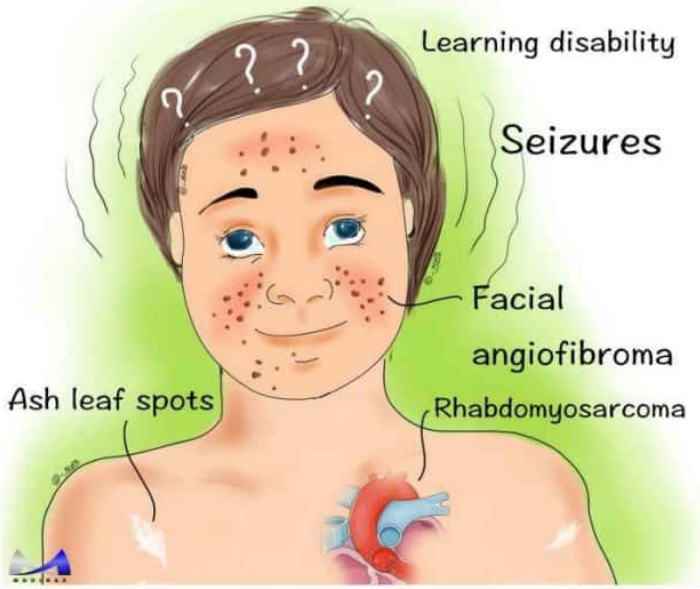
Tuberous Sclerosis

www.medinaz.com

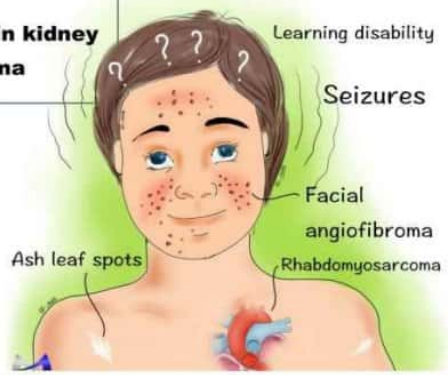


Tuberous Sclerosis

www.medinaz.com

Ash leaf spots
Shagreen patches
Heart rhabdomyosarcoma
Lung hamartomas
Epilepsy
Angiomyolipoma in kidney
Facial angiofibroma

"ASH LEAF"



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Psychiatry

@NEETPGSURGEON

MEDINAZ

Alzheimer

Amnesia – loss of memories

Anomia – unable to recall names of everyday objects

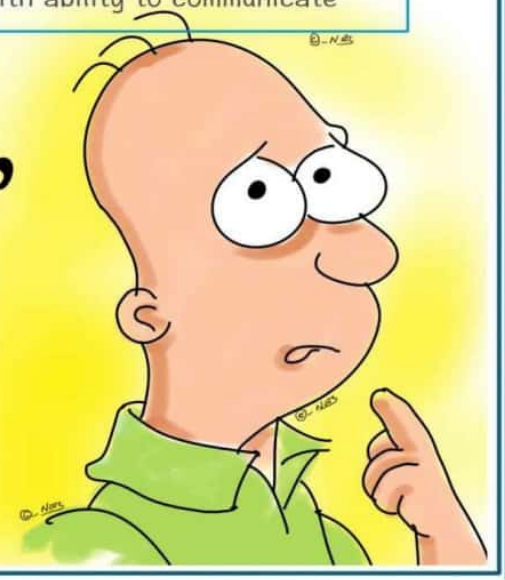
Apraxia – unable to perform tasks of movement

Agnosia – inability to process sensory information

Aphasia – disruption with ability to communicate

www.medinaz.com

5 "A"



naz_artonomy

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Dementia common causes

www.medinaz.com

Diabetes
Ethanol
Medication
Environmental
(e.g CO poisoning)
Nutritional
Trauma
Infection
Alzheimers

"DEMENTIA"

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Psychiatric Assessment

Always Send Mail Through Post Office

Appearance
Speech
Mood/Memory
Thoughts
Perception
Orientation

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REM features

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Rapid pulse/respiratory rate
Erection
Mental activity increase
Muscle paralysis

Schizophrenia subtypes

www.medinaz.com

"Pure CURD"

Paranoid
Catatonic
Undifferentiated
Residual
Disorganised

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Sleep stages features

DElta waves during DEepest sleep
(Stage 3 & 4, slow wave)

dREaM during REM sleep

www.medinaz.com

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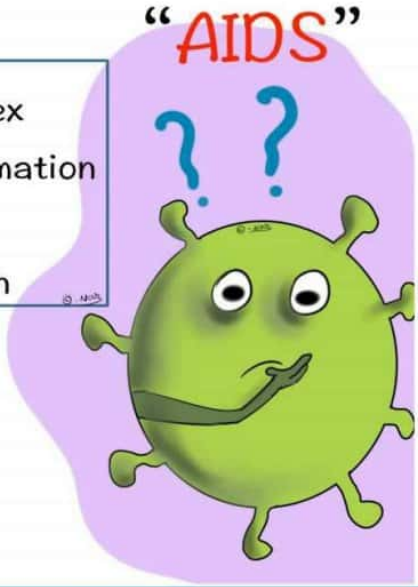
AIDS Dementia complex features

www.medinaz.com

"AIDS"

Atrophy of cortex
Infection/Inflammation
Demyelination
Six months death



Narcolepsy Symptoms

www.medinaz.com

"High CAP"

Hallucination
Cataplexy
Attacks of sleep
Paralysis on walking

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Renal system

@NEETPGSURGEON

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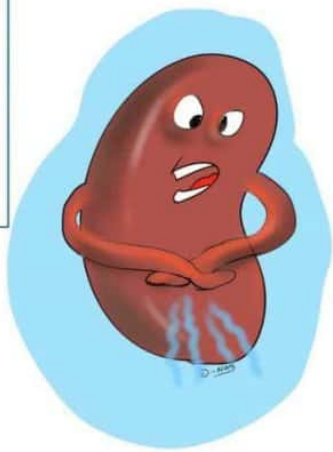
Acute Renal Failure detection

www.medinaz.com

"ACUte"

Acute presentation over hours and days
Creatinine rises
Urea rises (oliguria < 400ml/24hrs)



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Chronic Renal Failure presentation

www.medinaz.com

"NASER & 8 P's"

Nails are brown
Arises blood pressure
Skin is yellow
Excoriations (scratch mark)
Retinopathy
Pallor
Purport and bruises
Pericarditis & cardiomegaly
Pleural effusions
Pulmonary edema
Peripheral edema
Proximal myopathy
Peripheral neuropathy

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MEDINAZ

Dialysis Indications

Hyperkalemia
Acidosis
Volume overload
Elevated BUN
Pericarditis
Encephalopathy
Edema

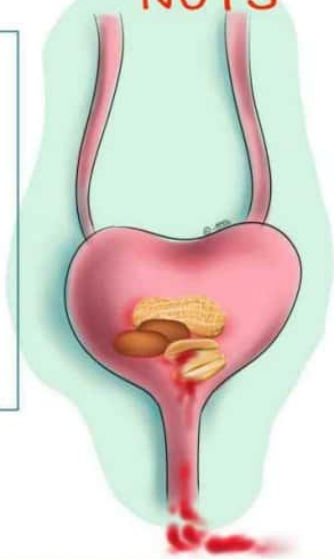
"HAVE PEE"

Hematuria Urethral causes

www.medinaz.com

"NUTS"

Neoplasm
Urethritis
Tumor
Stone



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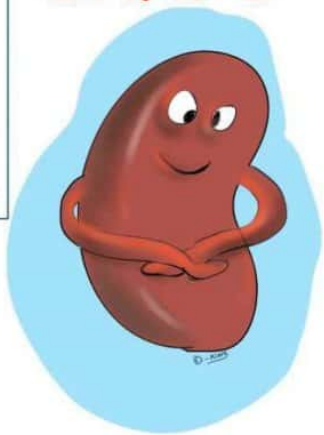
Kidney enlargement causes

www.medinaz.com

"SHAPE"

- Scleroderma
- HIV nephropathy
- Amyloidosis
- Polycystic kidney disease
- Endocrinopathy (Diabetes)



Nephritic Syndrome

(Glomerular diseases commonly presenting as nephritic syndrome)

- Post-streptococcal
- Alport's
- RPGN
- IgA nephropathy
- SLE

"PARIS"

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Nephrotic syndrome features

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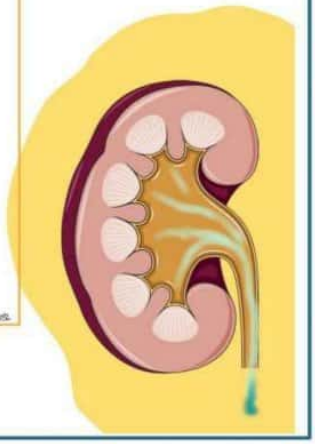
Na+ decreased (hyponatremia)
Albumin decrease (hypoalbuminemia)
Proteinuria > 3.5mg/day
Hyperlipidemia
Renal vein thrombosis
Orbital edema
Thromboembolism
Infection (due to loss of immunoglobulins in urine)
Coagulability (due to loss of antithrombin III in urine)

"NAPHROTIC"



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Dialysis Complications

Cardiovascular disease
Hypertension
Anaemia
Infections
Renal bone disease

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Reproductive System

@NEETPGSURGEON

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Severe Pre-eclampsia Signs

Hemolysis
Elevated **L**iver function tests
Low
Platelet Count

Placenta crossing substances

W = **W**astes
A = **A**ntibodies
N = **N**utrients
T = **T**eratogens
My = **M**icroorganism
Hot = **H**ormones, HIV
Dog = **D**rugs

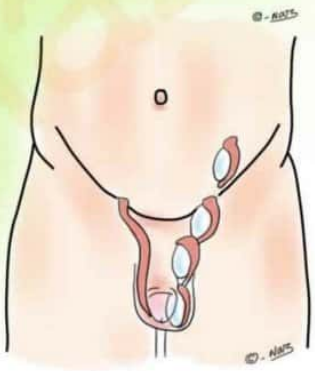
WANT My
Hot **D**og

MEDINAZ

Complications of Undescended Testis (Cryptorchidism)

Tumor
Epididymo orchitis
Seminoma
Torsion, **T**rauma
Inguinal Hernia
Sterility

"TESTIS"

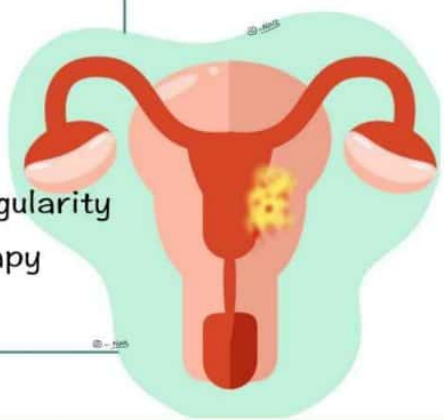


Endometrial CA risk factors

www.medinaz.com

"ENDOMET"

Elderly
Nulliparity
Diabetes
Obesity
Menstrual irregularity
Estrogen therapy
hyperTension



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Intra Uterine Device side effects

www.medinaz.com

"PAINS"

- Period that is late
- Abdominal cramps
- Increase in body temperature
- Noticeable vaginal discharge
- Spotting

Oral Birth control pill complications

www.medinaz.com

"ACHES"

- Abdominal pain
- Chest pain
- Headache
- Eye problems
- Severe leg pain (DVT)

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Obstetrical complications of DIC

www.medinaz.com

Toxaemia of pregnancy
Emboli (amniotic)
Abruptio placenta
Retain fetus products

"TEAR"

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Respiratory System

@NEETPGSURGEON

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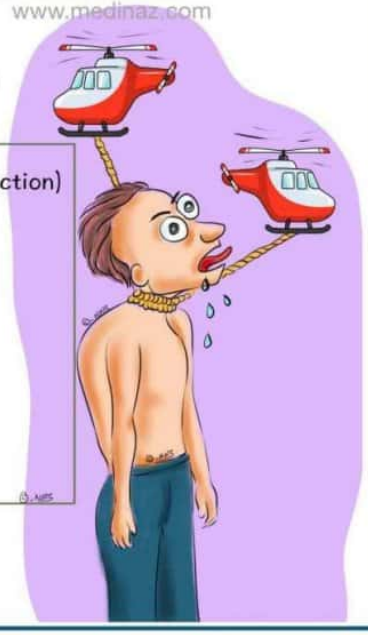
Epiglottitis

www.medinaz.com

"AIR RAID"

Airway inflammation (Obstruction)
Increased pulse
Restlessness

Retractions
Anxiety increased
Inspiratory stridor
Drooling



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ARDS Causes

Aspiration (gastric), Acute pancreatitis, Amniotic fluid embolus
Raised ICP, Respiratory track infection-pneumonia
DKA, DIC, Drugs
Sepsis, Shock, Smoke inhalation, Severe burns

"ARDS"

MEDINAZ

Pneumonia Complications

Don't

- **S**epticaemia
- **L**ung abcess
- **A**RDS
- **P**ara - pneumonic effusion
- **H**ypotension
- **E**mpyema
- **R**espiratory/Renal failure

Acute management of Asthma Attack

- **O**xygen
- **S**albutamol
- **H**ydrocortisone
- **I**pratropium
- **T**heophylline

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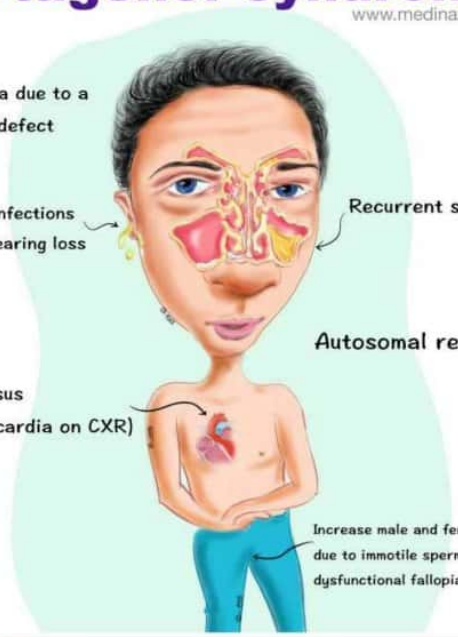
Kartagener syndrome

www.medinaz.com



Immotile cilia due to a dynein arm defect

Chronic ear infections
Conductive hearing loss

Recurrent sinusitis

Autosomal recessive

Situs inversus
(eg, dextrocardia on CXR)

Increase male and female fertility due to immotile sperm and dysfunctional fallopian tube cilia

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Lung Cancer Complications

Superior vena cava syndrome
Pancoast tumor

Horner syndrome
Endocrine (paraneoplastic)

Recurrent laryngeal nerve compression (hoarseness)

Effusions (pleural or pericardial)

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Rapid sequence intubation Medications

www.medinaz.com

Vecuronium 0.1 mg/kg
Cisatracurium 0.2 mg/kg
Etomidate 0.3 mg/kg
Rocuronium 0.6 mg/kg-1.2 mg/kg
Succinylcholine 1 mg/kg

"Very Calmly Engage the Respiratory System"

Rapid sequence intubation

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Suction
Oxygen
Airway Equipment
Positioning
Monitoring & Meds
EtCO2 & other Equipment

"SOAP ME"

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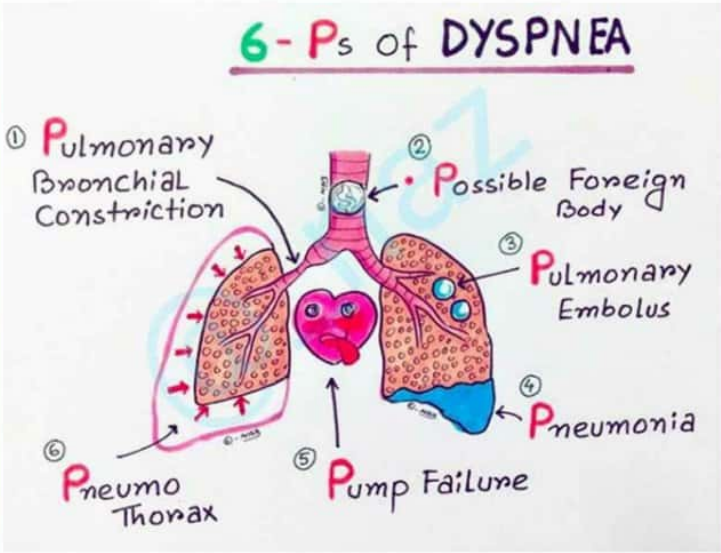
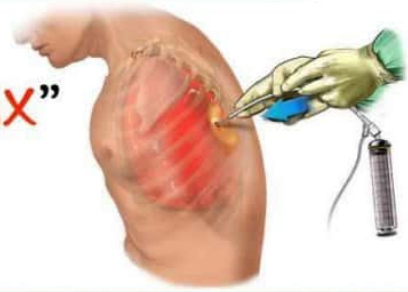


Tension pneumothorax: signs and symptoms

www.medinaz.com

Pleuritic pain
Tracheal deviation
Hyperresonance
Onset sudden
Reduced breath sounds (and dyspnea)
Absent fremitus
X-ray shows collapse

"P THORAX"



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Drug Of Choice

@NEETPGSURGEON

MEDINAZ

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1. Autonomic Nervous System
2. Cardiovascular system
3. Renal system
4. Central nervous system
5. Antimicrobial drugs
6. Anticancer drugs
7. Endocrinology
8. Autacoids and Immunomodulators
9. Respiratory system
10. Gastrointestinal system
11. Blood
12. Anaesthesia

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Autonomic nervous system

ADHD – Methylphenidate

ADHD with Tourette syndrome – Atomoxetine

Alzheimer's disease – Mild to moderate – Donepezil

Severe – Memantine

Aortic dissection HOCM – Beta blockers

Migraine prophylaxis - Beta blockers

Atropine or Belladonna poisoning – Physostigmine

BPH – Tamsulosin

BPH with hypertension – Terazosin

Brittle asthma – Epinephrine

Bronchial challenge test – Methacholine

Cheese reaction – Phentolamine

Clonidine withdrawal hypertension – Phentolamine

Intraoperative hypertension in pheochromocytoma - Phentolamine

COPD – Tiotropium

Cycloplegia – Adult – Tropicamide, Children – atropine

CHF with oliguria – Dopamine

Hypotension caused by hypothermia – Dopamine

Glaucoma – Closed angle – Acetazolamide

Open angle – Latanoprost

Normal tension - Latanoprost

Huntington's disease – Tetrabenazine

Hypotension in pregnancy – Ephedrine

Hypotension with anaesthetic agents – Ephedrine

Motion sickness – Scopolamine

Myasthenia gravis – Diagnosis – Edrophonium

Treatment – Pyridostigmine

Myasthenia crisis – IVIG

MEDINAZ

Autonomic nervous system

Narcoanalysis – Thiopental sodium

Narcolepsy – Modafinil

Shift worker disease – Modafinil

Sleepiness in OSA – Modafinil

NDMR reversal – Neostigmine

Nicotine toxicity – Atropine

Orthostatic hypotension – Fludrocortisone

Organophosphate poisoning – Atropine

Scorpion bite – Prazosin

Anaphylactic shock – Epinephrine

Septic shock – Norepinephrine

Cardiogenic – Dopamine

Stress ECHO – Dobutamine

Stress incontinence – Duloxetine

Urge incontinence – Darifenacin

Xerostomia – Cevemeline

Cardiovascular system

Angina acute attack – Sublingual nitroglycerine

Long term prophylaxis in stable angina – Beta blockers

Aortic dissection – Labetalol

Arterial fibrillation and flutter – Acute attack – IV Ibutilide
Rhythm control – Amiodarone
Rate control – Beta blockers

Anticoagulation in Atrial fibrillation – Dabigartan, Apixaban

Acute CHF first drug of choice – Furosemide

Acute CHF Inotrope of choice – Dobutamine

Chronic CHF – ACE inhibitors / ARBs

Hypertriglyceridemia – Fibrates

Chylomicronemia syndrome – Fibrates

Type III hyperlipoproteinemia – Fibrates

Hypercholesterolemia – Statins

Hypertension first line drugs – ACE inhibitors, ARB, CCB

Resistant hypertension – Aldosterone antagonists

Hypertension in elderly – CCB

Hypertension in young patients - ACE inhibitors / ARBs

PSVT – IV Adenosine

PSVT prophylaxis – Verapamil or beta blockers

Anaphylactic shock – Epinephrine

Cardiogenic shock – Norepinephrine or Dopamine

Septic shock – Norepinephrine

Vasodialatory shock – Norepinephrine

SVT treatment & prophylaxis – Verapamil

SVT associated CHF – Digoxin

Torsades de pontes – Magnesium sulphate

Ventricular extrasystole (symptomatic) – beta blockers

Ventricular fibrillation – Amiodarone

Ventricular trachycardia in MI and digitalis toxicity – Lidocaine

WPW syndrome – IV procainamide

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Renal system

Cystinuria – Cysteine binding agent (Tiopronin) + Urine alkalanizer (Potassium citrate as sodium salt)

Pulmonary edema with CHF – Furosemide

Edema caused by liver cirrhosis – Spironolactone

Cerebral edema – Mannitol

Lupus nephritis – Cyclophosphamide + Glucocorticoids

Rapidly progressive glomerulonephritis - Cyclophosphamide + Glucocorticoids

Nephrotic syndrome – Steroids

Steroid resistant Nephrotic syndrome – Cyclosporine

Steroid dependent Nephrotic syndrome – Cyclophosphamide

Nephrotic syndrome with frequent relapse – Cyclophosphamide

Urine incontinence

Overflow incontinence – Cholinergics (Bethanechol)

Urge incontinence – Anticholinergics (Darifenacin)

Stress incontinence – SNRI (Duloxetine)

Urinary tract infection cystitis – Cotrimoxazole

Pyelonephritis – Ciprofloxacin

Central Nervous System

ADHD – Methyl phenidate
Amyotrophic lateral sclerosis – Riluzole
Alzheimer's disease – Donepezil
Bell's palsy – Prednisolone
Bipolar disorder – Lithium
Depression – SSRI

Epilepsy

Generalized tonic clonic – Valproate
Absence seizure – Valproate
Myoclonic seizure – Valproate
Partial seizure – Carbamazepine
Lennox Gastaut Syndrome – Valproate
Infantile spasm – ACTH
Infantile spasm with TS – Vigabatrin
Rolandic epilepsy (benign epilepsy in childhood) – Carbamazepine
Seizure in pregnancy – MgSO 4
Seizure in neonates – Phenobarbital
Dravet syndrome (severe myoclonic epilepsy of childhood) – Valproate
West syndrome (Infantile spasm + MR) – ACTH
Status epilepticus – Lorazepam

Central Nervous System

Essential tremor – Propranolol

Guillain barre syndrome – IVIG

Cluster headache – Triptans

Raised CSF pressure – Acetazolamide

Paroxysmal hemicranias – Indomethacin

Primary cough headache – Indomethacin

Hypnic headache – Lithium

Huntington's chorea – Tetrabenazine

Insomnia (sleep induction – Zaleplon,
Sleep maintenance – Eszopiclone)

Jet lag – Short acting Z compounds (Zaleplon)

Mania acute attack – Atypical antipsychotics

Prophylaxis of mania – Lithium

Migraine acute attack – Triptans

Migraine prophylaxis – Propranolol

Multiple sclerosis acute attack – IV methyl prednisolone

RRMS – INF beta

SPMS – INF beta

PRMS – Mitoxantrone

Narcolepsy – Modafinil

Central Nervous System

Glossopharyngeal neuralgia – Carbamazepine

Trigeminal neuralgia – Carbamazepine

Parkinson's disease – Levodopa

Young onset Parkinson's disease – Selegeline

Motor fluctuation of levodopa – pramipexole

On-off phenomenon associated with levodopa – Entecapone

Neuroprotection in Parkinson's disease – MAO inhibitors (Rasageline & Selegeline)

Peripheral neuropathy – TCA/ SNRI/ GABA releasing drugs

Rapid cyclers – valproate

Restless leg syndrome – Dopamine agonists (pramipexole & Ropinirole)

Schizophrenia – Atypical antipsychotics (Aripiprazole)

Resistant Schizophrenia – Clozapine

Suicidal tendency – Clozapine

Tourette syndrome – Clonidine or Guanfacine

Antimicrobials

Actinomycosis – Penicillin G
Anthrax - Penicillin G
Gas gangrene - Penicillin G
Leptospirosis - Penicillin G
Rat bite fever - Penicillin G
Streptococcal infection - Penicillin G
Syphilis - Penicillin G
Yaws - Penicillin G
Meningococcal meningitis - Penicillin G

Extraintestinal / Intestinal symptomatic amoeba – Metronidazole
Intestinal symptomatic amebiasis – Paromomycin
Aspergillosis – Voriconazole
Scedosporium – Voriconazole
Trichosporon – Voriconazole
Bacterial vaginosis – Metronidazole
Bacteroides – Metronidazole
Tetanus – Metronidazole
Trichomoniasis – Metronidazole
Pseudomembranous enterocolitis – Vancomycin > Metronidazole

Borellia – Doxycycline
Brucella – Doxycycline + Rifampin
Bartonella – Doxycycline

Antimicrobials

Chlamydia – Doxycycline

Cholera – Doxycycline

Granuloma inguinale – Doxycycline

Lymphogranuloma venerum – Doxycycline

Mycoplasma hominis – Doxycycline

Inflammatory acne – Doxycycline

Rickettsia – Doxycycline

Pleurodesis – Doxycycline

Periocardiodesis – Doxycycline

Babesiosis – Atovaquone + Azithromycin

Chancroid - Azithromycin

Legionella - Azithromycin

Mycoplasma pneumonae - Azithromycin

Chlamydia and Cholera in pregnancy - Azithromycin

Campylobacter - Azithromycin

Burn infection – Silver sulfadiazine

Diphtheria – Erythromycin

Pertusis – Erythromycin

Antimicrobials

Candida infection — Fluconazole

Coccidioidal meningitis — Fluconazole

Chaga's disease (American trypanasomiasis) — Benznidazole

Cryptococcus — Amphotericin B

Kala Azar - Amphotericin B

Mucormycosis - Amphotericin B

Primary amebic meningoencephalitis - Amphotericin B

Systemic fungal infection - Amphotericin B

Cryptosporidium — Nitazoxanide

Dermatophytes — Terbinafine (except T.capitis — Griseofulvin)

Diarrhea empirical therapy — Fluoroquinolones

E.coli — Ceftriaxone

Gonococcus - Ceftriaxone

HACEK organisms - Ceftriaxone

H. influenza meningitis - Ceftriaxone

Klebsiella - Ceftriaxone

Providencia - Ceftriaxone

Typhoid - Ceftriaxone

Salmonella - Ceftriaxone

Acute bacterial meningitis empirical therapy - Ceftriaxone

Meningitis with basilar skull fracture - Ceftriaxone

Brain abscess - Ceftriaxone

Subdural empyema - Ceftriaxone

Antimicrobials

Endemic mycosis – Itraconazole

Sporotrichosis – Itraconazole

Enterococcus faecalis – Ampicillin + Aminoglycosides

Giardia – Metronidazole

Gonococcus – Ceftriaxone

(Spectinomycin in resistance cases)

Hepatitis B – Entecavir

Hepatitis C – New oral drugs

HSV & VZV infection – Acyclovir

(foscarnet in resistance cases)

CMV – Ganciclovir

H. influenza prophylaxis – Rifampicin

H. pylori – Amoxicillin + Clarithromycin + PPI

Influenza A – Oseltamivir

Cutaneous leishmania – Sodium Stibogluconate

MEDINAZ

Antimicrobials

Malaria

Treatment & prophylaxis – Chloroquine (except P. falciparum)
P. falciparum – Artesunate combination therapy (ACT)
Chloroquine resistant malaria treatment - Artesunate combination therapy (ACT)
Chloroquine resistant malaria prophylaxis – Mefloquine
Severe falciparum malaria – Artesunate

Melioidosis – Ceftazidime
Moraxella – Fluoroquinolone
Mycobacterium avium complex – Clarithromycin + Ethambutol
Mycobacterium tuberculosis – First line drugs – Isoniazid + Rifampicin + Pyrazinamide + Ethambutol
Nocardia – Cotrimoxazole
Pneumocystis jiroviceii - Cotrimoxazole
Plague – Gentamycin
Pneumococcal meningitis – Vancomycin
Rhodococcus – Vancomycin
Tularemia – Gentamycin
Pseudomonas – Ceftazidime
Pseudomonas resistant strains – Ceftazidime + Aminoglycosides
Multidrug resistant Pseudomonas – Colistin

Antimicrobials

RSV treatment – Ribavirin

RSV prophylaxis – Pavilizumab

Sleeping sickness – (Early) East African – Suramin,
(late) East African – Melarsoprol
(Early) West African – Pentamidine,
(late) West African – Eflornithine

Scabies – Permethrin cream (5%)

Non penicillinase producing staphylococcus – Penicillin G

MRSA – Vancomycin

VRSA – Daptomycin

Syphilis all stages (except CNS involvement) – Benzathine penicillin G

Syphilis CNS involvement – Aqueous penicillin G

Toxoplasma – Sulfadiazine + Pyrimethamine

Toxoplasma in pregnancy – Spiramycin

Whipple disease – Ceftriaxone or Carbepenam

Antifungal prophylaxis in induction chemotherapy of acute Leukemia – Posoconazole

Asymptomatic bacteriuria – Nitrofurantoin or Amoxicillin

Brain abscess – Ceftriaxone/cefotaxime + Metronidazole

Subdural empyema - Ceftriaxone/cefotaxime + Metronidazole

Cervicitis – Ceftriaxone + Azithromycin

Urethritis - Ceftriaxone + Azithromycin

Malignant otitis externa – Piperacillin + Tazobactam

Antimicrobials

Acute otitis media – Amoxicillin + Clavulanate

Acute mastoiditis – Ceftriaxone/cefotaxime

Chronic mastoiditis - Piperacillin + Tazobactam

Epiglottitis - Ceftriaxone/cefotaxime

Neonatal meningitis – Ampicillin + Gentamycin

Neonatal sepsis - Ampicillin + Gentamycin

Bacterial keratitis – Moxifloxacin solution

Fungal keratitis – Natamycin

Acute osteomyelitis – Ceftriaxone

Prostatitis – Doxycycline or Cotrimoxazole

Prosthetic joint infection – Ceftriaxone + Vancomycin

Infective endocarditis (Staphylococcal) – Vancomycin

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Anticancer drugs

ALL regimen of choice – Vincristine, Prednisolone, Asperginase, Daunorubicin

AML – Daunorubicin/Idarubicin + Cytarabine

Anal Ca – 5FU + Mitomycin

Bladder Ca – Cisplatin + Gemcitabine

Brain tumor – Temozolomide

Carcinoid tumors – Octreotide

Carcinomatous meningitis – Methotrexate (Intrathecal)

Cervical cancer – Methotrexate

CML – Imatinib

GIST - Imatinib

Hypereosinophillic syndrome - Imatinib

Dermatofibrosarcoma protuberans – Imatinib

Hairy cell leukemia – Cladribine

Hepatocellular carcinoma – Sorafenib

Kaposi sarcoma – Daunorubicin or Doxorubicin

BRAF negative malignant melanoma – PD-1 inhibitors (Pembrolizumab/Nivolumab)

BRAF positive malignant melanoma – BRAF inhibitors (Vemurafenib/Dabrafenib)

Mesothelioma – Pemetrexed

Paget's disease – Zolendroic acid

Pancreatic cancer – Gemcitabine

Waldenstrom macroglobulinemia – Rituximab

Endocrinology

Acromegaly – Octreotide

Addison disease – Hydrocortisone

Congenital adrenal hyperplasia in patient – Hydrocortisone

Anovulation – Clomiphene citrate

PCOS - Clomiphene citrate

BPH – alpha 1a antagonists (Tamsulosin, Silodosin)

Carcinoid syndrome – Somatostatin analogues

GRFoma - Somatostatin analogues

Glucagonoma - Somatostatin analogues

Somatostatinoma - Somatostatin analogues

VIPoma - Somatostatin analogues

Diabetes Insipidus – Desmopressin

Diabetes mellitus type I – Insulin

Gestational diabetes – Insulin

Diabetic ketoacidosis – Insulin

Diabetes mellitus type II treatment – Metformin

Hypercalcemia of malignancy – Bisphosphonates

Hyperprolactinemia – Carbegoline

Hyperthyroidism – Methimazole

Hyperthyroidism in pregnancy –

Ist trimester – Propylthiouracil,

2 nd & 3 rd trimester – Methimazole

Endocrinology

Hypothyroidism – Levothyroxine sodium

Insulinoma – Diazoxide

Oral contraception – Monophasic pills

Oligospermia – Clomiphene citrate

Osteoporosis – Zolendroic acid

Paget's disease - Zolendroic acid

Premature labor – Dexamethasone

Fetal CAH – Dexamethasone

Prolactinoma – Dopamine agonists

Riedel struma – Tamoxifen

Subacute thyroiditis – Aspirin

SIADH – Vaptans (Tolvaptan)

Thyroid storm initial DOC – Propranolol

Thyroid storm overall DOC – Propylthiouracil

Toxic multinodular goitre – Radioiodine

Hyper functioning solitary nodule – Radioiodine

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Autacoids & Immunomodulators

Acute mountain sickness – Acetazolamide

Acetaminophen toxicity – N-acetyl cysteine

Allergic rhinitis – Steroids

Ankylosing spondylitis – NSAIDs

Cold agglutinin diseases – Rituximab

Familial Mediterranean Fever – Colchicine

Genital warts male – Podophyllintoxin

Genital warts female – Imiquimod

Acute gout – Indomethacin

Chronic gout – Allopurinol

Head lice – Permethrin 1% cream

Hypersensitivity reaction – Epinephrine

Pseudomotor cerebri – Acetazolamide

Migraine prophylaxis – Propranolol

Migraine treatment – Sumatriptan

Morning sickness – Doxylamine

Patent ductus arteriosus (PDA) closure – Indomethacin

Maintain patency of Patent ductus arteriosus (PDA) – Misoprostol

Niacin induced flushing – Aspirin

Mild psoriasis – Oral retinoids

Psoriatic arthritis – Methotrexate

Erythrodermic psoriasis – Methotrexate

Pustular psoriasis – Acitretin

Pyrexia in children – Acetaminophen

Rheumatoid arthritis – Methotrexate

Raynaud phenomenon – CCB (DHPs)

Tumor lysis syndrome – Allopurinol

Urticaria – 2 nd generation anti-histaminics

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Respiratory system

Allergic bronchopulmonary aspergillosis – Prednisolone

Proliferative bronchiolitis – Prednisolone

Cryptogenic organizing pneumonia – Prednisolone

Eosinophilic pneumonia – Prednisolone

Pulmonary vasculitis – Prednisolone

Sarcoidosis – Prednisolone

Bronchial asthma acute attack – Short acting beta 2 agonists

Bronchial asthma prophylaxis - Long acting beta 2 agonists

Exercise induced bronchial asthma – Inhalational corticosteroids

Chylothorax – Octreotide via chest tube

COPD – Anticholinergics (Tiotropium)

Cough Non-specific – Codeine

Cough due to bronchial cancer – Morphine

Pleurodesis – Doxycycline

Pericardiodesis – Doxycycline

Pulmonary hypertension class II & III (Low risk) – Bosentan

Pulmonary hypertension class IV (High risk) – Epoprostenol

Diuretic of choice in Pulmonary edema – Loop diuretics

Gastrointestinal tract

Acute bleeding gastric ulcer – I/V proton pump inhibitors (PPIs)

Acute colonic pseudo-obstruction (Ogilive syndrome) – Neostigmine

Aspiration pneumonia prophylaxis in surgical patients – H 2 blockers

Chemotherapy induced nausea and vomiting (early onset) – Ondansetron

Chemotherapy induced nausea and vomiting (Late onset) – Aprepitant

Dyspepsia - PPIs

Gastrinoma – PPIs

Gastroesophageal reflux disease (GERD) - PPIs

NSAIDs induced ulcers – PPIs

Peptic ulcer disease – PPIs

Zolinger-Ellison syndrome – PPIs

Stress ulcer – PPIs

GERD in pregnancy – Antacids or Sucralfae

Hemochromatosis – Deferoxamine

Hiccups – Chlorpromazine

HIV associated secretory diarrhea – Octreotide

Gastrointestinal tract

Ulcerative colitis

For maintenance and induction – Mesalamine

Mesalamine nonrespondants in induction – Steroids

Steroid dependence in induction – Azathioprine

Steroid resistance in induction – Cyclosporine

Crhon's disease maintenance and induction – Anti-TNF drugs (Infliximab)

Sclerosing Cholangitis – Glucocorticoids

Whipple's disease – Cotrimoxazole

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Haematology

Anemia associated with CKD or Inflammation – Erythropoetin analogue (Darbopoetin alfa)

Atrial fibrillation associated thrombosis prophylaxis – Dabigatran or Apixaban

Autoimmune haemolytic anemia – Prednisolone + Rituximab

Deep vein thrombosis treatment – LMWH

Deep vein thrombosis prophylaxis – Warfarin

Essential thrombocythemia – Hydroxyurea + Aspirin

Fibrinolysis – Epsilon aminocaproic acid

Heparin toxicity – protamine sulphate

Heparin induced thrombocytopenia – Lepirudin

Immune thrombocytopenic purpura – Prednisolone

Asymptomatic iron deficiency anemia – Oral iron

Myelodysplasia – Azacitidine

Neutropenia – Filgrastim

Paroxysmal Nocturnal Haemoglobinuria – Eculizumab

Polycythemia vera – Anagrelide > Hydroxyurea

Pure red cell aplasia – Glucocorticoids

Sickle cell anemia – Hydroxyurea

Myelofibrosis - Hydroxyurea

Thrombocytopenia – Oprelvekin

Transfusional hemosiderosis – Desferrioxamine

Von Willebrand disease – Desmopressin

Asymptomatic warfarin toxicity – Vitamin K

Symptomatic warfarin toxicity – FFP

Anesthesia

Anesthetic agent of choice

Cerebral protection – Thiopental sodium
Raised ICT - Thiopental sodium
Status epilepticus - Thiopental sodium
Epilepsy - Thiopental sodium
Hyperthyroidism - Thiopental sodium
LSCS induction - Thiopental sodium

Electroconvulsive therapy – Methohexital
Day care surgery - Propofol
Total intravenous anesthesia – Propofol
Sedation in ICU – Propofol
Patients susceptible to malignant hyperthermia – Propofol

Bronchial asthma induction agent - Ketamine
Status asthmaticus – Ketamine
Shock (hypovolemic, haemorrhagic, septic) – Ketamine
DIC – Ketamine
Cyanotic congenital heart diseases with right to left shunt – Ketamine
Hypothyroidism – Ketamine

Old patients – Etomidate
Cardiovascular disorders (aneurysm, cardiomyopathy, CHF,CAD, aortic stenosis) – Etomidate
Altered hemodynamic states – Etomidate

Anesthesia

Inhalational agent of choice

Bronchial asthma maintenance agent – Halothane

Tocolysis – Halothane

Cardiac surgery – Isoflurane

Controlled hypotension – Isoflurane

LSCS maintenance – Isoflurane

Induction in infants, children, day care surgery – Sevoflurane

Myocardial ischemia – Sevoflurane

Neurosurgery – Sevoflurane

Day care surgery maintenance – Desflurane

Renal failure - Desflurane

Obese - Desflurane

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Anesthesia

Muscle relaxant of choice

Intubation – Succinylcholine

Day care surgery - Succinylcholine

NDMR choice for intubation – Rocuronium

NDMR choice for day care surgery – Mivecurium

Hepatic failure – Atracurium

Renal failure – Atracurium

Myasthenia gravis – Atracurium

Old age – Atracurium

New born – Atracurium

Obese – Atracurium

Precurarization – Rocuronium

Cardiac surgery – Vecuronium

Cyanotic congenital heart diseases with right to left shunt – Pancuronium

Bronchial asthma – Vecuronium

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FDA approved drugs in 2019

Tafamidis meglumine

For the treatment of cardiomyopathy of wild type or hereditary transthyretin-mediated amyloidosis.

Halobetasol propionate & Tazarotene

For the treatment of plaque psoriasis

PrabotulinumtoxinA – xvfs

For the improvement of glabellar lines

Risankizumab – rzaa

For the treatment of plaque psoriasis

Testosterone undecanoate

For the treatment of male conditions associated with a deficiency or absence of endogenous testosterone

Sumatriptan (nasal spray)

For the treatment of acute migraine in adults,

Antihemophilic factor (recombinant), glycopegylated – exei

For the treatment of hemophilia A

Caplacizumab – yhdp

For the treatment of acquired thrombotic thrombocytopenic purpura

Venetoclax + Obinutuzumab

For the treatment of chronic lymphocytic leukemia or small lymphocytic lymphoma

Ramucirumab

For the treatment of hepatocellular carcinoma with elevated alpha-fetoprotein (AFP)

Triclabendazole

For the treatment of fascioliasis (liver fluke infestation)

Immunoglobulin intravenous, Human – slra 10% liquid

For the treatment of Primary Humoral Immunodeficiency Disease

Dolutegravir and Lamivudine

For the treatment of HIV-1 infection in adults

Amifampridine

For the treatment of Lambert-Eaton myasthenic syndrome in pediatrics

Dengue tetravalent vaccine, Live

For the prevention of dengue disease,

Certolizumab pegol

For the treatment of non-radiographic axial spondyloarthritis

Romosozumab

For the treatment of osteoporosis in postmenopausal women at high risk for fracture

Cladribine

For the treatment of relapsing multiple sclerosis

Siponimod

For the treatment of relapsing multiple sclerosis

Midazolam

For the treatment of intermittent, stereotypic episodes of frequent seizure activity

Amifampridine

For the treatment of Lambert-Eaton myasthenic syndrome in pediatrics

Esketamine (nasal spray)

For the treatment of treatment-resistant depression in adults

Solriamfetol

For the treatment of excessive daytime sleepiness due to narcolepsy or obstructive sleep apnea

Trastuzumab & hyaluronidase – oysk

For the treatment of HER2-overexpressing breast cancer

Atezolizumab

For the treatment of triple negative breast cancer
For the treatment of extensive-stage small cell lung cancer

Brexanolone

For the treatment of postpartum depression

Erdafitinib

For the treatment of locally advanced or metastatic urothelial carcinoma

Avelumab + axitinib

For the first line treatment of advanced renal cell carcinoma

Ramucirumab

For the treatment of hepatocellular carcinoma with elevated alpha-fetoprotein (AFP)

Pembrolizumab

For the treatment of advanced renal cell carcinoma
For the treatment of stage III non-small cell lung cancer

Netarsudil & latanoprost ophthalmic solution

For the treatment of elevated intraocular pressure in patients with open-angle glaucoma or ocular hypertension,

Aclidinium bromide & Formoterol fumarate

For the maintenance treatment of chronic obstructive pulmonary disease

Solriamfetol

For the treatment of excessive daytime sleepiness due to narcolepsy or obstructive sleep apnea

FDA Approved drugs in 2017

Voretigene Neparvovec

AAV2 vector containing human RPE65 cDNA
Subretinal injection
Novel gene therapy for the treatment of Leber's congenital amaurosis
Leber's congenital amaurosis, or biallelic RPE65 mediated inherited retinal disease, is an inherited disorder causing progressive blindness

Netarsudil

Rho kinase inhibitor
Increase aqueous outflow

Mechanism unknown
Used in glaucoma

Latanoprostene Bunod

Metabolizes in the eye by esterases to Latanoprost and Butanediol mononitrate
Butanediol mononitrate, an NO – donating moiety that is further metabolized to 1,4 – butanediol and NO
NO increase trabecular outflow
Latanoprost increase uveoscleral outflow
Used in glaucoma

Betrixaban

Inhibitor of clotting factor Xa
Used as anticoagulant

Dupilumab

It is a monoclonal antibody
Used to treat Atopic dermatitis
It acts against IL-4R alpha and inactivate IL-4 & IL-13

Brodalumab, Guselkumab

They are monoclonal antibodies
Used in psoriasis
Brodalumab is an antibody against IL-17
Guselkumab is an antibody against IL-23

Semaglutide

Recombinant glucagon like peptide (GLP) analogs
They can not be given orally, injectable drug
Used in type II diabetes

Etelcalcetide

It is a calcium sensing receptor agonist
Calcimimetic drug
Used in hyper parathyroid induced osteoporosis

Dapagliflozin, Ertugliflozin

Blockers of SGLT-2 in PCT of kidney
Increase glucose secretion in urine

Plecanatide

It stimulates guanylate cyclase C
Approved for chronic idiopathic constipation

Naldemedine

Opioid antagonist (μ receptor antagonist)
It is not absorbed from GIT
It is used in opioid induced constipation

Telotristat ethyl

It inhibits the formation of serotonin
It inhibits the enzyme tryptophan hydroxylase
Approved for diarrhoea due to carcinoid syndrome

Cerliponase alfa

It is a recombinant Tripeptidyl peptidase – 1 enzyme
It was approved for a lysosomal storage disease called infantile neuronal ceroid lipofuscinosis
It is given by intracerebral ventricular injection

Vestronidase alfa – VJBK

Recombinant beta glucoronidase
Approved for Mucopolysaccharidosis VII

Inotuzumab ozogamicin

Approved for Acute Lymphoid Leukemia (ALL)
Inotuzumab is a monoclonal antibody against CD22
Emicizumab KXWH

Monoclonal antibody targeting the clotting factor IX & X
Approved for treatment of haemophilia

Glicaprevir / Pibrentasvir

Approved for Hepatitis C
Combination of protease inhibitor and NS5a inhibitor

Tocilizumab

Monoclonal antibody against IL-6
Approved for the treatment of Rheumatoid arthritis and Cytokine release syndrome

Letermovir

Inhibit DNA terminase complex and inhibit the virus maturation
Approved for CMV infection

Lesinurad

It inhibits URAT-1 transporter in kidney and increase uric acid secreation
Approved for chronic gout

Sarilumab

Monoclonal antibody against IL-6
Approved for the treatment of Rheumatoid arthritis

Abaloparatide

It is PTH_{1-34} molecule
Used in osteoporosis by activating the osteoblasts
Cannot be given orally

Amantadine

It is commonly used for Influenza and Parkinsonism
It can block NMDA receptors and approved for levodopa induced dyskinesia

Edaravone

It is a free radical scavenger
Approved for amyotrophic lateral sclerosis (ALS)

Safinamide
It is MAO-B inhibitor
Approved in parkinsonism

Ribociclib/Abemaciclib

CDK-4 & 6 inhibitors
Approved for cancer treatment (Breast cancer)

Niraparib

Inhibitor of poly ADP ribose polymerase enzyme
Used in ovarian carcinoma

Darvalumab

Monoclonal antibodies against apoptosis ligands
Used for bladder carcinoma (urothelial carcinoma)

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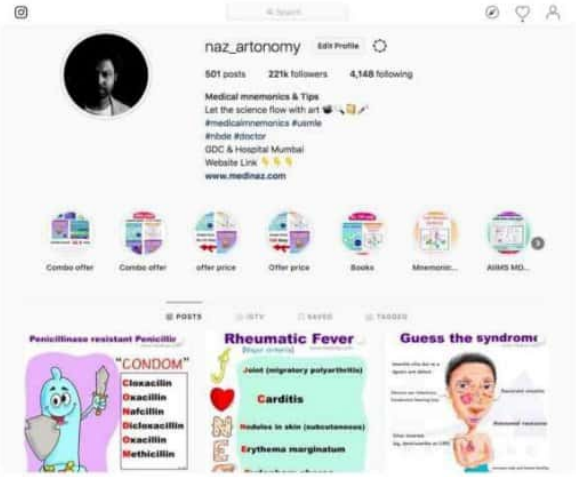

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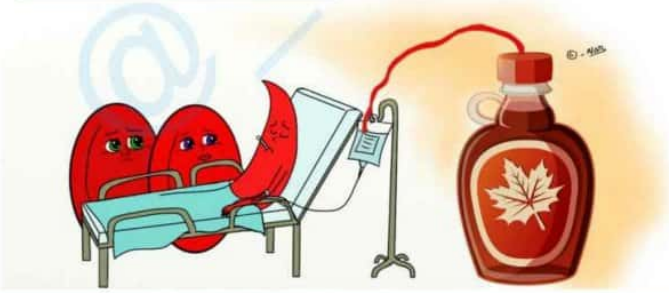
Megaloblastic Anemia causing Drugs

www.medinaz.com

Methotrexate
AZT = zidovudine
Phenytoin
Liver disease
Ethanol

"MAPLE"



Sickle Cell Anemia

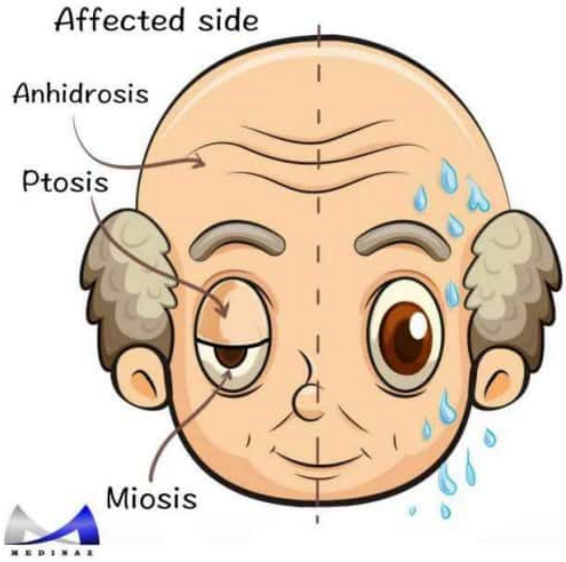
signs..

Splenomegaly,
Sludging
Infection
Cholelithiasis
Kidney - heamaturia
Liver congestion,
Leg ulcer
Eye changes

"SICKLE"

Horner syndrome

www.medinaz.com



Horner's Syndrome

Horny PAMELA

Ptosis
Anhydrosis
Miosis
Enophthalmos
Loss of Ciliary-Spinal reflex
Anisocoria

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Nervous System