

Aminoglycosides: Side Effects

PONS

- **Paralysis**
 - **Ototoxicity**
 - **Nephrotoxicity**
 - **Skin Rash**
-

Amphotericin: Side Effects (Toxicity)

AMPHET

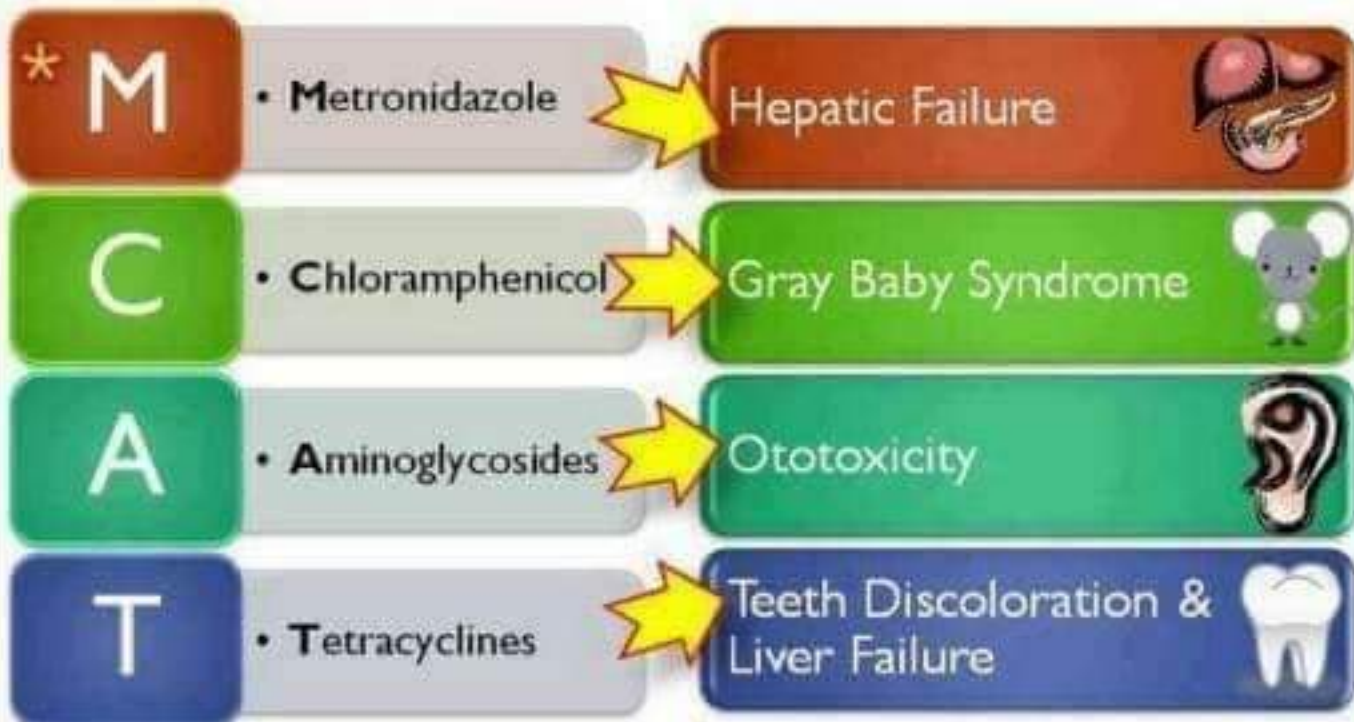
- **Anemia**
 - **Muscles Spasm**
 - **Phlebitis**
 - **Headaches/Hypotension/Hypokalemia**
 - **Emesis, Encephalopathy**
 - **Thrombocytopenia**
-

Antibiotics: contraindicated during pregnancy

MCAT:

- Metronidazole
- Chloramphenicol
- Aminoglycoside
- Tetracycline

Antibiotics Contraindicated During Pregnancy



* Relatively Contraindicated

& Others like Nitrofurantoin , Quinolones and Sulfonamides

Cephalosporins: CALM against these Organisms

CALM

- Clostridium
- Active Enterococci
- Listeria Monocytogenes
- MRSA (Methicillin Resistant Staph)

➤ Classification of cephalosporins:-

Generations of cephalosporins ,parenteral and oral..



Chloramphenicol: Adverse Effects

Some **BIG** Hens

- Superinfections
 - **B**one marrow Depression
 - Irritative Effects
 - **G**ray baby syndrome
 - **H**ypersensitivity reactions
-

Disulfiram-like reaction inducing drugs

"**PM PMT**" as in Pre Medical Test in the PM:

- **P**rocarbazine
 - **M**etronidazole
 - **C**efo (**P**erazone, **M**andole, **T**etan).
-

Macrolides: Adverse Effects

JOG

- Jaundice
 - Ototoxicity
 - GI disturbance
-

Macrolides/Ketolides: Members

TECA

- Talithromycin
 - Erythromycin
 - Clarithromycin
 - Azithromycin
-

Metronidazole: Spectrum Action

ABCDEFGHIJ & ST

- **A**moebiasis
 - **B**acteroides
 - **C**lostridium Perfringes
 - **P**seudomembranous Enterocolitis
 - **F**usobacterium
 - **G**iardiasis
 - **H**elicobacter Pylori
 - **A**naerobic Strep.
 - **T**richomonas Vaginalis
-

Nitrofurantoin: major side effects

NitroFurAntoin:

- Neuropathy (peripheral neuropathy)
- Fibrosis (pulmonary fibrosis)
- Anemia (hemolytic anemia)

Nitrofurans

Nifuroxazide, nitrofurantoin, furazidin, furazolidone

- **Mechanism of action:** as acceptors of oxygen, nitrofurans hinder the process of cellular respiration of the bacteria, also- inhibit the biosynthesis of nucleic acids.
- **Action:** depending on the concentration of the bacteriostatic or bactericidal effect.
- **Activity:** broad spectrum (Gr- and Gr+ bacteria, some anaerobes, fungi /Candida).
- In addition, furazolidone and nifuratel active against some protozoa (Giardia, Trichomonas)
- **Nitrofurantoin is the drug of choice for uncomplicated infections of the lower urinary tract.**
- ADR - neuropathy, pneumonitis and hepatitis.



Quinolones and Fluoroquinolones: mechanism

- "Topple the Queen":

Quinolone interferes with **Topoisomerase II**.

Generation	Drug Names	Spectrum
1st	nalidixic acid cinoxacin	Gram- but not Pseudomonas species
2nd	norfloxacin ciprofloxacin enoxacin ofloxacin	Gram- (including Pseudomonas species), some Gram+ (S. aureus) and some atypicals
3rd	levofloxacin sparfloxacin moxifloxacin gemifloxacin	Same as 2 nd generation with extended Gram+ and atypical coverage
4th	*trovafloxacin	Same as 3 rd generation with broad anaerobic coverage

*withdrawn from the market in
1999

Sulfonamide: Common Characteristics

SULFA

- **Steven-Johnson Syndrome/Skin Rash / Solubility Is low**
 - **Urine Precipitation/ Use in Urinary Tract Infections**
 - **Large Spectrum (Gram + & Gram -)**
 - **Folic acid synthesis Inhibitor/blocker**
 - **Analogue of PABA**
-

Sulfonamide: major side effects

4s

- Steven-Johnson syndrome
- Skin rash
- Solubility low (causes crystalluria)
- Serum albumin displaced (causes newborn kernicterus and potentiation of other serum albumin-binders like warfarin)

10. CLASSIFICATION OF SULFONAMIDE



TB: antibiotics used

STRIPE:

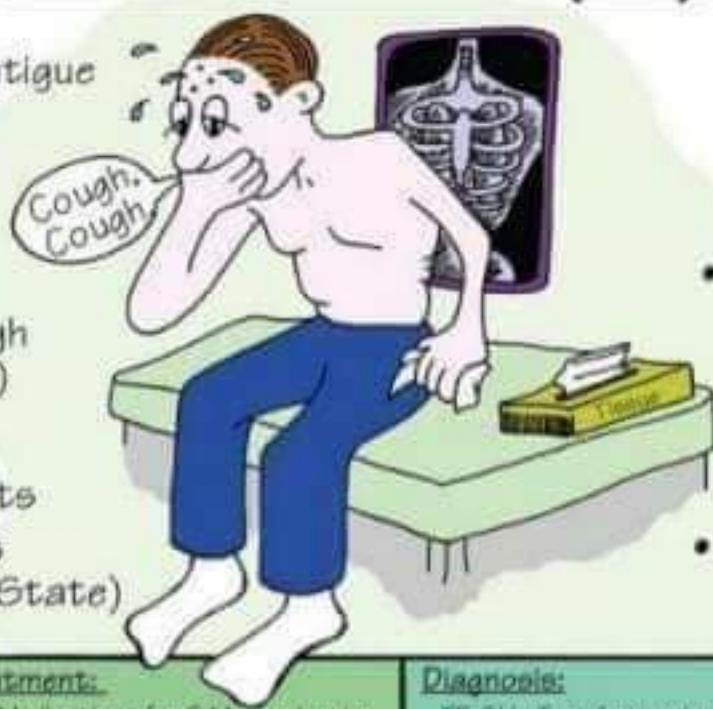
- **ST**reptomycin
- **R**ifampicin
- **I**soniazid
- **P**yrizina**m**ide
- **E**thambuto**l**

TUBERCULOSIS (TB)

- Progressive Fatigue
- Malaise
- Anorexia
- Wt. Loss

- Chronic Cough
(Productive)

- Night Sweats
- Hemoptysis
(Advanced State)



- Pleuritic
Chest Pain

- Low Grade Fever

Treatment:

TB Medications for 6 Mo or Longer
Decreased Activity
Resp Isolation Until Negative Sputum
Frequently Outpatient Treatment

Diagnosis:

TB Skin Test (screening)
Chest X-Ray
Sputum Studies
(3 specimens collected
on different days)

Tetracycline: Adverse Effects

People Like Going for Versatile Trips

- Phototoxicity
 - Liver Failure
 - GI disturbances
 - Vertigo
 - Teeth & Bone toxicity/ Teratogenesis
-

Tetracycline: teratogenicity

Tetracycline is a

- Teratogen that causes staining of
- Teeth in the newborn.