

Antibacterial Drug

- Antimicrobial drug is a chemical substance derivable from a mold or bacterium that can kill microorganisms and cure bacterial infections; "when antibiotics were first discovered they were called wonder drugs".
- Antibacterial drugs use in Gynecology are Gentamicin, Oxytetracycline, Enrofloxacin, Ciprofloxacin, Benzathine penicillin, Ceftriaxone, Sulphonamide+trimethoprim, Dicrysticin S, Amoxycillin and Nitrofurazone+urea.

1. GENTAMICIN

- Class :- Aminoglycoside antibacterial
- Action :- Gentamicin inhibits bacterial protein synthesis, thus exerting bacteriocidal action.
- Indication :- Urinary tract infection, mastitis, metritis, pyometra.
- Dosage :- IM,IV

Cattle, Sheep, Goat, Pig, Dog, Cat: 4mg/kg body weight BID

2. OXYTETRACYCLINE

- Class :- Tetracycline congener
- Action :- Oxytetracycline has action, as it inhibits bacterial protein synthesis.
- Indication :- Genito urinary tract infection, Brucellosis, mastitis.
- Dosage :- IM, IV

Cattle, Sheep, Goat, Swine, Horse: 5-10 mg/kg BW BID

Dog, Cat :- 10-20 mg/kg BW BID

3. ENROFLOXACIN

- Class :- Fluoroquinolone
- Action :- Enrofloxacin inhibits the enzyme DNA gyrase responsible for coiling and super coiling of DNA, thus produce bactericidal effect.
- Indication :- Urogenital, Brucellosis, Pyometra, metritis, Acute & chronic mastitis.

- Dosage :- Oral, IM, IV

Domestic Animal :- 2.5-5 mg/kg BW

4. CIPROFLOXACIN

- Class :- Fluoroquinolone
- Action :- Ciprofloxacin inhibits super coiling DNA in the bacteria producing bactericidal action.
- Indication :- Uterine infection, Urinary infection, mastitis.
- Dosage :- Oral , IM , IV

Dog, Cat: 5-15 mg/kg BW

Cattle, Sheep: 4-5 mg/kg BW

5. BENZATHINE PENICILLIN

- Class :- Long Acting bactericidal
- Action :- Benzathine penicillin interferes with bacterial cell wall synthesis without affecting protein synthesis within the cell. It is a narrow spectrum antibiotic having rapid onset of bactericidal action and effecting maintenance of its for about 6 hours.
- Indication :- Mastitis, metritis,
- Dosage :- IM

Cattle, Horse, Sheep, Goat, Swine: 12000 IU/kg BW

Dog, Cat:- 40000 IU/kg BW

6. CEFTRIXONE

- Class :- Third generation cephalosporin
- Action :- Ceftriaxone is beta-lactam that produce its bactericidal action by interfering with the production of cell wall peptidoglycans, thus causing cell lysis.

- Indication :- Nephritis, cystitis , Endometritis, Pyometra, mastitis.
- Dosage :- IM, IV, SC

Large Animal:- 5-10 mg/kg BW

Small Animal:- 15-25 mg/kg Bw

7. SULPHONAMIDE+TRIMETHOPRIM

- Action:- Potentiated Sulphonamide combination have potent bactericidal action against both Gram +ve and Gram -ve organism which cause uterine infection.
- Indication:- Metritis, Pyometra , cervicitis, vaginitis ,retention of fetal membrane.
- Dosage :- Insert IU :-

Large Animal:- 2-4 boli/uterine horn

Small Animal:- 1-2 boli/ uterine horn

8. DICRYSTICIN-DS

- Class : Amino glycoside antibacterial
- Action :- Streptomycin inhibits bacterial protein synthesis enabling bactericidal action.
It is effective against Gram negative organisms.
- Indication :- Abortion, Brucellosis, Bovine genital tuberculosiis.
- Dosage :- IM

Cattle, Horse, Goat, Pig, Dog, Cat:- 10 mg/kg BW

9. AMOXYCILLIN

- Class :- Amino penicillin
- Action :- Amoxycillin inhibits synthesis of bacterial cell wall, thus effecting bacterial action.
- Indication :- Mastitis, urinary tract infection, metritis.

- Dosage :- IM, IV, Oral

Cattle, Horse, Goat, Pig: 10 mg/kg BW BID

Dog, Cat:- 10-20 mg/kg BID

10. NITROFURAZONE+UREA

- Action :- Nitrofurazone belongs to group of anti-bacterial, active against gram+ve and gram -ve organism. It is also a potent antiprotozoal agent and hence indicated in uterine infection of various etiology. Urea is proteolytic, dissolves quickly in uterine fluid and penetrates mucosal folds of uterus. It enhances the action of Nitrofurazone in combination by acting as carrier. It removes necrotic debris, liberates ammonia making the uterine medium alkaline and thus checking the microbial growth.
- Indication :- Metritis, Pyometra, Cervicitis, Vaginitis, retention of foetal membranes.
- Dosage :- Bolus (Nitrofurazone 60 g, Urea 6 g)

Insert I/U Large Animal:- 2-4 boli

Small Animal:- 1-2 boli