

## Sulfadiazine and Trimethoprim

SCHEDULING STATUS: S4

### CURRENTLY COMPOUNDED FORMULATIONS:

Active ingredient(s)	Injectable	Oral equine paste	Oral carnivore paste	Orals for exotics	Oral solution/suspension	Topical treatment	Shampoo	Capsules/Tablets	Oral powder
Sulfadiazine and Trimethoprim	✓								

REGISTERED PRODUCT/ TRADE NAME: Norotrim 24

PHARMACOLOGICAL CLASSIFICATION: Potentiated sulfonamide antimicrobial<sup>[1]</sup>

**PHARMACOLOGICAL ACTION:** On their own, sulfonamides are bacteriostatic and trimethoprim is bactericidal, but when they are used together, the potentiated sulfas are bactericidal. Potentiated sulfonamides inhibit enzymes in the folic acid pathway, thereby inhibiting bacterial thymidine synthesis. The sulfonamide blocks the conversion of para-aminobenzoic acid to dihydrofolic acid and trimethoprim blocks the conversion of dihydrofolic acid to tetrahydrofolic acid by inhibiting dihydrofolate reductase.

**INDICATIONS:** Potentiated sulfonamides are used for the treatment of pneumonia, bacterial scours, urogenital tract infections, footrot and joint ill. The spectrum covers both Gram-negative and Gram-positive bacteria such as *Streptococcus* spp., *Staphylococcus* spp., *Salmonella* spp., *Proteus* spp., *Pasteurella* spp., *Haemophilus* spp. and *Klebsiella* spp.<sup>[2]</sup>

### DOSAGE AND DIRECTIONS FOR USE:

#### CATTLE:

1 ml/ 16 kg BM OID IM or slow IV of a 24% solution<sup>[2]</sup>, corresponding to a dosage of 16 mg/kg BM

### WARNINGS/ PRECAUTIONS/ CONTRA-INDICATIONS:

- Do not use milk for human consumption until 48 hours after the last treatment.<sup>[2]</sup>
- Do not slaughter cattle for human consumption until 12 days after the last treatment.<sup>[2]</sup>
- Intravenous injections should be administered slowly to prevent anaphylactic shock.<sup>[2]</sup>

### REFERENCES:

1. Plumb's Veterinary Drug Handbook, Sixth edition, by Donald C. Plumb
2. IDR, 2019/2020, IVS desk reference – volume 15