Cyclase

Injectable solution

Contains:
Cloprostenol (as sodium) 250 µg/mL

RESTRICTED VETERINARY MEDICINE
KEEP OUT OF REACH OF CHILDREN
FOR ANIMAL TREATMENT ONLY

Also contains chlorocresol 0.1 % w/v as a bactericide.
For luteolysis of functional corpora lutea in cows, pigs and horses.

Complements use of the DIB-V (A10319) and DIB-h (A10832) progesterone inserts and Gonasyn (A10642) in oestrus synchrony programs and also Novormon (A10641) in anoestrus synchrony programs.

Can be used as a diluent for Novormon.

Cyclase is an injectable synthetic analogue of prostaglandin F2α, a potent luteolytic agent. Prostaglandins are 20 carbon atom unsaturated fatty acids synthesised like local hormones in most organic tissues. Prostaglandins are classified in 9 groups (A to I), subdivided in subgroups 1, 2 and 3. In domestic animals the most important prostaglandin is PGF2α of which Cloprostenol is a synthetic functional analogue.

ACTION

In the reproductive system prostaglandins play an important role in ovulation, luteolysis, gamete transport, uterine motility, foetal membranes and spermatozoid transport in males. Prostaglandins are widely used in reproductive therapeutic programmes for their potent luteolytic effects. PGF2α causes the functional and morphological regression of corpus luteum, with a resultant rapid decline in progesterone production. Luteolysis is useful as it is followed by ovarian follicle development and oestrus return with ovulation. In cattle oestrus returns 2 to 4 days after luteolysis and in horses 2 to 5 days after luteolysis. There is a refractory period of 5 to 6 days after ovulation when animals are insensitive to the luteolytic effect of prostaglandins. PGF2α has a direct stimulant effect on smooth musculature causing contraction and relaxing effects on the uterus.

INDICATIONS

Bovine

• Oestrus synchronisation and ovulation: Animals not showing heat should receive one dose of 2mL of Cyclase (500 µg cloprostenol) or 2 doses of 2mL (500 µg cloprostenol) of Cyclase separated by 11 to 14 days. Heat is displayed 2 to 4 days after treatment.
• Controlled breeding programmes: Use as part of DIB-V (A10319) or DIB-h (A10832) controlled breeding programs for oestrus synchronisation to cause luteolysis. Follow the timing directions outlined in the programme. Administer 1 dose of 2mL Cyclase (500 µg cloprostenol).
• Treatment of anoestrus: Use as part of a DIB-V (A10319) or DIB-h (A10832) controlled breeding programme for the treatment of postpartum anoestrus to cause luteolysis. Follow the timing directions outlined in the programme. Administer 1 dose of 2mL Cyclase (500 µg cloprostenol).
• Use early in the postpartum period to improve reproductive efficiency: One or two doses of 2mL of Cyclase (500 µg cloprostenol) administered between 12 to 40 days postpartum to improve uterine involution, thereby avoiding infections.
• Termination of early pregnancy: Pregnancy can be terminated from one week after conception until day 150 of gestation. Prior to 100 days of gestation, abortion can be induced rapidly and efficiently. Most cows will abort in 3 to 5 days after treatment. Between days 100 and 150 of gestation results are less reliable due to the presence of placental progesterone.
• Removal of mummified foetus: Induction of luteolysis will result in the expulsion of mummified foetus.
• Parturition induction: after day 270 of gestation cows treated with one dose of 2mL of Cyclase (500 µg cloprostenol) usually calve within 48 hours.
• Foetal membranes retention; chronic purulent endometritis (pyometra): treat with a single dose of 2mL of Cyclase (500 µg cloprostenol).
• Luteal cysts: ovary cysts could be associated with persistent luteal tissue; the treatment with cloprostenol could return the cow to a normal oestrus cycle.

Equine

• Anoestrus treatment: Cyclase could be used to treat many causes of anoestrus in mares such as persistent dioestrus, pseudopregnancy, and early embryo death (up to 100 days).
• Oestrus cycle handling: one or two doses of Cyclase separated by 14 days.
• Abortion induction: prior to day 35 of gestation.

Porcine

• Parturition induction: one dose of 0.7mL of Cyclase (175 µg cloprostenol) within 3 days of expected parturition date induces parturition 24 hours after treatment.

DOSAGE AND ADMINISTRATION

Cattle
Single or repeat doses of 2mL of Cyclase (500 µg cloprostenol) administered by intramuscular or subcutaneous injection in the anterior half of the neck.

Equine
Doses of 0.5mL of Cyclase (125 µg cloprostenol) to 1mL Cyclase (250 µg cloprostenol) for mares up to 400 kg bodyweight and 1mL of Cyclase (250 µg cloprostenol) to 2mL Cyclase (500 µg cloprostenol) for mares 400 kg bodyweight and over, administered by intramuscular injection in the anterior half of the neck.

Porcine
A single dose of 0.7mL of Cyclase (175 µg cloprostenol) administered by intramuscular injection in the anterior half of the neck.

When using Novormon (A10641) and Cyclase together in a reproductive program, the Cyclase can be used as the diluent for Novormon so that both products can be administered to the cow via a single injection.
Studies have shown that this combination does not affect the cloprostenol content nor the biological potency of Novormon. It has been demonstrated that there is no interaction between the ingredients when they are mixed together.
A 2mL dose of Novormon 20,000 diluted with Cyclase will deliver 400 IU eCG and 500 µg cloprostenol.

CONTRAINDICATIONS

Do not use in pregnant animals unless the objective is to terminate pregnancy. Do not administer IV.
Horses:
Do not administer to mares suffering disorders of the gastro-intestinal tract or respiratory tract.

WITHHOLDING PERIODS

Meat and Milk: NIL

STORAGE

Store below 25°C away from direct light. Use within 30 days of opening the pack. When used as a diluent for Novormon (A10641), store refrigerated (2-8°C) for 21 days, or up to 25°C for 14 days after mixing.

WARNING



Causes serious eye irritation. May cause an allergic skin reaction. May cause respiratory problems including bronchospasm in high doses.
Cloprostenol can be absorbed through the skin, avoid skin contact and exercise extreme caution especially in women of child bearing age and people with bronchial disease such as asthmatics.

PRECAUTIONS

Wear gloves, eye and face protection when handling. Avoid breathing mist or spray.
Wash hands and exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Take off contaminated clothing and wash it before reuse.

FIRST AID

IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice or attention.
For Advice contact the National Poisons Centre 0800 764 766 or seek Medical Advice from a Doctor.

DISPOSAL

Preferably dispose of product by use. Otherwise dispose of product and packaging at an approved landfill or other approved facility.

PRESENTATIONS

Available in 100mL plastic multi-dose vials.

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See www.foodsafety.govt.nz for registration conditions.

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