COVEXIN® 10

Clostridial vaccine for sheep and cattle

For the active immunisation of sheep and cattle against diseases caused by Clostridium perfringens types A, B, C, and D, C. chauvoei, C. novyi, C. septicum, C. tetani, C. sordellii, and C. haemolyticum.

New Zealand developed and manufactured.

Read entire label and leaflet before use

<table>
<thead>
<tr>
<th>HANDLING PRECAUTIONS WARNING</th>
<th>May cause an allergic skin reaction. Avoid skin contact.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST AID</td>
<td>Accidental self-injection - Obtain medical attention - show this leaflet and/or SDS.</td>
</tr>
</tbody>
</table>

Accidental self injection may lead to an inflammatory response and medical advice should be sought on the management of deep injections, particularly those near a joint or associated with bruising. If possible the application of gentle squeezing pressure with absorbent material (e.g. facial tissues) at the injection site will swab up unabsorbed vaccine. Strong squeezing of the site should be avoided. The damaged area should be thoroughly cleansed and a topical antiseptic applied.

Advice to doctor
Treat symptomatically. Some risk of hypersensitivity from injection. Contains safety tested inactivated bacterial toxins. Contamination of the needle must be considered.

If on skin: wash with plenty of soap and water. If skin irritation/rash occurs seek medical advice. For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor.

DISPOSAL Dispose of unused contents in a suitable landfill. Dispose of empty VAXIPAK by puncturing and burying in a suitable landfill. Do NOT burn


Presentation
A fluid, adjuvanted vaccine for injection with a precipitate which resuspends on shaking.

Covexin 10 contains toxoids of Clostridium perfringens (types A, B, C and D), C. novyi (type B), C. septicum, C. tetani, C. sordellii, and C. haemolyticum and whole cell culture of C. chauvoei.

Covexin 10 also contains potash alum adjuvant and 0.015%w/v thiomersal as a preservative.

Uses
For the active immunisation of sheep and cattle from 2 weeks of age against diseases caused by Clostridium perfringens type A (enterotoxaemia, gas gangrene, sudden death syndrome), C. perfringens type B (lamb dysentery, enterotoxaemia), C. perfringens type C (enterotoxaemia, struck), C. perfringens type D (enterotoxaemia, pulpy kidney), C. chauvoei (black leg, black quarter, post parturient gangrene), C. novyi type B (black disease, infectious necrotic hepatitis), C. septicum (malignant oedema, braxy), C. tetani (tetanus), C. sordellii (sudden death syndrome), and C. haemolyticum (red water disease).

Full protection develops within 14 days of administration of the second dose. Duration of immunity is approximately 12 months from initial vaccination. Studies show that revaccination every 12 months is adequate to generate and maintain immunity. Where high levels of challenge are anticipated, more frequent booster vaccination may need to be considered.
Dosage and administration

*Dose:*
- Sheep and lambs over 2 weeks of age: 1 mL
- Cattle and calves over 2 weeks of age: 2 mL

Concurrent vaccination

Covexin 10 can be administered at the same time (at alternative sites) as either Leptavoid® 2 or Leptavoid® 3.

Vaccination Programme:
The primary course of immunisation consists of two injections, allowing an interval of 4-6 weeks between them.

An annual booster vaccination is required at intervals of not more than twelve months following the primary course.

Vaccinations should be completed at least two weeks before maximum immunity is required. This may be either a period of risk or in pregnant animals prior to parturition.

Previously sensitised ewes/cows should be injected 2 – 6 weeks before parturition is due to commence. This provides passive protection of the lamb/calf, via the colostrum*.

In lambs passive protection will last for at least 12 weeks against *C. tetani, C. novyi, C. perfringens B, C and D and C. sordellii* and for up to 2 weeks against *C. septicum, C. perfringens A* and *C. chauvoei*.

In calves passive protection will last for at least 12 weeks against *C. tetani, C. novyi, and C. perfringens B, C and D*, up to 8 weeks for *C. septicum* and up to 2 weeks for *C. sordellii, C. chauvoei, C. perfringens A* and *C. haemolyticum*.

The vaccine may be used in lambs and calves as young as two weeks of age regardless of serum antitoxin levels acquired from maternal transfer.

*Note:*
*The degree of protection passed to offspring from the dam will vary depending on the dam’s level of immunity and the amount of colostrum absorbed by the lamb/calf. These factors are affected by the overall vaccination program, time since dam vaccination, offspring’s ability to suckle, suckling frequency, and number of offspring being suckled. Therefore within a herd/flock there may be varying time periods of protection.*

Administration:
By careful subcutaneous injection in the loose skin on the side of the neck, observing aseptic precautions. The VAXIPAK must be shaken well before doses are withdrawn.

Directions for Use

Equipment:
- Use sharp needles
- Change needles frequently (every 12 to 20 sheep)
- Needles and vaccinating guns should be sterile before starting. Needles can be sterilised by boiling for 10 minutes and storing in methylated spirits.

Assembly of VAXIPAK and draw-off set:
1. Attach end of draw-off tube to the vaccinating gun
2. Pierce rubber bung of VAXIPAK with draw-off needle, ensuring that plastic overcap snaps into position on the VAXIPAK cap.
3. The plastic cord is provided for hanging COVEXIN 10 in a convenient position e.g. from neck, belt, or rail.

Vaccination:
- Ensure vaccinating gun delivers correct dose.
- Vaccinate only clean, dry animals.
- Inject in the anterior (front) half of the neck.
- Inject subcutaneously i.e. between the skin and muscle.
- Part the wool, raise the skin to form a “tent” and insert the needle into the “tent opening” so that the needle is almost parallel with the neck.

Precautions
Do not vaccinate unhealthy sheep or cattle, or animals which may be affected by subclinical disease or physiological stress, without the advice of a veterinarian.

Warnings:
Syringes and needles should be sterilised before use and the injection should be made through an area of clean, dry skin, taking precautions against contamination.

Careful subcutaneous vaccination technique is important.

Cattle: Swelling may occur at the site of injection which should resolve within 1-2 months. The incidence and severity may be higher in calves less than one month of age.
Sheep: Swelling may occur at the site of injection which should resolve within 1-2 months post vaccination.

Side-effects:
As with any vaccine occasional hypersensitivity reactions may occur in animals. In such cases appropriate treatment such as adrenalin or antihistamine should be administered without delay.

Withholding period
Nil

Storage
Store away from light at 2°C - 8°C. DO NOT FREEZE.

A partially used pack can be kept for use for the next day (maximum 36 hours) if the following steps are taken:
1. Carefully remove the draw-off tube from the stopper.
2. Empty the draw-off tube and vaccinator by depressing the plunger several times.
3. Remove the draw-off tube from the vaccinator.
4. Disinfect the stopper.
5. Store vaccine upright in the refrigerator. DO NOT FREEZE.
Further information
Should lambing/calving extend over a period of more than six weeks, the duration of transferred
colostral protection in the later-born offspring may be shortened. These lambs/calves should be given
their first dose of Covexin 10 from two weeks of age.

In any animal population there may be a small number of individuals which fail to respond fully to
vaccination. Successful vaccination depends upon correct storage and administration of the vaccine
together with the animal's ability to respond. This can be influenced by such factors as genetic
constitution, intercurrent infection, age, nutritional status, concurrent drug therapy and stress.

ACVM Registration No. A9028
See www.nzfsa.govt.nz/acvm/ for registration conditions.
Approved pursuant to the HSNO Act 1996, Approval code HSR000015.
See www.ermanz.govt.nz for controls.

COVEXIN and VAXIPAK are registered trademarks of Schering-Plough Animal Health Limited.
© 2010.

Registered to:
Schering-Plough Animal Health Limited
33 Whakatiki Street, Upper Hutt, New Zealand
Phone: 0800 800 543
www.intervet.co.nz