



Rabbit Viral Hemorrhagic Disease (RVHD)

Rabbit Viral Hemorrhagic Disease (RVHD), also known as Rabbit Hemorrhagic Disease (RHD), is a highly contagious viral disease that affects rabbits. It is caused by the Rabbit Hemorrhagic Disease Virus (RHDV) or Rabbit Hemorrhagic Disease Virus 2 (RHDV2), which belongs to the genus *Lagovirus* within the *Calicivirus* family.

RVHD primarily affects domestic and wild rabbits, including both pet rabbits and those raised for commercial purposes. The virus is spread through direct contact with infected rabbits, their bodily fluids (such as nasal secretions, urine, or feces), or contaminated objects and surfaces.

There are two forms of RVHD: classic RVHD (caused by RHDV) and RVHD2 (caused by RHDV2). Both forms can cause severe illness and high mortality rates in infected rabbits. The classic RVHD primarily targets adult rabbits, while RVHD2 can affect rabbits of all ages, including young kits.

The symptoms of RVHD can vary, but they often include sudden death without any apparent signs of illness. In cases where symptoms are present, they may include fever, lethargy, loss of appetite, respiratory distress, bleeding from the nose or mouth, jaundice, and neurological signs such as spasms or convulsions.

Preventing RVHD involves vaccination, as there are vaccines available for both classic RVHD and RVHD2. It is important to consult with a veterinarian to determine the appropriate vaccination schedule for rabbits. Good hygiene practices, such as regularly cleaning and disinfecting living areas, minimizing contact with wild rabbits, and avoiding the introduction of potentially infected rabbits, can also help reduce the risk of transmission.

If RVHD is suspected in a rabbit, it is important to seek veterinary care promptly. Infected rabbits should be isolated to prevent the spread of the virus to other rabbits. There is no specific treatment for RVHD, and supportive care is the main approach to managing infected rabbits.

RVHD is a specific viral hemorrhagic disease that affects rabbits, and it is not transmissible to humans or other animal species.

Vaccines available for RVHD in Malta

Name of VMP	Active ingredient(s)	Indication(s)	Posology & Method of administration	Special precautions
Cunipravac-RHD injectable emulsion for rabbits (VET 142)	One dose (0.5ml) contains ≥ 19,7 ELISA of Rabbit Hemorrhagic Disease Virus (RHDV) inactivated, strain 3116-AP (Type I)	For the active immunization of rabbits to prevent infection caused by the virus of the Rabbit haemorrhagic disease, classic strain. The onset of immunity is 6 days after vaccination and its duration is 1 year.	<p>Dose: 0.5ml per rabbit</p> <p>Route: Subcutaneous in the anterior part of the back</p> <p>Vaccination program for breeding and pet rabbits:</p> <p><u>Primary vaccination</u> - Administer one dose from 2 months of age.</p> <p><u>Revaccinate</u> with one dose per year.</p> <p>Vaccination program for fattening rabbits:</p> <p><u>Primary vaccination</u> - Administer one dose from 30 days of age.</p> <p>If disease occurs, it is advisable to vaccinate at weaning.</p> <p><u>Revaccinate</u> is not applicable</p>	<p>Store in a refrigerator between 2°C and 8°C. Do not freeze.</p> <p>Use immediately after first opening of the immediate packaging. Shake well before use.</p> <p>Administer the vaccine when it is at room temperature (15°C and 25°C).</p> <p>Vaccinate healthy rabbits only.</p> <p>Withdrawal period - 0 days</p> <p>In the absence of compatibility studies, this veterinary medicinal product must not be mixed with other veterinary drugs.</p> <p>This product contains mineral oil. Accidental injection / self-injection can cause severe pain and inflammation especially if injected into a joint or a finger, and in rare cases could result in the loss of the affected finger if urgent medical</p>

				attention is not provided. In case of accidental injection, consult a doctor urgently even if only a very small amount has been injection, and show the package leaflet to the doctor. If the pain persists more than 12 hours after medical examination, see a doctor again.
Castorex vaccine A.U.V suspension for injection for rabbits (VET 282)	One dose (0.5ml) contains min. 1 PD ₉₀ of inactivated Rabbit Haemorrhagic Disease Virus strain RHDV PHB98 (Type I)	For active immunisation of rabbits to prevent mortality caused by RHD virus (type 1). <u>Onset of immunity</u> - 7 days. <u>Duration of immunity</u> - 1 year based on field data without controlled challenge.	Dose: 0.5 ml per rabbit Route: Subcutaneous, it is recommended to localise the site of administration to the lateral thoracic wall. Vaccination program: <u>Primary vaccination</u> - Administer one dose from the age of 10 weeks. <u>Revaccinate</u> with 1 dose every 12 months With respect to the epizootological situation, it is possible to vaccinate rabbits younger than 10 weeks (but not earlier than at the age of six weeks) with subsequent revaccination 4 weeks after the first vaccination.	Store in a refrigerator between 2°C and 8°C. Protect from frost. Once opened, store below 25°C. Shelf-life after first opening the immediate packaging: 10 hours. Shake well before and occasionally during administration. Withdrawal period - 0 days Do not vaccinate unhealthy animals. It is recommended not to vaccinate in the later stages of pregnancy in order to avoid stress and handling of pregnant does. No information is available on the use of the vaccine in seropositive animals including those with maternally derived antibodies. Therefore, in situations where high antibody levels are expected the vaccination protocol should be planned accordingly

				<p>In case of accidental self-injection, seek medical advice immediately and show the package leaflet or the label to the doctor.</p> <p>Do not mix with any other veterinary medicinal products.</p> <p>No information is available on the safety and efficacy of this vaccine when used with any other veterinary medicinal product. A decision to use this vaccine before or after any other veterinary medicinal product therefore needs to be made on a case by case basis.</p>
Castorex NEO suspension for injection for rabbits (VMA 086)	One dose (0.5ml) contains min. 0.300 O.D. of inactivated Rabbit Haemorrhagic Disease Virus type 2, strain RHDV 2 F/12B	For active immunisation of rabbits to prevent mortality by RHD virus type 2 <u>Onset of immunity:</u> 7 days <u>Duration of immunity:</u> 1 year	Dose: 0.5 ml per rabbit Route: Subcutaneous, it is recommended to localise the site of administration to the lateral thoracic wall. Vaccination program: <u>Primary vaccination</u> - Administer one dose from the age of 6 weeks. <u>Revaccinate</u> with 1 dose every 12 months	Store in a refrigerator between 2°C and 8°C. Protect from frost. Once opened, store below 25°C. Shelf-life after first opening the immediate packaging: 10 hours. Shake well before and occasionally during administration. Before administration allow warming of vaccine to room temperature. Administer under usual aseptic conditions using sterile syringes and needles only.

			<p>With respect to the epizootological situation, it is possible to vaccinate rabbits from the age of 4 weeks with subsequent booster vaccination 4 weeks after the first injection.</p>	<p>Withdrawal period - 0 days</p> <p>Do not vaccinate unhealthy animals.</p> <p>Can be used during pregnancy. The use is not recommended in the last third of gestation in order to avoid stress from handling and risk of abortion. The safety of veterinary medicinal product has not been established during lactation.</p> <p>In case of accidental self-injection, seek medical advice immediately and show the package leaflet or the label to the doctor.</p> <p>Do not mix with any other veterinary medicinal products.</p> <p>Safety and efficacy data are available which demonstrate that this vaccine can be administered on the same day but not mixed with inactivated RHDV type 1 vaccine (Castorex) in rabbits from 10 weeks of age onwards. The full protection starts at the least 2 weeks after vaccination. The product information of Castorex should be consulted before administration.</p>
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Storage of vaccines

Proper storage of vaccines is essential to maintain their potency and effectiveness. Vaccines are sensitive biological products that require specific storage conditions to ensure their stability and ability to provide immunity. Here are some key considerations for the storage of vaccines:

Temperature: Most vaccines need to be stored within a specific temperature range, typically between 2°C and 8°C (36°F and 46°F). This temperature range is commonly referred to as the "cold chain." It is crucial to have a dedicated vaccine refrigerator or storage unit that can consistently maintain the required temperature.

Vaccine Refrigerator: A vaccine refrigerator should be used exclusively for storing vaccines to prevent cross-contamination. It should be set to the recommended temperature range and have a calibrated thermometer to monitor and maintain temperature accuracy. The refrigerator should be equipped with temperature alarms to alert staff if the temperature goes out of the desired range.

Temperature Monitoring: Regular temperature monitoring is essential. Vaccines should be stored in a way that allows easy access for temperature checks while minimizing exposure to ambient air. A temperature log should be maintained to record daily temperatures and any excursions outside the acceptable range.

Cold Chain Maintenance: During transportation, vaccines should be kept in insulated containers with ice packs or temperature-controlled packaging to maintain the required temperature until they reach their destination.

Storage Conditions: Vaccines should be stored in their original packaging and kept away from light, moisture, and extreme temperatures. Vaccines should not be stored in the refrigerator door, as it may be subjected to temperature fluctuations due to frequent opening and closing.

Vaccine Handling: Proper handling practices should be followed, including avoiding unnecessary exposure to heat or direct sunlight. Vaccines should be stored in a way that allows for proper air circulation, ensuring that they are not overcrowded or tightly packed.

Stock Rotation: Implement a "first-in, first-out" system to ensure that vaccines with the closest expiration dates are used first. This practice helps to prevent the use of expired vaccines.

Backup Power: Having a backup power source, such as a generator or battery backup system, can help maintain the required temperature during power outages or equipment failures.

It is crucial to follow the specific guidelines provided by the vaccine manufacturers and veterinary authorities regarding vaccine storage and handling.