



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

25 May 2018
EMA/368197/2018
Veterinary Medicines Division

Committee for Medicinal Products for Veterinary Use

CVMP assessment report for type II variation for Porcilis PCV M Hyo (EMA/V/C/003796/II/0007)

Common name: Porcine circovirus (inactivated) and porcine enzootic pneumonia vaccine (inactivated)

Assessment report as adopted by the CVMP with all information of a commercially confidential nature deleted.

Rapporteur: Esther Werner

Co-rapporteur: Katariina Kivilahti-Mäntylä



Table of contents

1. Introduction	3
1.1. Submission of the variation application	3
1.2. Scope of the variation	3
1.3. Changes to the dossier held by the European Medicines Agency	3
1.4. Scientific advice	3
1.5. MUMS/limited market status	3
2. Scientific Overview	3
2.1. Safety	3
2.1.1. Laboratory tests	4
2.1.1.1. Safety of the repeated administration of one dose	4
2.1.1.2. Examination of reproductive performance	4
2.1.1.3. Examination of immunological functions	4
2.1.1.4. Special requirements for live vaccines	4
2.1.1.5. Study of residues	5
2.1.1.6. Interactions	5
2.1.2. Field studies	5
2.1.2.1. User safety	6
2.1.2.2. Environmental risk assessment	6
2.1.3. Overall conclusions on the safety documentation	6
2.2. Efficacy	7
2.2.1. Introduction and general requirements	7
2.2.2. Laboratory trials	7
2.2.2.1. Establishment of a challenge model	7
2.2.2.2. Onset of immunity	7
2.2.2.3. Duration of immunity	8
2.2.2.4. Influence of maternal antibody on the efficacy of the vaccine	9
2.2.3. Field trials	10
2.2.4. Overall conclusion on efficacy	10
3. Benefit-risk assessment of the proposed change	11
3.1. Benefit assessment	11
3.2. Risk assessment	12
3.3. Risk management or mitigation measures	12
3.4. Evaluation of the benefit-risk balance	13
4. Conclusion	13

1. Introduction

1.1. Submission of the variation application

In accordance with Article 16 of Commission Regulation (EC) No 1234/2008, the marketing authorisation holder, Intervet International B.V. (the applicant), submitted to the European Medicines Agency (the Agency) on 21 September 2017 an application for a type II variation for Porcilis PCV M Hyo.

1.2. Scope of the variation

Variation(s) requested		Type
C.I.6.a	C.I.6.a - Change(s) to therapeutic indication(s) - Addition of a new therapeutic indication or modification of an approved one	II

The variation is to modify the approved therapeutic indication to include an additional posology. Additionally, some editorial changes in the dossier Part 3 and 4 are introduced and the product information aligned with the latest QRD template.

The currently registered vaccination schedule consists of a single dose of 2 ml in pigs starting at 3 weeks of age. The additional (proposed) two dose vaccination schedule is a repeated dose of 1 ml in pigs starting at 3 days of age with an interval of at least 18 days.

1.3. Changes to the dossier held by the European Medicines Agency

This application relates to the following sections of the current dossier held by the Agency:

Parts 1, 3, 4, 5 and 6 of the electronic dossier.

1.4. Scientific advice

Not applicable.

1.5. MUMS/limited market status

Not applicable.

2. Scientific Overview

2.1. Safety

Porcilis PCV M Hyo is a subunit vaccine containing the ORF2 capsid protein of porcine circovirus type 2 (PCV2) and inactivated whole cells of *Mycoplasma (M.) hyopneumoniae* strain J (ATCC #25934) adjuvanted with Emunade, an oil-in-water-emulsion, consisting of aluminium hydroxide and a light mineral oil.

The vaccine was first licensed in November 2014. The indication for use is active immunization of pigs

to reduce viraemia, virus load in organs and lymphoid tissues as well as virus shedding caused by PCV2 infection, and severity of lung lesions caused by *M. hyopneumoniae* infections. The vaccine is also indicated to reduce daily weight loss associated with PCV2 and/or *M. hyopneumoniae* infection during the finishing period. Piglets from three weeks of age are immunized with a single intramuscular injection of 2 ml into the neck region.

The variation introduces an additional application scheme for a repeated dose immunization (two dose immunization). Animals are immunized with 3 days of age with 1 ml and a second time 18 days later with again 1 ml intramuscularly into the neck region.

One laboratory safety study and four field safety studies were provided. These studies were already provided during the marketing authorisation procedure. Vaccinations were performed in accordance with the new proposed repeated vaccination schedule and administration route (intramuscular two vaccinations with 1 ml, 1st at 3 days of age and 2nd at 3 weeks of age).

2.1.1. Laboratory tests

2.1.1.1. Safety of the repeated administration of one dose

One laboratory trial was provided to evaluate the safety of intramuscular vaccination with the single 2 ml dose and the repeated 1 ml dose vaccination regimens in piglets. Briefly, 36 piglets were allocated to three groups. The first group was vaccinated with the repeated dose at an age of 2-4 days and 20-22 days; the second group was vaccinated with a single vaccination at three weeks of age as already authorised and a third group as a control which received twice a placebo. Animals were observed for general health condition, rectal temperature and injection site reactions. No local reactions or systemic reactions were observed after each vaccination. Rectal temperatures were similar to those of the single vaccinated animals. Mean body temperatures did not exceed 1.5 °C and no piglet showed a rise higher than 2 °C.

In summary the vaccine is considered safe when given as repeated vaccination to 3 day old piglets with an 18 days interval. Only slight transient increase in rectal temperature was observed which is already reflected in the SPC.

2.1.1.2. Examination of reproductive performance

Since the vaccine is still not intended for use in pregnant animals, this section is not applicable.

2.1.1.3. Examination of immunological functions

None of the inactivated antigen components of the vaccine in question is known to have an immunosuppressive effect. The data available to the present do not support any negative impact on the immune system after vaccination. Therefore, no specific studies were conducted to evaluate any potential negative influence on the immunological functions. This is considered acceptable.

2.1.1.4. Special requirements for live vaccines

Porcilis PCV M Hyo contains a subunit antigen (porcine circovirus type 2 ORF2) and whole cells of inactivated *M. hyopneumoniae* as active ingredients. Therefore, the corresponding sections are still not applicable.

2.1.1.5. Study of residues

The composition of the vaccine remains the same and therefore, residue aspects have not been changed if compared with the original MA.

2.1.1.6. Interactions

Interactions with other products are not known. The addition of the two dose vaccination scheme does not affect the interaction aspect. The SPC wording (4.8) has not to be changed.

2.1.2. Field studies

Four field studies were provided to evaluate the safety of the repeated 1 ml dose vaccination regime in piglets given at an age of approximately 3 days and 3 weeks. One study only evaluated the safety parameters, three studies evaluated safety and efficacy under field conditions.

All field trials were conducted according to the principles of Good Clinical Practice (GCP).

In the field safety study the safety of the repeated dose vaccination was compared to control animals in a total of approximately 190 piglets. The incidence of piglets with an abnormal general health observation after both vaccinations was not significantly different between both treatment groups. A significant increase in rectal temperatures was observed within the first four hours after vaccination. None of the piglets showed an increase above 2.0 degrees. No significant differences were observed for weight gain between vaccinated and control animals. For local reactions almost the same number of animals did show local reactions within the first four hours in the vaccinated and control group. Nevertheless, one piglet did show local reaction after the 1st vaccination which did resolve after day 11. After the 2nd vaccination another piglet showed a local reaction at day 2 only. These findings are adequately reflected in SPC section 4.6 by amending the initially proposed text.

In the first field combined safety and efficacy study the safety and efficacy of the one-shot and two-shot vaccination was evaluated compared to a control group with approximately 300 piglets per group. No immediate, local reactions or systemic reaction related to the vaccine were observed during the whole study. Average daily weight gains (ADWG) were improved during the nursery period.

In the second combined safety and efficacy study the safety and efficacy of the one-shot and two-shot vaccination was evaluated compared to a control group with approximately 310 piglets per group. One piglet of the repeated vaccination group did show a hypersensitivity reaction after the first vaccination. This is well reflected in the SPC. No other immediate, local or systemic reactions were observed during the study. The ADWG during the nursery period were not statistically different between groups.

In the third combined safety and efficacy study the safety and efficacy of the one-shot and two shot vaccination were again compared to controls with approximately 300 piglets per group. Three piglets showed an immediate reaction after vaccination. Two piglets from the 2-shot group lay on the floor after the first vaccination but recovered within a couple of minutes. These events are well reflected in the SPC under 4.6 'Adverse reactions'. No other reactions were observed during the whole study. The ADWG during the nursery period was significantly lower in the 2-shot group as compared to the control group. This was satisfactorily justified due to several co-infections which had occurred on the farm.

In summary, the vaccine is considered safe when given as repeated vaccination to 3 day old piglets with an 18 days interval. Only slight transient increase in rectal temperature was observed which is

already reflected in the SPC. Hypersensitivity reactions observed in two of the four field trials are also well reflected in the SPC.

2.1.2.1. User safety

The user risk assessment compliant with the CVMP guideline for user safety for IVMPs (EMA/CVMP/IWP/54533/2006) has been already provided during the marketing authorisation of this vaccine. The addition of the two-shot vaccination scheme does not affect the user safety therefore the standard user safety advice warnings already included in the SPC and needs no amendment.

2.1.2.2. Environmental risk assessment

An environmental risk assessment (ERA) in compliance with the CVMP guideline on the environmental risk assessment of immunological veterinary medicinal products (EMA/CVMP/074/95) was already provided during the marketing authorisation of the one-shot vaccination schedule. As the two-shot vaccination scheme did not affect the environmental risk this part needs not to be amended.

2.1.3. Overall conclusions on the safety documentation

All safety studies (one laboratory safety and four field studies) were conducted with Porcilis PCV M Hyo and complied with the safety tests as described in the Ph. Eur. None of the animals developed notable signs of disease and no serious adverse reactions attributable to the vaccine were observed. The average body temperature increase for all animals did not exceed 1.5 °C and, in general, no animal showed a rise in body temperature greater than 2.0 °C. As the body temperatures returned to normal within one day, the vaccine should be considered to be safe for the use in three-day-old piglets. As these results are similar to the findings for the already approved one-shot vaccination with Porcilis PCV M Hyo an amendment of the SPC concerning the increase of rectal temperatures is not necessary.

As three piglets did show hypersensitivity reactions after the first vaccination the following sentence was included under section 4.6.: "In rare cases a hypersensitivity-like reaction may be observed after the first vaccination of the repeated dose vaccination schedule". This adequately reflects the finding in two of the field trials.

All local reactions resolved within 3 days after vaccination, except for one reaction after first vaccination in the field safety study which resolved after 11 days. The wording was satisfactorily revised according to the findings.

None of the components of the vaccine is known to have an immunosuppressive effect and no negative impact on the immune system is to be expected.

The vaccination did not negatively impact the daily weight gain during the nursery period.

The product is not expected to pose a risk for the environment when used according to the SPC.

Residue studies are not required. The withdrawal period of zero days is not affected by the repeated dose vaccination scheme.

2.2. Efficacy

2.2.1. Introduction and general requirements

Three laboratory vaccination/challenge studies (onset of immunity, duration of immunity) were conducted and 3 field studies to evaluate the efficacy of the two dose vaccination scheme for Porcilis PCV M Hyo.

In all studies the recommended application route (intramuscular) and the proposed vaccination schedule (2 x 1ml) were used and unvaccinated control groups were included. Pigs of minimum recommended age (3 days) were included in all studies. The field trials have been conducted according to the principles of GCP.

2.2.2. Laboratory trials

2.2.2.1. Establishment of a challenge model

The challenge model was the same as used for the initial registration procedure. Efficacy of both components of Porcilis PCV M Hyo was assessed by challenges with heterologous strains. Certificates for the challenge strains were provided.

2.2.2.2. Onset of immunity

Onset of immunity has been demonstrated with challenge studies according to the relevant Ph. Eur. monograph 2448 for *M. hyopneumoniae* vaccine; no specific Ph. Eur. monograph for vaccines against PCV2 is available.

M. hyopneumoniae

One relevant study was submitted to evaluate the onset of immunity of the *M. hyopneumoniae* component of the vaccine using commercial piglets (non SPF) of minimum age (3 days), the recommended administration route (intramuscular injection) and the proposed vaccination schedule (2 x 1 ml with an interval of 18 days). One out of two vaccine batches used was of minimum potency.

Two groups of pigs were vaccinated and one group received no injection and served as control (the pigs were allocated randomly to the groups). All pigs were challenged at 6 weeks of age (3 weeks after the second vaccination) with a virulent *M. hyopneumoniae* strain 98 by intratracheal route (10 ml pure culture on two consecutive days). The serological data reveal that maternally derived antibodies (MDAs) occurred in the majority of piglets in all groups before vaccination. The serological data clearly showed that the pigs respond to the vaccination and to the challenge. A high number of pigs were tested seropositive at 5 weeks of age in the vaccinated groups but not in the control group (almost all piglets were seronegative). After challenge almost all animals were tested seropositive.

The post-mortem examination revealed that the median lung lesion scores of the vaccinated groups were significantly lower compared to the control group.

An onset of immunity for the *M. hyopneumoniae* component after two shot vaccination with Porcilis PCV M Hyo at 3 weeks after the second vaccination was supported by the results of the above study.

PCV2

One study was conducted to establish the PCV2 onset of immunity. Piglets of the minimum age of 3 days were vaccinated twice with an interval of 18 days with a standard batch Porcilis PCV M Hyo using the proposed vaccination scheme (2 x 1ml). A non-vaccinated control group was included. 2 weeks after completion of the two dose vaccination the animals were challenged intranasally with PCV2 strain I-12/11 a challenge dose of 6 ml/animal.

The results demonstrate that piglets vaccinated at 3 days followed by a second vaccination at age of 3 weeks develop a serological response and that the virus load in serum and tissue samples (lungs and lymphoid tissues) as well as shedding of PCV2 are significantly reduced. Thus, the current registered claim of “reduced viraemia, PCV2 virus load in lungs and lymphoid tissues and virus shedding” was supported by the results obtained in this laboratory study.

The onset of immunity for the PCV2 component is claimed at 18 days after the first vaccination when using the two dose vaccination scheme. This new claim is based on the observation that the titre of $5.8 \log_2$ at three weeks of age, which is 18 days after the primary injection, was already above the protective titre of $> 3 \log_2$. The use of this protective antibody threshold as indicator for protection against PCV2 is considered acceptable based on provided data. Based on the analysis provided it is reasonable to conclude that Porcilis PCV M Hyo induced antibody titres can be used as marker to predict the efficacy of Porcilis PCV M Hyo. The established threshold of $>3 \log_2$ correlates with significant reduction in the viral load of all analysed samples (viremia, nasal shedding, faecal shedding and viral load in tonsils, Ln. inguinalis, Ln. mesenterialis and lung). An analysis of serological data was provided taking into consideration the observed background of maternally derived antibodies. The results demonstrate that vaccination of piglets with low levels of MDA at the moment of first vaccination at 3 days of age induces protective PCV2 antibody levels at 18 days after the first vaccination. Those animals are particularly vulnerable to PCV2 infections.

Consequently, the onset of immunity of 18 days after the first vaccination is acceptable for the PCV component.

2.2.2.3. Duration of immunity

Duration of immunity has been demonstrated in a study by *M. hyopneumoniae* challenge infection and by PCV2 serological response. The requirements of Ph. Eur. 2448 for *M. hyopneumoniae* vaccine were fulfilled; no specific Ph. Eur. monograph for vaccines against PCV2 is available.

M. hyopneumoniae

One blinded study was submitted to evaluate the duration of immunity of the *M. hyopneumoniae* component of the vaccine using specific pathogen free piglets of minimum age (3 days), the recommended administration route (intramuscular injection) and the proposed vaccination schedule (2 x 1ml).

The pigs were vaccinated with a vaccine batch of minimum potency and one group received no injection and served as control (the pigs were allocated randomly to the groups). All pigs were challenged at 24 weeks of age (21 weeks after completion of the two dose administration scheme) with a virulent *M. hyopneumoniae* strain by intratracheal route (10 ml pure culture on two consecutive days).

The serological data clearly showed that the pigs respond to the vaccination and to the challenge. A high number of pigs were tested seropositive at 13 weeks of age in the vaccinated groups but not in

the control group (only two were inconclusive). After challenge all animals were tested seropositive except for one negative animal in the control group.

The post-mortem examination revealed that the median lung lesion score of the vaccinated group was significantly lower compared to the control group.

In conclusion, duration of immunity of 21 weeks for the *M. hyopneumoniae* component after the last vaccination with Porcilis PCV M Hyo when using the repeated dose vaccination scheme can be supported on the basis of the above.

PCV2

In a study sera from piglets were tested for antibodies against PCV2 and for PCV2 antigen at 23 and 27 weeks. A PCV2 field infection could be demonstrated between weeks 23 and 27. Until this point in time the antibody titres from vaccinated animals were significantly higher than those from control animals. The measured antibody titres are above the protective level ($> 3 \log_2$) and also above the levels found at the time of challenge in the one dose duration of immunity studies where mean titres of $4.6 \log_2$ were measured at the times of challenge at respectively 18 and 22 weeks post vaccination.

The suitability of the serological surrogate marker for prediction of protection is discussed in Part 4.B in this report.

In conclusion, duration of immunity of Porcilis PCV M Hyo of 22 weeks after the last vaccination of the two dose vaccination scheme can be supported on the basis of the above.

2.2.2.4. Influence of maternal antibody on the efficacy of the vaccine

No specific laboratory studies were conducted regarding the influence of maternal antibodies (MDAs) on the efficacy of the vaccine Porcilis PCV M Hyo when the two dose administration scheme is used. Serological data generated at the moment of vaccination are evaluated from three field studies and three laboratory studies.

A statistically significant reduction of the viral load in serum, organs (mesenteric and inguinal lymph nodes, tonsil and lung) and nasal and faecal swabs was observed in all studies designed to evaluate efficacy against PCV2 challenge when comparing vaccinated groups and the controls as well as the increase in seroconversion in the vaccinated animals. The reduction of the severity of the lung lesions caused by *M. hyopneumoniae* was also statistically significant in all studies designed to evaluate the efficacy against *M. hyopneumoniae* challenge.

The results generated in the laboratory studies clearly support the following efficacy claims:

- Reduction of viraemia,
- Reduction of viral load in lungs and lymphoid tissues,
- Reduction of virus shedding caused by PCV2 infection,
- Reduction of severity of lung lesions caused by *M. hyopneumoniae* infection.

Based on the data from these efficacy studies there is no indication that the presence of MDA interferes with either *M. hyopneumoniae* or PCV2 efficacy conferred by the two dose vaccination scheme.

A report including a thorough analysis of data generated in piglets with and without MDAs (*M. hyopneumoniae*) and different levels of MDAs (PCV2) was provided. The data confirm the non-interference of MDAs against both, *M. hyopneumoniae* and PCV2, with vaccination efficacy.

2.2.3. Field trials

Three field trials evaluated the repeated vaccination schedule additionally to the proposed single vaccination scheme.

The field studies were performed in pigs with MDAs against the respective antigen. The farms were selected based on the infection history of PCV2 and *M. hyopneumoniae* as well as detection of PCV2 and *M. hyopneumoniae* induced lung lesions. The studies were randomised and blinded using an appropriate number of commercial pigs. Healthy suckling piglets were allocated randomly, within litters, to one of three groups of each approx. 300 piglets. In each study, one group was vaccinated with Porcilis PCV M Hyo (1 x 2 ml) and one group (control) was injected with sterile buffered saline. A third group was included that was vaccinated with Porcilis PCV M Hyo using the repeated vaccination scheme (2 x 1 ml). The study design itself is considered acceptable.

In these field studies the following main observations were made for the repeated dose vaccination schedule:

- A significant reduction in viral load in serum (all three studies),
- A significant reduction in the viral load in faecal swabs
- A significant reduction in lung lesions caused by *M. hyopneumoniae* infection
- A significant higher daily weight gain during the finishing period. In one study the daily weight gain for the repeated dose vaccination group was better than the control (+ 10 g/day), but this was statistically not significant. This was probably caused by the co-infections during this field study.

Based on the above it can be concluded that the field study data for the repeated dose vaccination schedule are fully in line with the laboratory efficacy data and demonstrate that vaccination with Porcilis PCV M Hyo according to this schedule results in a significant reduction of viraemia and virus shedding caused by PCV2 infection and a significant reduction of the severity of lung lesions caused by *M. hyopneumoniae* infection. In addition, the data substantiated the claim regarding the reduction of loss of daily weigh gain in face of infections with *M. hyopneumoniae* and/or PCV2. The results of the repeated dose vaccination schedule were often (slightly) better than the single dose vaccination schedule.

2.2.4. Overall conclusion on efficacy

The efficacy claims as registered were evaluated in several well designed and well-conducted laboratory and field efficacy studies.

The information regarding the challenge strains used in the laboratory studies was provided and the epidemiological relevance of the challenge strains used (including origin of strains), the antigenic relationship between vaccine and challenge strains and the rationale for the use of different challenge strains against PCV2 was already discussed during the initial registration procedure for Porcilis PCV M Hyo.

Onset of immunity for the repeated dose vaccination scheme was established against PCV2 infection at 18 days after the first vaccination and against *M. hyopneumoniae* infection at 3 weeks after the second vaccination. Duration of immunity after completion of the two dose vaccination scheme was established against PCV2 infection at 22 weeks and against *M. hyopneumoniae* infection at 21 weeks.

Regarding MDAs there is no indication that the presence of MDAs interferes with the *M. hyopneumoniae* or PCV2 efficacy conferred by the vaccination.

The studies provided for the repeated dose administration scheme clearly support the following three claims specific for the PCV2 or *M. hyopneumoniae* component that were all evaluated in well conducted laboratory studies and supported by field study results: Reduction of PCV2 viraemia, reduction of virus shedding caused by PCV2 infection and reduction of severity of lung lesions caused by *M. hyopneumoniae* infection. The claim of reduced PCV2 virus load in lungs and lymphoid tissues was supported by the results obtained in laboratory studies.

The efficacy claim regarding reduction of loss of daily weight gain associated with PCV2 and/or *M. hyopneumoniae* infections is considered acceptable also for the two dose administration scheme.

Based on the laboratory and field studies it can be concluded that the repeated vaccination schedule provides equivalent efficacy results as the single vaccination. The vaccination scheme as recommended in section 4.9 of the SPC to administer a single dose of 2 ml in pigs starting at 3 weeks of age or a repeated dose of 1 ml in pigs starting at 3 days of age with an interval of at least 18 days is supported by results of relevant studies and therefore considered acceptable.

3. Benefit-risk assessment of the proposed change

Porcilis PCV M Hyo is an inactivated adjuvanted vaccine containing PCV2 and *M. hyopneumoniae* strain J (ATCC #25934, inactivated). The vaccine was licensed in the EU in November 2014 for the immunization of pigs from 3 weeks of age to reduce viraemia, virus load in lungs and lymphoid tissues as well as virus shedding caused by PCV2 infection, and for the reduction of severity of lung lesions caused by *M. hyopneumoniae* infections. Porcilis PCV M Hyo is presented as emulsion for injection including as adjuvants aluminium hydroxide in combination with light mineral oil.

The vaccine is currently applied with a single dose intramuscularly to piglets at an age of 3 weeks. Single dose vaccination benefits can be found in the area of animal welfare and user convenience. The current onset of immunity for PCV2 and *M. hyopneumoniae* component of the vaccine is 2 and 4 weeks (i.e. 5 and 7 weeks of age) after single vaccination, respectively.

This variation the applicant introduces a two dose vaccination scheme. Piglets at an age of three days are vaccinated following a repeated dose 18 days later, at an age of three weeks. The onset of immunity (OOI) is claimed to be 18 days after the first vaccination for the PCV2 component and 3 weeks after the second vaccination for the *M. hyopneumoniae* component (i.e. PCV2 – 3 weeks of age; *M. hyopneumoniae* – 6 weeks of age).

3.1. Benefit assessment

Direct therapeutic benefit

The proposed benefit of the repeated dose is the earlier onset of immunity for the PCV2 and *M. hyopneumoniae* component.

The OOI of 3 weeks after completion of the two dose vaccination scheme for the *M. hyopneumoniae* component has been sufficiently demonstrated.

The OOI of 18 days after the first vaccination for the PCV2 component for the two dose vaccination has been sufficiently demonstrated.

Additional benefits

Use of the two dose vaccination schedule gave a slightly better efficacy than the single dose vaccination schedule, although these differences were statistically not significant.

Another additional benefit is the flexibility of the owner to decide on the application scheme depending on the risk of infection of PCV2 and *M. hyopneumoniae* in the specific herd.

3.2. Risk assessment

Quality:

Quality remains unaffected by this variation.

Safety:

Risks for the target animal:

The product is well tolerated by the target species when used as recommended with the repeated dose vaccination scheme.

Body temperature increase and mild systemic reactions observed were similar to the ones already described for the single dose vaccination scheme. Nevertheless, some hypersensitivity-like reactions were observed after the first vaccination of the repeated dose and these are well reflected in the proposed SPC. In addition, the persistence of the transient local reactions after the first vaccination is adequately specified in the SPC.

As for the single vaccination schedule the vaccination did not negatively impact the daily weight gain until the end of the nursery period.

Risk for the user:

The additional posology proposed by this variation does not change the risk to the user when used in accordance with the SPC.

Risk for the environment:

As the two-shot vaccination scheme did not affect the environmental risk this part needs no amendment. The product is not expected to pose a risk for the environment when used according to the SPC recommendations.

Risk for the consumer:

The two-shot vaccination scheme does not affect residue studies or withdrawal period. Thus the product is not expected to pose a risk to the consumer of foodstuffs derived from treated animals when the product is used according to the proposed SPC recommendations.

3.3. Risk management or mitigation measures

Appropriate information has been included in the SPC to inform on the potential risks of this product relevant to the target animal, user, environment and consumer and to provide advice on how to prevent or reduce these risks.

3.4. Evaluation of the benefit-risk balance

The benefit-risk balance remains unchanged.

4. Conclusion

The CVMP considers the variation application, accompanied by the submitted documentation which demonstrates that the conditions laid down in Commission Regulation (EC) No. 1234/2008 for the requested variation are met, is approvable.

Based on the original and complementary data presented on safety and efficacy the Committee for Medicinal Products for Veterinary Use (CVMP) concluded that the application for variation to the terms of the marketing authorisation for Porcilis PCV M Hyo can be approved, since the data satisfy the requirements as set out in the legislation (Commission Regulation (EC) No. 1234/2008), as follows: To modify the approved therapeutic indication to include an additional posology, and additionally to make some editorial changes in the dossier Part 3 and 4 and align Product Information with the latest QRD template.

The CVMP considers that the benefit-risk balance remains positive and, therefore, recommends the approval of the variation to the terms of the marketing authorisation for the above mentioned medicinal product.