

# How much are retained placentas costing you?



Reprocine can reduce the incidence of retained placentas and the consequential financial loss



## What is retained placenta?

This happens when the calf's membranes fail to separate from the mother. Normally expulsion occurs after the calf is born and usually takes less than 6 hours.

Commonly, retained placentas are defined as those remaining after 24 hours. However, retention for more than 6 hours is probably a better definition particularly in older cows<sup>1</sup>.

## What is the incidence of retained placentas?

In the UK, the incidence is usually quoted at around 4 to 8 per cent but in many herds the incidence is much higher<sup>1</sup>.

## What are the causes?

Retained placenta is a multifactorial condition and the following factors can be associated with the condition<sup>1</sup>:

- Difficult calving
- Older cows
- Abortion
- Stillbirth
- Twins
- Hypocalcaemia
- Induced calving
- Breed (e.g. Ayrshires are more susceptible).
- Caesarean section
- Nutrition



## What are the financial losses<sup>2</sup>?

	£'s per affected cow
Cost of veterinary treatment	17.00 *
Increased calving interval (Based on a further 22 days)	56.00
Cost of potential culling (Based on 18.6% increased risk of culling)	128.00
Cost of treating vulval discharge (Half of cows with retained placentas are estimated to have a vulval discharge)	10.00
Reduced milk production	53.00
Longer period of bulk milk withdrawal. (A further 4 days milk withdrawal)	10.00
<b>Total</b>	<b>274.00</b>

\* The vet treatment cost excludes any call out charge.

The above costs represent an average example. The costs can vary and are dependent on the individual cow, her potential milk yield as well as the price/margin of milk.

## Treating retained placentas

Although not all cases will require treatment, because retained placentas are potentially costly, it is wise to involve your veterinary surgeon from the outset. Manual removal should not be done; this is a skilled operation that should only be conducted by a veterinary surgeon. All cattle that have a retained placenta should be examined by a veterinary surgeon prior to their earliest service date. It is important to closely monitor for signs of illness and consult your veterinary surgeon in order to treat any signs that occur.



## Preventing retained placentas

Unfortunately, there are no standard methods of preventing retained placentas because there can be a number of variable predisposing causes. That is why it is important to involve your veterinary surgeon who can help in identifying potential problem cows and advise on management techniques e.g. providing correct nutrients during the dry period (including magnesium and fat soluble vitamins) as well as the use of Reprocine which is the latest treatment available in the UK.

## What is Reprocine?

Reprocine contains the synthetic hormone carbetocin and is given to cows by injection. It has similar properties to oxytocin but has the significant advantage of being longer acting.

## How can Reprocine help?

Reprocine stimulates uterine motility, contracting down the uterus and thereby helping to expel the retained placenta. Reprocine has been shown to reduce the rate of placental retention<sup>3</sup>. It has recently been made available in the UK and Ireland and has been successfully used to cut the incidence of retained placentas.

## When should Reprocine be used?

Your veterinary surgeon will advise precisely when carbetocin should be used. Whilst the pre-disposing causes are being evaluated, it may make sense to routinely dose those cows most at risk of having a retained placenta.

This would include cows that:

- have difficult calvings
- are older cows
- that have aborted
- that have had a stillbirth
- have twins
- have had hypocalcaemia
- have had calving induced
- are of susceptible breeds
- have had a caesarean section



*“ I find Reprocine useful when it is given as soon as possible after calving to cows most at risk. So I use it on about 5% of the herd ”.*

Winston Reed a dairy farmer from Devon with 800 cows.

### It makes economic sense to inject at-risk cows with Reprocine

If your herd has an incidence of retained placentas of around 4 - 5%, targeting these at-risk cows makes economic sense.

Incidence of retained placentas	4%
Estimated potential loss per 100 cows	£1252
Estimated cost of Reprocine	£106*

\* Cost of dosing a fifth of the herd of 100 cows

### With a high incidence, consider injecting all cows with Reprocine

If your herd has a high incidence of retained placentas, i.e. above 8%, it may be worth considering injecting all cows in the herd immediately after they calve.

Incidence of retained placentas	8%	12%
Estimated potential loss per 100 cows	£2504	£3766
Estimated cost of Reprocine	£532†	£532†

† Cost of dosing all of the herd of 100 cows

The cost of Reprocine is based on the estimated average cost.

### Administering Reprocine

In order to help prevent retained placentas from occurring, Reprocine should be administered immediately after calving and no later than 6 hours after calving. Reprocine can also be used to treat cases of retained placenta. It is essential that you follow the directions set by your veterinary surgeon.

### Talk to your vet about retained placentas and the use of Reprocine

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# Reprocin®

**1. Name of the veterinary medicinal product** Reprocin **2. Qualitative and quantitative composition** 1 ml contains: **Active Substance:** Carbetocin 0.07 mg **Excipients:** chlorobutanol hemihydrate 2.00 mg **3. Pharmaceutical form** Solution for injection **4. Pharmacological properties** Pharmacotherapeutic group: Systemic hormonal preparations, excl. sex hormones ATCVet code: QH01BB03 **4.1. Pharmacodynamic Properties** Carbetocin is a synthetic analogue of the posterior pituitary lobe hormone oxytocin and has its physiological and pharmacological main effects at the smooth muscle (induction and increase of contractions) of reproductive organs. Carbetocin has the same effect as natural oxytocin: at the oestrogen stimulated uterus it causes a change from weak, spontaneous and irregular to synchronised, regular, increased and directed contractions. Moreover, in the mammary gland it produces physiological contractions of the myoepithelial cells in the alveolae and small lactiferous ducts as well as a simultaneous relaxation of the teat sphincter. The action of carbetocin is prolonged and it causes an intensification of the physiological effect. **4.2. Pharmacokinetic Properties** Carbetocin is, due to its strongly developed peptidase-resistance, much slowly degraded in vivo and distinguishes itself by a prolonged efficacy. Carbetocin is much more lipophilic than exogenously applied oxytocin and therefore, a better distribution and a longer effect on the receptors occur. Beside the stability against proteases, this may also contribute to the prolonged increase of uterine tone activity. After application of 0.6 mg of carbetocin in sows a bicompartmental kinetic was observed. The elimination half-life is about 85 - 100 min. There are no essential differences between intramuscular and intravenous application. **5. Clinical particulars** **5.1 Target species** Cattle, pig **5.2. Indications for use, specifying the target species** **Cow:** - Uterine atony during the puerperal period, - Placental retention as a consequence of an uterine atony - Initiation of milk ejection in stress-induced agalactia or in conditions requiring udder emptying **Sow:** - Uterine atony during the puerperal period - Supportive therapy of mastitis-metritis-agalactia (MMA-) syndrome - Initiation of milk ejection - Shortening of total parturition duration in sows: either after delivery of the first piglet or as a component of synchronisation of parturition in sows, which have not farrowed 24 hours after administration of an appropriate PGF<sub>2α</sub> (e.g. cloprostenol) not before day 113 of pregnancy. **5.3. Contraindications** Do not administer to accelerate parturition if cervix is not opened or if there is a mechanical cause for the delayed parturition such as physical obstruction, positional and postural abnormalities, convulsive labour, threatened rupture of uterus, uterine torsion, relative foetal oversize or deformities of the birth canal. **5.4. Undesirable effects (frequency and seriousness)** None known. **5.5. Special precautions for use** The interval between two injections should not be shorter than 24 hours. **5.6. Use during pregnancy and lactation** Reprocin is indicated to induce milk ejection. See also 5.3 Contraindications. **5.7. Interactions with other medicinal products and other forms of interaction** The administration of oxytocin after the administration of Reprocin is unnecessary. Due to a possible intensification of the effect of oxytocin undesirable uterine spasms may be induced. **5.8. Posology and method of application** **Cows:** 3.0 - 5.0 ml/animal, corresponding to 0.21 - 0.35 mg carbetocin/animal **Sows:** 1.5 - 3.0 ml/animal, corresponding to 0.105 - 0.21 mg carbetocin/animal. Shortening of total parturition duration as a part of the synchronisation of parturition in sows: 1.0 ml/animal, corresponding to 0.07 mg carbetocin/animal The dosage requirements can be variable within the indicated limits based on the assessment of the veterinarian. For single intramuscular or intravenous injection. In case of treatment for milk ejection in the cow and sow or supportive therapy in MMA-syndrome in sow, a repeated administration is possible after 1 to 2 days. **Special Informations:** The responsiveness to carbetocin of the myometrium is likely to be close to zero from the 5<sup>th</sup> to the 11<sup>th</sup> day post partum. Therefore, the administration of Reprocin during this period is likely to be inefficient and should be avoided. If treatment with carbetocin should fail, then it is advisable to reconsider the aetiology of the condition, specifically if hypocalcaemia could be a complicating factor. In case of severe septic metritis, appropriate concomitant therapy should be instigated when administering Reprocin. **5.9. Overdose (symptoms, emergency procedures, antidotes)** Injection of more than twice the recommended dose rate (more than 0.4 mg of carbetocin/animal) could increase the stillbirth rate in older sows if administered during prolonged parturition. A threefold overdose (0.6 mg of carbetocin/animal) may induce profuse lactation in sows that may result in diarrhoea, reduced weight gain and increased mortality in their piglets. Carbetocin is considered as moderately irritant. At the injection sites of treated animals, focal lymphocytic infiltration was observed at higher doses (1.0 mg of carbetocin/animal). **5.10. Special warnings for each target species** None known. **5.11. Withdrawal periods** Cattle, pig meat and offal: Zero days. Cattle, milk: Zero days **5.12. Special Precautions to be taken by the person administering the medicinal product to animals** In case of an accidental self injection of the product in non-pregnant women the following effects may occur: facial flushing and warmth, lower abdominal pain. These effects usually disappear within a short span of time. Pregnant women, women post partum and breast-feeding women should not use this product, in order to avoid an accidental exposure. In case of accidental self-injection uterine contractions could be induced in pregnant women. **6. Pharmaceutical particulars** **6.1. Major incompatibilities** None known. **6.2. Shelf-life** Shelf-life of the veterinary medicinal product as packaged for sale: 2 years Shelf-life after first opening the container: 3 weeks **6.3. Special precautions for storage** Store at 2 - 8 °C. Keep container in the outer carton. When transported in a vehicle by a veterinarian, the product should be kept in a cooler box. **6.4. Nature and contents of container** Colourless glass injection vial containing 50 ml solution for injection, closed with a rubber stopper and sealed with an aluminium cap. 1 x 50 ml or 12 x 50 ml packaged in an outer cardboard box **6.5. Special precautions for the disposal of unused medicinal product or waste materials, if any** Any unused product or waste material should be disposed of in accordance with national requirements. **7. Name or corporate name and address or registered place of business of the marketing authorization holder** VetCom-pharma GmbH Seestraße 6 A-6900 Brengenz **Additional information: Marketing Authorization Numbers:** VPA 10811/1/1, Vm 20870/4000. **Conditions of supply:** UK: POM-V Prescription Only Medicine - Veterinary. IRELAND: POM Prescription Only Medicine. **Date of revision of the text:** August 2006.

## References:

1. Laven R.A. & Peters A.R Bovine retained placenta: aetiology, pathogenesis and economic loss Veterinary Record .(1996) 139,465-471. 2. Source: AH Andrews (2008) partly adapted from MA Kossalabati and RJ Esslemont, The Costs of Production Diseases in Dairy Herds in England. The Veterinary Journal 1997, 154,41-51. 3. Eulenberget al Beeinflussung der Geburt bei Schwein und Rind mit Oxytocin, Carbetocin und Carazolol. Wein. Tierarztl. Mschr. 80 (1993), 276-279.

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