

Retained Foetal Membranes – Decision Tree

Initial Management (≤ 12 Hours, Healthy Mare)

Confirm membranes incomplete or retained.

Uncertain / Incomplete

Possible partial retention.

* *May not be apparent if membranes not closely examined (especially tip of non-gravid horn).*

Transrectal Ultrasonography

Fluid accumulation, echogenicity, retained chorioallantois tags.

Transvaginal Digital Examination

Characterise fluid, locate membranes, evaluate attachment.

Transrectal Palpation

Assess uterine tone and involution.

If Endotoxaemia Suspect:

Hematology + biochemistry.

Confirmed RFM

Membranes visible externally OR incomplete on examination.

Prompt veterinary intervention required.

Delay increases risk of fatal sequelae (toxic metritis, laminitis).

Option 1:

Healthy mare, no dystocia
Membranes < 12 hours



see below

Option 2:

Systemic signs
Membranes > 12 hours



see below

Option 1: Healthy Mare, No Dystocia – Membranes Retained < 12 Hours

Tie external membranes in a knot above the hock –
Ensures traction without trampling or undue pulling by the mare.

Oxytocin 10 IU IV or IM
Repeat every 2 hours for first 6 hours post-foaling (until expulsion occurs).

OR

Oxytocin CRI: 50-60 IU in 1 L Saline

Administered slowly over 30-60 min (*reduces spasm / colic risk*).

+

Uterine Lavage: 2-3 L Warm Saline, LRS, or 0.05% Povidone-Iodine
Repeat until effluent is clear or light pink.

***Friesian mares / low serum calcium:**

Add calcium-magnesium borogluconate 200 mL of 23% solution to aid expulsion.

Membranes expelled after oxytocin/lavage?

YES

Examine membranes for completeness.

Encourage exercise / paddock turnout to promote uterine clearance and involution.

NO – Still Attached / Intact Choriollantois

Burns Technique: Distend chorioallantois with dilute betadine or 0.9% saline. Maintain distention up to 30 minutes.

Controlled Manual Removal: Apply controlled traction or use ring technique. Avoid excessive force (risk: microvilli retention, haemorrhage, uterine prolapse).

OR
Umbilical Vessel Catherisation with Water Infusion (intact membranes < 12 hours only).

Option 2: Antimicrobial Decision (>12 Hours Retention or Systemic Signs)

Assess for: Fetid vulval discharge, pyrexia, dullness, injected mucous membranes, tachycardia, and increased digital pulse (early laminitis).

NO SYSTEMIC SIGNS

Membranes expelled, mare well.

No systemic antimicrobials required.

- ➔ Continue uterine lavage + oxytocin until uterus clear.
- ➔ Intrauterine antimicrobials NOT recommended in immediate post-partum period – uterine lavage is preferred.
- ➔ Exercise / paddock turnout to aid clearance.

RETAINED > 12 HOURS OR SUSPECT METRITIS

Initiate broad-spectrum systemic antimicrobials.

TMS 30 mg/kg PO q12h

OR

Penicillin (procaine or potassium)
22,000-44,000 IU/kg IM q12h

OR

IV q6h x
3-5 days

+

Gentamicin 6.6 mg/kg IV q24h

Until membranes expelled (continue longer if metritis.)

Continue antimicrobials until uterine lavage no longer needed or uterine involution evident.

Endotoxaemia / Metritis / Laminitis Escalation

Signs of endotoxaemia, septicaemia or onset of laminitis present:

Treat as per endotoxaemia protocol (Section 7 of Guidelines)

Prognosis: guarded to moderate depending on severity, duration and response to therapy.

- ➔ Tetanus prophylaxis if vaccination status unknown.
- ➔ Blood sample: haematology + biochemistry when endotoxaemia suspected.
- ➔ Culture of uterine discharge NOT routine (high contamination risk) — reserve for ongoing metritis or secondary endometritis.
- ➔ Ongoing monitoring: endometrial culture + cytology at next breeding cycle to confirm uterine suitability for breeding.
- ➔ Cervical evaluation in dioestrus if dystocia occurred (rule out cervical trauma).
- ➔ Uterine biopsy may be useful to evaluate fibrosis if RFM has occurred in previous pregnancies.

Prognosis Summary

Scenario	Prognosis
No Metritis or Endotoxaemia	Good for survival and future fertility.
Metritis Develops	Guarded to moderate – dependent on severity and response to therapy.
Endotoxaemia + Laminitis	Guarded to poor – further determined by severity and duration of disease process.