

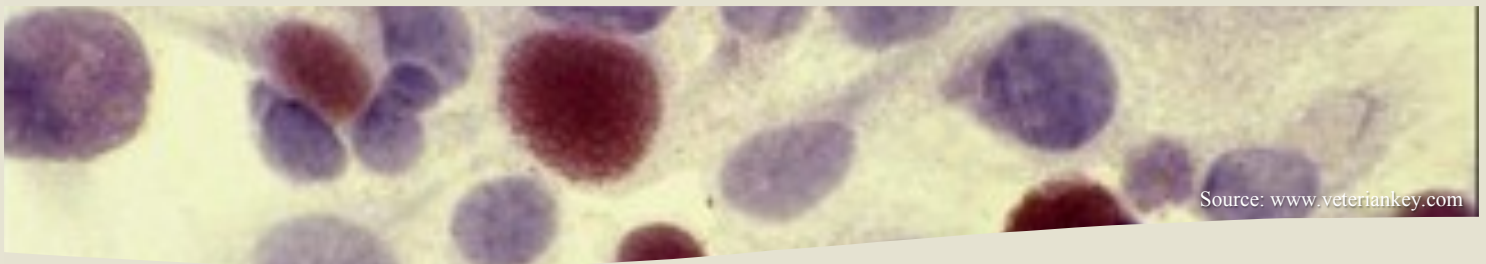
# ABORTION SHEET

# CHLAMYDIOSIS

●● Sheep and goats



www.cepoq.com



Source: www.veteriankey.com

**CHLAMYDIOSIS IS A CONTAGIOUS DISEASE OF ECONOMIC IMPORTANCE IN MOST COUNTRIES. THIS BACTERIAL DISEASE IS RESPONSIBLE FOR ENZOOTIC ABORTIONS IN SHEEP AND GOATS.**

## AGENT INVOLVED ●●

This disease is caused by a bacterium called *Chlamydia abortus*. This condition has a major economic impact in most regions, especially where livestock production is intensive.

## TRANSMISSION ●●

Animals become infected through oral, respiratory or conjunctival routes. Infected females excrete infectious particles during abortion, parturition and estrus. The causative agent is then found in the placenta and fetal fluids of aborting females. Excretion begins a few hours before abortion and continues for two to three weeks, contaminating the environment which then becomes the main source of infection for other females. Urinary and fecal excretions persist longer, but are less important.

## CLINICAL SIGNS ●●

Abortions occur mainly during the last 2 to 3 weeks of gestation as a result of a placental infection. Stillbirth and the birth of weak and puny lambs or kids are also possible. Infected females remain mostly asymptomatic. Regardless of the time of infection, the bacterium only becomes active in the last months of gestation where it causes placental and uterine lesions.

*If a female becomes infected in late gestation or if infection occurs while the female is not pregnant, the bacteria enters a latency phase until the next pregnancy, where the abortion is likely to occur. Infected females develop immunity but may excrete the bacteria for a few weeks (or more) after abortion or parturition.*

## DIAGNOSTIC ●●

It is advantageous to submit aborted fetuses and placentas to the laboratory so the exact cause of abortion can be determined. The PCR test performed by the laboratory is a good tool to confirm a diagnosis based on lesions. This will facilitate the choice of prevention and control strategies and avoid the misuse of drugs.

## TREATMENT ●●

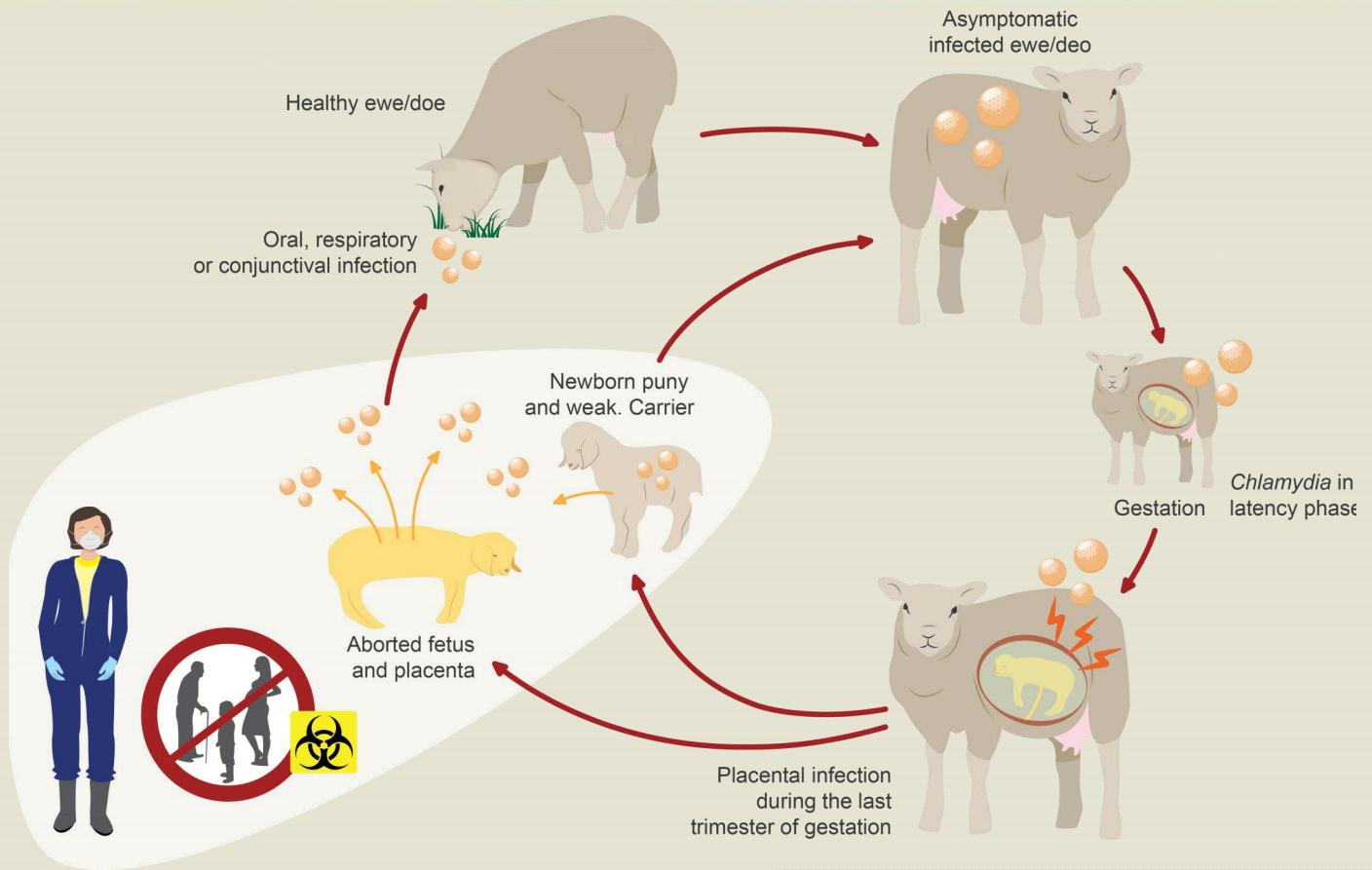
Administration of oxytetracycline to ewes or does from mid-gestation reduces the number of abortions. However, this treatment does not reduce the amount of bacteria excreted during parturition. Since ewes and does are ruminants, tetracyclines ideally given by injection but not practical in large flocks/herds. However, this therapeutic approach should be kept for situations where the diagnosis has been confirmed in laboratory to avoid the development of antibiotic resistance. Vaccination of females (a vaccine approved only for sheep) before breeding is possible and will reduce the number of abortions, but would not reduce the excretion of the bacterium, and would not lower the bacterial burden in the environment.



## SOME FACTS ABOUT CHLAMYDIOSIS :

- ◆ In general, *Chlamydia* can survive from a few weeks to several months in the environment;
- ◆ Abortions can affect up to 30 % of ewes and goats in a flock or herd.

# Schematic of contamination of bacterium *Chlamydia abortus*



## PREVENTION AND CONTROL ●●

- ◆ Isolation of females having aborted for at least three weeks;
- ◆ Isolated animals should be the last of the flock to be handled in the daily routine. Clothes and boots worn for their care should be changed before being working with healthy animals;
- ◆ Remove parturition/abortion products (placenta, aborted fetus, dirty litter) from pens immediately;
- ◆ Properly dispose of these products to avoid ingestion by carnivores and the spread of the bacteria in the environment;
- ◆ Clean and disinfect pens and equipment used between each parturition group;
- ◆ Keep lambs/ewes separate from adult flocks until after their first parturition (as long as possible);
- ◆ Use a healthy male for breeding of healthy females.

## WARNING ZONOSIS!

**CHLAMYDIOSIS ASSOCIATED WITH CHLAMYDIA ABORTUS IS A RARE ZONOSIS.**

In humans, it can result in flu-like symptoms and can cause abortions in pregnant women.

### PREVENTION OF TRANSMISSION TO HUMANS ●●

- ◆ Handling and destruction of parturition (or abortion) products must be done safely (wearing disposable gloves and N-95 mask, using garbage bags);
- ◆ Restrict visitors' access to facilities during parturition periods (prohibit during abortions), especially for children, pregnant women, the elderly and people with compromised immune system;
- ◆ Prohibit the consumption of food and beverages the lambing areas.

## IMPROVING BIOSECURITY MEASURES ON THE FARM :

- ◆ Wash hands after contact with contaminated materials or animals;
- ◆ Change infected clothes and boots;
- ◆ Wash farm clothes separately (hot water);
- ◆ Avoid wearing these clothes in the house or in public places.

\*\*\* These measures are especially **IMPORTANT** during parturition and abortion episodes \*\*\*

Cultivons l'avenir 2  
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Growing Forward 2  
A federal-provincial-territorial initiative

Canada

Québec

Translation: Saskatchewan Sheep Development Board thanks to funding from Growing Forward 2, a Canada and Government of Saskatchewan initiative. I Thank you to Ms. Corlena Patterson of the Canadian Sheep Federation for the review.