Questionnaire: Diagnosis and Treatment of Endometritis in Mares in Germany

SC: single-choice question

MC: multiple-choice question

1. General Data
   1. For how long are working as a veterinary practitioner? (SC)
      * 1-2 years
      * 3-5 years
      * 6-10 years
      * 11-20 years
      * 21-30 years
      * More than 30 years
   2. Indicate the State Chamber of Veterinarians to which you belong? (SC)
      * Baden-Wuerttemberg
      * Bavaria
      * Berlin
      * Brandenburg
      * Hesse
      * Mecklenburg- Western Pomerania
      * Lower Saxony
      * North Rhine
      * Rhineland-Palatinate
      * Saarland
      * Saxony-Anhalt
      * Thuringia
      * Westphalia-Lippe
   3. What is the type of practice, you are working for? (SC)
      * Single practice
      * Mixed practice
      * Clinic
      * Stud farm
      * Other
        + comment box
   4. What is the proportion of equine reproductive medicine in your practical work? (SC)
      * Less than 10%
      * 11-20 %
      * 21-30 %
      * 31-40 %
      * More than 40 %
   5. Which services for equine reproductive medicine do you offer? (MC)
      * Management of natural mating
      * Artificial insemination
      * Embryo transfer
      * Ovum pick-up
      * Stud farm practice
   6. How many mares are you managing per year? (SC)
      * Less than 20
      * 21-40
      * 41-70
      * 71-100
      * 101-150
      * 151-200
      * More than 200
2. Diagnostic Procedures for Endometritis
   1. Which form of endometritis do you encounter most of the times? (SC)
      * Chronic infectious endometritis (CIE)
      * Venereally transmitted endometritis (e.g. CEM)
      * Persistent-breeding induced endometritis (PBIE)
      * Other
        + Comment box
   2. Do you take uterine samples for microbiological examination? (SC)
      * Yes
      * No
        + If 2.b. was “No”:
          - How do you determine the form of endometritis alternatively?

Comment box

* + - * If 2.b. was “Yes”:
        + Which technique do you use routinely for bacteriological sampling of the uterus? (SC)

Swab with speculum

Double guarded swab without speculum

Double guarded swab with speculum

Low-volume lavage

Biopsy

Cytology

* + - * + What is your preferred cycle stage for uterine sampling? (SC)

Anestrus

Diestrus

Estrus

No preference

* + - * + In which mares do you perform uterine sampling routinely? (MC)

Young maiden mares (3-4 years old)

Older maiden mares (older than 4 years of age)

Foaling mares

Barren mares

Slipped mares

Mares after abortion/resorption

Mares with a history of dystocia

Other:

Comment box

* + - * + Rank the infectious agents according to their incidence within your uterine samples:

α-hemolytic Streptococci

ß-hemolytic Streptococci

E. coli

Pseudomonas ssp.

Klebsiella ssp.

Enterococcus ssp.

Yeast (e.g. Candida ssp.)

Mould (e.g. Aspergillus ssp.)

* 1. What is the percentage of multi-resistent bacteria in microbiological samples obtained from your patient material?

0%

1-5%

6-10%

11-20%

More than 20%

* 1. Do you perform endometrial biopsies as an additional diagnostic tool for endometritis? (SC)
     + Yes
     + No

1. Management of CIE
   1. How do you treat mares with a positive uterine culture routinely? (SC)
      * Systemic antibiotic treatment
      * Intrauterine antibiotic treatment
      * Without antibiotics
        + If 3.a. was “Systemic antibiotic treatment”:
          - Which antibiotic drug / combination of antibiotic drugs do you use most of the times? (SC)

Trimethoprim-sulfadiazine

Procaine penicllin G

Gentamicin

Procaine penicillin G / Gentamicin

Ceftiofur

Other:

Comment box

* + - * + How long do you treat mares with a positive uterine culture on average? (SC)

One day

2 days

3 days

4 days

5 days

6 days

7 days

More than 7 days

* + - * If 3.a. was “intrauterine antibiotic treatment”:
        + Which antibiotic drug do you use most of the times? (SC)

Amoxicillin pills

Other:

Comment box

* + - * If 3.a. was “intrauterine antibiotic treatment” or “systemic treatment:
        + On which criterion is your usual treatment duration depending? (SC)

Infectious agent

Clinical signs

Degree of infection according to microbiology

Other:

Comment box

* 1. Do you perform uterine lavages routinely in CIE cases? (SC)
     + Yes
     + No
     + No, only exceptionally
       - If 3.b. was “Yes” or “No, only exceptionally”:
         * What do you use for uterine lavages? (MC)

0.9 % saline

Tap water

Ethacridin lactate solution

Diluted iodine solution

DMSO

Diluted chlorhexidine solution

N-acetylcysteine

Coca Cola

Kerosene

Other:

Comment box

* 1. Do you use oxytocin for CIE treatment? (SC)
     + Yes, routinely
     + No, never
     + Only when presence of echogenic was detected ultrasonographically
     + After every uterine lavage
  2. Do you perform vulvoplasty surgery in cases of poor vulvar closure? (SC)
     + Always
     + Often
     + Only if clinical signs are present
     + Rarely
     + Never
  3. Do you perform control sampling after completion of CIE treatment? (SC)
     + Yes
     + Yes, mostly
     + No, only exceptionally
     + No
  4. According to your experience, how many mares get pregnant after treatment of CIE? (SC)
     + Per cycle:
       - Less than 10 %
       - Less than 30 %
       - Less than 50 %
       - Less than 70 %
       - Less than 90 %
     + Per season:
       - Less than 10 %
       - Less than 30 %
       - Less than 50 %
       - Less than 70 %
       - Less than 90 %

1. Management of PBIE
   1. According to your experience, which mares are susceptible to PBIE? (MC)
      * Young maiden mares (3 to 4 years old)
      * Older maiden mares (older than 4 years of age)
      * Foaling mares
      * Barren mares
      * Slipped mares
      * Mares with a history of abortion/resorption
      * Mares with a history of PBIE
      * Older mares with one or more foals
      * Other:
        + Comment box
   2. How long after detection of ovulation do you perform uterine lavages? (SC)
      * Until 1 day after ovulation (post ov.)
      * Until 2 days post ov.
      * Until 3 days post ov.
      * Until 4 days post ov.
      * Until 5 days post ov.
      * Until 6 days post ov.
      * Longer
   3. According to your experience, how many mares get pregnant after treatment of PBIE? (SC)
      * Per cycle:
        + Less than 10 %
        + Less than 30 %
        + Less than 50 %
        + Less than 70 %
        + Less than 90 %
      * Per season:
        + Less than 10 %
        + Less than 30 %
        + Less than 50 %
        + Less than 70 %
        + Less than 90 %
2. Abandoned diagnostic and treatment procedures
   1. Which diagnostic methods for endometritis did you give up?
      * Comment box
   2. Which treatment methods for endometritis did you give up?
      * Comment box