

Foal Kit Instruction Sheet

Purpose of the Foal Kit

Because of the great potential for infection in the neonatal foal, the Foal Kit has been designed to insure that the optimum specimens may be obtained to provide the Laboratory with everything necessary to diagnose the cause of foal diarrhea/septicemia.

Shipping the Foal Kit

It is strongly suggested that the Kit be shipped by the fastest means possible, i.e., overnight commercial courier. If the Kit can be driven to the Laboratory, that would be even better! If possible, notify the Laboratory that a kit is on the way (607) 253 3900. USE PROVIDED MATERIALS TO PREVENT BREAKAGE, ASSURE GOOD SAMPLE QUALITY AND SATISFY DOT SHIPPING REGULATIONS. PLEASE LABEL ALL TUBES WITH AN ANIMAL IDENTIFICATION NAME OR NUMBER.

Using the Foal Kit

The Kit is to be used as a complete system!, i.e., it is strongly suggested that the entire kit be utilized and that all tubes are filled, etc., as indicated. The practitioner may elect not to have all of the tests performed based on his/her medical judgement, also, some practices do their own testing, e.g., IgG levels. DO NOT FILL THE BLOOD CULTURE BOTTLES UNLESS THE FOAL IS JUDGED TO BE SEPTIC. FOLLOW THE DIRECTIONS BELOW FOR COLLECTING SAMPLES AND REPACKING KIT. The history form should be completed as completely as possible and accompany the Foal Kit's contents.

Kit contents

1. blood bottles: 2 sets of 2 = 4 (2 are Aerobic and 2 are Anaerobic)
2. purple top (EDTA) vacutainer tube (PTT)-2
3. red top (serum) vacutainer tube (RTT)-1
4. plastic 2 oz specimen cup-2
5. anaerobic transport swab set-1
6. Amies transport w/ swab-2

1. Blood Culture Technique

The Foal Kit contains enough blood bottles to perform two complete sets (i.e., set =1 aerobic and 1 anaerobic bottle) of blood cultures if needed to determine the presence of bacteremia- as decided by the clinician upon physical examination of the foal; the timing and interval between blood cultures is up to the clinician.

Please follow these directions when filling blood culture bottles. Collect the blood specimen prior to instituting antibiotic therapy. If the animal is currently treated with antibiotics, draw blood just prior to next administration of antibiotic, or sample three days after treatment has stopped.

Clip hair and perform surgical prep **just prior** to venipuncture, using 70% isopropyl or ethyl alcohol and 2% iodine solution. Let the site dry prior to needle puncture to avoid contaminating blood with disinfectants, or wipe dry with sterile 4x4. Blood can also be drawn from an aseptically prepared, uncontaminated intravenous catheter port, but the likelihood of catheter contaminants is great (use only as a last resort if venipuncture is impossible).

Aerobic culture and anaerobic culture each require separate bottles with different media (both are provided in this kit). Plan to inoculate two bottles for each blood draw.

Select syringe and needle capable of collecting 4-6 mls blood (enough for 2 bottles). Do not add any anticoagulant. Aseptically collect blood. Prepare and label blood bottle(s). **DO NOT UNSCREW CAP.** Remove (pop off) protective top of the screw cap on the blood culture bottle. Disinfect the visible part of the rubber stopper with 70% isopropyl or ethyl alcohol and allow to dry, or wipe dry with a sterile 4x4. Transfer 2-3 ml of blood into each bottle **immediately** after collecting. Gently invert bottle to mix anticoagulant already present in bottle with blood.

For gravely ill individuals, cultures may be taken at close intervals, such as every 15 or 20 minutes, prior to beginning antibiotic therapy.

2. Fill the EDTA tube with blood and mix gently (for assessing selenium level and for routine CBC).
3. Fill the red-top tube with blood; after the clot has formed it is preferable to separate the serum for submission to the lab (this tube is for IgG level and chemistry profile and *Lawsonia* serology, if requested).
4. Fill both plastic 2 oz. specimen cups 2/3 full. These specimens are for parasitology, virology (rotavirus) and Clostridial toxin tests for C. difficile and C. perfringens, and potentially for Lawsonia PCR testing and archiving for possible further testing.
5. Use the swab and inoculate the Port-a-Cul anaerobic tube with feces (this specimen is for attempted isolation of Clostridia and Bacteroides).
6. Use the swab and inoculate the 2 Amies transport media 1 with feces (these swabs are for aerobic bacterial cultures to attempt isolation of Salmonellae, E. coli, Rhodococcus, Campylobacter jejuni).

7. PACKING THE BOX

- a. Pack larger specimen transport pouch with blood culture vials and Port-a-cul tube. Seal pouch according to printed instructions.
- b. Pack smaller specimen transport pouch with EDTA and red-top blood tubes, Amies swabs, and fecal cups. Seal pouch according to printed instructions.
- c. Place **ONLY** smaller specimen pouch inside insulated (foil) pouch. Add frozen ice pack. Seal foil pouch.
- d. Place all specimen contents in shipping box.
- e. Complete all paperwork and enclose in box.
- f. Put mailing label on box.
- g. Put "Diagnostic Specimen" label on box.

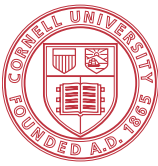
Test Fees for Foal Diarrhea/Septicemia Test Kit

College Of Veterinary Medicine, Cornell University
Ithaca, New York 14853

| TEST | FEES (effective June 1, 2009) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| SERUM | |
| IgG level: RID (quantitative IgG) | 24.25 |
| Large Animal Chemistry Panel | 34.75 |
| Lawsonia intracellularis ELISA | 19.00 plus 18.00 referral fee |
| (done in conjunction with fecal PCR) | 46.50 plus 18.00 referral fee (one referral fee only if both requested) |
| BLOOD | |
| Hemogram, routine (CBC) | 30.25 |
| Selenium | 16.50 |
| Blood Cultures: done as a "Set" of 1 aerobic and 1 anaerobic bottle per set [bacteremic foals more easily detected if 3 Sets are done over a 24 hr period] | contract or 28.00 aerobic 41.75 anaerobic |
| FECES | |
| gram stain (especially if anaerobic transport medium was not submitted) | contract or 6.25 |
| Enteric Bacterial Culture, Panel 1: (E. coli, salmonellae, Rhodococcus) | contract or 46.50 per sample |
| Anaerobic bacterial culture (Clostridium, Bacteroides) | contract or 41.75 |
| Campylobacter jejuni culture | contract or 15.25 |
| Lawsonia intracellularis PCR (done in conjunction with ELISA serology) | Referral test: 46.50 plus 18.00 referral fee (see above combined fee for ELISA and PCR) |
| Parasitology, Fecal Quantitative | contract or 22.00 |
| Rotavirus Latex Agglutination (Group A) | contract or 22.00 |
| <i>Clostridium perfringens</i> Type A enterotoxin (latex agglutination) | 25.50 |
| <i>Clostridium difficile</i> toxins A/B (ELISA) | 31.75 |

NOTE to Veterinarian:

all tests can be done on an a la carte basis depending on your interest and case needs;
- contract items are given a "Case fee" capped at \$50.00 per accession on NYS animals with a submitted written history of illness; some contract tests have other fees associated with them;
- cost of kit materials \$25.00 [includes: tubes, cups, transport medium, mailer]



Animal Health Diagnostic Center

College of Veterinary Medicine, Cornell University
 In Partnership with the NYS Dept of Ag & Markets
 US Postal Service Address: PO Box 5786 Ithaca, NY 14852-5786
 Courier Service Address: Upper Tower Rd Ithaca, NY 14853

AHDC Contacts
 Phone: 607-253-3900
 Fax: 607-253-3943
 Web: diagcenter.vet.cornell.edu
 E-mail: diagcenter@cornell.edu

LAB USE ONLY

AHDC Accession No./ Date _____

Pathology Case Number (if any) _____

PLEASE COMPLETE ALL FIELDS, PRINT LEGIBLY, AND ENTER ONLY ONE OWNER PER FORM

| | |
|----------------------------------------|-----------------------------------------|
| Enter Your Cornell AHDC Acct No. _____ | Your Internal Case/Reference No.* _____ |
| Veterinarian _____ | Owner _____ |
| Clinic Name _____ | Address _____ |
| Address _____ | City, State, Zip _____ |
| City, State, Zip _____ | Phone Number (_____) _____ |
| Phone Number (_____) _____ | County _____ Town _____ |
| Fax Number (_____) _____ | NYS Premise ID _____ |

| | |
|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Add'l instructions: | Testing purpose, if not clinical: |
| ATTENTION: | <input type="checkbox"/> Export Country of Destination _____ |
| <input type="checkbox"/> Check here for test results to be faxed; otherwise, they will be mailed. | <input type="checkbox"/> Regulatory Shipper/Exporter _____ |

Clinical / Differential Diagnosis: _____

History: An *adequate history must* accompany submissions in order to qualify for NY State Contract charges (see AHDC Test & Fee Schedule).

Date of onset of illness in herd _____
 In animals submitted _____
 Herd size _____
 No. dead _____
 (continue on back of page) No. affected _____

For previous related submissions, please enter Accession numbers and Dates here: _____

Check if related material has been submitted previously for this animal(s): Y N Unknown

for this herd: Y N Unknown

| ANIMAL IDENTIFICATION | | | | | TYPE/SITE SPECIMEN(S) SUBMITTED | The first 14 tests will be done and will be billed. CROSS OFF the test numbers you do <i>not</i> desire. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------|-----|---------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------|
| SEX CODES: M=Male, MR=Mare (equine only), MC=Castrated Male, F=Female, SF=Spayed Female AGE CODES: Y=Years, M=Months, W=Weeks, Days; DOB=Date of Birth | | | | | | Date Samples Taken: _____ |
| NAME/NO. | SPECIES | BREED | SEX | AGE/DOB | BLOOD ----- | |
| 1 | | | | | Blood culture bottles- (1 or 2 sets) | 1. Aerobic |
| | | | | | Aerobic bottle | 2. Anaerobic blood cultures |
| | | | | | Anaerobic bottle | 3. Selenium level |
| 2 | | | | | EDTA tube | 4. Hemogram routine (CBC) |
| | | | | | EDTA tube | |
| 3 | | | | | SERUM ----- | |
| | | | | | Red top blood collection tube | 5. IgG level (RID-quantitative) |
| 4 | | | | | | 6. Equine chemistry panel |
| 5 | | | | | FECES ----- | |
| | | | | | 2 oz. specimen cup | 7. Rotavirus latex agglutination |
| | | | | | 2 oz. specimen cup | 8. Parasitology, fecal quantity |
| 6 | | | | | | Clostridial toxins (tests 9 and 10): |
| | | | | | | 9. C. perfringens enterotoxin |
| | | | | | | 10. C. difficile toxin A/B |
| 7 | | | | | Anaerobic swab (Port-a-Cul) | 11. Anaerobic culture: Clostridia, |
| 8 | | | | | Bacteroides | |
| | | | | | Aerobic swab | 12. Enteric bacterial culture Panel 1: |
| | | | | | (Amie's w/ charcoal) | Aerobic culture: E. coli, Rhodococcus |
| | | | | | | Salmonella culture |
| 9 | | | | | Aerobic swab | 13. Campylobacter culture |
| | | | | | (Amie's w/ charcoal) | 14. Gram stain |
| 0 | | | | | ***** BY REQUEST ONLY: Check if desired ***** | |
| | | | | | serum sample ----- | <input type="checkbox"/> Lawsonia intracellularis serology referral test and fee |
| | | | | | fecal sample ----- | <input type="checkbox"/> Lawsonia intracellularis PCR referral test and fee |

Please note: Samples submitted for testing become the property of the Animal Health Diagnostic Center.

| | | |
|---------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| LAB USE ONLY | COURIER RECORD: | COOLANT RECORD: |
| OPENED BY: _____ | <input type="checkbox"/> AB <input type="checkbox"/> Mail DATE REC'D: _____ | <input type="checkbox"/> FROZEN <input type="checkbox"/> DRY ICE <input type="checkbox"/> RM TEMP |
| | <input type="checkbox"/> FX <input type="checkbox"/> Pri Mail TIME REC'D: _____ | <input type="checkbox"/> NOT FROZEN <input type="checkbox"/> COLD PACK <input type="checkbox"/> COOL |
| | <input type="checkbox"/> UPS-Grnd <input type="checkbox"/> Exp Mail DATE SHIP'D: _____ | <input type="checkbox"/> NONE <input type="checkbox"/> COLD |
| | <input type="checkbox"/> UPS-ND <input type="checkbox"/> Other: _____ | <input type="checkbox"/> COMMENT: _____ |

* If your Internal Reference No. is entered on this form, it will be used to identify this case on the test result form and on the billing statement (max. 17 character field).

Foal Health – Farm Status and History Sheet

(ALL INFORMATION IS CONFIDENTIAL)

DATE _____

Dr. Pat McDonough
Animal Health Diagnostic Center
College Of Veterinary Medicine, Cornell University
Ithaca, New York 14853
607-253-3900/Fax 607 253 3943

FARM NAME/OWNER: _____

ANIMAL: FOAL (breed/sex/age/name): _____

MARE (age/name): _____

VETERINARIAN: _____

1. Foal's birth date? _____

2. Was an immunoglobulin analysis performed to evaluate passive transfer of immunity?

Yes _____ No _____ If yes, what was the test? _____
what was the value? _____

3. What was the foal's age at the onset of diarrhea? _____ days

4. What is the foal's age now? _____ days

5. Is the foal bright and alert? Yes _____ No _____

6. Is the foal still eating? Yes _____ No _____

7. What is the foal's temperature? _____

8. Is the mare healthy? Yes _____ No _____

Any major illness? _____

Mare's age _____

Mare's breeding history: barren (# years _____), # foals _____ maiden _____

Mare's vaccination history _____

9. Has the mare received any antibiotics? Yes _____ No _____

If yes, what type and dosage, date administered?

10. Has the foal received any antibiotics? Yes _____ No _____

If yes, what type? _____

If yes, what dosage? _____

If yes, on what date(s)? _____

11. Has the foal received any therapy other than antibiotics since the onset of diarrhea?

Yes _____ No _____

If yes, please list. _____

12. Has the foal received any vaccinations? Yes ___ No ___

List: _____

13. How many other foals on the farm have or have had diarrhea this season? _____

Last year? _____ Two years ago? _____

13a. Have any other horses on the farm had diarrhea in the past 3 months (describe)?

14. How many foal deaths have occurred this season (include age at death and cause of death if determined)? _____

Last year? _____ Two years ago? _____

15. How many foals are there on the farm? _____

Last year? _____ Two years ago? _____

16. How many mares are on the farm? _____

Resident mares _____ # Non-Resident mares _____

17. How many stallions on the farm? _____

18. How many other non-breeding Equidae are on the farm? _____

Performance _____ Yearlings _____ Pleasure _____

18. Foaling? Difficult ___ or Normal ___

Retained Placenta _____

Placenta Exam ___ Weight ___

Foal Weight: Estimated _____ or Measured _____

Navel Treatment _____

20. How would you briefly rate the overall management, including nutrition, and parasite control on this farm? (See also specific questions below) _____

21. Could you briefly describe the parasite control program used on the farm, i.e, drugs used if any, age groups of animals treated, plus frequency and dose administered? _____

22. Describe the feeding/nutrition program for the mare(s) on the farm. Provide some sense of the amount of grazing time and space available to the animals (i.e., density of grazing). _____

Types of hay: legume () grass () pasture () first cutting () second cutting ()

type of plants in pastures: list

Any exposure to fescue-containing pasture _____

Types of grain: oats () sweetfeed ()
% protein _____

Are any of the feeds moldy? _____

Are selenium supplements being used? _____ by injection () by feed ()

23. MANURE HANDLING PRACTICES

How is manure from barn disposed of _____
_____;

What is frequency of cleaning of stalls(daily? _____ weekly? _____ other? _____)

Any farm areas with run-off and pooling of water? describe _____

24. SKETCH OF THE FARM

VERY IMPORTANT: On an additional sheet of paper or on the back of this sheet, please provide a brief sketch of the farm, including the LOCATION of the DIFFERENT GROUPINGS OF ANIMALS (especially note the location of the affected animals in relation to the well animals), their EXERCISE AREAS; also indicate TRAFFIC PATTERNS, LOCATIONS OF WATER SOURCES (including wells, ponds, streams, runoff/pooling), and location of stored FEEDSTUFFS, FEED TROUGHS.

For the BARNs include a diagram of the STALLS of this "case" in relation to other animals; indicate where ANIMALS ARE EXERCISED, PASTURED, etc.; location of FEED TROUGHS and WATER.