I  PURPOSE

The purpose of morning rounds is to monitor and record the piglet’s status on a more in-depth level than what is recorded during 24-hour care. It also allows the team to discuss the status of the piglet together before shifts begin.

II  SCOPE

This procedure provides instructions for morning round procedures. Morning rounds involve taking baseline measurements of the piglet’s vitals, cleaning the incision sites (if surgery was performed) and changing equipment. It is important to maintain communication between those who had cared for the piglet the previous night and those coming in for a morning shift to ensure that all necessary information about the piglets’ health is passed.

III  RESPONSIBILITIES

It is the responsibility of Metabolic Assessment Laboratory personnel to follow this procedure. It is the responsibility of supervisory personnel to ensure compliance with this procedure and to train employees and students responsible for performing this procedure. Students will report accidents to the principal investigators immediately.

IV  REFERENCES

N/A

V  REAGENTS AND MATERIALS

V.A. KY jelly.
V.B. 2 sterile piglet jackets.
V.C. Sterile Q-tips.
V.D. Betadine solution.
V.E. Diluted Heparin solution.
V.F. Ethanol.
V.G. Sterile deionized water.
V.H. Plastic cup.
V.I. Stopwatch.
V.J. Thermometer.
V.K. Stethoscope.
V.L. Measuring tape.
VI.F. 3, 1cc syringes.
VI.G. 1, 3cc syringe.
VI.H. 22G needle.
VI EQUIPMENT

VI.A. Scale.

VII SAFETY PRECAUTIONS

VII.A. Members of the MAL have been trained extensively in the procedures described in this SOP.
VII.B. Members of the MAL have completed animal contact training in order to work in the PNICU.

VIII DEFINITIONS

VIII.A. Standard Operating Procedure (SOP) – Standard Operating Procedure is a document that provides instructions for completing a specific task in the lab.
VIII.B. Metabolic Assessment Laboratory (MAL) – The Metabolic Assessment Laboratory is the laboratory that will use this SOP.
VIII.C. Piglet Jacket—The Piglet Jacket is a pre-cut, terry cloth material that is tied around the piglet such that it will not entangle itself in the catheters.
VIII.D. Piglet Neonatal Intensive Care Unit (PNICU) – The PNICU is a unit where the piglet is monitored by 24 hour care and routine check-up parameters using PNICU SOPs conducted by the MAL.

IX PROCEDURE

IX.A. Morning rounds are started before or right after the 5:30 AM feeding and last until before the 6:00 AM urine draw each day the piglets are in the PNICU (except first day of experiment).
IX.A.1. Preparations should be completed by 5:30 AM at the latest.
IX.A.1.a. This includes preparing syringes, piglet jackets, and Q-tips in betadine solution.
IX.A.1.b. Disinfect the stopwatch, stethoscope, measuring tape, and thermometer with ethanol.
IX.A.2. Participants should complete all tasks for which Dr. Borum is not needed for because she usually arrives between 5:30 AM and 5:40 AM.
IX.A.2.a. This includes respiratory rate, heart rate and temperature.
IX.A.2.b. On the first day of the experiment, admission procedures replace morning rounds.
IX.B. General morning rounds procedure. The following tasks can take place in any order but depend on the piglet’s activity level. If the piglet is calm, then the more invasive tasks can be performed, such as blood draws. However, if the piglet is agitated then use General Piglet Care (See SOP# CP012.00) to calm the piglet down and perform the less
invasive tasks, such as anthropometrics.
IX.B.1. Measure and record the piglet’s respiratory rate.
   IX.B.1.a. This procedure is easier to perform when the piglet is sleeping or lying down quietly in the incubator following the feedings.
   IX.B.1.b. Refer to SOP# CP043.00 for instructions on how to measure respiratory rate.
IX.B.2. Measure and record the piglet’s heart rate.
   IX.B.2.a. This procedure is easier to perform when the piglet is sleeping or lying down quietly in the incubator following the feedings.
   IX.B.2.b. Refer to SOP# CP046.00 for instructions on how to measure heart rate.
IX.B.3. Measure and record the piglet’s core body temperature.
   IX.B.3.a. This procedure is easier to perform when the piglet is sleeping or lying down quietly in the incubator following the feedings.
   IX.B.3.b. Refer to SOP# CP063.00 for instructions on how to measure core body temperature.
IX.B.4. Administer any medications or collect any samples required by the specific protocol.
   IX.B.4.a. Blood draw should happen at this time. Refer to SOP# CP019.00 for instruction on how to draw out blood.
   IX.B.4.b. If the blood is not scheduled to be taken on a particular day, flush the venous catheter with 1cc of diluted heparin (See SOP# CP010.00).
   IX.B.4.c. Refer to SOP# CP042.00 for instruction on how to draw urine.
IX.B.5. Weigh the piglet (in grams).
   IX.B.5.a. Dr. Borum will take off the piglet’s jackets and remove the piglet from the incubator or pen to place it on the balance.
   IX.B.5.b. Refer to SOP# CP021.00 for instructions on how to weigh the piglet.
IX.B.6. Measure and record the abdominal girth in centimeters.
   IX.B.6.a. Refer to SOP# CP016.00 for instructions on how to measure the abdominal girth of the piglet.
IX.B.7. Measure and record the crown-to-rump length (in cm).
   IX.B.7.a. Refer to SOP# CP015.00 for instructions on how to measure crown-to-rump length.
IX.B.8. Swab the incision sites (with betadine).
   IX.B.8.a. Bring the Q-tips and the betadine over to the piglet to expedite the procedure.
   IX.B.8.b. Fill small, plastic cup with enough betadine for Q-tips. It is best to soak the Q-tips in the solution for about 10 minutes before swabbing incision sites.
   IX.B.8.c. Neatness is not as important as speed and getting ample betadine on the incision sites.
   IX.B.8.d. When applying betadine to the incision sites, wipe the Q-tips in a vertical manner following the path of the incision, rather than
horizontally perpendicular to the incision site. This will minimize the amount of irritation to the incision site.

IX.B.8.d. Once a Q-tip is used to apply betadine to an incision site, discard that Q-tip and use a new Q-tip to apply betadine to the same site and/or a new incision site.

IX.B.8.e. While the person is applying betadine to the incision sites, another should hold all the catheters away so there is easy access to the incision sites.

IX.B.9. Putting new jackets on the piglet

IX.B.9.a. Once the betadine is applied to all the incision sites, Dr. Borum will place the piglet in the incubator.

IX.B.9.b. Before the rounds, one person should remove the appropriate size and color piglet jackets and fold them in the proper manner so they are ready to be used. The medium jacket should be folded width wise and the large jacket is already folded to be used when removed from the pack. The jackets should be removed from their packs and placed on top of the incubator (on a clean surface) before Dr. Borum places the piglet into the incubator.

IX.B.9.c. As Dr. Borum is putting new jackets on the piglet, one person should firmly hold the front of the piglet and another person should hold the rear. The person in the rear end should have a paper towel (wet with saline) in case the piglet has a bowel movement or urinates. It is also essential that the two people holding the piglet hold it firmly because at this point the piglet will be very likely to be agitated, excited and uncooperative.

IX.B.10. Repeat all steps for other piglets, if present, preventing any cross contamination being sure to disinfect or change gloves in between, if needed.
X ATTACHMENTS

X.A. For a list of materials and their locations, refer to SOP# CG098.00.