I  PURPOSE

The purpose of preparing the piglet for surgery is to ensure that the piglet is comfortable before undergoing surgery.

II  SCOPE

This procedure provides instructions for the preparation of the piglet for both survival and non-survival surgery.

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. Autoclaved examination gloves.
V.B. Sterile surgical gloves for primary surgeon.
V.C. Betadine scrub.
V.D. Autoclaved paper towels.
V.E. Saline.
V.F. 70% ethanol.
V.G. White tape.
V.H. Betadine solution.
V.I. K-Y Jelly.
V.J. Blue surgical drapes.
V.K. Urine vials.
V.L. Q-tips.
V.M. Eye Ointment.
V.N. Two Isothermal warming packs.
V.O. Piglet restraints.
V.P. Forceps.
VI  EQUIPMENT

VI.A. Electronic thermometer.
VI.B. Electronic oximeter.
VI.C. Electric hair clippers.
VI.D. Piglet V-holder.

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 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.
VIII.D. Piglet V-Holder—The Piglet V-Holder is a metal basin that is V-shaped and supports piglet’s body during surgery.
VIII.E. Clean Person—The Clean Person is designated to open and touch non-sterile items to maintain the integrity of the sterile person and surgeon.
VIII.F. Sterile Person—The Sterile Person is designated to handle all sterile instruments and materials that will be used inside the piglet. The Sterile Person also passes instruments to the surgeon.
VIII.G. Piglet Restraints – Thin strips of cloth material used to tie the piglet’s limbs down and away from the surgeon.

IX  PROCEDURE

IX.A. Preparation of piglet for survival surgery
IX.A.1. Place 2 isothermal warming packs on top of piglet v-holder and cover with a large sterile towel. Make sure that the warming packs have been microwaved beforehand.
IX.A.2. Lay piglet on towel and anesthetize the piglet according to SOP# CP039.00 and keep animal anesthetized during procedure.
IX.A.3. Place restraints (bias tape) on each hoof of piglet in order to position the animal for surgical procedures. Prepare the incision areas.
IX.A.4. Apply eye ointment to the piglet’s eyes.
IX.A.5. Prepare the incision areas.
   IX.A.5.a. Remove hair with clippers from the incision sites. Since clipping hairs may irritate the piglet, clipping will be performed at the discretion of the surgeon or the veterinarian.
   IX.A.5.b. Depending on the piglet, the surgeon may forego clipping and use saline instead to wipe down the area until any visible dirt is removed.
   IX.A.5.c. If piglet is very dirty, ethanol and saline may be used to wipe the area down.
   IX.A.5.d. Coat skin of incision area with betadine scrub. Apply betadine scrub to the incision line first, then working outward until the entire operative areas are covered.
   IX.A.5.e. Have Q-tips ready for the surgeon to spread the scrub over the incision areas.
   IX.A.5.f. Rinse piglet with saline solution to wipe away excess betadine scrub.
   IX.A.5.g. Dry piglet with paper towel.
   IX.A.5.h. Have the Q-tips and betadine solution ready.
   IX.A.5.i. Swab the incision sites with betadine solution.
IX.A.6. The piglet may now be transported in the surgery room. The person giving anesthesia must coordinate with Dr. Borum when transporting the piglet.
IX.A.7. Insert the thermometer.
   IX.A.7.a. Clean person should wipe the thermometer tip with ethanol.
   IX.A.7.b. Clean person should place a dollop of KY jelly on the tip of the thermometer and secure it by taping the cord to the piglet’s tail.
IX.A.8. Attach the pulse oximeter to the middle of the ear of the piglet.
IX.A.9. Surgeon leaves the room to scrub up and put his/her gown on.
IX.B. Arrangement of the surgical trays
   IX.B.1. The clean person should move the instrument and medicine trays to the surgery table.
   IX.B.1.a. Clean person must remove the large towel covering the surgical trays without touching the towels underneath. The clean person lays this towel down with the sterile side facing up. This towel becomes the “dump towel” where instruments may be placed and used again during surgery.
IX.B.2. Sterile person takes small sterile towels from the surgical tray and places them on the piglet’s limbs.
IX.B.3. Clean person should open the surgeon’s gloves and place them on the stainless steel cart without touching them.
IX.C. Preparation of piglet for non-survival surgery
   IX.C.1. Anesthetize the piglet according to SOP# CP039.00.
   IX.C.2. Remove hair with clippers from the incision sites, if necessary.
   IX.C.3. Clean the incision site and its surrounding areas with ethanol.
   IX.C.4. Check for any signs of pain with forceps pinch.
X ATTACHMENTS

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