# **I PURPOSE**

The purpose of measuring respiratory rate is to monitor the piglet’s breathing throughout the experiment.

# **II SCOPE**

This procedure provides instructions for the measuring a piglet’s respiratory rate. Respiratory rate should be measured before survival surgery in order to serve as a baseline measurement during surgery. It should also be measured during morning and evening rounds.

# **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**

Bollen, Peter JA. The Laboratory Swine. Boca Raton: CRC Press, 2000.

# **V REAGENTS AND MATERIALS**

N/A

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# **VI EQUIPMENT**

VI.A. Stopwatch.

# **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.

# **IX PROCEDURE**

1. Measurement of the number of breaths per minute.
   1. Accurate results are obtained when the procedure is performed while the piglet is resting or asleep.
   2. One participant acts in the capacity of timer.
   3. Another person counts the number of breaths by watching the chest rise and fall (1 rise plus 1 fall of the chest equals 1 breath) for exactly 30 seconds.
   4. Multiply the number of breaths in 30 seconds by 2 to get respiration rate in breaths per minute.
2. Avoid contact with the piglet while measuring respiratory rate.
   1. Touching the piglet will often alter the respiration rate.
   2. It is more accurate to use visual inspection to distinguish shudders from breathing than to use touch.
   3. The average respiratory rate is about 50 breaths per minute.
   4. If you feel that your measurement isn’t accurate enough or the piglet moves while taking the measurement, restart to take a more accurate reading.

**X ATTACHMENTS**

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