Telemetry Blood Pressure

Surgery Code: TELEMBP

Model Interest
The telemetry blood pressure model is of benefit to preclinical or research studies by recording unbiased physiological responses that transmit wirelessly, providing better data on the body’s reactions to drugs/compounds.

Animal Models
Typical selections are listed below; however, choices for strain, age and weight may be limited due to model anatomy and/or physiological conditions.

- Rats: male/female, any strain, weight ≥ 225 g
- Mice: male/female, any strain, weight ≥ 19 g
- Guinea pig: male/female, any strain, weight ≥ 250 g

Procedure Details
- **Perioperative care:** Please view our Pre- and Postoperative Care Sheet, which can be found at [www.criver.com/opcare](http://www.criver.com/opcare).
- **Housing:** The animals must be singly housed until suture/wound clips are removed.
- **Diet:** No special diet requirements
- **Post-surgery holding period:** At a minimum, post-op animals with carotid artery or femoral artery placement are held overnight, with the majority of animals shipping within 7 days of surgery. Animals with BP device implantation via the abdominal aorta approach are held 7-10 days postoperatively to allow adequate wound healing before shipping.
- **Maintenance:** Wound clips should be removed 7-10 days after surgery.

Surgical Summary

**Abdominal aorta approach**

**Standard method for rat and guinea pig**
The pressure sensor catheter is inserted into the abdominal aorta and advanced cranially. The body of the transmitter is then slipped into the abdominal cavity. If the device has a suture tab, the tab is secured to the abdominal wall when closing the muscle with suture.

**Carotid Artery Approach**

**Standard method for mouse; per request for rat and guinea pig**
The pressure sensor catheter is inserted into the carotid artery and advanced to the aortic branch. A subcutaneous pocket is made through the ventral neck incision and the body of the transmitter is placed subcutaneously on the left side, between the thorax and abdomen.

**Femoral Artery Approach**

**Per request, rats only**
The body of the transmitter is placed subcutaneously on the left flank with the pressure catheter facing caudally. The pressure catheter is tunneled subcutaneously from the dorsal incision to the inguinal incision. The catheter is inserted into the femoral artery and advanced into the abdominal aorta.

IACUC
The Charles River Institutional Animal Care and Use Committee (IACUC) governs the entire surgical process, including all anesthesia, analgesia, animal preparation and any post-operative holding in Charles River facilities prior to shipment. Review of experimental protocols, authorization to order animals that are surgically modified from Charles River, and all aspects concerning the use of surgically-modified animals after they arrive at the institution are the responsibility of the receiving institution’s IACUC.