



Date 20161122

Name AL

Standard Operating Procedure Subcutaneous Injection of Pellets

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Subcutaneous injection of copolymer pellets

- with a trochar

- Put pellet in a standing position on needle of trochar, away from sharp edge and press gently.
- Pellet should be stable in that position so that if trochar is pointed downward pellet will not fall.
- A light isoflurane anesthesia should be applied if using a 14 Gauge or larger trochar: set gas flow to the vaporizer to at least 600-800ml/min (if the gas flow is lower, the percentage of isoflurane in the flow will be unstable), set vaporizer to 3-5% for the induction of anaesthesia in induction chamber, reduce vaporizer to 2-3% to maintain anaesthesia, monitor respiration rate
- Take mouse out of the box if respiration rate is at 50-60 breaths/min
- Do not sterilize the animal's fur as this will compromise the pellet.
- Apply the trochar to the side of injection.
- Twist the trochar sideways to penetrate the skin and insert the pellet by pushing the obturator all the way.
- Move mouse back to its home cage and monitor it until it has fully woken up.

- through a small incision

- s.c. inject Buprenorphin (Temgesic) for analgesia at 0.1mg/kg body weight pre-operative approximately 30 minutes prior surgery
- Anesthetize animal with isoflurane: set gas flow to the vaporizer to at least 600-800ml/min (if the gas flow is lower, the percentage of isoflurane in the flow will be unstable), set vaporizer to 3-5% for the induction of anaesthesia in induction chamber, monitor respiration rate
- Place animal on a heating pad at 38°C on the nose cone for continuous anaesthesia when respiration rate is at 40-50 breaths/min, turn flow to anaesthesia mask (nose cone), set vaporizer to 2-3%, wait 3-5 min and check respiration rate is at approx. 50-60 breaths/min
- Check reflexes (muscle relaxation, tail and toe reflexes,..)
- Protect eyes with ointment (Vit A ointment, Humigel, ..)



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- Shave the back of the mouse and swab the surgical area with Betadine® Iodine solution.
- A small incision, up to 1.5 cm, is made on the sterile, shaved back, with a scalpel.
- 1 pellet on each side of the resulting pocket can be inserted.
- The pellets can be implanted at 2 to 3 positions per animal at once, ending up in a total of 6 pellets per animal
- Close the incision either by metal clamps and tissue glue or by sewing.
- If metal clamps are used, they have to be removed 1 week later under anesthesia.
- **s.c. inject Meloxicam (Metacam) at 5mg/kg bodyweight**
- Move animal into warmed up “wake up cage” and monitor until it has fully woken up. Put it back to its home cage and provide gel food and drinking water.
- **s.c. inject Buprenorphin (Temgesic) for analgesia at 0.1mg/kg body weight post-operative 2-3 hours after surgery (Buprenorphin`s effect duration is 4-6 hours, 4 hours should be passed between the pre- and post-operative injection).**
- *If indicated, Buprenorphin could be administered at a standard dosage of 5ml Temgesic (Buprenorphin 0.3mg/ml) diluted in 160ml drinking water over night.*
- Check the animal's health status the following day according to the criteria established in the score sheets "**Reconstituted mice within subsequent experiments**"