Testing Epidurals
Anesthesia Protocol
University of Washington Medical Center
Department of Anesthesiology

Overview
Adequate testing for correct placement of epidural catheters continues to problematic for postoperative pain management. Site specific placement (usually placement of the epidural catheter at the upper incisional area) is recommended. With unusually long incisions, placement at the upper 1/3 of the incisional area is recommended. After obtaining loss of resistance, catheters should only be inserted 3-5 cm into the epidural space.

The Procedure
APS recommends the following steps to improve success rates for epidural catheter pain management.

Preoperative Testing

1) ALL catheters ideally should be tested at the time of insertion for:
   - Inadvertent intravascular or intrathecal placement
   - Confirmation of epidural space placement

2) Test dose: 3ml of 2% lidocaine + 1:200k Epi

3) To establish presence of block, give total of:
   - up to 10ml of 2% lidocaine for lumbar catheters
   - up to 8ml of 2% lidocaine for thoracic catheters

4) Do NOT use bupivacaine. This has a prolonged effect which will interfere with dilute local anesthetic management, particularly when the patient is receiving floor care.

5) Correct placement of lumbar catheters is confirmed:
   - Primary = motor block: inability of the patient to perform bilateral straight leg raises
   - Secondary = sensory block: diminished or absent sensation to skin pinprick testing

6) Correct placement of thoracic catheters is confirmed by:
   - Primary = sensory block: diminished or absent sensation to skin pinprick testing
   - Secondary = motor block: not usually evident unless low thoracic catheter
**Intraoperative Testing / Use**

1) Use boluses of 2% lidocaine (5 mls every 60 or 90 minutes depending on hemodynamic stability).

2) Epidural infusions and use of 3 - 5 mg Duramorph only on advice of APS.

3) Concentrations of bupivacaine > 0.25% should NOT be used.

**PACU Testing**

**Do this if...**

1) Epidural placement was not confirmed preoperatively

2) CSE once spinal effect has diminished

3) Inadequate pain control on arrival in PACU

Please note that the surgeons will need to write an order requesting "APS consultation for complex postoperative pain management issues." On calling the referral to APS, please provide information on the location of the epidural catheter placement, distance to loss of resistance, and distance of the epidural catheter at the skin.