Guidelines for use of Local Anesthetic Containing Solutions in Continuous Epidurals

Goals of therapy include:

1. Decreasing post operative illeus.
2. Maximizing pain control.
3. Minimizing motor block to maximize patient mobilization.
4. Minimize the number of required anesthesia personnel encounters to maintain good pain management.

Global epidural considerations:

Epidurals with local anesthetic which are targeted toward the site of the pain are more likely to meet the goals of therapy without motor blocks. For example: Thoracic epidurals for thoracotomy pain are more likely to produce a band of analgesia at the surgical site without producing motor block.

Suggestions:

Surgical Site	Epidural Placement
Thoracotomy	T7-T9
Nephrectomy	T8-T10
Upper Abdominal	T10-L1
Radical Prostatectomy	L1-L4

Rational Choice of epidural solutions:

Background:

- Epidural narcotics with a known spinal site of action include morphine and hydromorphine.
- Highly lipid soluble narcotics such as Fentanyl and Sufentanyl most likely have their analgesia medicated through IV adsorption.

For this reason the local anesthetic solutions chosen are mixtures of morphine and hydromorphine (with the exception of Ropivicaine which is only compatible with Fentanyl per pharmacy).

Specifics:

--The best solution for catheters targeted to the surgical site will be those containing hydromorphine as it has limited spread in the epidural space. Hydromorphine solutions should provide optimal “band” analgesia.

- I suggest we start with 0.1% Bupivicaine with 10mcg/cc Dilandid run at 10-12 cc 1 hr for post operative analgesia.
- A PCA dose of 3-4 cc every 20 minutes may increase patient satisfaction and decrease calls for break through pain.

Should motor block limit activity I suggest decreasing the concentration of bupivicaine to 0.05% with 10 mcg/cc dilandid and keep the same infusion rates.

--For catheters distant from the surgical site morphine containing solution would be more advantageous. Morphine has greater spread within the epidural space.

I suggest 0.05% Bupivicaine with 20 mcg/cc morphine for immediate post operative pain. I suggest at 12-14 cc 1 hr rate with 3-4 cc PCA Q 20 minutes. There is also a solution with 10 mcg/cc morphine for post operative day 1-2 if a patient has issues of narcotic related side effects. (e.g. illeus, itching)

--I have continued to include narcotic only solutions for patients with unacceptable local anesthetic side effects. (e.g. persistent hypotension or motor block)

--The Ropivicaine solution included is intended to provide an option for patients with a problem with motor block who have an unacceptable pain score when the bupivicaine is diluted to 0.05%.
Ropivicaine 0.2% is approximately equivalent to bupivicaine 0.1% with less motor block.

Again I suggest 10-14 cc 1 hr with 3-4 cc PCA Q 20 minutes