Doc ID:	Title: **ERAS for Colorectal Surgery-Post-Op Hypotension with Epidural**	Effective Date:
Revision #	**Prepared By:** Eric Brown	**Next Review Date:**
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Spectrum HCP **Divisional** **Departmental**

Policy/Procedure **Guideline** **Protocol** **Visual Aid**

Policy:

It is the policy of Spectrum Healthcare Partners to provide, safe, effective care to patients undergoing colorectal surgery at Maine Medical Center.

Scope:

Maine Medical Center

Definitions:

None

Procedure:

Guidelines for managing post-operative hypotension with epidural in place (PACU or floor):

- Hypotension defined as sustained MAP <65 mmHg OR evidence of poor end organ perfusion (mental status changes, sustained urine output <0.5ml/kg/hr).
- Covering physician (APMS staff, anesthesia resident, or anesthesia staff) notifies primary team. As always, close communication with PACU RN throughout is essential.
- Evaluate for presence and extent of dermatomal blockade with ice. Running epidural intraoperatively will help facilitate rapid assessment in PACU. If no block or an inadequate block, troubleshoot or replace when hemodynamic conditions allow for safe test dosing.
- Even if a block is present, consider non-epidural causes of hypotension.
- If adequate dermatomal coverage is present, stop epidural for 30 minutes. This will more rapidly reduce drug volume in epidural space. After 30m, resume epidural at ½ original rate. This plan should be communicated with PACU RN in detail to avoid lengthy epidural off times. Consider short term continuation or initiation of alpha-agonists (i.e. phenylephrine). Avoid crystalloid boluses unless you have reason to believe the patient is hypovolemic.

- If patient experiences increasing pain while hypotensive, consider 100mcg epidural fentanyl or 0.2mg epidural hydromorphone. Diluting the drug in saline will help improve spread. Ensure that all drugs given via epidural route are preservative free.

- If MAP> 65mmHg or normal perfusion cannot be achieved after halving the epidural rate and/or patient remains vasopressor-dependent, contact primary team to discuss further management. This should include workup for non-epidural causes of hypotension.

    - Options at this point include:
        - Further decreasing epidural rate
        - Decreasing epidural LA concentration to 0.0625% bupivacaine
        - Adding or uptitrating vasopressors
        - Giving additional crystalloid or colloid if clinically indicated for hypovolemia
        - Please reserve lengthy periods of epidural cessation for the most refractory patients. Even maintaining epidural rate at 1-2ml/hr will help avoid pain peaks and reduce the need for future epidural boluses.

- In the average patient, a functional T8-10 thoracic epidural for colon surgery should not require standard solution (0.125% bupivacaine with 10mcg/ml hydromorphone) infusion rates >6ml/hr. Many patients can be comfortable at 3-4ml/hr. Obviously, there are extenuating circumstances. However, consider placing your initial orders with conservative rates as the rate can always be increased.

- Please document your workflow in the PACU signout note, even if the patient is not ready to "sign out." This can always be addended later if there are further clinical changes.

References:

None