

PROTOCOL FOR: Operative Hysteroscopy: Perioperative Care of Patients Undergoing

- POLICY:
1. Patients undergoing operative hysteroscopic procedures will be monitored closely via specialized equipment for fluid deficit to prevent fluid overload. Examples of operative hysteroscopic procedures include but may not be limited to:
 - removal submucous fibroids (myomectomy)
 - transection of intrauterine adhesions
 - transection of intrauterine septaFluid deficit is defined as the difference between the amount of fluid infused and the amount recovered.
 2. Nonelectrolytic solution (e.g. Sorbitol) will be used for uterine distention during operative hysteroscopic procedures when monopolar ESU will be used. Electrolyte solution may be used in the absence of monopolar ESU use.
 3. Mean arterial pressure (MAP = systolic pressure plus 2 times the diastolic pressure, divided by 3) will be reported to the attending surgeon prior to the start of all operative hysteroscopic procedures so that intrauterine pressure levels during the procedure will not exceed the MAP. The BP of choice is a reading obtained in the Holding Area, second preference being a pre-induction reading.
 4. Patients undergoing any procedure that will open a large number of vascular channels will be considered to be at high risk for intravasation.
 5. Patients experiencing a fluid deficit greater than 500ml will be monitored intraoperatively for electrolyte imbalance via point of care testing to assess for risk of dilutional hyponatremia (<135 mEq/L).
 6. Patients experiencing a fluid deficit greater than 750ml implies impending excessive intravasation and completion of the procedure shall be planned.
 7. Patients experiencing a fluid deficit of 1000ml - 1500ml will be considered at the upper limit for a safe procedure and rapid completion of the procedure shall be planned.
 8. Patients experiencing more than 1500ml fluid deficit are at great risk of adverse effects, and the procedure will be brought to an immediate conclusion.
 9. Patients undergoing diagnostic hysteroscopic procedures in which fluid overload is not considered to be a significant risk will not be monitored closely for fluid deficit.

DESIRED PATIENT
OUTCOME:

1. The patient will undergo satisfactory uterine distention during the procedure while experiencing a fluid deficit no greater than 500ml.
2. Patients will maintain sodium electrolytes within a normal range (135 - 142 mEq/L).
3. The patient will undergo operative hysteroscopic procedures in as short amount of time as possible, ideally one hour or less.

CLINICAL
ASSESSMENT AND
CARE:

1. Review the patient's preoperative electrolyte status, as available.
2. Consider patient age when evaluating the risk for extreme complications of dilutional hyponatremia, as the age-related hormonal status of pre-menopausal women places them at much greater risk for inefficient excretion of electrolytes from brain cells.
3. Use special equipment specifically designed to monitor intrauterine pressure and fluid deficit during operative hysteroscopic procedures. If this equipment is not available, the cancellation of the procedure will occur.
4. Report mean arterial pressure prior to the start of the procedure.
5. Perform point of care / ISTAT testing whenever fluid deficit exceeds 500ml.
6. Administer medications and place urinary drainage catheter per physician order.
7. Monitor patient postoperatively for signs and symptoms of mild dilutional hyponatremia if serum sodium concentration ranges 130 - 135 mEq/L:
 - apprehension
 - disorientation
 - irritability
 - twitching
 - nausea
 - vomiting
 - shortness of breath
8. Monitor patient postoperatively for signs and symptoms of mild to moderate dilutional hyponatremia if serum sodium concentration ranges 125 - 130 mEq/L:
 - moist skin and mucous membranes
 - pitting edema
 - dilute urine
 - polyuria
 - pulmonary rales
9. Monitor patient postoperatively for signs and symptoms of moderate to severe dilutional hyponatremia if serum sodium concentration ranges 120 - 125 mEq/L:

- hypotension
- anemia
- cyanosis
- bradycardia
- jaundice
- further changes in mental status

10. Monitor patient postoperatively for signs and symptoms of hyponatremic encephalopathy if serum sodium concentration falls below 120 mEq/L:

- congestive heart failure
- lethargy
- confusion
- convulsions
- muscular twitching
- focal weakness
- death

APPROVAL: Nursing Standards Committee
Dep't. of Anesthesiology
Dep't. of OB/GYN

EFFECTIVE DATE: 6/03, 2/08