

# **STANDARDIZED PROCEDURE**

## **GASTROSTOMY TUBE REPLACEMENT (Neonatal, Peds)**

### **I. Definition**

Patients may require complete or supplemental gastrostomy feedings secondary to a variety of medical or surgical conditions. Placement of an open gastrostomy tube by a surgeon may require that the tube be changed postoperatively from a temporary device to a skin-level device by an Advanced Health Practitioner (AHP) with special training, or by the pediatric surgeon. This protocol addresses the first postoperative tube change, during the immediate postoperative period, of any gastrostomy tube placed in an open or laparoscopic fashion. This protocol does not apply to percutaneous endoscopically placed gastrostomy tubes (PEGs).

### **II. Background Information**

#### **A. Setting:**

The setting (inpatient vs outpatient) and population (adults vs pediatrics) for the Advanced Health Practitioner (AHP) is determined by the approval of the privileges requested on the AHP Privilege Request Form. If the procedure is being done on a Pediatric patient, make sure Child Life is involved and use age appropriate language and age appropriate developmental needs with care of children, as appropriate to the situation.

#### **B. Supervision**

The necessity of this procedure will be determined by the Advanced Health Practitioner in collaboration with the supervising physician or his/her designee. Designee is defined as another attending physician who works directly with the supervising physician and is authorized to supervise the Advanced Health Practitioner.

Direct supervision will not be necessary once competency is determined, as provided for in the procedure. The Advanced Health Practitioner will notify the physician immediately upon being involved in any emergency or resuscitative events or under the following circumstances:

1. Patient decompensation or intolerance to the procedure
2. Bleeding that is not resolved
3. Outcome of the procedure other than expected

#### **C. Indications**

1. An infant or child is considered to be nutritionally at risk in the presence of an acute weight loss of more than 10% of body weight, weight below the 5<sup>th</sup> percentile on a standardized growth chart, decreased percentile measurements of height, weight and head circumference, increased metabolic requirements, an albumin level < 3.5 in infants and children, prematurity of low birth weight, and documented inadequate tolerance of nutrients.
2. A gastrostomy tube may be required for a patient who cannot take adequate nutrition orally due to congenital or acquired problems.

## STANDARDIZED PROCEDURE

### GASTROSTOMY TUBE REPLACEMENT (Neonatal, Peds)

3. The surgically placed open gastrostomy tube may be a malecot, foley, MIC tube, or MICKEY button. A malecot or foley is changed on postoperative week 8 and replaced with a MIC tube or MICKEY skin-level button.
4. PEG tubes are placed jointly by the surgical and gastro-intestinal (GI) service. These tubes are changed between six weeks and three months after surgery when the ostomy has formed a mature tract. These are changed by the GI service.

#### **D. Precautions/Contraindications**

Platelet count >50,000

#### **III. Materials**

1. Appropriate size new foley tube
2. Appropriate size MIC-Key tube and button
3. Sterile water
4. 10ml syringe
5. Suture removal kit

#### **IV. Gastrostomy Tube Replacement**

##### **A. Pre-treatment evaluation**

The timing of the elective gastrostomy tube change will be determined by the AHP in conjunction with the pediatric surgeon.

##### **B. Set up**

Gather necessary supplies

##### **C. Patient Preparation**

The tube change will be explained to the family and the child, if appropriate. Pain medication may be given prior to the procedure.

##### **D. Procedure**

1. If the gastrostomy tube placed in the operating room by the pediatric surgeon is a malecot or foley, it may be changed at 8 weeks post-operatively. At this change, the surgically placed tube and remaining sutures will be removed and a foley catheter tube of the same size (usually a 14 Fr.) will be inserted and the balloon inflated with 3 ml of sterile water. The foley is then pulled snug. The foley will be marked at the point where it exits the ostomy. The balloon is then deflated, removed and, with the balloon reinflated, measured for length from the top of the balloon to the mark. A MIC tube or MIC-Key button of the measured length and 14 Fr. diameter, is then inserted. The balloon is inflated with 5-10 ml of water until a snug fit is obtained.
2. Gastric tube position will be confirmed by aspiration of gastric contents. If there is any concern about proper placement, a contrast radiograph will be obtained.

**STANDARDIZED PROCEDURE**  
**GASTROSTOMY TUBE REPLACEMENT (Neonatal, Peds)**

**E. Post-procedure**

1. Following the first postoperative change, the family will be instructed in the insertion, removal and maintenance of the tube by the surgical AHP, bedside RN and/or discharge planner.
2. If the patient is still hospitalized, a home nursing and home care company referral will be made to ensure the family receives disposable supplies and formula as well as in-home reinforcement of teaching regarding the insertion, removal and maintenance of the gastrostomy tube. A gastrostomy tube of the same size will be given to the family prior to discharge home. A pediatric GI referral will also be made in order to follow up with the patient's nutritional needs. If the child is an outpatient at the time of the change, a gastrostomy tube of the appropriate size will be ordered from the home care supply company by the surgical AHP.

**F. Follow-up treatment**

The family will be given the telephone number of the pediatric surgery service. One post-operative visit with the Pediatric Surgeon is recommended.

**G. Termination of treatment**

Care will be continued on a PRN basis, after the first post-operative visit, until the gastrostomy tube is no longer needed.

**V. Documentation**

**A. Documentation is in the electronic medical record**

1. Documentation of the pretreatment evaluation and any abnormal physical findings.
2. Record the time out, indication for the procedure, procedure, type and size of tube used, volume of water used to inflate the balloon (This shall be at least 5 ml and not greater than 12 ml), , EBL, the outcome, how the patient tolerated the procedure, medications (drug, dose, route, & time) given, complications, and the plan in the note, as well as any teaching and discharge instructions.

**B. All abnormal findings are reviewed with supervising physician**

**VI. Competency Assessment**

**A. Initial Competence**

1. The Advanced Health Practitioner will be instructed on the efficacy and the indications of this therapy and demonstrate understanding of such.
2. The Advanced Health Practitioner will demonstrate knowledge of the following:
  - a. Medical indication and contraindications of gastrostomy tube replacement
  - b. Risks and benefits of the procedure

## **STANDARDIZED PROCEDURE**

### **GASTROSTOMY TUBE REPLACEMENT (Neonatal, Peds)**

- c. Related anatomy and physiology
  - d. Consent process (if applicable)
  - e. Steps in performing the procedure
  - f. Documentation of the procedure
  - g. Ability to interpret results and implications in management.
3. Advanced Health Practitioner will observe the supervising physician perform each procedure three times and perform the procedure **three** times under direct supervision.
  4. Supervising physician will document Advanced Health Practitioner's competency prior to performing procedure without supervision.
  5. The Advanced Health Practitioner will ensure the completion of competency sign off documents and provide a copy for filing in their personnel file and a copy to the medical staff office for their credentialing file.

#### **B. Continued proficiency**

1. The Advanced Health Practitioner will demonstrate competence by successful completion of the initial competency.
2. Each candidate will be initially proctored and signed off by an attending physician. Advanced Health Practitioner must perform this procedure at least **three** times per year. In cases where this minimum is not met, the attending, must again sign off the procedure for the Advanced Health Practitioner. The Advanced Health Practitioner will be signed off after demonstrating 100% accuracy in completing the procedure.
3. Demonstration of continued proficiency shall be monitored through the annual evaluation.
4. A clinical practice outcomes log is to be submitted with each renewal of credentials. It will include the number of procedures performed per year and any adverse outcomes. If an adverse outcome occurred, a copy of the procedure note will be submitted.

#### **VII. RESPONSIBILITY**

Questions about this procedure should be directed to the Chief Nursing and Patient Care Services Officer at 353-4380.

#### **VIII. HISTORY OF POLICY**

Revised April 2012 by Subcommittee of the Committee for Interdisciplinary Practice

Reviewed April 2012 by the Committee on Interdisciplinary Practice

Prior revision October 2008

Approved April 2012 by the Executive Medical Board and the Governance Advisory Council.

*This procedure is intended for use by UCSF Medical Center staff and personnel and no representations or warranties are made for outside use. Not for outside production or publication without permission. Direct inquiries to the Office of Origin or Medical Center Administration at (415) 353-2733.*