Clinical Safety & Effectiveness
Cohort # 9
PEG Tube Patient Returns at the UHS Outpatient Gastroenterology Endoscopy Lab

CENTER FOR PATIENT SAFETY & HEALTH POLICY
UT Health Science Center™
SAN ANTONIO
Educating for Quality Improvement & Patient Safety
Financial Disclosure

Tisha N. Lunsford, MD, has no relevant financial relationships with commercial interests to disclose.
The Team

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Facilitator: Amrutha Parekh, MD, MPH
Sponsor Departments: UTHSC Gastroenterology & UHS – Quality & Process Improvement
What We Are Trying to Accomplish?

OUR AIM STATEMENT

Decrease the number of unanticipated patient returns following PEG tube placement to the outpatient Gastroenterology Endoscopy Center by 10% by 2/23/12.
Project Milestones

• Team Created August 2011
• AIM statement created August 2011
• Biweekly Team Meetings 09/11 – 12/2011
• Background Data, Brainstorm Sessions 10/03/2011
• Workflow 10/10/2011
• Fishbone Analyses 10/10/2011
• Interventions Implemented 01/17/2012
• Data Analysis 10/2011-02/2012
• CS&E Presentation 2/24/2011
Background

• Desire to improve quality of care and perigastrostomy tube education to patient’s and/or caregivers.

• Given current cultural diversity and possible lack of time/educational resources, perigastrostomy tube education regarding implications of placement, alternatives, care and resources for complications is lacking.

December 3, 1963 - March 31, 2005
How Will We Know That a Change is an Improvement?

• Improve patient/caregiver understanding of indications, implications, alternatives and resources involving gastrostomy tube placement by implementation of a bilingual pre procedure and post procedural educational patient/caregiver process

• Reduce number of unanticipated post procedural returns to outpatient GI lab by 10%
Selected Process Analysis Tools

• Brainstorming
• Flowchart
• Fishbone
• Pareto diagram
• Statistical Process Analysis Chart
IMMEDIATE STATUS POST GASTROSTOMY TUBE PLACEMENT PROCESS FLOW

- No pre gastrostomy education given to patient from the Gastroenterology Lab

- No phone number on the form
- No nutritional information
- Boston Scientific product information booklet given - not consistently; sometimes only to O.P. population not inpatients
- Counseling from nurses is verbal

Wait until pt wakes up

Is pt awake?

YES

Is pt at same cardio resp status as before arrival?

NO→ Make referrals, etc to get patient to pre-gastro status

YES

Will pt be d/c'd?

NO→ ADMIT

YES

Told to go to EC if problems arise

NO→

YES→ Patient discharged with care-giver

- No instructions given to care-giver
IMMEDIATE STATUS POST GASTROSTOMY TUBE PLACEMENT PROCESS FLOW

- Patient has gastrostomy tube placed
- Wound is dressed by Nursing
- Given post gastrostomy instructions
- Wait until pt wakes up

Is patient awake?
- NO
  - Is pt at same cardio/respiratory status as before arrival?
    - NO
      - Make referrals, etc to get patient to pre-gastro status
    - YES
      - Will pt be dis/ced?
        - NO
          - ADMIT
        - YES
          - Told to go to EC if problems arise
          - Patient discharged with care-giver
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Patient Returns to GI Lab Status Post Gastrostomy Tube Placement Process Flow

Patient returns to GI Lab

Send to Admitting

Does the patient have a visit #?

YES

Assign bed in recovery room

Put patient on board

Charge nurse informs Fellow

Does Fellow see patient?

YES

Assessment is performed

Send to Service that inserted tube

Is it one of our tubes?

YES

Assess problem

Consult Medicine for admission

Admission needed?

NO

D/C to home

The way we keep track of patient flow

Or whoever is around Fellow's responsibility to look at board

Sometimes solution is simple

Currently without other instructions besides to return for problems
Patient Returns to GI Lab Status Post Gastrostomy Tube Placement Process Flow

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D/C to home

Send to Service that inserted tube

Send to Admitting

Delay

NO

NO

Usually 3 or 4 hr delay then sent home

Sometimes solution is simple

The way we keep track of patient flow

Or whoever is around
Fellow’s responsibility to look at board

Currently without other instructions besides to return for problems
Patient Returns to GI Lab Status Post Gastrostomy Tube Placement Process Flow

1. Patient returns to GI Lab
   - Does the patient have a visit #?
     - YES
     - Assign bed in recovery room
       - The way we keep track of patient flow
     - Put patient on board
       - Or whoever is around
         - Fellow's responsibility to look at board
       - Charge nurse informs Fellow
         - Does Fellow see patient?
           - YES
           - Assessment is performed
             - Send Service that inserted tube
               - NO
                 - Usually 3 or 4 hr delay then sent home
               - YES
                 - Is it one of our tubes?
                   - YES
                     - Assess problem
                       - Consult Medicine for admission
                         - NO
                           - D/C to home
                         - YES
                           - Admission needed?
                             - NO
                               - D/C to home
                             - YES
                               - Currently without other instructions besides to return for problems
Root Causes of Unanticipated Returns of Patients with PEG Complications

PROCEDURE
- Don’t have access to Radiology
- Lack of interest
- Hasn’t been brought up

PEOPLE
- Referral physician
- Lack of education
- Lack of Communication from physician
- Lack of time
- Lack of education

Environment
- Patient doesn’t take care of PEG tube
- In a state of shock
- New diagnosis
- Overwhelmed

Supply
- We don’t give it to them
- Different facilities
- CTRC uses something else

Policy
- Different EMRs
- Lack of communication between multidisciplinary providers
- UHS uses SR MARC uses Epic

- Lack of resources
- Lack of kit
- Lack of video
- Lack of interest

- Lack of interest from physicians
- Lack of reinforcement
- Pt’s environment
- Lack of teaching
- Lack of hygiene

- PEGs have to be done fast
- Limited # of clinical spot
- Lack of space to teach pts

- MD doesn’t know pt
- Pt just shows up
- Anyone can refer to us
- Lack of education
- Language barrier
- Lack of care giver support
- Pt’s home environment

- Lack of time
- Lack of education
- Don’t understand
- Not caregiver
- Just a ride

- No wound protocol
- Complications not discerned from other diagnosis
- Hasn’t been set up

- No interest from physicians
- Lack of clinic time
- Inadequate staff

- No protocol for post-op or complications teaching
- Handed-down policy
- Lack of time
- No interest

- Schedulers don’t have templates
- That’s how it’s always been done
- Don’t have template
- Don’t have info ahead of time

- Pts’ environment
- Lack of teaching
- Lack of hygiene

- Lack of nurses to do it
- Too busy
- Not enough nurses
Pareto Chart showing complications from PEG tube Placement

Categories of the complications

- Tight bumper
- Cellulitis
- Hospitalization
- Fever
- Cap fell out
- n/v/constipation
- Clogged tube
- Pulled out PEG

Defects

- 3
- 1
- 1
- 1
- 1
- 1
- 1
- 1

Percentages

- 0.0%
- 10.0%
- 20.0%
- 30.0%
- 40.0%
- 50.0%
- 60.0%
- 70.0%
- 80.0%
- 90.0%
- 100.0%
Intervention Plan

• Decrease post-PEG return rate

• Implement a pre and post procedural protocol for patients receiving PEG tube placement to increase comprehension to OP GI center

• Provide familiarity and knowledge of point of contact for complications in order to decrease unanticipated returns to OP GI center
Implementing the Change

Do

• Develop a bilingual, comprehension appropriate educational brochure and standardization of staff protocol for verbal counsel and documentation of incoming calls/questions regarding care.

• Lessons learned have included drastic variability in coding and documentation of return visits (data collection)

• Difficulty in producing reading material at or under an 5th grade level
Implementing the Change

- Do

**Percutaneous Endoscopic Gastrostomy (PEG)**

**Tube Use and Care**

**What is a PEG?**
- A PEG is a tube put into your stomach, to give you liquid feedings, fluids, and medicines

**How is the PEG procedure performed?**
- You will receive medicine into your veins to make you relax during the procedure
- A small opening will be made on the skin of your stomach area
- An endoscope (lighted flexible tube) is used to put the PEG tube into your stomach

**How should I care for the PEG tube?**
- Always wash your hands before touching your PEG tube
- Remove the dressing 24 hours after your procedure
- Clean the PEG site every day with soap and water
- Keep the PEG site dry in between dressings
- Gently twist the tube daily to prevent a scab from forming
- Every day check the skin for redness, swelling, or leakage
- Flush your PEG tube with 60mL (1/4 cup) of warm water daily
- Flush your PEG tube with warm water before and after every tube feed and/or medication
- Do not put dressing (covering) or gauze between the PEG tube bumper and the skin

**What types of food can I eat?**
- Your doctor will decide on the type of food you can eat
- Once your doctor has told you to start feeding, use the steps below

**Using the PEG tube:**
- Before using the PEG tube, wash your hands with soap and water
- Clamp your PEG tube for 30 minutes before giving yourself food or medicines
- Sit upright during every feeding (about 45 degrees)
- Pour the liquid/medicine into the PEG tube set or pump
- After each use, flush your tube with at least 60mL (1/4 cup) of warm water
- Close the cap on the PEG tube
- Sit upright or keep the head of your bed raised up (about 45 degrees) for one hour after feeding yourself

**Uso y Cuidados de la Sonda de Gastrostomía Endoscópica Percutánea (PEG)**

**¿Qué es la gastrostomía endoscópica percutánea (PEG)?**
- La gastrostomía endoscópica percutánea es la colocación de una sonda en el estómago para administrarle alimentos líquidos, otros líquidos y medicamentos

**¿Cómo se realiza el procedimiento de PEG?**
- Se le administrará un medicamento a través de una vena para que esté relajado durante el procedimiento
- Se hará un pequeño orificio en la piel, en el área del estómago
- Se utilizará un endoscopio (tubo flexible con luz) para colocar la sonda PEG en el estómago

**¿Cuáles son los cuidados que debo tener con la sonda PEG?**
- Siempre lávase las manos antes de tocar la sonda PEG
- Quite el vendaje 24 horas después del procedimiento
- Limpie el sitio de la sonda PEG todos los días con agua y jabón
- Mantenga seco el sitio de la sonda PEG después de cada limpieza
- Gire suavemente la sonda todos los días para evitar la formación de costra
- Revise la piel diariamente en caso de que esté enrojecida, hinchada o haya salida de líquido
- Enjuague diariamente la sonda PEG con 60 mL (1/4 de taza) de agua tibia
- Enjuague la sonda PEG con agua tibia antes y después de cada alimentación y/o medicamento administrado por la sonda
- No coloque el vendaje (cubierta) o gauze entre el extremo redondo llamado “bumper” de la sonda PEG y la piel

**¿Qué tipos de alimentos puedo comer?**
- Su médico decidirá el tipo de alimentos que puede comer
- Una vez que su médico le haya indicado que empiece con la alimentación, siga los pasos a continuación

**Uso de la sonda PEG:**
- Antes de usar la sonda PEG, lávese las manos con agua y jabón
- Sujete la sonda PEG durante 30 minutos antes de administrarse alimentos o medicamentos
- Síntese expuesto (derecho) durante cada alimentación (unos 45 grados)
- Enjuague la sonda con un mínimo de 60 mL (1/4 de taza) de agua tibia
- Vierta el líquido/medicamento en el equipo o bomba de la sonda PEG
- Después de cada uso, enjuague la sonda con un mínimo de 60 mL (1/4 de taza) de agua tibia
- Cierre la tapa de la sonda PEG
- Sujete la sonda PEG
- Síntese expuesto (derecho) y mantenga levantada la cabecera de la cama (unos 45 grados) durante una hora después de la alimentación