Endoscopy Center Optimization

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Today’s Objectives

Attendees will be able to:
• Define need for endoscopy utilization optimization
• Describe interventions used to ensure success
• Identify metrics to measure performance
• Improve quality of care delivery by reducing delay from endoscopy order to procedure completion

Background

Endoscopic evaluation of the upper and lower gastrointestinal tract is a critical diagnostic procedure performed by adult and pediatric gastroenterologists

Common Endoscopy Locations:
• Main operating room
• Procedure room/sedation
• Outpatient surgical center
• Procedure Room with anesthesia
Endoscopic outcome often impacts the next therapeutic step
Background

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Timeline – Divisional Growth

2008 - 9 faculty, 6 fellows
- Main operating room
- Sedation rooms

2009/2010 - 14 faculty, 6 fellows
- Endoscopy Center opened
  - 3 procedure rooms

2012 – 15 faculty, 7 fellows

2014 - GI Center for Digestive Disorders

- 21 Faculty
- 9 Fellows
- 7 Nurse practitioners
- Endoscopy Center
  - Anesthesia support
  - 3 rooms
Challenges of divisional growth:

Incomplete infrastructure growth
  • Scheduling process and staffing remained unchanged

Previously acceptable process pathways required reevaluation

Delay in completion of procedures

The Problem:

Divisional growth required reevaluation of scheduling processes

Incomplete use of the procedure room decreases quality of patient care
  • Diagnostic and therapeutic delays
  • Unnecessary main operating room use
    • Prolonged waiting, unfamiliar environment
    • Impacts staffing/resources, surgical services, cost

Institute of Medicine
The 8 Transformational Domains of Care
To drive change these domains must inspire, motivate, and speak to many

Safe  Effective  Patient Centered
Timely  Efficient  Equitable
Access  Care Coordination
**Endoscopy Center Optimization**

**Process owner:** Brendan Boyle

### Specific Aims

- To decrease the interval from procedure order to completion from mean baseline of 12.4 business days to ≤ 18 business days by 09/03/13 and sustain through 12/31/14

### Key Drivers

- **Scheduling Practices**
  - Schedule GIPR patients in clinic (01/03/13)
  - Restructure scheduler responsibilities
  - Develop tracking systems:
    - Interval from order placement to completion
    - Number of pending case
    - Identify consistent 2 room scenario to coordinate Anaesthesia staffing
  - Identify availability gaps
  - Educational sessions
  - Block schedule changes
  - Shift PNP cases to next available
  - Review and shift fellow cases to next available preceptor
  - Track outpatient and inpatient reasons for Main OR
- **Physician Schedules**
  - Increase inpatient cases in GIPR
  - Re-educate providers
  - Reevaluate procedures
- **Update Policies**
  - Review/update anesthesia policies
    - Asthma, BMI, anemia
    - Epidemiology
    - NSAID use
    - Safety of invasive procedures

### Design Changes or Interventions

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### Specific Aims

- Increase GIPR rooms % utilization from a baseline of 78% to ≥ 80% by 09/03/13 and sustain through 12/31/14

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**Multidisciplinary Team Members**

- Division Chief - Carlo Di Lorenzo
- Business Manager – Gina Benedict
- Nurse Manager – Mary Ann Daniels
- Physician champion/team leader – Brendan Boyle
- QI Service Line Coordinator-Jeff Lewis
- Team Leader – Anne Trout
- Division scheduler – Temperance Lundy
- Endoscopy Nurses – Theresa Kuhn
Endoscopy Center Optimization
Process owner: Brendan Boyle

Specific Aims

- To decrease the interval from procedure order to completion from mean baseline of 12.4 business days to < 10 business days by 09/01/13 and sustain through 12/31/14
- To decrease the number of weekly pending cases to < 20 by 09/01/13 and decrease to < 14 through 12/31/14

Key Drivers

- Scheduling Practices
  - GIPR patients in clinic
    - Schedule evaluation responsibilities
    - Identify available changing process
    - Schedule changes with patients
    - Identify necessary support employees to coordinate ventilation staffing
  - Educational Sessions
  - Block schedule changes
  - Shift PNP cases to next available
  - Review and shift fellow cases to next available preceptor
  - Track outpatient and inpatient reasons for Main OR
  - Increase inpatient cases in GIPR
  - Re-educate providers
  - Reevaluate procedures

Sub Aims

- Increase GIPR room % utilization from a baseline of 58% to > 80% by 09/01/13 and sustain through 12/31/14

GI Procedure Scheduling Macro Map

Previous Process

Clinic Evaluation → Procedure ordered → Phone Call to Schedule Procedure → RN completes screening → Procedure completed

Current Process

Clinic Evaluation → Procedure ordered → Procedure scheduled at clinic visit time → Clinic discharge → RN completes screening > 5 days prior → RN completes → Procedure completed
NCH-GI Divisional Data

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<tr>
<th>Year</th>
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<th>GIPR</th>
<th>Main OR</th>
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System Weaknesses and Next Steps

High number of cancelation each month
- Rescheduling system is highly variable

Canceled GIPR Procedures
Non-Rescheduled GIPR Procedures

Appropriate for reschedule or not?

Endoscopy Nurse Pre-Procedure Phone Calls

Institutional best practice identified reduction in cancelations if procedure date/time is confirmed with families 5 days prior to the procedure

- Confirmatory contact may reduce cancelations
Summary – Endoscopy Center Optimization

Successful interventions:
• Multi-disciplinary approach optimized the process
• Process map development
• Regular team meetings
• Create weekly expectations
• Track your progress

Thank You