Improving Access to Endoscopy at Safety-Net Hospitals

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Goals

- Background

- Improving Access to Endoscopic Care
  - Electronic referral: eReferral
  - Direct Access Colonoscopy
  - Non-physicians performing endoscopy

- Conclusions
Endoscopy and Safety-Net Hospitals

- GI ranks second with respect to demand for specialty care in public/county hospitals

- Scant data exist on endoscopic services provided in the safety-net healthcare system
  - Large proportion of patients miss scheduled colonoscopy procedures
  - Nearly one-third of patients have poor bowel preparations on colonoscopy
  - Access to care has been shown to be a strong predictor of colorectal screening participation
Access to Specialty Services

Access to GI services is difficult for vulnerable patients

Percent of Medical Directors Reporting Patients Experiencing Problems Obtaining Specialty Care
Improving Endoscopic Care and CRC Screening

Communication between referring providers and GI
Improving Access to Care - eReferral

- Electronic web-based submission of GI referral by primary provider

- Reviewed by one GI or hepatology attending physician
  - Assess appropriateness of consultation
  - Triage urgency of consultation
  - Request additional information

- Communication between GI and primary provider documented

- Accountability established
Reduced GI Clinic Waiting Times

Next Available New Patient GI Clinic Appt
(eReferral Implemented 7/1/2005)
Improved Appropriateness and Timeliness of GI Referrals

- Improved identification of clinical question for referral by 50%

- Rapid assessment and addressing of GI referrals
  - Over 70% of GI referrals immediately triaged at the time of consultation request
  - One-third of referrals deemed not appropriate

- Referring provider satisfaction enhanced in multiple areas
  - Increased access to GI referrals and GI providers
  - Better ability to track referrals
  - Guiding pre-GI clinic evaluation
Improving Endoscopic Care and CRC Screening

Scheduling endoscopic procedures

Communication referring providers and GI
Open Access Endoscopy: A Solution to Enhancing Endoscopic Care?

- **What is open access endoscopy?**
  - Performance of endoscopic procedures that are requested by referring providers without a prior GI clinic consultation
  - Common and constitutes 25% of scheduling for GI practices

- **High rate of inappropriate referrals**
  - Ranges from 15% to 50% for procedures

- **Unclear data on yield of procedures and patient preparedness**

- **Accepted among most patients**
What is Performed in the California Safety-Net?

- **Closed access system commonly used for scheduling patients**

- **Variability in patient wait time for a procedure**
  - Ranged from 6-120 days
  - Mean $42.4 \pm 37.7$ days

- **Elevated no-show/cancellation rates**
  - High as 33% in some centers
  - Mean $14.5 \pm 8.0\%$
Building Upon the Success of eReferral – +FOBT Direct Referral

- Direct referral of patients to GI for CRC screening
  - Provider separately refers patient to GI for a +FOBT
  - Referrals screened by a GI nurse practitioner
  - Reviewed and addressed within 24 hours

- Bringing together eReferral and open access endoscopy to focus on CRC screening
  - Stable patients with few medical problems and asymptomatic
  - Incorporates pertinent medical history, medications and laboratory data directly into the referral
  - Evaluates patient’s candidacy for undergoing moderate sedation and colonoscopy
Bridging Open and Closed Access Colonoscopy

- Implemented colonoscopy education class to address concerns with open access
  - Discuss risks/benefits/alternatives to colonoscopy
  - Review bowel preparation, medications to take/withhold, and what to expect on the day of colonoscopy
  - Interactive forum for patient questions/concerns
  - Culturally appropriate and language specific
  - Patient consented
  - Patient directly scheduled for a colonoscopy
## Benefits of +FOBT Direct Referral

<table>
<thead>
<tr>
<th>Metric</th>
<th>+FOBT Direct Referral</th>
<th>eReferral – GI Clinic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wait time for class/clinic (weeks) *</td>
<td>3.2</td>
<td>26</td>
</tr>
<tr>
<td>Wait time for colonoscopy (weeks) *</td>
<td>1.5</td>
<td>4.4</td>
</tr>
<tr>
<td>Bowel Preparation – Excellent/Good (%) *</td>
<td>98</td>
<td>86</td>
</tr>
<tr>
<td>Attendance for colonoscopy (%) *</td>
<td>99</td>
<td>83</td>
</tr>
<tr>
<td>Provider Cancelling Procedure (%) *</td>
<td>0</td>
<td>3.1</td>
</tr>
<tr>
<td>Pre-Procedure Process (min) *</td>
<td>6.2</td>
<td>17</td>
</tr>
<tr>
<td>Adverse events during colonoscopy (%)</td>
<td>0</td>
<td>0.07</td>
</tr>
</tbody>
</table>

* Statistically significant
Impact of +FOBT Direct Referral on CRC Screening

+FOBT Patients Screened (with colonoscopy)

9/02-9/03 9/03-9/04 9/04-9/05 9/05-9/06 9/06-9/07 9/07-9/08 9/08-9/09 9/09-9/10 9/10-9/11
Leveraging Current Success: Developing Direct Access Colonoscopy

- Incorporate +FOBT model into addressing common GI referrals

- Expand indications to include CRC surveillance and common GI complaints
  - Personal history of adenomatous polyps
  - Personal history of colorectal cancer
  - Family history of colorectal cancer
  - Rectal bleeding/Hematochezia

- Examine impact of direct access colonoscopy on specific metrics and patient satisfaction
Non-Physicians Performing Endoscopy

- Long history of nurses safely and accurately performing flexible sigmoidoscopy and upper endoscopy
  - Adequate training and supervision required
  - Utilized only for colorectal cancer screening programs

- Non-physicians performing colonoscopy
  - Limited studies in the U.K.
  - Prevalence in the U.S. is unclear and no outcomes data available
  - ASGE position statement concluded there was “insufficient data to support non-physician endoscopists performing colonoscopy and upper endoscopy”
## Nurse Practitioner and Colonoscopy: SFGH Experience

<table>
<thead>
<tr>
<th>Colonoscopy</th>
<th>Number (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colonoscopy Volume</td>
<td>1,878</td>
</tr>
<tr>
<td>Cecal Intubation (%)</td>
<td>1,850 (98.5)</td>
</tr>
<tr>
<td>Mean Withdrawal Time (minutes)</td>
<td>14.1</td>
</tr>
<tr>
<td>Adverse Events (%)</td>
<td>3 (0.2)</td>
</tr>
<tr>
<td>Perforation*</td>
<td>1 (0.05)</td>
</tr>
<tr>
<td>Post-polypectomy Bleeding</td>
<td>1 (0.05)</td>
</tr>
<tr>
<td>Cardiovascular/Pulmonary</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>1 (0.05)</td>
</tr>
</tbody>
</table>

### Detection Rates in Colorectal Screening Patients (%)

<table>
<thead>
<tr>
<th>Detection Rate</th>
<th>Number (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adenoma</td>
<td>80/232 (34.5)</td>
</tr>
<tr>
<td>Advanced Adenoma</td>
<td>11/232 (4.7)</td>
</tr>
<tr>
<td>Colorectal Cancer</td>
<td>0/232 (0)</td>
</tr>
</tbody>
</table>
# Nurse Practitioner and Upper Endoscopy: SFGH Experience

<table>
<thead>
<tr>
<th>Upper Endoscopy</th>
<th>Number (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upper Endoscopy Volume</strong></td>
<td>232</td>
</tr>
<tr>
<td><strong>Successful Completion (%)</strong></td>
<td>232 (100)</td>
</tr>
<tr>
<td><strong>Adverse Events (%)</strong></td>
<td>0</td>
</tr>
<tr>
<td>Perforation</td>
<td>0</td>
</tr>
<tr>
<td>Bleeding</td>
<td>0</td>
</tr>
<tr>
<td>Cardiovascular/Pulmonary</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
</tr>
<tr>
<td><strong>Upper Endoscopy Findings (%)</strong></td>
<td></td>
</tr>
<tr>
<td>Normal</td>
<td>89/232 (38.4)</td>
</tr>
<tr>
<td>Ulcer/Erosions</td>
<td>31/232 (13.4)</td>
</tr>
<tr>
<td>Polyps</td>
<td>27/232 (11.6)</td>
</tr>
<tr>
<td>Mass/Cancer</td>
<td>2/232 (0.9)</td>
</tr>
</tbody>
</table>
Non-Physicians and Endoscopy: Outcomes

- Increase in number of colonoscopies and upper endoscopies performed by 40.4%
- Reduction in mean wait time for endoscopy by 65.9%
- Increase in endoscopic capacity by 33%
- Quality measures utilized in colonoscopy maintained
Future Directions

- Developing colorectal cancer surveillance programs in the safety-net

- Establishing effective and clear communication methods to convey endoscopy pathology results
  - Patients
  - Referring provider

- Expanding direct access system to include indications for upper endoscopy
Conclusions

- Majority of underserved patients have difficulty obtaining specialty care in the U.S.

- Multiple innovative strategies are available that can increase access to endoscopic care in the safety-net healthcare system
  - Electronic, web based referral system
  - Direct access colonoscopy
  - Utilizing other providers for delivering endoscopic care

- Improving endoscopic care and increasing efficiency have to be tailored to the goals and vision of the organization