A Safety Assessment of the Re-opening of an Academic Medical Center Outpatient Endoscopy Unit During the COVID-19 Pandemic

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Problem Definition

• At the onset of the COVID-19 pandemic, our outpatient endoscopy center closed and the majority of endoscopy cases had been relegated to urgent inpatient procedures
• By May 2020, our tertiary care center gradually re-opened its outpatient endoscopy unit in accordance with safety protocols from joint gastrointestinal society guidelines
• Reopening raised a concern for increased patient and provider viral exposure with a paucity of real-world safety data

Aims For Improvement

• This study aimed to assess outcomes and satisfaction among patients undergoing outpatient endoscopic procedures during the COVID-19 pandemic
• Identifying the rates of COVID-19 symptom development and post procedure testing would provide critical information on patient safety
• Assessment of patient experiences would serve as a guide for potential areas of improvement
• We predicted that with proper protocols in place, outpatient endoscopy was a safe and positive experience

Intervention

• Patients undergoing outpatient endoscopy were contacted 14-51 days post procedure to assess for COVID-19 symptom development and the result of any subsequent COVID-19 testing
• Patient experiences were also documented, which included apprehension about undergoing endoscopy due to COVID-19, their impression of safety on the day of their procedure, and suggestions for improvement

Table 1: COVID-19 related symptoms and outcomes after elective endoscopy

<table>
<thead>
<tr>
<th>Symptom Development Post-Procedure</th>
<th>Number of Patients</th>
<th>Percentage of Total Patients (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever</td>
<td>13</td>
<td>1.30</td>
</tr>
<tr>
<td>Chills (repeated shaking with chills)</td>
<td>4</td>
<td>0.40</td>
</tr>
<tr>
<td>Shortness of breath or difficulty breathing</td>
<td>22</td>
<td>2.21</td>
</tr>
<tr>
<td>Muscle or body aches</td>
<td>14</td>
<td>1.40</td>
</tr>
<tr>
<td>New loss of taste or smell</td>
<td>2</td>
<td>0.20</td>
</tr>
<tr>
<td>Sore throat</td>
<td>12</td>
<td>1.20</td>
</tr>
<tr>
<td>Congestion or stuffy nose</td>
<td>7</td>
<td>0.70</td>
</tr>
<tr>
<td>Nausea or vomiting</td>
<td>33</td>
<td>3.31</td>
</tr>
<tr>
<td>diarrhea</td>
<td>33</td>
<td>3.31</td>
</tr>
<tr>
<td>Patients reporting any symptom</td>
<td>64</td>
<td>6.42</td>
</tr>
</tbody>
</table>

Self-Reported Outcomes Among Symptomatic Patients

- “Are symptoms persistent?”
  - Yes: 36 (3.61 %)
  - No: 27 (2.71 %)

- “Were you in contact with anyone diagnosed with COVID-19 within the last 14 days?”
  - Yes: 1 (0.10 %)
  - No: 62 (6.22 %)

- “Were you in contact with anyone who has traveled away from home in the last 14 days?”
  - Yes: 1 (0.10 %)
  - No: 62 (6.22 %)

- “Did you travel away from home in the last 14 days?”
  - Yes: 3 (0.30 %)
  - No: 60 (6.02 %)

- “Were you diagnosed with COVID-19?”
  - Yes: 5 (0.50 %)
  - No: 60 (6.02 %)

- “Did you seek medical attention?”
  - Yes: 24 (2.41 %)
  - No: 60 (6.02 %)

Next Steps and Lessons Learned

- From May 2020 through July 2020, 1,641 patients underwent pre-procedure COVID-19 testing for outpatient endoscopy. Twelve patients (0.7%) tested positive and were cancelled
- Of the 1581 patients who completed an outpatient endoscopy, 997 (62.9%) were successfully contacted post-procedure
- Sixty-four (6.4%) patients reported at least 1 post-procedure symptom that could be related to COVID-19. However, a number of these symptoms may overlap with those related to the endoscopy itself or underlying gastrointestinal disease
- Five patients (0.5%) reported being diagnosed with COVID-19, which was lower than the pre-procedural testing rate of 0.7%. On further questioning, only 2 of these patients reported being diagnosed within 14 days of their procedure
- Almost all (99.7%) patients felt safe and believed endoscopy staff used appropriate safety measures
- Of those who provided feedback, several negative comments were related to the logistics of pre-procedure COVID testing

Measurements/ Results

- Of the 2 patients with positive COVID-19 testing within 14 days of their procedure, both were asymptomatic and incidentally found. It is difficult to implicate outpatient endoscopy as their exposure
- While a larger portion of patients were apprehensive about undergoing a procedure during the early months of the pandemic, these fears alleviated in later months. Almost all patients felt safe on the day of their procedure
- These data suggest that outpatient endoscopy is safe and patients felt comfortable when adhering to recommended society guidelines