

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

Symptom Development Post-Procedure				
	Number of Patients	Percentage of Total Patients (%)		
Fever	13	1.30		
Chills (repeated shaking with chills)	4	0.40		
Shortness of breath or difficulty breathing	22	2.21		
Muscle or Body aches	14	1.40		
New loss of taste or smell	2	0.20		
Sore throat	12	1.20		
Congestion or runny nose	7	0.70		
Nausea or vomiting	33	3.31		
Diarrhea	33	3.31		
Patients reporting any symptom	64	6.42		
Self-Reported Outcomes Among Symptomatic Patients				
	Yes	Percentage of Total Patients (%)	No	Percentage of Total Patients (%)
"Are symptoms persistent?"	36	3.61	27	2.71
"Were you in contact with any person diagnosed with COVID-19 within the last 14 days?"	1	0.10	62	6.22
"Were you in contact with any person who has traveled away from home in the last 14 days?"	1	0.10	62	6.22
"Did you travel away from home in the last 14 days?"	3	0.30	60	6.02
"Were you diagnosed with Covid-19?"	5	0.50	60	6.02
"Did you seek medical attention?"	24	2.41	40	4.01

Table 2: Patient reported measures during outpatient endoscopy during COVID-19

Question 1: "Were you apprehensive about coming for your endoscopy because of the COVID-19 Pandemic?"					
	5/18/2020 - 6/5/2020	6/8/2020 - 6/25/2020	6/26/2020 - 7/16/2020	7/17/2020 - 7/31/2020	
# Patients in Date Range	195	277	274	247	
Yes	53 (27%)	60 (22%)	13 (5%)	25 (10%)	
No	142 (73%)	217 (78%)	261 (95%)	222 (90%)	
Question 2: "Overall did you feel safe during your visit to the hospital for your procedure?"					
	5/18/2020 - 6/5/2020	6/8/2020 - 6/25/2020	6/26/2020 - 7/16/2020	7/17/2020 - 7/31/2020	
# Patients in Date Range	195	277	274	247	
Yes	193 (99%)	276 (99%)	274 (100%)	247 (100%)	
No	2 (1%)	1 (0.3%)	0 (0%)	0 (0%)	
Question 3: "Did the hospital staff and physician make you feel safe during your procedure?"					
	5/18/2020 - 6/5/2020	6/8/2020 - 6/25/2020	6/26/2020 - 7/16/2020	7/17/2020 - 7/31/2020	
# Patients in Date Range	195	277	274	247	
Yes	193 (99%)	276 (99.7%)	274 (100%)	247 (100%)	
No	2 (1%)	1 (0.3%)	0 (0%)	0 (0%)	
Question 4: "Did our staff practice measures to keep you safe such as wearing masks and maintaining social distancing when possible?"					
	5/18/2020 - 6/5/2020	6/8/2020 - 6/25/2020	6/26/2020 - 7/16/2020	7/17/2020 - 7/31/2020	
# Patients in Date Range	195	275	274	247	
Yes	193 (99%)	274 (99.7%)	274 (100%)	274 (100%)	
No	2 (1%)	1 (0.3%)	0 (0%)	0 (0%)	
Question 5: "Was there anything you would have liked us to do differently or better?"					
	5/18/2020 - 6/5/2020	6/8/2020 - 6/25/2020	6/26/2020 - 7/16/2020	7/17/2020 - 7/31/2020	
# Patients in Date Range	196	276	274	247	
Yes	27 (14%)	26 (9%)	16 (6%)	6 (2.5%)	
No	169 (86%)	250 (90.6%)	258 (94%)	241 (97.5%)	

Measurements/ Results

- 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 1584 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

Next Steps and Lessons Learned

- 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