



Customer

A large academic health system in California

Challenges

1. Colonoscopy no-shows and patients not adequately prepared for their procedure
2. Backlog of patients waiting to be scheduled
3. Getting patients to perform bowel preparation as needed
4. Staffing shortages made delivering patient education a challenge

Solutions

- QliqSOFT Chatbot

Results

A series of six personalized chatbots timed to when the patient needed to act:

- Reduced no-shows by 36%
- Helped ensure every single patient arriving at their colonoscopy appointment was prepared
- Saved over 6 minutes per patient of staff time
- 56% of patients engaged with at least one chatbot on their smartphone
- 94.4% of patients were satisfied or very satisfied receiving e-reminders



Use Chatbots to Reduce Colonoscopy No-shows by 36%

All scheduled patients arrived prepared, increasing procedures and profitability

SUCCESS STORY

Overview

Patient no-shows cost medical practices a staggering \$150 billion annually, not to mention the impact they have on other patients waiting for treatment, many of whom may be suffering from a life-threatening illness. No profession is harder hit by no-shows than gastroenterology (GI), as missed appointments and late cancellations have an even greater impact on their patients due to the prep time required for endoscopic procedures.

Leaders at this academic health system in California believed they could address the rising backlog of GI patients needing colonoscopies, the cornerstone of colorectal cancer screening. Despite receiving paper-based instructions on adequate bowel preparation, many patients did not arrive prepared or did not show up for their scheduled procedure.

According to the director of care navigation, whether a patient is not ready or misses their appointment the average cost for a typical colonoscopy procedure can range between \$800 to \$1,000 in lost revenue. "Our GI practices are highly unlikely to fill a late cancellation spot within 48 hours. In addition to losing that opportunity, no-shows elongate the wait time for other patients who need to be screened," she said.



Why do colon screenings matter? In 2023, an estimated 106,970 cases of colon cancer and 46,050 cases of rectal cancer will be diagnosed in the U.S., and a total of 52,550 people will die from these cancers.

Recognizing that patient education and health literacy play a key role to bowel prep, the health system turned to QliqSOFT to co-develop affordable, custom Quincy chatbots to engage recently scheduled patients prior to their procedure.

The West Coast health system selected one of five inpatient facilities where colonoscopies are performed to launch their colonoscopy chatbot project. This facility rolled out a series of six conversational artificial intelligence (AI)-powered chatbots personalized to the time the patient needed the educational information before the colonoscopy appointment:

Chatbot Focus	Timing Relative to the Colonoscopy
 Education of colonoscopy procedure, preparation instruction steps and planned outreach	 Nine days before
 Cease eating foods with iron	 Seven days before
 Switch diet to low-fiber foods	 Three days before
 Switch to a clear liquid diet, no red or purple drinks. Split bowel prep instructions	 Morning before procedure
 Additional bowel prep instructions. Importance of bowel prep	 Evening before procedure
 Directions to the facility, check-in, medication and fluid instructions	 Morning of procedure

Standardizing Colonoscopy Prep

QliqSOFT co-partnered successfully with the healthcare team using a consensus process to co-create a standardized colonoscopy procedure-specific patient education and timed daily preparation instructions for each of the six chatbots. Notably, the authenticated standardization passed the approval of various labor unions supporting the health system employees.

“For colonoscopies, there are specific things that you must do at predetermined times on specific days in working backward from the patient’s procedure,” said the director. “Paper-based instructions, in the way it is delivered, make it harder for patients to follow accurately; and we healthcare providers often assume, incorrectly, that they will keep track of that paper and do exactly what they are told.”

“Personalized chatbots deliver the right knowledge at the right time when the patient most needs it. They do not have to write the instructions down on a calendar or commit them to memory,” she added. “The pilot has helped us understand that our patients are more likely to abide by digital instructions. We are making health literacy easier, more

accessible and convenient sent to their smartphones. Patients can easily keep up arranging their diet, medical transportation and other matters as part of the steps making preparation for their colonoscopy.”

Enlightened, Prepped Patients Yield Amazing Outcomes Fast

The healthcare facility started seeing results immediately. In the first two weeks, administrators experienced:

-  The patient no-show rate significantly decreased by 36%, generating potential annual savings for the organization of \$115,000 (each procedure generates \$800 to \$1,000 in revenue).
-  Every single patient arrived at their colonoscopy appointment prepared during the pilot period. This breakthrough discovery is significant. The staff must send unprepared patients home and reschedule them, contributing to the backlog challenge.
-  Chatbots replaced 6.5 minutes of a staff member’s time per patient by providing online patient instructions. This finding equates to a staff savings of nearly \$5 per patient and a cumulative total of \$53,000 in potential annual staff savings.



A woman with short dark hair, wearing a white textured sweater over a yellow turtleneck, is smiling and looking at a smartphone in her hands. The background is a blurred interior space with shelves and a television.

"I tend to forget my appointments and instructions. So having a day-to-day reminder really helps me a lot."

"Easy to understand and follow"

"Kept me on track"

"I appreciated knowing what to expect"

Post Procedure's Critical Patient Satisfaction Survey

Over 94% of patients who responded to QliqSOFT's patient chatbot user experience survey revealed two keystone findings: They evaluated themselves as either "very prepared" or "prepared" to undertake their colonoscopy procedure and rated the informational appointment reminders as "very good" or "good."

The favorable survey data validated the chatbots' bowel prep instructions delivered days leading up to the procedure, proving an effective and exceptional value and service supporting scheduled patients and the health system. QliqSOFT recommends distributing a post-procedure patient satisfaction survey as a standard protocol for chatbot implementations.

Louis Acosta, Customer Success Manager at QliqSOFT, recalled during the chatbot co-development phase receiving texted feedback from patients. "Sometimes at night, I would receive QliqCHAT secure texting notifications of a new conversation starting. It was typically a patient writing, 'Thank you for the reminder.'"

Next Focus: New Quincy Chatbot Use Case Expansion

Always looking ahead, this digital savvy health system is exploring the next level of chatbot expansion to tackle new problems and patient needs such as integration with the Epic EHR enterprise system.

"We're extremely pleased with the pilot's immediate results and value and are already exploring the next set of use cases where Quincy chatbots are part of a health solution," said the director. "Bowel prep for a colonoscopy can overwhelm patients. I am excited that we now have a consumer-friendlier method to influence and motivate a patient's behavior to complete the required preparation and potentially save lives. QliqSOFT will have an even larger impact benefiting more preventive health and staff support as we scale across our enterprise."