



AI-Driven Efficiency and Patient Engagement in Express Colonoscopy Screening

A Clinical Case Study from Salem Gastroenterology Associates Using the LEO AI Platform

Lit. No. LG-2025-001 | 6252025

Jun 2025

Abstract

In June 2025, **Salem Gastroenterology Associates (Salem Gastro)** deployed the LEO AI Screening and Triage platform to optimize pre-procedure assessments for colonoscopy patients. LEO AI replaced manual staff phone interviews, engaging patients directly via secure conversational AI.

Over a one-month period, LEO AI screened **170 patients**, with **151 (88%) successfully** completing their pre-colonoscopy assessments. The average screening time was reduced to **8 minutes and 13 seconds**, compared to traditional staff-led calls of **30-40 minutes**.

Additionally, **76 staff hours** were saved during this period. Notably, **23% of patients engaged** the platform after hours or on weekends, increasing accessibility and improving patient convenience.

This case study demonstrates that AI-powered screening can significantly improve patient engagement, clinical workflow efficiency, and operational outcomes in high-volume gastroenterology practices.





Lyons Global®

Digital Health Transformation
AI Platform | Medical AI Robot

SalemGastro
Digestive Health Specialists



Introduction

Salem Gastroenterology Associates is a leading digestive health practice in Oregon, specializing in advanced endoscopic procedures and gastrointestinal care. Their services include diagnostic and therapeutic colonoscopy, esophageal testing, liver disease management, and colorectal cancer screening initiatives.

Like many GI practices, Salem Gastro faced operational bottlenecks related to pre-procedure assessments:

- Long patient lists awaiting colonoscopy
- Low patient response rates to staff phone calls
- Excessive staff time spent collecting repetitive medical history
- Growing demand for weekend and after-hours patient engagement

To address these challenges, Salem Gastro partnered with Lyons Global to implement the LEO AI Screening and Triage platform, a conversational AI system designed to capture comprehensive patient histories and generate structured clinical summaries without human staff intervention.

Results

Patient Engagement



- Unique users who started the screening: **170**
- Completed screenings: **151 (88% completion rate)**

Efficiency Gains



- Average screening length: **8 minutes 13 seconds**
- Traditional calls: **30-40 minutes**
- Time reduction: **approximately 22-32 minutes per patient**
- Total staff time saved in one month: **76 hours**
- Labor cost savings calculated separately by the practice



Lyons Global®

Digital Health Transformation
AI Platform | Medical AI Robot

SalemGastro
Digestive Health Specialists



After-Hours Utilization



- Patients screened after 5 PM: **19**
- Patients screened before 8 AM: **7**
- Patients screened on weekends: **8**

This demonstrated that LEO AI facilitated patient engagement during periods when the clinic was traditionally closed, improving accessibility for patients with diverse schedules.

Efficiency Gains



- Average screening length: **8 minutes 13 seconds**
- Traditional calls: **30-40 minutes**
- Time reduction: **approximately 22–32 minutes per patient**
- Total staff time saved in one month: **76 hours**
- Labor cost savings calculated separately by the practice

Patient Satisfaction



- **75%** of patients recommended LEO AI
- **92%** patient satisfaction rate
- Common patient comment:

“Yes and no questions and the language was easy to understand.”

Device Usage



- Mobile users: **87%**
- Desktop users: **13%**
- Most patients accessed LEO AI via **iOS** or **Android** smartphones.



Lyons Global®

Digital Health Transformation
AI Platform | Medical AI Robot

SalemGastro
Digestive Health Specialists



Discussion

LEO AI transformed Salem Gastro's colonoscopy pre-screening from a labor-intensive manual process into a rapid, digital solution. Key clinical and operational benefits included:

- ✓ Reduced time burden on staff
- ✓ Increased patient completion rates
- ✓ After-hours patient engagement
- ✓ High patient satisfaction and mobile usability
- ✓ Operational efficiency gains in clinical workflows

The results highlight a scalable model for other gastroenterology clinics aiming to improve operational efficiency and patient-centered care through AI-driven solutions.



Conclusion

LEO AI significantly improved operational efficiency and patient engagement during the pilot implementation at Salem Gastro. The platform achieved high patient completion rates, substantial time savings for staff, and enabled screening access outside normal business hours.

Salem Gastro's experience offers a compelling example for adopting AI-driven screening tools across GI practices and other procedural specialties seeking to enhance workflow efficiency and patient convenience.



Lyons Global®

Digital Health Transformation
AI Platform | Medical AI Robot

SalemGastro
Digestive Health Specialists



Strategic Value for GI Practices:

- Faster pre-procedure screening
- Increased capacity without additional staffing
- Scalable to other GI assessments (e.g., FIT testing, Barrett's screening)
- Enhances patient trust and digital engagement

Acknowledgement:

- Salem Gastroenterology Associates Clinical Staff
- Lyons Global Team
- LEO AI Product Development Team

Authors:

- Salem Gastroenterology Associates, Salem, OR, USA
- Lyons Global, Granite Bay, CA, USA

References:

- Salem Gastroenterology Associates. (2025). <https://salemgastro.com/gastro/>
- Internal platform analytics dashboard (Lyons Global, July 2025)