

Digitally empowering patients to better health

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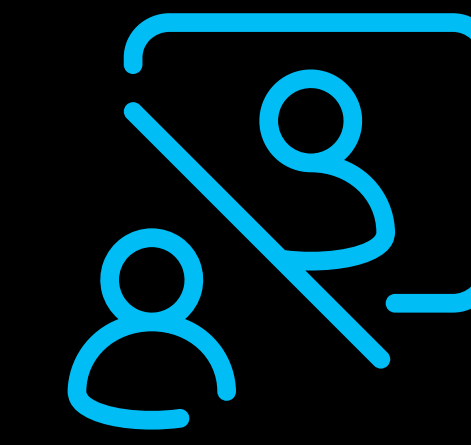
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Current patient perceptions of digital empowerment



66% of Americans are anxious about their health.



67% of survey respondents have used telehealth, compared to only 37% before the COVID-19 pandemic.



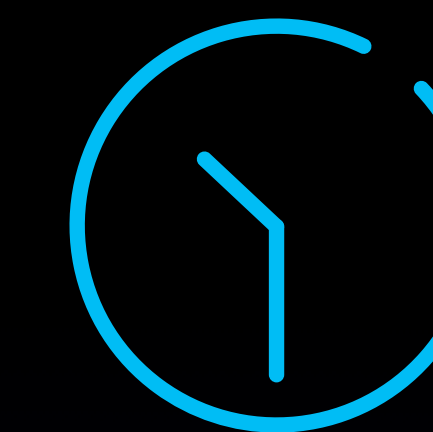
Four out of five (79%) said they noticed positive changes to their physical or mental health after using health-monitoring tech.



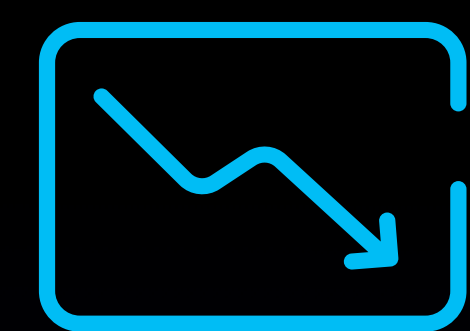
81% of youth (ages 14–24) said providers should ask about housing, food, education, safety, and discrimination, factors that affect their wellbeing.



One in five black adults and one in five Hispanic adults report being treated unfairly treatment due to their race or ethnicity while getting healthcare for themselves or a family member in the past year.



40% of survey respondents reported they waited “longer than reasonable,” and another 26% said they waited more than two months for access to a healthcare provider. Nearly half of respondents gave up and did not receive the needed care.



Nearly 3 in 4 (73%) U.S. adults report that, in one way or another, the healthcare system is failing to meet their needs. The cost of care and time spent waiting for appointments are the most common factors contributing to patient dissatisfaction with the system.

The top three reasons patients use telehealth services are:



ability to receive care quickly (49%)



and ease of access to health information (28%)



convenience (61%)

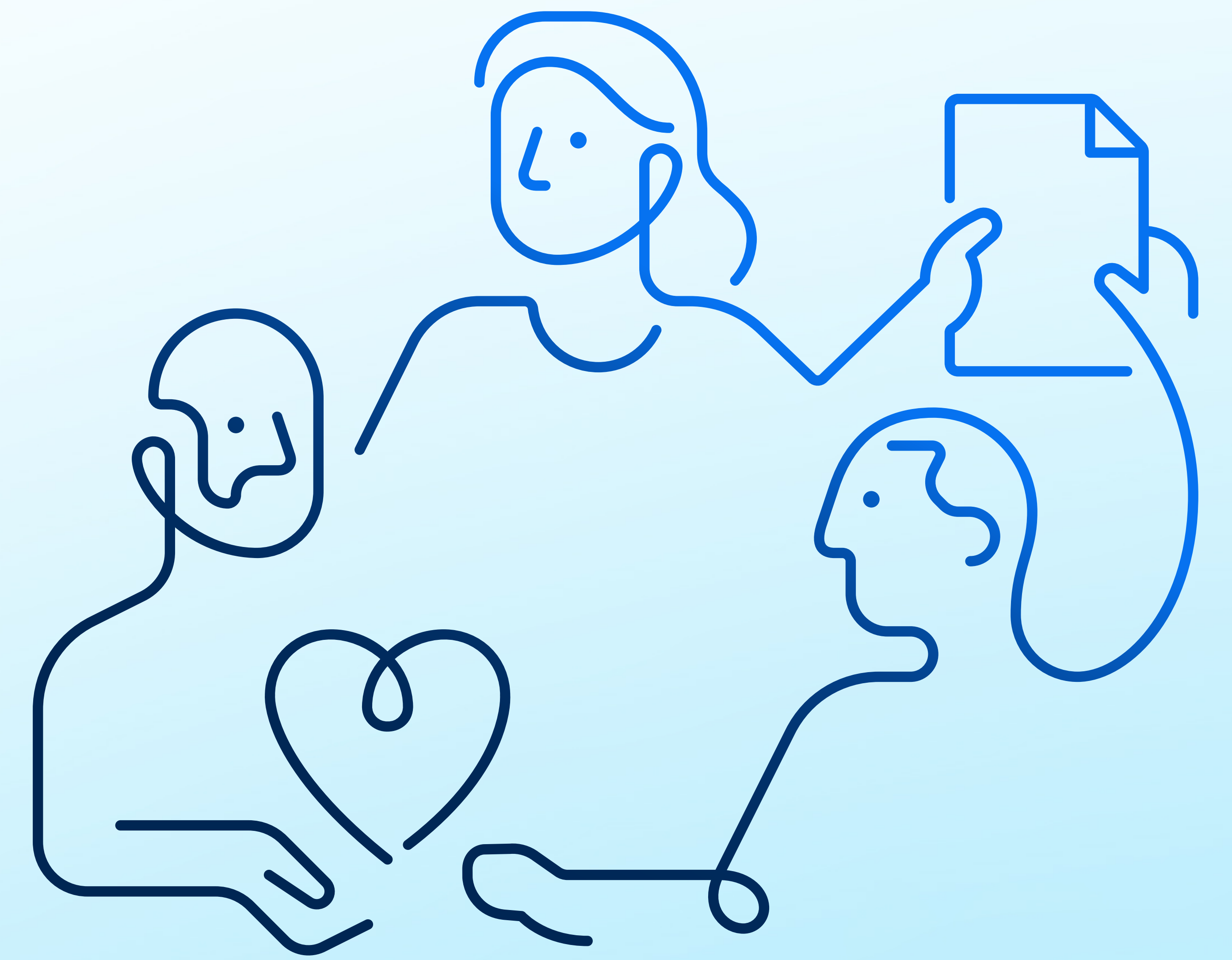
The building blocks of patient empowerment

Innovative digital technology often overshadows the basics of ensuring essential digital health services. Seamless access, regardless of location or background, is vital for active patient engagement in healthcare.

A user-centric journey facilitated by technology empowers patients through enhanced efficiencies – from appointment scheduling to post-procedure follow up.

Leveraging technology boosts patient confidence, provides accessible information for informed decisions, and demystifies the patient journey.

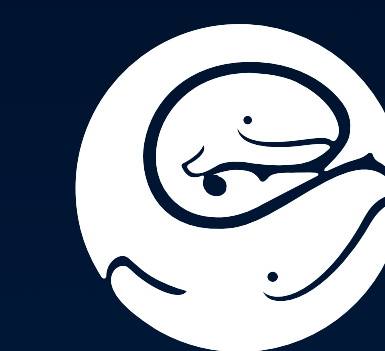
Our practical guide outlines the roadmap to digital transformation by forward-thinking healthcare providers and highlights positive impacts on patient engagement. Innovative digital technology often overshadows the basics of ensuring essential digital health services. Seamless access, regardless of location or background, is vital for active patient engagement in healthcare.



“From seamless communication platforms fostering informed dialogue to remote monitoring tools enabling early intervention, technology empowers patients to actively participate in their health journey. Additionally, electronic medical records facilitate efficient care coordination across diverse specialties, while data analytics unlock insights for personalized treatment plans.

While the human touch remains irreplaceable, digital channels undoubtedly enhance accessibility, efficiency, drive value and ultimately, the quality of care we receive.”

Zafar Chaudry, MD, MS, MIS, MBA, Sr. Vice President,
Chief Digital Officer and CIO at Seattle Children's.



Seattle Children's
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The fundamentals for success

Enabling patients to schedule appointments and receive messages through their preferred digital channels is fundamental for engaging and empowering them to make informed decisions about their health.

Patient registration

Patients often select different hospitals for surgical procedures and patient care. Registration is the initial step with any healthcare organization.

An online digital registration tool gives patients the flexibility to add basic information, such as an address, phone number, and health insurance, plus personal health information.

Digital registration brings efficiency to the process and reduces burnout and the overall administrative burden for healthcare organizations with staffing shortages.

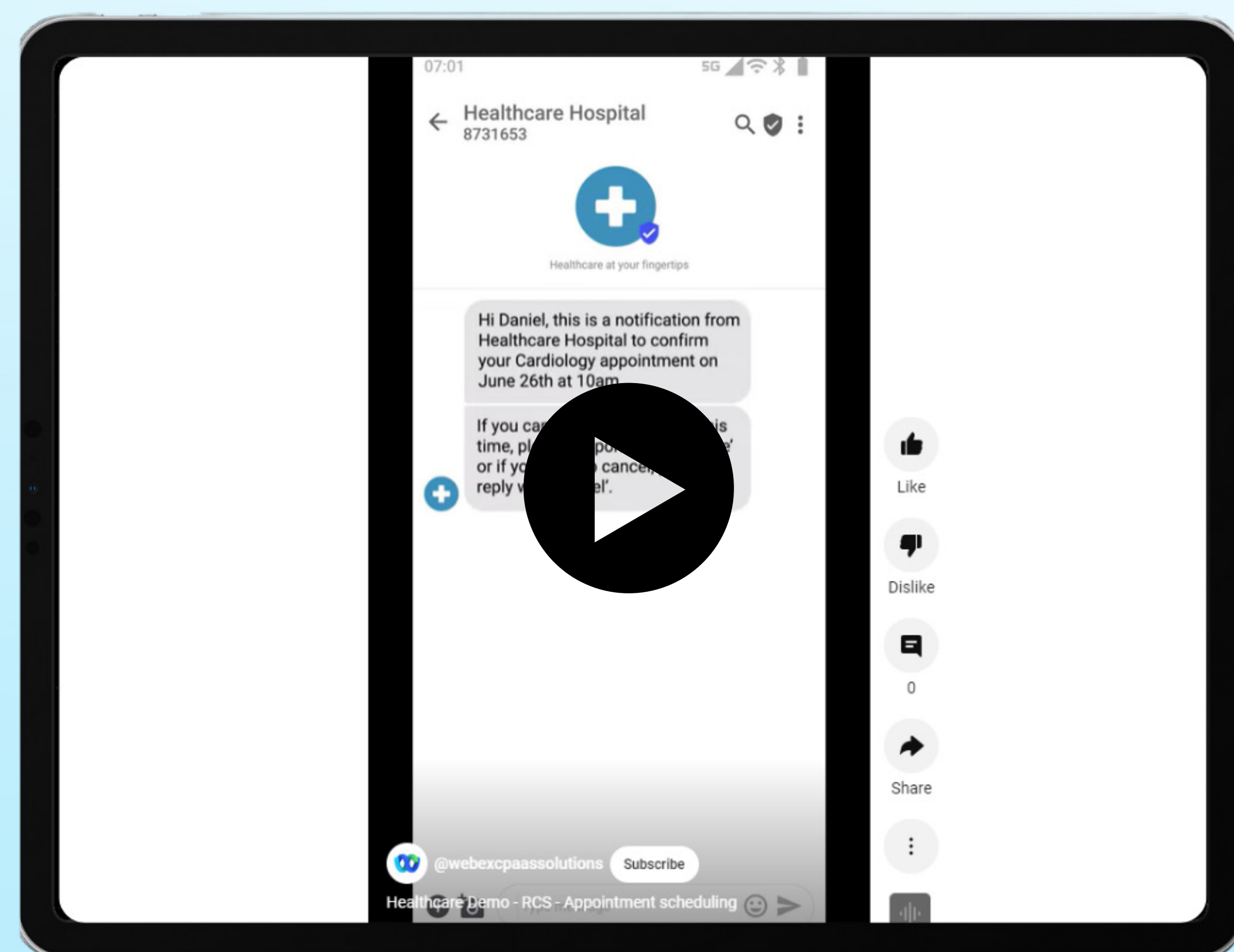
Once registered in the hospital's system, patients then can access other online tools to schedule and reschedule appointments, a benefit that supports a seamless journey enhanced with efficient digital tools in place.

Conversational reminders and self-scheduling

Some healthcare organizations still rely on an inefficient manual approach for sending appointment reminders via text messages. Digitizing and automating these processes is essential to ensure patients receive care on time and providers don't waste valuable appointment slots.

Through conversational messaging, healthcare organizations can offer patients interactive options to easily confirm, cancel, or reschedule appointments. This includes selecting an alternative date when integrated with an automatic scheduling system, empowering patients to self-schedule and saving staff hours in managing manual rebooking.

Leveraging "nudge messages" is a valuable behavior modification technique in which messages are automatically triggered at appropriate intervals, e.g., if an appointment remains unconfirmed for 48 hours. When these reminders are effective, healthcare organizations can significantly reduce missed appointments and swiftly reallocate released appointment slots.



\$150 billion

of revenue is lost each year
due to missed appointments.

76% of respondents indicated digital communication tools improve the patient experience, although using these tools is not a factor in selecting a healthcare provider.

OnePoll Survey sponsored
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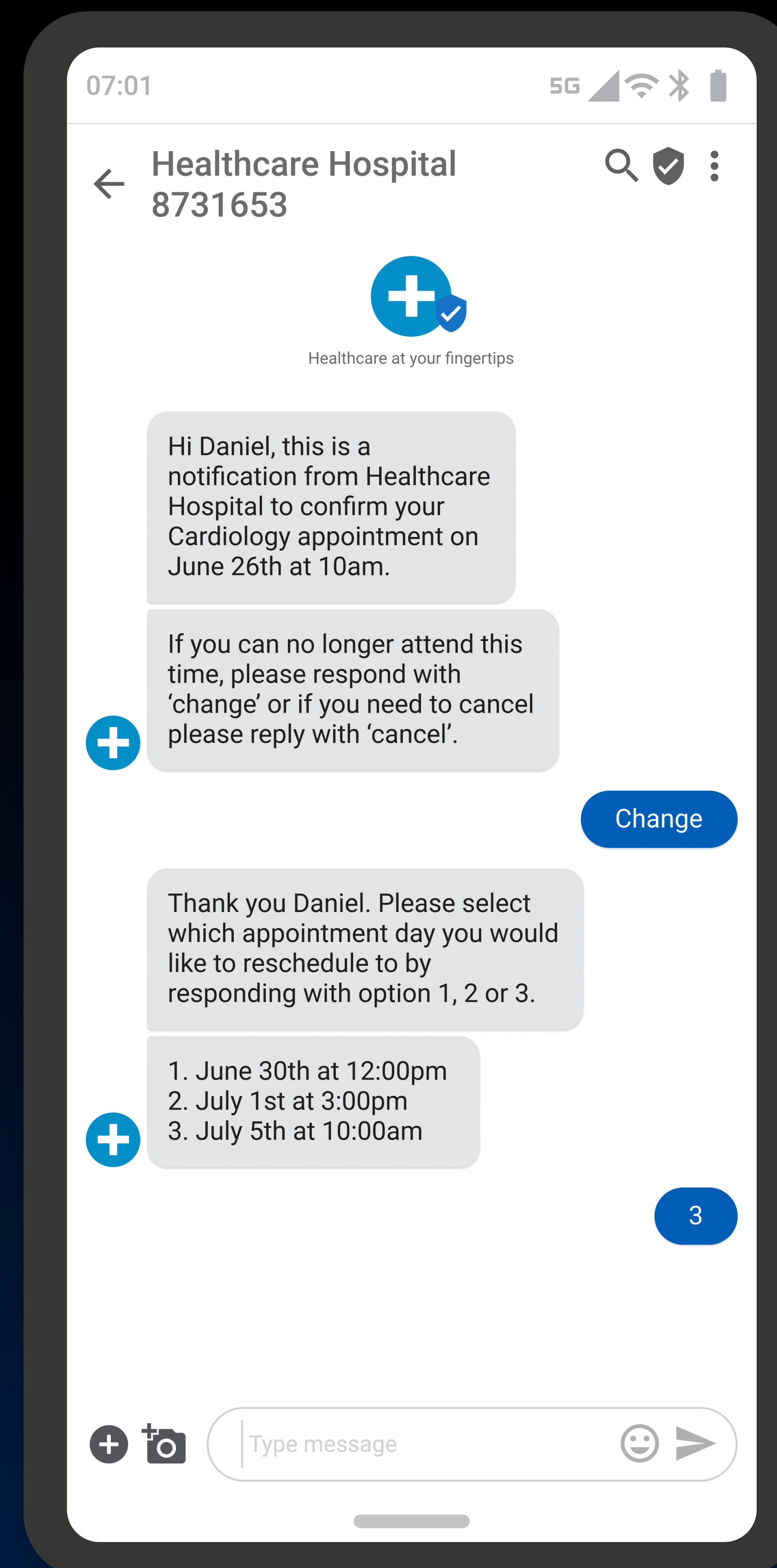


Real life impact of conversational messaging

When three healthcare providers implemented two-way patient reminders, missed appointments quickly and significantly decreased. By efficiently optimizing clinic schedules and with advance notification of cancellations, revenue also increased.

Healthcare Provider 1

- **42%** decrease in no shows in the first week of implementation in the Paediatric Department from 16% to 10.45%.
- **27% reduction** in missed appointments.
- **\$1.6 million** potential income gains annually.



Healthcare Provider 2

- **27%** reduction in no show rate to 4.5%.
- Nudge messaging resulted in 218 patients responding 'cancel' to the second SMS within one month, equating to **\$530,000** in potential annual income gains.
- **\$608,378** increase in annual revenue.

Healthcare Provider 3

- **Swift 5-week** implementation period.
- **93%** mobile capture achieved.
- New no shows reduced by **22%** in three months.
- **3,000** appointment slots identified and reutilised from cancellations and rebook.



Chatbots and virtual assistants

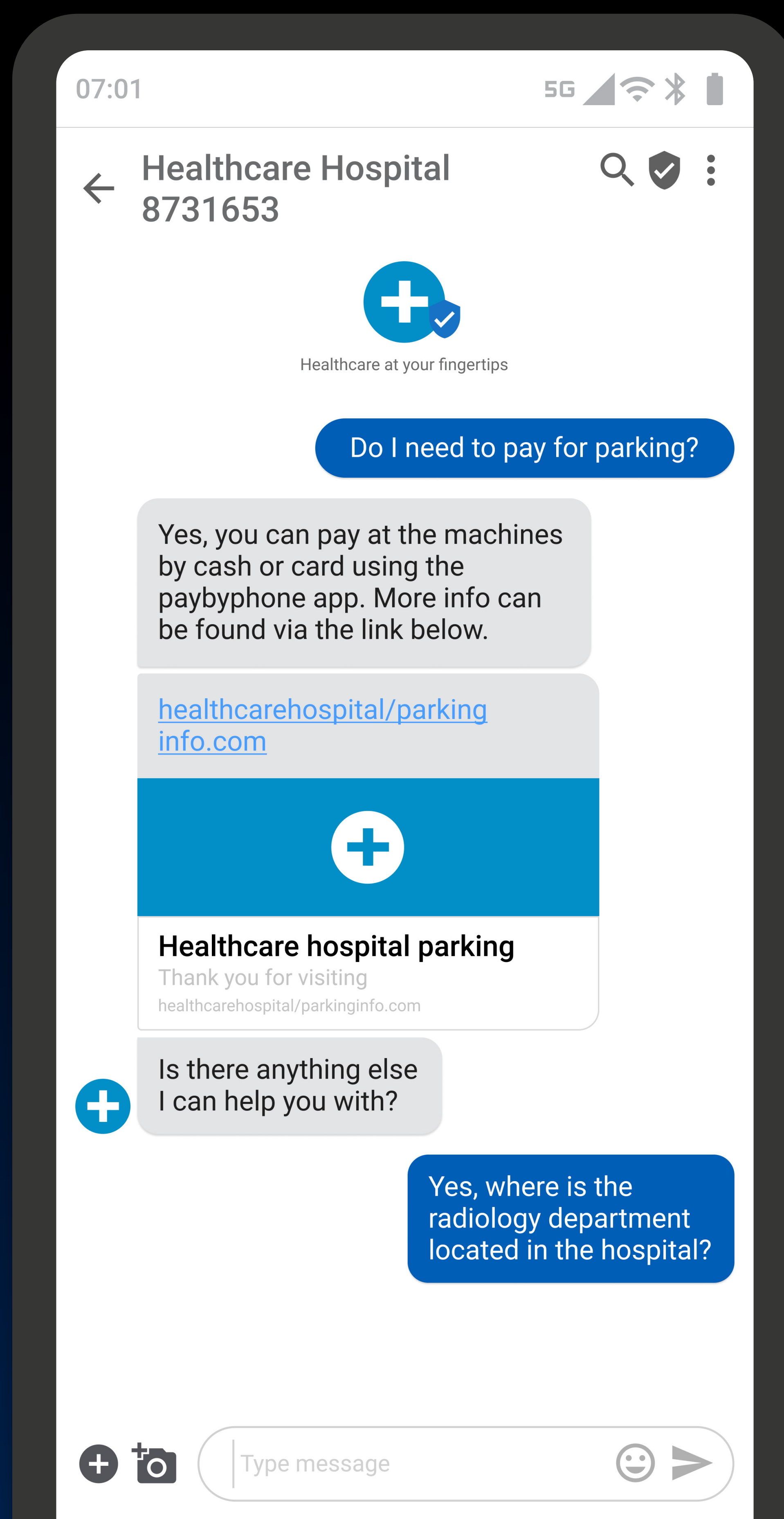
Chatbots and virtual assistants revolutionise patient experience with instant, personalised support across channels.

These AI-driven tools streamline communication, offer real-time responses 24/7, and understand user sentiment for human-like interactions.

They efficiently handle routine tasks, allowing human resources to focus on more complex issues, optimising resources and enhancing the overall patient experience.



Chatbots: A digital front door to a better patient experience



One hospital faced persistent phone line congestion from a surge in general inquiries, including about the parking garage and cafeteria opening times. The pandemic intensified the problem as concerned patients flooded clinic phone lines, hindering access for those with complex medical issues. Urgent action was needed to alleviate pressure on administrative staff.

The hospital:

- Collaborated with Webex to develop a FAQ chatbot for the hospital's website, offering advice and guidance to patients.
- Identified frequently asked questions from Patient Advice & Liaison Communications, and Booking teams, integrating them with specialty-specific inquiries.
- Leveraged existing website content for most answers, enabling the chatbot to direct patients to the relevant web pages.
- Launched the chatbot in May 2021 and implemented regular maintenance to refine responses and enhance effectiveness with a dedicated person to assist the chatbot in learning and refining its responses.

Benefits:

- Handled over **132,321** sessions in 12 months.
- **294** days of call time deflected.
- Realized cost savings of **\$39,436** equivalent to one and a quarter full-time staff member.
- Enhanced patient experience by
 - eliminating long call lines and providing
 - instant access to reliable information.
- Enabled out-of-hours access for patients in crisis, directing them to appropriate support.
- Ensured anonymity for patients with sensitive questions, especially regarding sexual health.
- Mitigated misinformation during critical periods, such as the 2022/23 Monkeypox outbreak.
- Responded swiftly to breaking news and events to disseminate crucial patient information.

Improving care quality requires patient feedback at every touchpoint

Research has shown a direct link between patient experience and health outcomes, influenced by factors like timely appointments, access to information, and effective communication with providers.

With patients experiencing more touchpoints via a range of different channels, regular patient experience surveys are essential to ensure equitable service is established and maintained.

Multi-channel feedback should be sought to prevent survey bias, with socially inclusive surveys tailored for diverse audiences.

Feedback from new appointment channels such as video visits and remote monitoring is crucial to patient safety and quality of care. Communication platform as a service (CPaaS) solutions offer digital survey channels including online, SMS and chat bots, which can capture up to 60% more feedback than traditional paper surveys.



Real life use cases: Personalizing pre-care

In 2022, 28% of U.S. adults skipped or delayed medical care because they could not afford it, according to data from the [Federal Reserve Board](#). At 28%, compared to 24% in 2021, this increase in missed or delayed appointments is the highest percentage of U.S. adults since the introduction of the Affordable Care Act in 2014.

These missed or delayed appointments lead to wasted medical visits, repeat procedures, delays in treatment, and contribute to longer waiting times for other patients. Missed appointments are not solely due to non-attendance; some patients also attend unprepared, preventing procedures from proceeding.

Patient pre-procedure support

One such procedure that requires specific education is colonoscopy appointments, where bowel preparation by the patient is essential. It's estimated that 6% of colonoscopies are incomplete due to patients failing to follow pre-procedure instructions.

Dr Mayur Kumar, Consultant Gastroenterologist and Clinical Lead for Endoscopy at Princess Royal University Hospital, Kings College Hospital NHS Foundation Trust, led a project to introduce digital pre-procedure preparation SMS reminders to better educate patients.



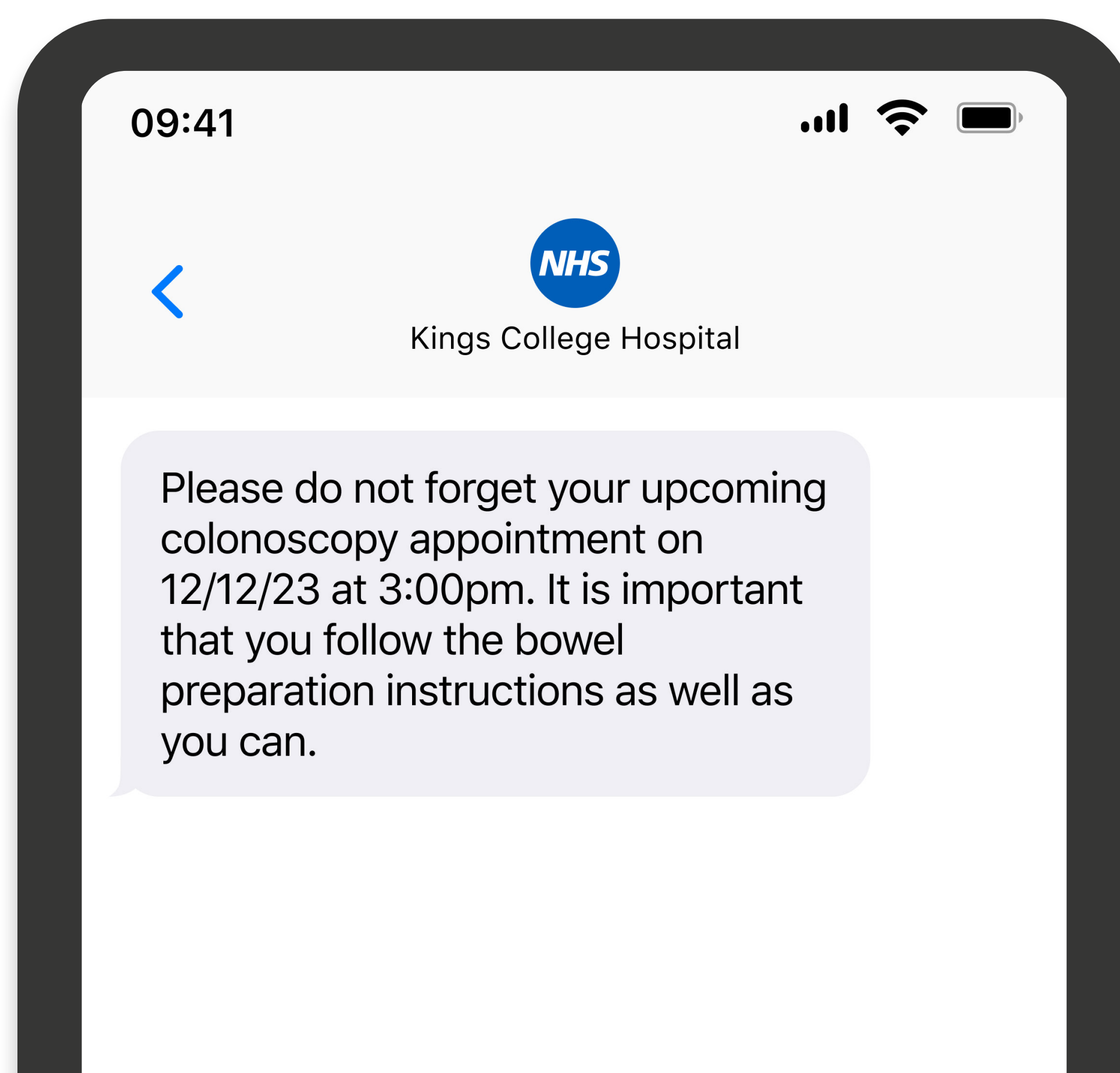
“The reminders were brilliant, especially the reminders for bowel prep doses.”

Patient

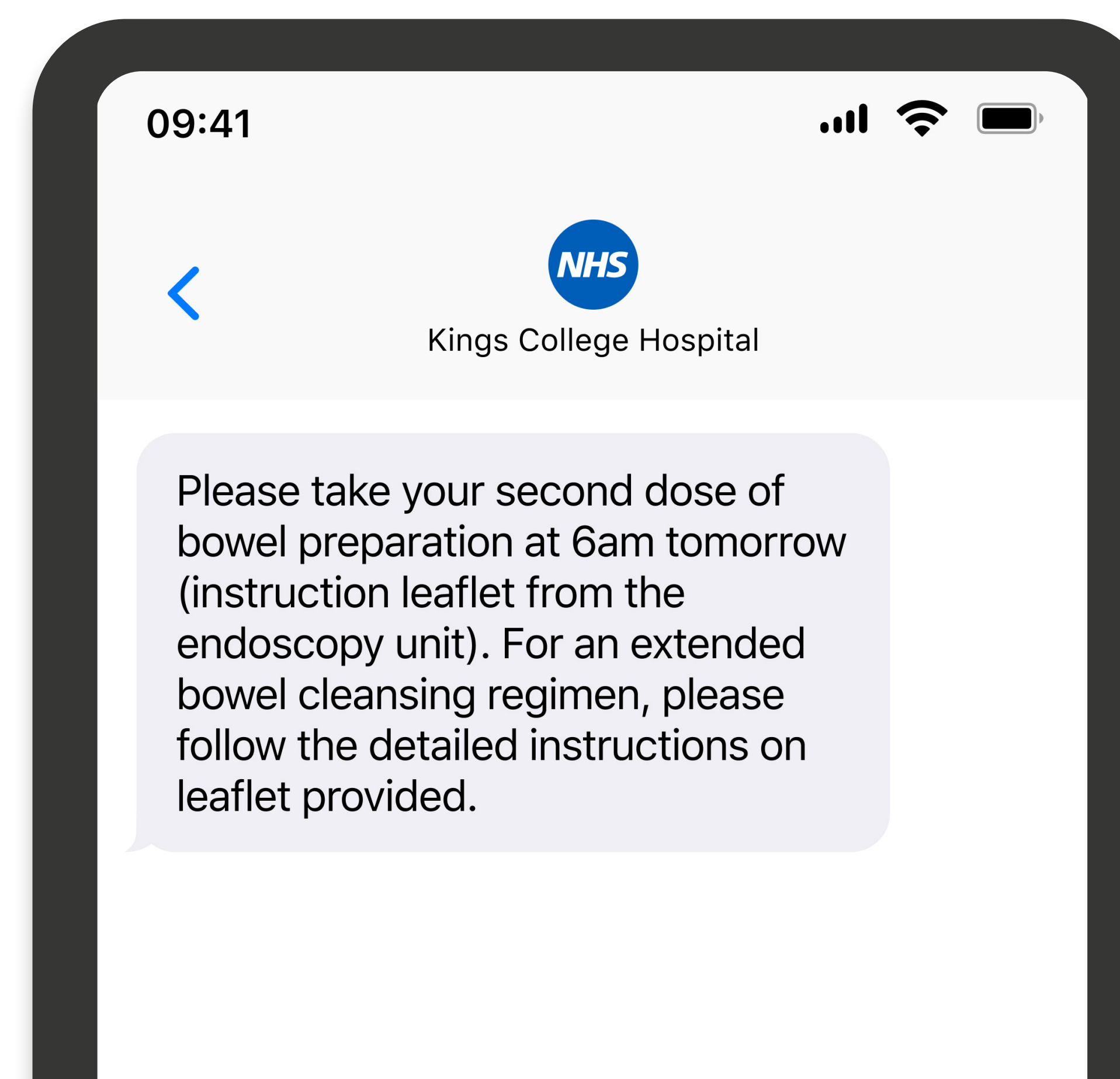
The approach:

- Appointment reminders and pre-procedure instructions are sent directly to patients by automated SMS.
- Patients receive a standard reminder 14 days in advance of their appointment, followed by reminders 7 days, 3 days, and 48 hours prior to the procedure.
- Messages include detailed video instructions ensuring patients are well-prepared for their colonoscopy.
- Additional reminders scheduled with the patient's scan time are sent 24 or 22 hours before the appointment to reinforce the importance of following the pre-procedure instructions.

14 days before



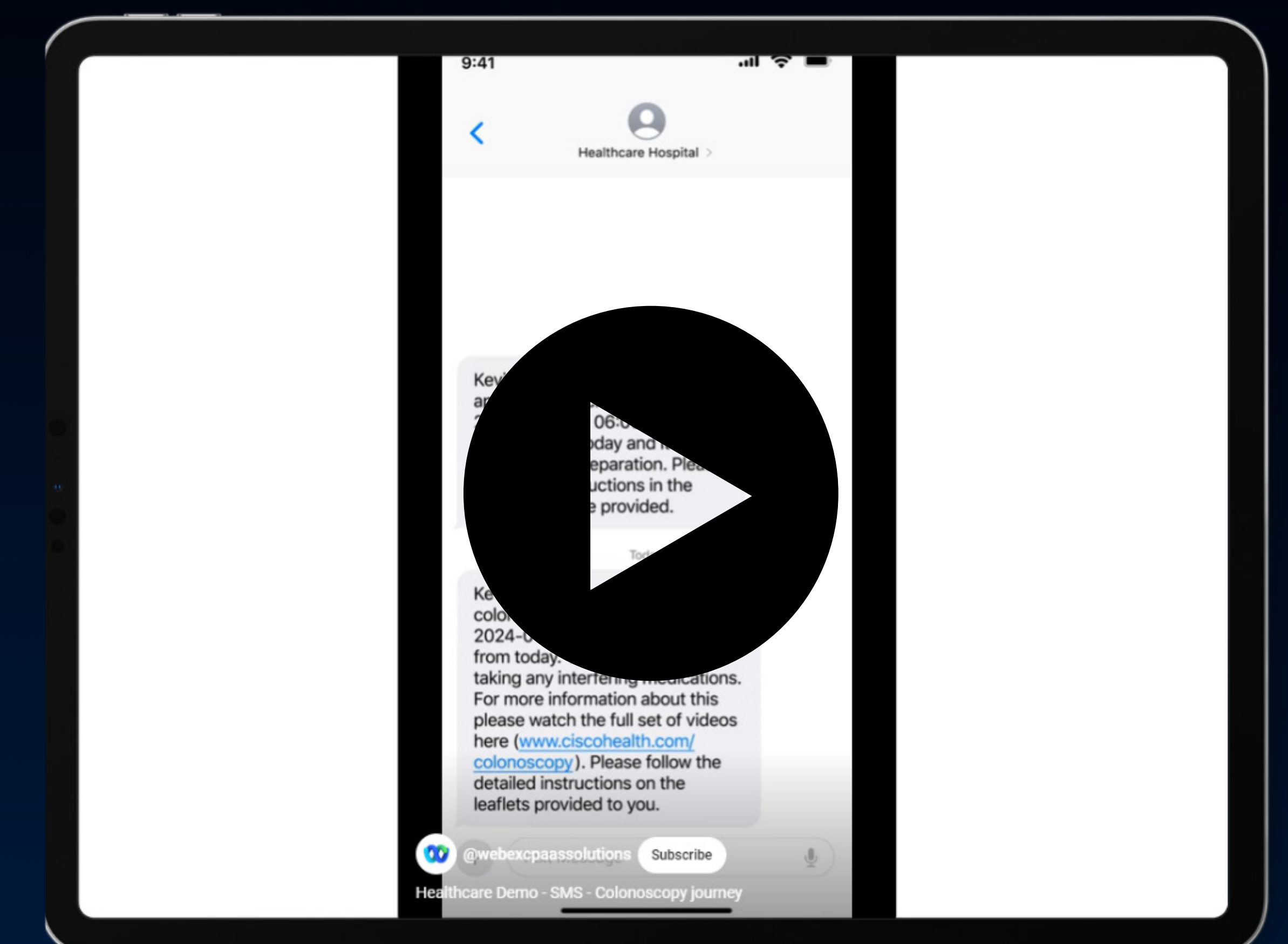
1 day before



Benefits:

- In one month, 98.3% of patients accessed the digital prep reminders.
- More than 85% of patients reported that the reminders were helpful in preparation for their colonoscopy.
- Boston Bowel Prep scores (BBPS) advanced from 'Poor' to the top end of 'Good' since implementing the digital reminders, a 20% improvement.
- 28% reduction in cancelled colonoscopy appointments over a six-month period.
- 7% increase in clinic capacity
- Significant reduction in waiting list backlog resulting in more efficient care for patients.
- More than **15 million** colonoscopies are conducted each year in the US.
- Each colonoscopy costs around **\$471**.
- Better pre-procedural patient education has proven to reduce incomplete appointments by **28%**.
- **\$426,000** in annual savings by reducing capacity wastage.

Explore the demo



Real life use cases: Post care

In the United States, the average wait time to see a physician for the 15 large metropolitan markets is 26 days, according to [research](#) from AMN/ Merritt Hawkins.

Improving technology use is vital to reduce wait times, enhance care, and prevent worsening health outcomes. Patients now want more control to book follow-up care when needed, with 67% of patients stating they prefer to [book their medical appointments online](#).

Digitally empower patients to manage their follow-up care

Healthcare organizations are increasingly recognizing the importance of patient engagement and are adopting strategies to empower patients in managing their healthcare.

Providing specific communication tools for patients to take an active role in their care leads to participatory decision-making, which is proven to deliver better health outcomes and often inspires patients to learn more about their condition, leading to less reliance and strain on healthcare services.

Implementing patient-initiated follow-up (PIFU) appointments is an innovative approach best suited to patients on chronic care pathways or post-operative, at home recovery patients. Digitizing these pathways can enhance patient experience, and reduce post-operative re-admissions due to a quicker reaction to any issues without needing to wait for a face-to-face appointment.



Case Study

One healthcare provider wanted to reduce unnecessary follow-up outpatient appointments, enhance operational efficiency, reduce staff workload and improve their patient experience by introducing digital tools.

The approach:

- Implemented a digital program for patients with chronic conditions that enabled a patient to activate their personalized questionnaire through an inbound Webex secure SMS message.
- This innovative approach allowed patients to report flare-ups and provide vital information to their physicians, even outside of regular office hours.
- By prioritizing patients based on their reported flare-ups, the healthcare provider optimized appointment scheduling and their capacity and revenue potential.
- Additionally, the data collected through these intelligent questionnaires opened new avenues for research on treatment effectiveness and provided valuable insights into the management of chronic conditions.

“A patient initiated follow up model is perfect for managing long-term conditions. It means patients who are well don’t need to be seen unnecessarily and those that do need treatment can access care quicker. It’s improving the overall patient experience and ultimately leads to better patient care.”

Dr Marianne Wild, Consultant Obstetrician and Gynaecologist

Patient centric palliative care

A UK cancer hospital is taking a novel approach to managing patients on palliative care pathways by introducing PIFU models.

This empowers the patient and their family to make decisions about when they need to attend routine appointments, meaning they only attend when they need active medical intervention.

This prevents unnecessary trips to clinics, saving time – a precious resource at the end of life – and providing a better quality of life.

Real life use cases: Preventative healthcare

Preventative measures are crucial for a sustainable healthcare system due to the growing burden of chronic diseases and rising costs. Digital patient communications, promoting awareness, education, and engagement, play a critical role.

This approach has proved effective in health screening programs that adopt a dual approach of digital appointment booking and reminders with educational information about the importance of attending the screening.



Mammogram program: Increased engagement and reduced no shows

In the United States, 3 in 10 women who have not had a mammogram in the past two years said they didn't think they needed one, [as reported](#) in the 2022 KFF Women's Health Survey. These women, aged 50 to 64, also said they skipped their mammogram due to worry of exposure to COVID-19 (14%), couldn't afford it or health insurance wouldn't cover it (11%), couldn't schedule, or didn't know where to get, an appointment (5%), and other reasons (41%).

Researchers at the University of Pennsylvania found that women who could use digital scheduling technology to find a time for and then schedule their mammogram improved the completion of mammograms by 13% or 4,500 patients in their [study](#) of 35,000 women.

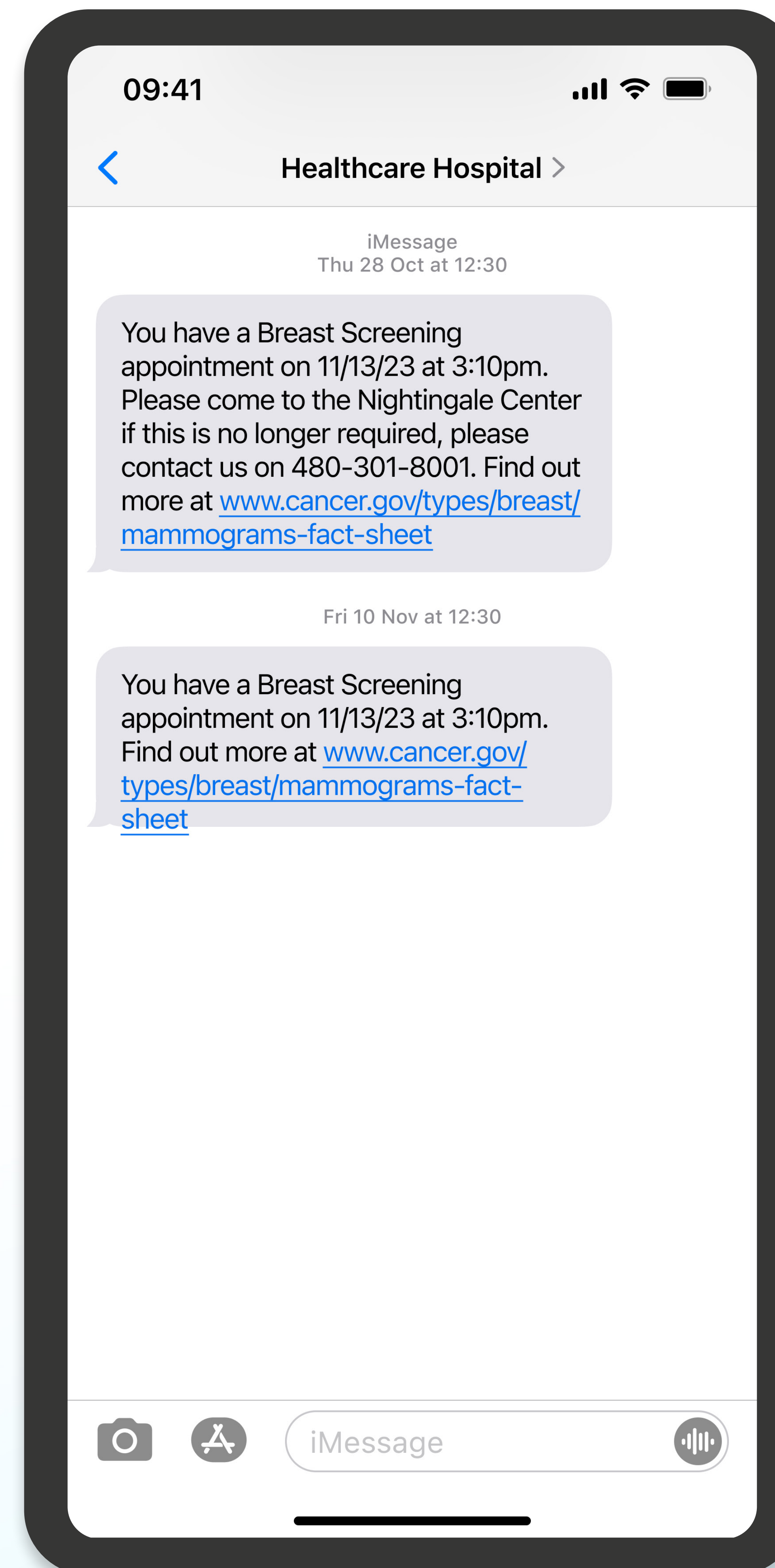
Healthcare providers have an opportunity to use digital appointment reminders to increase attendance and reduce missed appointments to improve outcomes through early intervention.

Real life use case:

- Women aged 50-71 receive automatic invitations for routine mammograms every three years.
- Two weeks before, a 1-way reminder SMS includes a link to a mammogram leaflet providing reliable and trustworthy supporting information.
- Patients receive a second nudge text message 48 hours before their appointment.

Results achieved:

- A 4% reduction in missed appointments due to the SMS reminders.
- Significant staff time has been saved as staff members now only contact those without a recorded mobile phone number, with more time to focus on other important tasks.
- Staff can fill short-notice cancellations using the Webex Connect SMS instant messaging feature where time was previously wasted on multiple call attempts to fill appointments.



Improving patient health by personalizing preventative outreach

Smoking cessation programmes: Text messaging and chat-based interventions

Digital coaching programs using SMS and AI-powered chatbots effectively promote behavior change, particularly in smoking cessation and adopting healthier lifestyles.

Research, like the 2019 study in the [Journal of Medical Internet Research](#), highlights increased smoking abstinence rates with automated messages and chatbot interactions.

Chatbots offer 24/7 support, immediate responses, and accessibility from various devices, aiding individuals in their quit-smoking journey.

Benefits of digital smoking cessation programmes:

Instant accessibility:

SMS messaging and chatbots provide instant access to support, delivering motivational messages, reminders, and information directly to the user's mobile device.

Timely reminders:

Reminders can be scheduled for medication adherence, counseling sessions, or scheduled quit dates, helping people stay on track

Cost-effective:

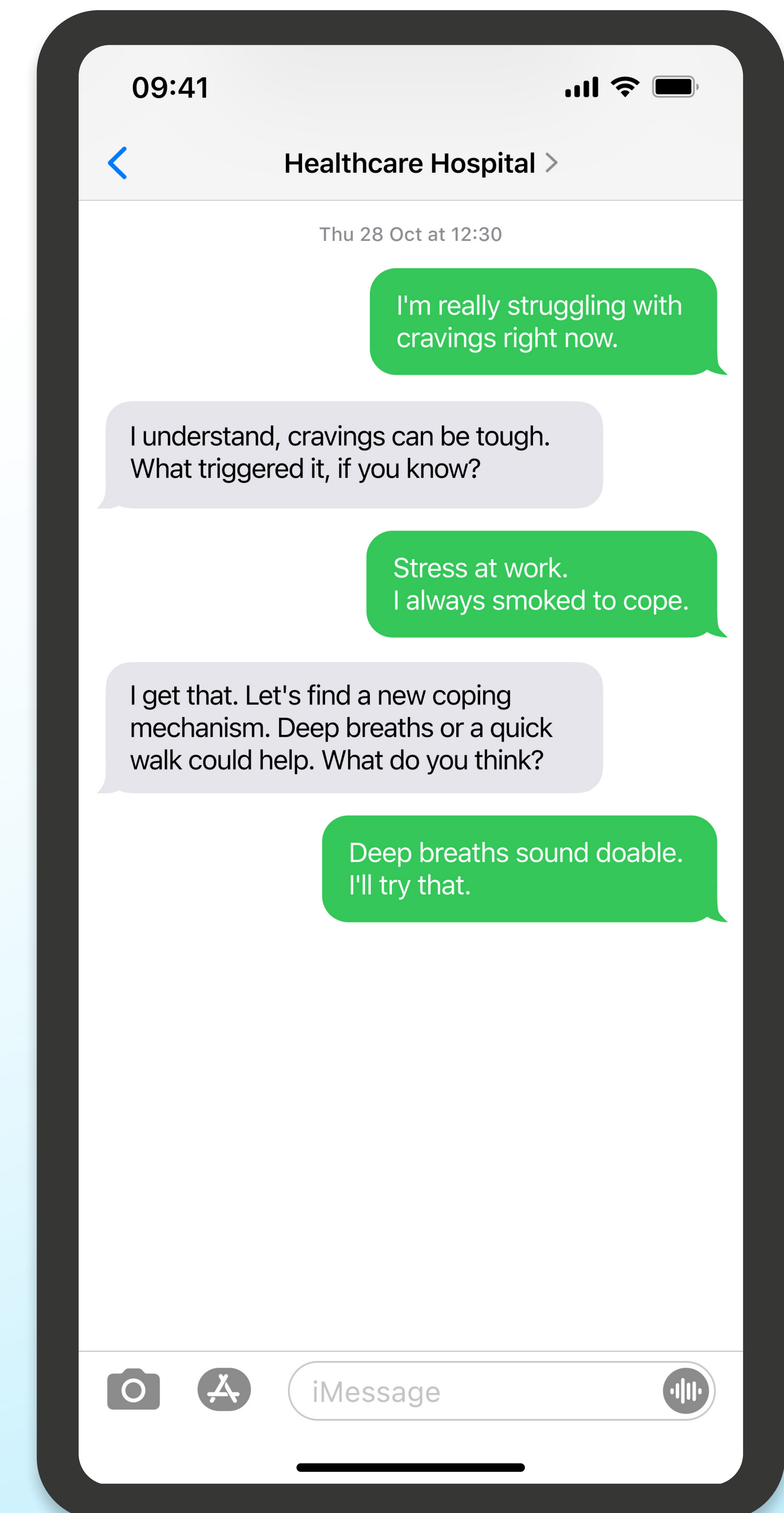
SMS messaging and chatbots are cost-effective communication channels, making them efficient ways to reach many individuals.

24/7 support:

Chatbots offer round-the-clock support, complementing the continuous accessibility provided by SMS messaging, allowing individuals to access information, tips, and encouragement whenever they need it, which is beneficial during moments of heightened stress or cravings.

Multilingual support:

SMS and chatbots can be programmed to provide support in multiple languages, catering to diverse populations and, accessibility for individuals with different language preferences.



Self-Service Symptom Checker

A digital symptom checker offers patients a self-service option to connect with a caregiver to determine the severity of their symptoms and treatment. This triage solution offers patients expanded access to information about their condition, higher satisfaction, and lower cost for treatment.

This digital self-service tool provides patients with the right level of support in this seamless journey for care. They select either the agent path or the symptom checker path that answers diagnostic questions based on their health complaint. They then receive a recommended care path from the symptom checker with the option to chat with a physician after diagnosis.

The Webex Connect platform enables you to integrate your own symptom checker, which can be deployed across multiple digital channels for a seamless patient experience.



The future of digital patient engagement

The pace of digital transformation in US healthcare has accelerated significantly in recent years, driven by advancements in technology, regulatory changes, and the increasing demand for personalized and efficient patient care.

Webex remains at the forefront of building and deploying new patient engagement solutions.

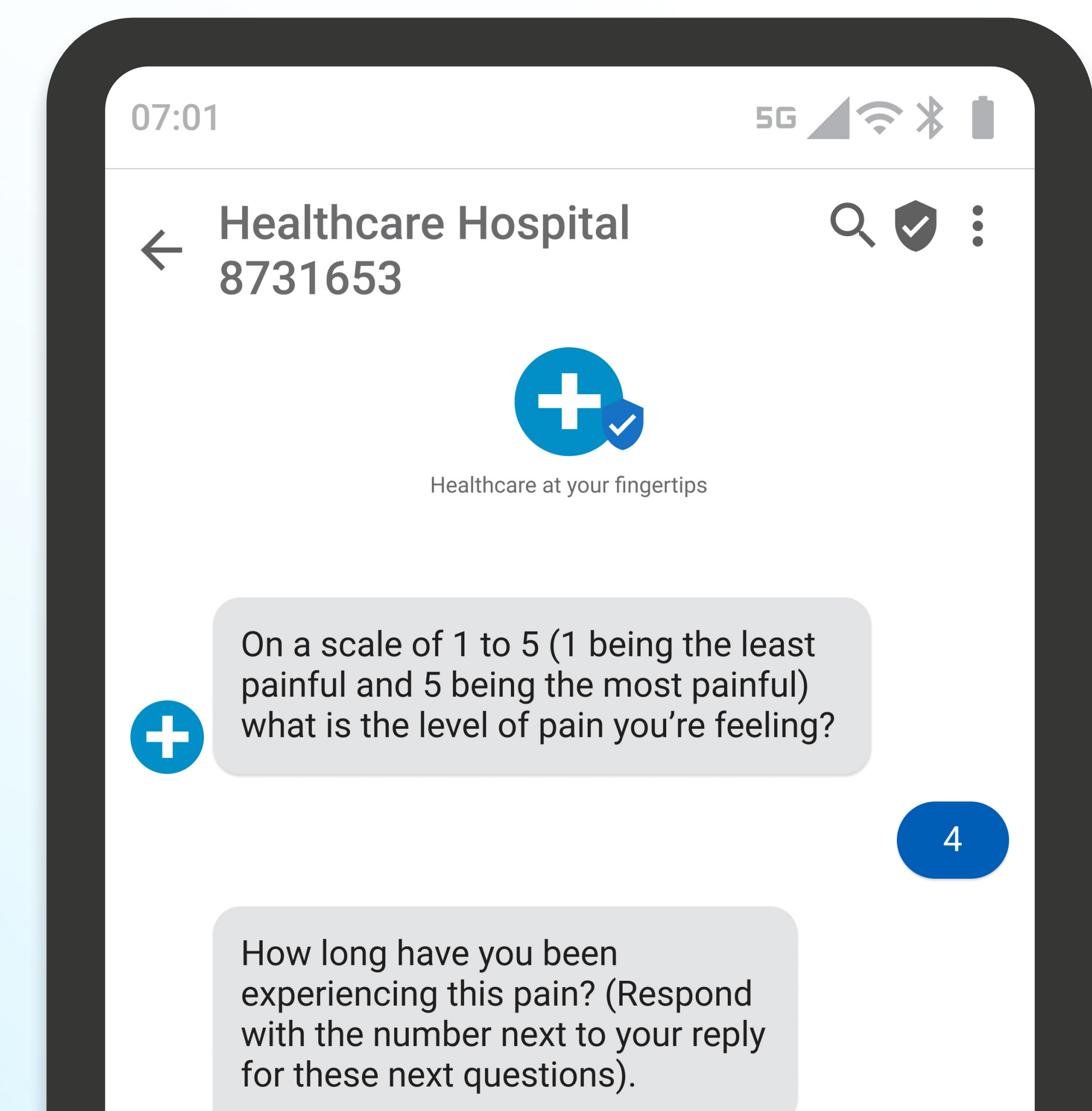
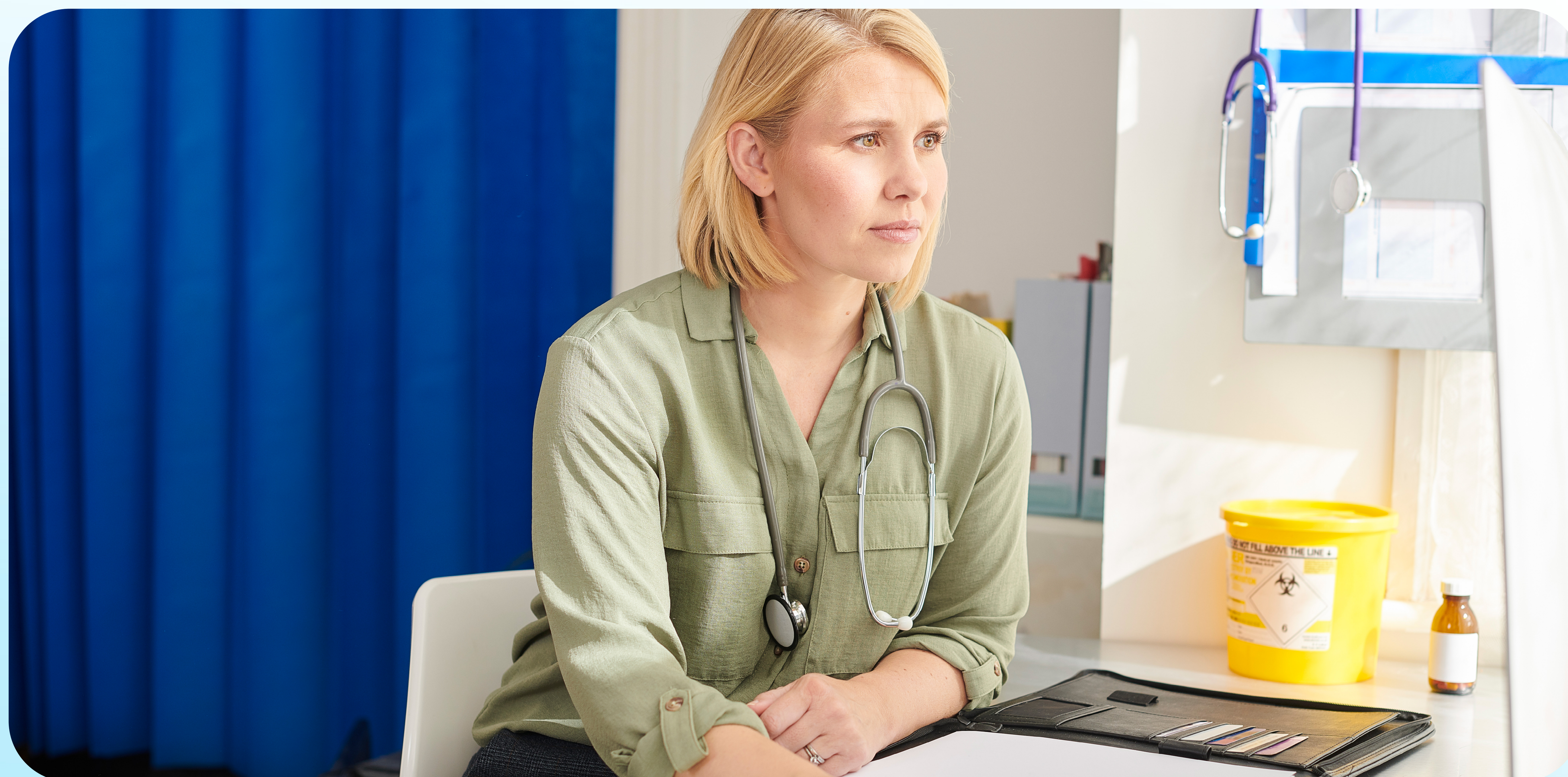
Here, we look at the technologies that will drive the evolution of patient communication in the next few years and beyond.

Branded messaging

Branded text messaging enables healthcare providers to establish a recognizable and consistent presence when communicating with patients, fostering trust, and reducing anxiety around fraudulent or scam messaging.

Branded messaging verifies SMS texts by including the hospital logo in communications so patients know exactly who's contacting them. Interactions are richer with multimedia links to improve the messaging experience, boosting response rates as recipients can quickly identify the sender.

Hospitals benefit from greater insight into performance through delivery and read receipts. This messaging aids in combating fraud, as patients can be advised in the future to disregard unverified texts that do not include the hospital logo.



Rich Communication Services (RCS)

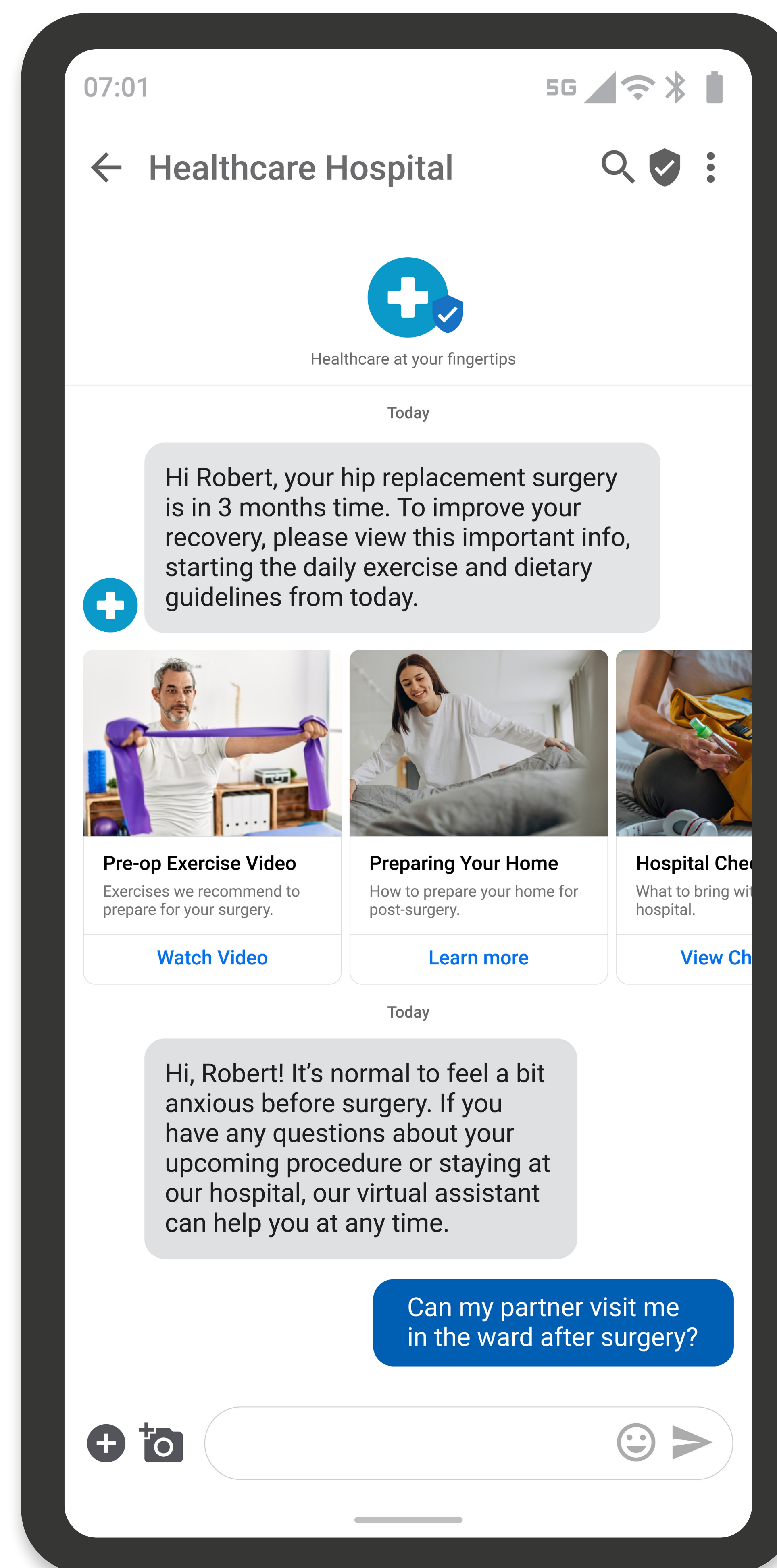
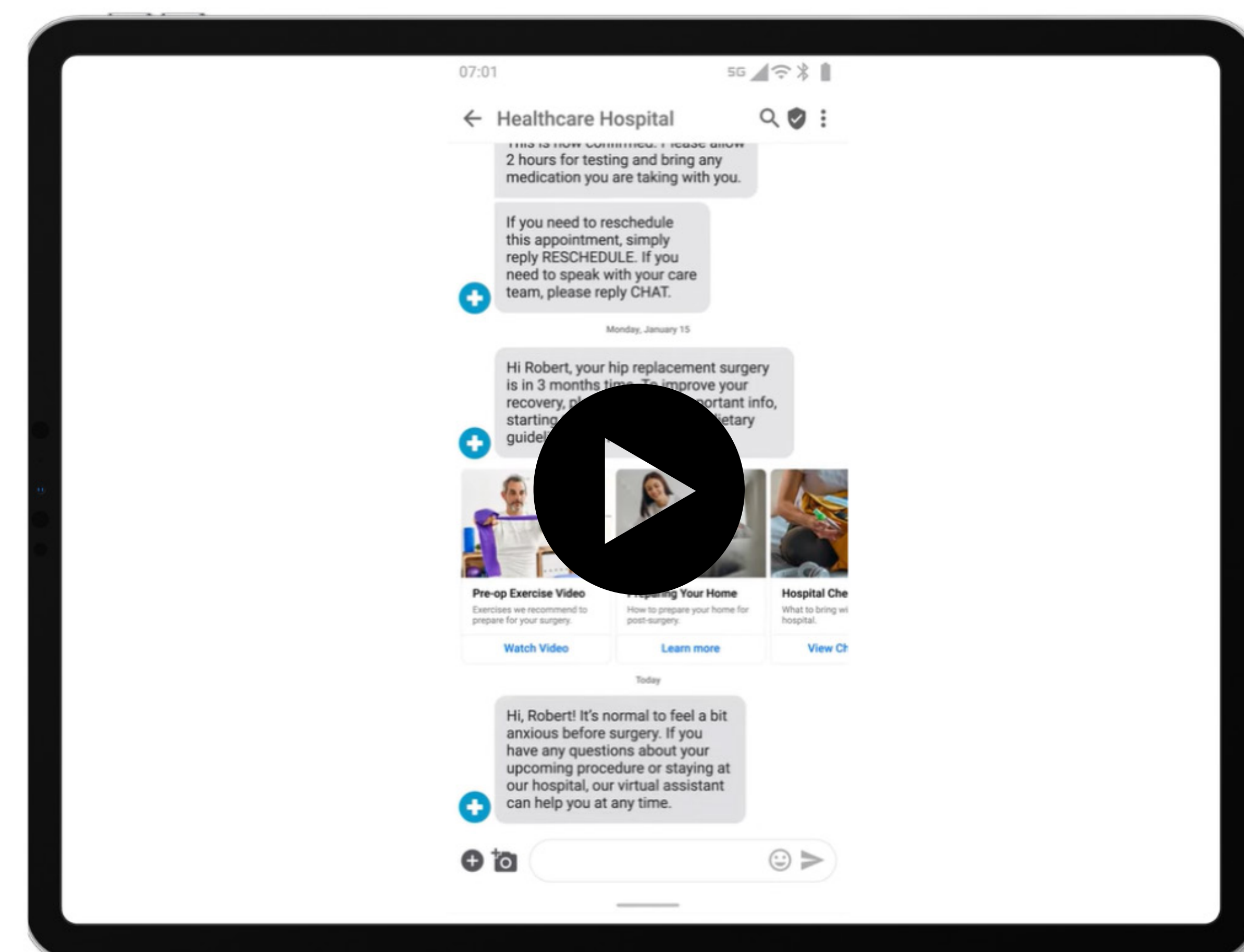
140 billion messages are sent worldwide every day via social media messaging to SMS. People expect they can communicate with service providers on their channel of choice. In 2024, we'll see this trend breakthrough in health, particularly with the emergence of Rich Communication Services (RCS) messaging, with 1.1 billion users forecast in 2024.

RCS transforms SMS into a multimedia-rich experience, supporting images, videos, read receipts, and more rivalling over-the-top messaging apps. It enables real-time typing indicators, group chats, and seamless file sharing, elevating interpersonal communication.

This allows healthcare providers to create automated, personalized patient journeys, enhancing appointment management, experience measurement, and care advice. RCS offers branded messaging and improved patient engagement at a lower cost compared to traditional SMS.

App-like experiences without the download, delivered straight to your patient's smartphone, including:

- Interactive action and quick-reply buttons
- Rich card carousels and add-to-calendar buttons
- Multiple patient paths, including agent handover
- Easy fall back to traditional SMS if RCS not activated



77% agreed

(39% strongly agree) that using digital communication tools to communicate with their healthcare provider is most suitable for value-based care.

OnePoll Survey sponsored by Webex. 2023

Artificial Intelligence: Pioneering the new era of patient-centric care

Using AI to understand human behavior, create efficient services, and challenge health inequity

Healthcare providers are harnessing the power of AI to revolutionize care delivery. Through data analysis and predictive analytics, AI helps identify patterns in behavior, allowing for personalized communication tailored to individual needs.

AI can assign clinic appointment times to patients at a time that is most likely to be convenient, while messages for new appointments can be scheduled and sent at a time that is most likely to receive an immediate response.

Example:

- Patients that need to travel long distances to attend are given appointments that enable them to do this, avoiding early morning times or later in the evening.
- Similarly, parents of young children, care givers and shift workers can all receive communications and appointment times at the time most convenient for their lifestyle, guided by AI.

AI-driven data analysis can also identify disparities in health outcomes among different demographic groups. Armed with this knowledge, healthcare providers can design targeted interventions and communication strategies to address specific health inequalities and ensure equitable access to healthcare services.



AI assistant avatars

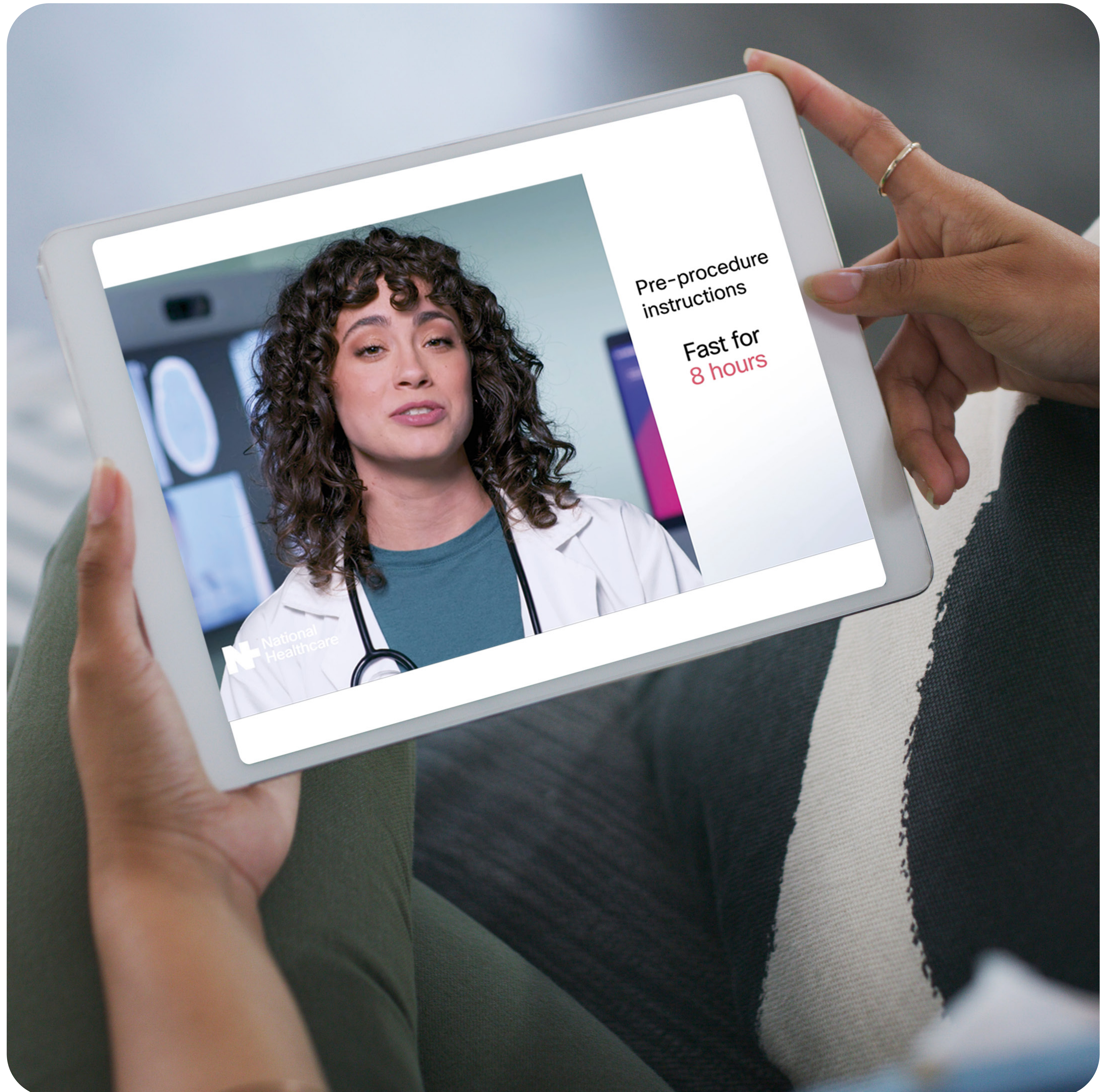
Healthcare is at the start of its journey with AI, and therefore the current focus is around how it can be deployed to enhance clinical workflows.

However, Webex is now in the process of creating AI assistant avatars for patient engagement, offering personalised, interactive support, using Webex Connect. These avatars, powered by artificial intelligence can be used to guide patients through medical information, treatment plans, and wellness routines in a user-friendly manner.

They will enhance accessibility by:

- Providing 24/7 assistance, answering queries, and offering medication reminders.
- Through natural language processing, these avatars will create a more empathetic and human-like interaction, catering to diverse patient needs.
- Promoting health literacy, ensuring adherence to care plans, and fostering continuous communication.

AI assistant avatars will elevate patient engagement and contribute to improved overall healthcare outcomes.



Conclusion

The digital empowerment of patients is essential for advancing healthcare access, efficiency, and quality.

By integrating innovative digital tools and technologies, we can address the challenges of the current healthcare system, making care more accessible, personalized, and patient-centered.

Digital solutions for conversational patient engagement, education, and AI-driven personalization not only enhance patient experience but also encourage patients to take more responsibility for their own health, reducing wait times and improving health outcomes.

Let us help

We can put you in touch with peers to share learnings, and support with your business case.

Contact us



