Adaptive Care:

Using Secure 2-Way Chat to Improve Patient Engagement

Top use cases for implementing bidirectional online chat to deliver timely care and communications for triage, mental health, transfer of care and remote patient monitoring.

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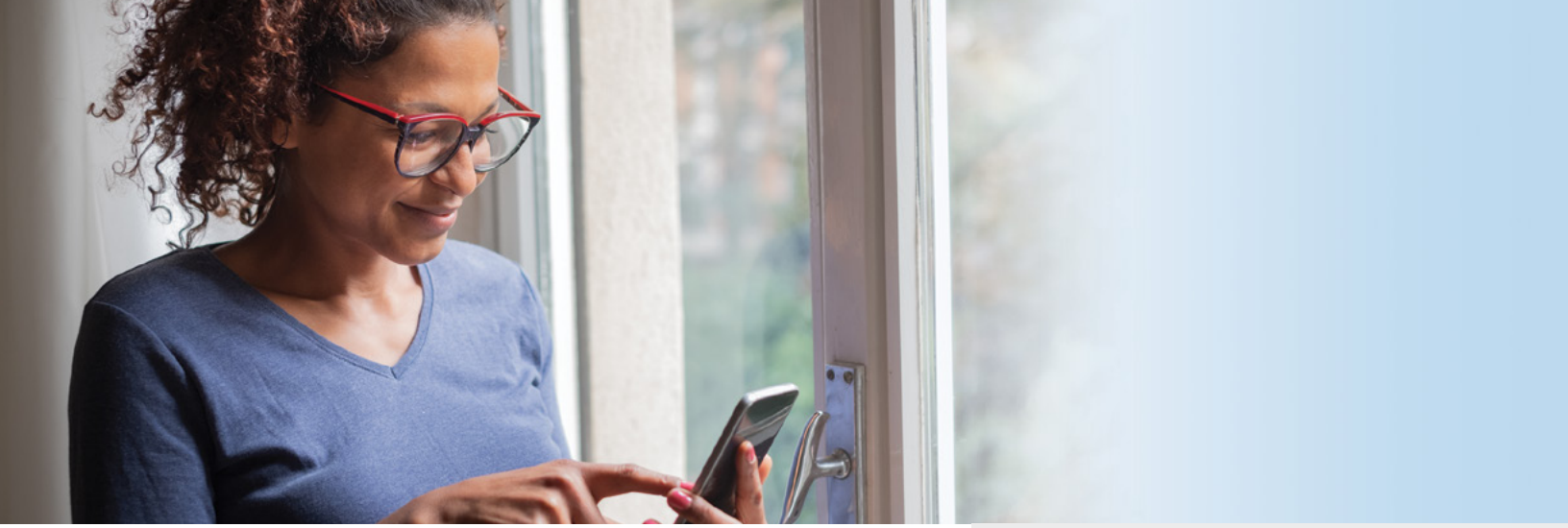

Empowering an engaging healthcare experience

Digital interactions give healthcare providers and patients another avenue to communicate and deliver adaptive care. Providing different modes of communication and healthcare delivery are part of a new patient engagement focus that enables the shift toward on-demand access.

According to the Canadian Institutes of Health Research, patient engagement models are a growing practice for health teams because of the potential for better education, programs and services tailored to patient needs and preferences, enhanced patient experiences and better clinical outcomes, such as reduced hospital admissions.[1]

During the pandemic, digital services, such as video consultations, e-prescriptions and automated notifications, made it possible to deliver care that was safe and often more convenient. Now we're moving towards a hybrid model of in-person and virtual interactions. Gartner Research points to investments in patient engagement technology to improve patient loyalty and outcomes, support the shift to value-based care and keep pace with consumer expectations from the financial and retail sectors.[2]

Use cases for secure chat

Secure online chat provides a responsive alternative to text and email for both administrative and therapeutic communications with patients. Asynchronous delivery ensures that healthcare providers can use two-way chat based on clinical workflows and patient needs. In this model, providers and patients can engage easily for a broader range of use cases without compromising security or privacy.

In this guide, we look at four use cases for implementing secure two-way chat: mental health care, virtual care triage, in-hospital communications and remote monitoring.

[1] *Patient and Family Engagement in Hospital Planning and Improvement, Canadian Institutes of Health Research (CIHR), 2021.*

[2] *Top 5 Technology Investments for Healthcare Providers in 2022, Gartner Research, February 2022.*

Convenience or security?

Phone and email have been the most popular means of communication in healthcare during the pandemic, but people are increasingly gravitating towards text messaging—it's how we stay in touch everywhere else in our lives. Mobile phones are ubiquitous and bandwidth requirements are low, making text available to people everywhere, even in remote regions.

The problem? The short message service (SMS) standard used for texting is outdated, and it's neither HIPAA compliant nor secure. Here are just a few of the issues with using SMS for patient engagement:

- No support for end-to-end encryption
- Mobile networks are open to attack by hackers
- Lack of access controls (e.g. entering a password to get messages)
- Inflexible workflows—not based on clinical needs

Use case #1: Urgent care triage

COVID-19 surges, staffing shortages and long wait times for emergency care are putting intense pressure on healthcare teams. Hospitals are using virtual care and patient engagement tools to scale specialty resources and prioritize in-person care for those who need it the most.

Secure online chat can be used as part of the urgent care workflow to:

- Complete patient intake forms
- Schedule virtual appointments and reminders
- Assign cases to specialist care providers

Administrative use case: Elderly patient with stomach pains

Patient Profile: Joan is a 76-year-old woman with Type 2 diabetes and risk factors for heart disease. She is on metformin and heart medication to treat her chronic condition.

Situation: Following a family barbecue, Joan begins to experience severe stomach pains. She books a virtual care appointment with her hospital's urgent care clinic. She fails to complete the form and a clerk reaches out to assist with the intake. The intake nurse schedules a virtual call and transfers Joan to a GI specialist. Over chat, Joan reports that she is feeling worse and the care team schedules her for an in-person visit at the ED.

Result: The elderly patient can get access to care from the convenience of home and take advantage of timely chat responses when her condition worsens. Once the care team establishes the severity of her case, she is prioritized for an in-person ED consultation.

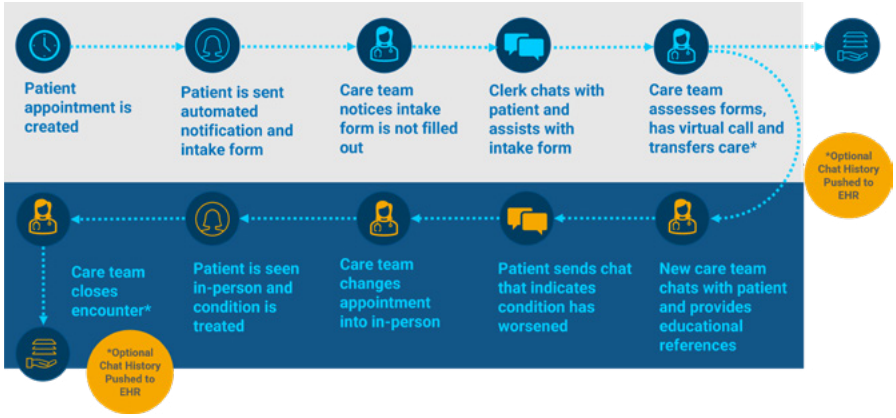

Figure 1: *Custom workflows can be designed to use secure chat to support virtual care triage with intake, concultations and care plans.*

Use case #2: In-hospital transfers

Communication within a large hospital setting can be difficult and confusing. Multiple providers are part of the care team to complete intake, consultations and referrals to other departments for testing and followup.

Secure online chat can be used as part of the referral workflow to:

- Stay connected for the duration of the care plan
- Provide department location and referral details
- Schedule consultations with multiple providers in a single visit

Administrative use case: Young adult with breathing problems

Patient Profile: Suzanne is a 25-year-old woman who has asthma and uses an inhaler for episodes of breathing difficulty.

Situation: During a heatwave, Suzanne starts to experience symptoms of wheezing and coughing that are different from her normal asthma symptoms. She goes to her local urgent care emergency department to seek care. After describing her symptoms, she is given a COVID-19 test and told to wait in the car for her results. She gets a secure chat notification that she has tested negative and has been scheduled for an initial consultation. The intake team determines that she needs additional testing to isolate the cause of the problem.

Result: Suzanne is scheduled for an X-Ray, lab tests and followup consultation with a respiratory specialist. She uses secure chat to navigate her way through the hospital departments and access her results for each appointment. She is scheduled to stay overnight for observation and is released the next day with monitoring.

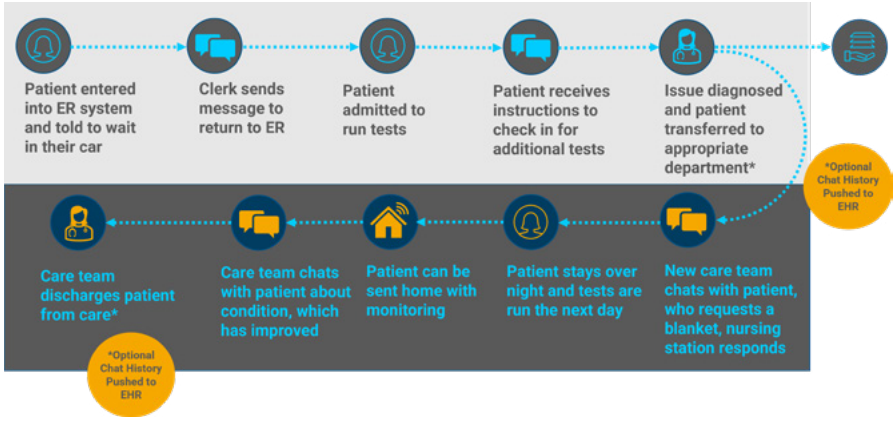

Figure 2: *Patients can be safely assessed and transferred to other departments and specialists within the hospital setting.*

Use Case #3:
Adaptive care for mental health

Accessing mental health services can be very challenging, especially for people in rural and remote communities. People often travel to get help or spend months on waiting lists to see a specialist in their area. Virtual care has made it easier to provide services for patients remotely, but access is challenging due to low or unreliable bandwidth and privacy concerns. Providing care when and how it's needed is critical, especially for patients in turmoil—as is staying connected throughout the treatment plan.

Bidirectional chat helps care teams engage with patients by:

- Offering a private, convenient way to connect to providers
- Creating an alternate triage method to assess patient well-being
- Monitoring care plan and medication adherence

Therapeutic use case: Patient in turmoil

Patient Profile: Thomas is a 34-year-old male living in a rural area in Northern BC. He is receiving treatment for bipolar disorder under the care of a psychiatrist located 300 km away.

Situation: Thomas begins experiencing worsening depression and fatigue. He is unable to travel and his psychiatrist is away on holiday. He decides to request an appointment online using the patient portal for the hospital where he's receiving care. He has trouble filling in all the details requested.

Result: A few minutes later, an alert on his phone notifies him that an intake clerk at the hospital would like to start a chat. He accepts the chat and gets help filling in the form. He tells her that he's really struggling and needs to see someone right away. She escalates his case to the emergency mental health team and he clicks on a link from the chat to join a virtual consultation. The care team assesses that he isn't taking his medication as prescribed and provides instructions. Thomas agrees to get back on his schedule and has a followup scheduled for the next week.

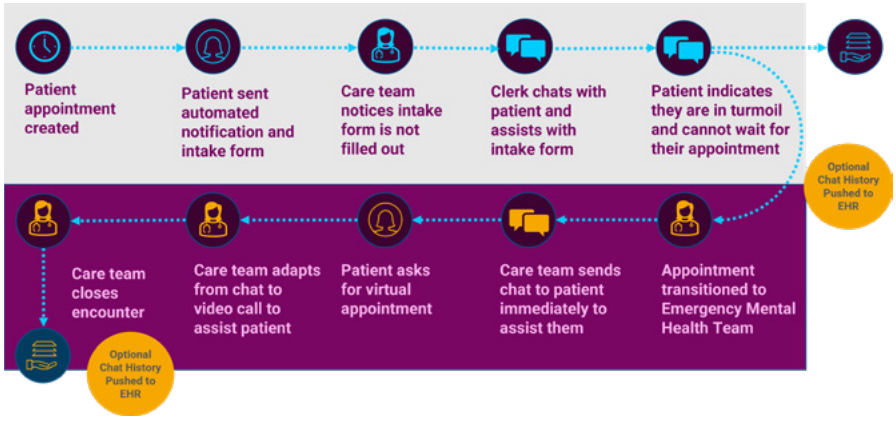

Figure 3: *Adaptive care using secure chat as an alternative communication method can help patients in turmoil receive the care they need.*

Use case #4: Remote patient monitoring

Many hospitals are embracing remote patient monitoring (RPM) to discharge patients to heal at home when appropriate for the care plan. The cost savings and increased availability of hospital beds for critical cases improve capacity for life-saving care. Research has shown that well-managed care at home can reduce hospital readmissions and lead to improved outcomes.

Bidirectional chat helps care teams engage with patients at home by:

- Utilizing data from RPM devices to check status
- Providing detailed care plan information
- Switching to virtual care call to ensure adherence

Therapeutic use case: Senior diabetic patient

Patient Profile: Reggie is a 68-year-old man who was recently discharged following an episode of severe hypoglycemia related to undiagnosed diabetes. After treatment with insulin to get his condition under control, Reggie is released with a Bluetooth-enabled glucometer.

Situation: After two weeks at home, Reggie's glucometer registers high blood glucose levels, which triggers a notification to his care team at the hospital.

Result: The nurse monitoring Reggie's case initiates a chat to ask questions about his diet regimen. She then sends links to educational materials and a daily meal plan. Reggie is unclear on a few things and requests a video call. The nurse schedules one for later that day and reviews the plan with Reggie. They set an appointment for followup in seven days.

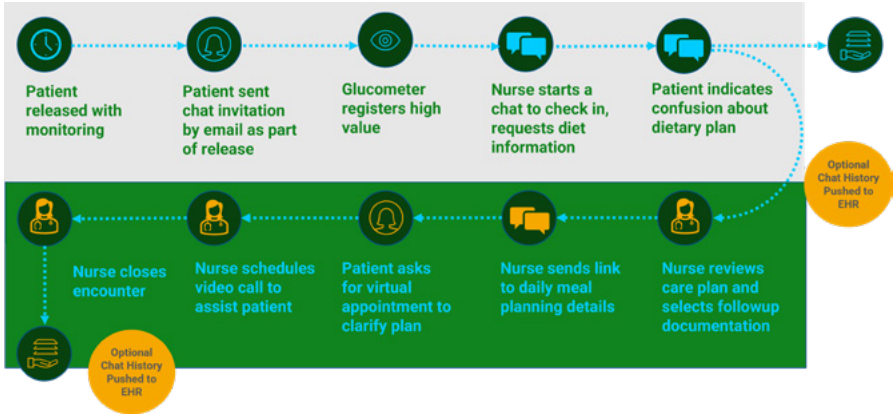

Figure 4: *Secure chat provides timely communication for remote patient monitoring.*

Ensure seamless collaboration for care teams

Secure bidirectional chat offers a responsive communications tool for care teams to stay connected with patients and actively engage them in their healthcare. Applications that work with existing processes and tools increase productivity, make it easier for care teams to collaborate, and improve patient outcomes.

Secure chat for Corolar Virtual Care enables a seamless fit with clinical workflows, including:

- Native Teams operation—use existing tools and work in a familiar, secure environment
- Real-time dashboard—view new messages from patients and set priorities
- Notifications—flag unread messages and apply custom time ranges for alerts
- Access controls—care teams can manage patient chats based on assigned roles
- Visibility—see the names of the providers sending chat messages; convenient icons clearly identify provider and patient messages
- Chat transfer—configure access for all or part of patient chat history when transferring to new care teams and protect private information
- Group chats—schedule group chats for information sessions and communicate directly with each patient on a 1:1 basis
- Video consultations—easily transition from chat to phone or video

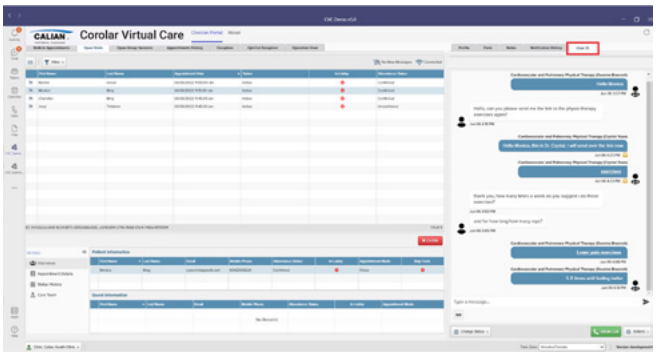

Figure 5: *Care teams can share chat histories based on roles-based access controls and see when patients have opted out of the chat.*

Deliver a convenient and secure patient experience

Personalized care gives patients more choice and convenience. Secure chat offers a safe and engaging alternative to connect with care providers:

- Easy access—on any mobile device or desktop
- Secure and private—opt-in, authenticate, start chatting and opt-out at any time
- Continuous care—communicate with your care team over an extended period
- Simple to use—see when messages have been read, who is responding and chat with multiple providers
- Timely and convenient—get answers quickly from anywhere, even in low bandwidth
- Educational—get links for additional information to help manage your condition

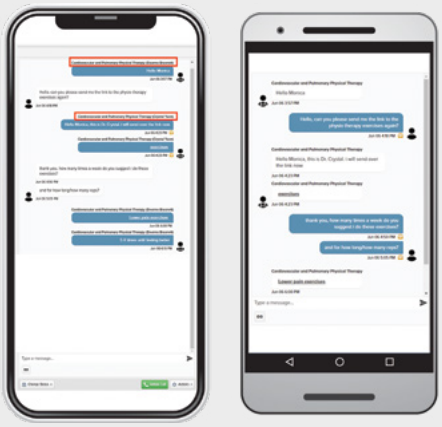

Figure 6: *Patients can easily see who is responding to their questions and request a switch to call or video at any time.*

Summary

As virtual care evolves and becomes increasingly integrated into healthcare workflows, patient engagement tools provide another mechanism for connecting the care experience. For healthcare providers, the convenience and efficiency of digital communications is always balanced with decisions about privacy and the best care path for patients. While text messages and email are useful for non-secure communications for appointment scheduling and reminders, secure two-way chat offers an administrative and therapeutic tool.

Secure and adaptive

Secure two-way chat enables care that goes beyond a single encounter. Chat sessions can provide continuous support for patients after release from the hospital or as an adaptive care model for programs such as mental health services and urgent care triage. Equipping care teams with applications that fit their workflows and help to forge new care pathways can improve collaboration, access and outcomes for patients.

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