

Appendix C: Virtual Care Platform Capabilities

Canada's commercial virtual care platforms and virtual clinics make it easy for patients to connect with healthcare providers for virtual visits and text message exchanges. Though each platform offers its own unique set of features and functionality, there are features which are common across these solutions.

The Healthcare Provider's Experience

The following features are often found among virtual care platforms to empower clinicians to manage a virtual clinic or provide virtual visit services:

- Manage Patient Roster
 Add and manage patient records
- Schedule eVisit with Patients
 Book virtual appointments with patients
- Intake and/or Diagnostic Support Tools
 Review patient intake forms or pre-visit
 diagnostics tool results (survey)
- Participate in Real Time Virtual Visits
 (Video and/or Audio)
 Complete a virtual visit/consult through
 video conferencing technologies
- Messaging
 Send messages to patients
 asynchronously and/or synchronously

- Review Patient Videos or Images
 Access videos or images provided by a patient in advance of a virtual visit
- Access Patient Health History and Information
 Retrieve patient health history and health records generated through the system (by patient or clinicians) and/or integrated from an Electronic Medical Record (EMR) system
- Record Clinical Notes
 Document clinical notes during or after a virtual visit
- Issue Prescriptions
 Generate and e-Fax prescriptions
 during or after an eVisit to the patient's
 preferred pharmacy
- Issue Requisitions
 Generate and send Requisitions to a patient (e.g., labs or diagnostics)
- Generate Referrals
 Create a referral to a specialist
- Provide Personal Patient Education
 Send patients educational content

during or after a virtual visit

Review Results from Remote Patient Monitoring Devices

Access health measurements from a patient's remote monitoring device (real-time and historic)

- Integration with EMRs
 Connect with patient records from popular Electronic Medical Record
- Manage Follow-up Appointments
 Coordinate and book follow-up appointments

management solutions

- Peer-to-Peer Consultations
 Supports care providers in consulting
 with each other through video conference (one-to-one or one-to-many)
- Clinic Reporting and Analysis
 Generate or receive reports associated with virtual care

The Patient's Experience

For patients taking part in virtual care, solutions on the market often make available the following features and functionality:

- Manage Self and Family Members
 Allows a patient to manage his/her own profile as well as family member profiles
- Health History and Information
 Enter and access personal health
 information and history (as well as family members' health information)

- Request a Virtual Visit with a Care
 Provider
 Request or propose an appointment with a care provider
- Upload Supporting Photos or Videos
 Upload photos or videos before a visit as a reference for the care provider
- Provide Symptoms, Concerns and Insights
 Provide details about the symptoms to be discussed with the healthcare provider in advance of the virtual visit
- Participate in Real Time Virtual Visits (Video and/or Audio)
 Meet with a care provider over video or audio
- Messaging
 Send text-based messages, synchronously or asynchronously to a care provider
- Access Personal Patient Education
 Download materials provided by the healthcare provider
- Receive Prescriptions and Requisitions
 Direct ePrescriptions to a pharmacy of choice and download requisitions
- Review Visit History/Care Plans
 Access visit history along with associated care plans
- Synchronize Medical Device Information
 Synchronize data collected from
 wearables or medical devices for access

Usability of Virtual Care Platforms

Canada's commercial virtual care solution providers understand they need to offer both patients and busy healthcare

providers an intuitive and hassle-free experience if their solutions are going to be adopted. As relatively new solutions (with many of the Canadian solutions being developed over the past 4 to 6 years), these technologies take advantage of modern user experience design methodologies, styles and technologies to provide users with familiar, intuitive and straight-forward experiences.

Aesthetics

Canada's virtual care platforms take advantage of modern design approaches. They are, for the most part, visually appealing and use design elements to guide users through their journey in the software. They use familiar iconography and symbols to direct and inform users, make good use of white space and provide clutter free screens to patients, making it easier for them to navigate and use the solutions.

Ease-of-Use

User flow through the virtual care platforms profiled was well thought out. The click burden in accomplishing tasks is low, and users are presented with familiar navigation approaches including menus, wizards and iconography. Terminology in the platforms, especially for patients, is simple, instructive and avoids industry-specific jargon. Flow through key tasks is intuitive and simple to follow, as users are often guided from one step to the next.

For web-based platforms, additional plugins and extensions were not required

to make use of the platforms. Apps are easily downloaded from their respective device's App stores.

Data being entered into these platforms are validated and insightful user feedback and error messages are provided.

Nearly every platform profiled made accessing help and support tools directly within the solution obvious, and most platforms offered more than one mechanism by which to get assistance.

Accessibility

Accessibility of these secured platforms is difficult to evaluate without having trial access to the platforms, in order to employ accessibility tools such as text-to-speech readers and validators. However, from provider-led demonstrations of the platforms, there is room for improvement. Several of the platforms used a variety of small fonts making some elements difficult to read. More common were problems with text colour contrast against background colours, making labels difficult to read.

Portability

Most Canadian virtual care solutions are made available to users through either a collection of popular web browsers (Chrome, Firefox, Safari and Edge) and/or through Android and iOS apps. However, for desktops/laptops, several of the platforms require or highly recommended use of the Chrome web browser for video conferencing aspects of their solutions.

Security and Privacy

In handling patient health information, Canada's virtual care platforms must conform to the Personal Information Protection and Electronic Documents Act (PIPEDA). Several systems also serving the United States market (or planning to), comply with the Health Insurance Portability and Accountability Act (HIPAA), which regulates healthcare data in the United States.

In addition to PIPEDA, jurisdictions may have their own healthcare privacy legislation which applies to the collection, use, disclosure and protection of health information. For example, healthcare providers using these platforms in Ontario must meet the province's Personal Health Information Protection Act (PHIPA) and in Alberta, providers must comply with the province's Health Information Act. Virtual care solutions being used in these jurisdictions must support providers in meeting compliance with these acts.

Many of the platforms profiled use cloud-based hosting giants Amazon Web Services (AWS) or Microsoft Azure to host their software, and to store their data in their Canadian data centres. This allows those providers to benefit from AWS' and Azure's compliance programs including ISO and SOC certifications, their security protocols and standards, and their monitoring solutions.

User Support

The virtual care solutions profiled offer their users, both care providers as well as patients, one or more mechanisms to receive support. This includes traditional approaches such as manuals, toll-free support lines, emails, web forms, and knowledge bases. Many platforms also use chatbots and real-time messaging, guided interactive tours showing users how to accomplish targeted tasks, and the ability to communicate with Care Coordinators through videoconferences in advance of a virtual visit with a care provider.