BC MENTAL HEALTH
& SUBSTANCE USE SERVICES
An agency of the Provincial Health Services Authority

Practice Guidelines for Video-based Telehealth Services (2014)

BC Telehealth (Mental Health) Guidelines Committee

Practice Guidelines for Video-based Telehealth Services (2014) is produced by the BC Telehealth (Mental Health) Standards Committee

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Executive Summary

Telehealth is the delivery of healthcare services at a distance using telecommunications technology. Providers of mental health and substance use services are among the heaviest users of telehealth. In many jurisdictions this type of service delivery is performed in volumes that exceed all other users of telehealth combined.

It is in this context that the BC Telehealth (Mental Health) Standards Committee has produced these Practice Guidelines for Video-based Telehealth Services. Our intent is to inform providers, health organizations, and funding agencies of the best practices surrounding the implementation, operation, and evaluation of telehealth services that use live video as a core component.

Five areas are highlighted in this document:

1. Applications of telehealth
2. Supporting a telehealth service
3. Practice in a telehealth service
4. The setting and equipment for telehealth
5. Guidelines for telehealth services in special situations

Each area is discussed in light of the regulatory framework of the Canadian healthcare system and the Standards set by Accreditation Canada for healthcare organizations. Legislation specific to BC is discussed where relevant.

These Guidelines focus particularly on clinical applications of telehealth. They will be helpful to any clinical professionals providing telehealth services to patients and clients.

Recommendations for Sustainability

Telehealth is constantly evolving. One only needs to consider the technological advances of the past decade to appreciate the pace at which we must move to keep up. The BC Telehealth (Mental Health) Standards Committee has several recommendations to help healthcare providers, organizations, and funding agencies stay abreast of the latest developments in telehealth.

1. Telehealth standards and guidelines are essential in the current environment where technological innovation is creating potential opportunities and risks for mental health and substance use care.
2. There should be a plan to review and update telehealth standards and guidelines, in particular this document, at regular intervals
3. There should be a plan to address areas of telehealth other than video-based services, such as internet-based telehealth, in future guidance.
4. Providers of telehealth services should consider forming a community of practice to share their experiences, examine best practices, and spur innovation in their work.

Introduction

Telehealth in the broadest sense is the delivery of healthcare services at a distance using telecommunications technology. Although telehealth may be used by a wide range of health services mental health and substance use services are often the most prolific users. The nature of mental health and substance use work, in particular the focus on interpersonal relationships, rapport building, and a lesser emphasis on complex diagnostics and procedures, lends itself to using technology to deliver care. The term encompasses many modalities such as videoconferencing, telephone conferencing, e-mail, and web-based services. In these Guidelines, the term 'Telehealth' relates to Mental Health Telehealth services only.

Aims and Intended Audience

These guidelines are intended to be a practical resource for healthcare providers, organizations, and funding bodies that want to

- a) become involved in providing safe and effective telehealth services
- b) bring existing services into line with current best practices

We have taken into account the Canadian experience of telehealth with reference to specific legislation applicable in British Columbia. We have also reviewed Accreditation Canada Standards for Telehealth to ensure compliance with those Standards. We hope to stimulate discussion about the future of telehealth in BC and around the world. If the diversity and constructiveness of the dialogue in our committee is any guide, we are well on our way to achieving this goal.

The Context of these BC Guidelines

We are indebted to three groups who have had a strong influence on telehealth standards here and elsewhere:

1. The American Telemedicine Association Telemental Health Standards and Guidelines Working Group
2. A team from British Columbia who performed a comprehensive literature review on telehealth services in 2012 at the request of the BC Ministry of Health
3. The British Columbia Telehealth Development Committee who have worked for more than a decade to ensure that BC telehealth standards, equipment, and expertise remained competitive despite the many agencies and jurisdictions in which we all work

This particular document will focus on video-based telehealth. Other modalities may be commented on in future guidance.

Applications of Telehealth

While there are many potential uses for live video in the mental health context, we will focus on areas that are commonly seen in practice today. Applications of telehealth can be broadly divided into clinical (clients or patients directly benefit from the service) or non-clinical.

Clinical Applications

Clinical Interview and Treatment

Telehealth services are usually delivered in a format familiar to individuals who have worked in a traditional mental health setting. Clients, patients, and their care providers meet each other through a live video connection. Clients or patients can be interviewed at a distance by a variety of professionals such as physicians, nurses, social workers, and counsellors. Family members of the client or patient, friends, and other informants may be involved to provide relevant collateral information. Telehealth services delivered in this way are often complemented by traditional face-to-face visits and other communications technologies such as phone, fax, and email.

Emergency or Crisis Management

This is an area seeing increased use in the United States and in many other jurisdictions. The British Columbia experience has been limited but is growing. For example, physicians in British Columbia are permitted to order confinement and treatment of patients under the BC Mental Health Act after an interview and examination using telehealth. The requisite certificate must be **faxed** to the patient's location in order to mobilize healthcare professionals and authorities to secure the patient. Other electronic methods of conveying the certificate such as email are not permitted by law. Clearly there are significant safety and legal risks involved in emergency and crisis management. However, these services can be delivered safely when suitable resources and planning are in place.

Case Discussion and Case Management

This type of service delivery is also commonly referred to as Indirect Patient Care. Modern mental health and substance use care often involves multidisciplinary teams of professionals such as psychologists, speech language pathologists, social workers and occupational therapists. Telehealth can enable professionals to discuss client and patient-care issues even across vast distances.

Non-Clinical Applications

Administration

Communications technologies that support administrative functions such as meetings between staff at distant sites are the most mature among telehealth technologies. This is because most modern video-based telehealth technologies stem from earlier developments in the business world that connect managers, employees, and clients across the globe.

Clinical Supervision and Teaching

The supervision of trainees such as medical residents, psychology interns, and nursing practicum students can be accomplished with a combination of traditional face-to-face clinical teaching, live or recorded didactic presentations, and interactive videoconferenced supervision.

Continuing education and professional development

Telehealth can enhance continuing education and professional development in numerous ways including interactive transmission of academic rounds to distant sites, recording of didactic sessions for future viewing, and broadcasting of unique workshops or seminars. Video-based services compliment other electronic delivery methods such as podcasts, online continuing medical education tools, and simulation technologies.

Research

Telehealth allows data to be collected from clients and patients across many sites and great distances. It also facilitates communication between clients and patients, research staff, and clinical staff. This may be especially helpful when running complex multicentre trials with patients and staff who reside in different provinces or even countries. In addition to live videoconferencing, recordings of patient interviews and examinations may be used at a more convenient time for researchers or for future lines of inquiry. However the ability to record sessions requires special attention when gaining ethics approval and patient consent for research.

*This guideline document focuses on clinical applications of telehealth. Parties interested in using the technology for non-clinical applications will find the section describing the **Setting and Equipment for Telehealth Services** to be of help.*

Supporting a Telehealth Service

What are the staffing needs of a telehealth service?

These needs differ depending on the nature and complexity of the service being offered. Organizations contemplating a low-volume service (a few telehealth sessions per month) or treating clients and patients of minimal complexity may be adequately served by having existing staff trained in the unique processes of telehealth. For example, a clerk could be trained to schedule and book telehealth rooms and equipment. An intake (triage) worker could be trained to identify clients or patients that are suitable for telehealth. Existing information technology personnel could be tasked with maintaining the telehealth equipment and providing technical support to clinicians.

High-volume services or those treating clients or patients with complex needs will likely require dedicated telehealth staff. Important roles to consider include:

- Scheduling and booking clients or patients
- Scheduling and booking telehealth rooms and equipment
- Intake and triage
- Handling of time-sensitive documents such as reports, prescriptions, and laboratory requisitions
- Storage and retrieval of clinical charts for each visit
- Liaising with staff at distant sites
- Technical support
- Quality assurance and evaluation

Every telehealth service, whether complex or not, should designate staff responsible for managing and coordinating telehealth services so that roles, responsibilities and reporting relationships are clear.

How can the team provide timely access to services?

Ensuring that clients receive equitable access to telehealth services where needed may require consideration of any barriers such as hours of operation, physical or language barriers for relevant clients. Information about telehealth services should be provided in all relevant languages.

In order to determine and meet urgent need, the referral process should gather all necessary information for timely decision making and the scheduling should accommodate the potential for urgent need.

How should documents for telehealth services be stored?

Documents should be stored with the same care and security measures taken for clinical documentation of face-to-face events. In most cases documentation should be stored in the client or patient's health record, respecting organizational policies and procedures.

How should documents be transmitted between parties involved in a telehealth service?

Documents should be shared in the most secure way practicable. Fax and courier are two common methods. Special care must be taken when using email. Emails sent to and from personal accounts are not secure and must not be used to transmit personal information such as health records. Providers must comply with the privacy and security polices of both their own organization and those of the organization hosting their client or patient. Ownership of documents, timeliness and security of sharing information should form part of a Memorandum of Understanding (MOU) between collaborating organizations.

How do you manage operational concerns?

Organizations that deliver telehealth services should have policies and procedures in place to govern the delivery of these services and appropriately identify and manage organizational risk. Important aspects that should be documented include:

- The roles and responsibilities of staff involved in the telehealth service with clearly defined and regularly reviewed position descriptions
- Choosing appropriate clients or patients for telehealth service (triage and intake)
- Scheduling and coordinating appointments and equipment at more than one site
- Consenting procedures, including for research
- The storage and ownership of clinical documentation
- The transmission of documents such as reports, prescriptions, laboratory requisitions, and test results
- A strategy for choosing, maintaining, and updating telehealth equipment
- A strategy for providing training and technical support to clinical staff
- A strategy for managing patient safety concerns

These policies and procedures should be reviewed at regular intervals and updated. They should integrate with any relevant organizational policies. Evidence-based guidelines for telehealth services should be reviewed and incorporated when appropriate.

How should patient safety events be managed?

Any patient safety event that occurs during a telehealth consultation should be managed in the same way as it would be in a clinic or inpatient unit. There should be organizational policy and process requirements to report safety events to clients and patients, their families or staff. Providers of telehealth services should meet regularly to discuss safety issues such as sentinel events, near misses, and adverse events. These events should be documented and monitored according to organizational requirements. Healthcare providers should follow organizational policy and process to disclose adverse events to clients, patients and their families.

How can telehealth services promote quality improvement?

Telehealth services are developing quickly but are still not within the experience of the majority of service users or service providers. A quality improvement strategy is a necessary part of developing a service and should be maintained throughout the life of the service. Obtaining feedback from clients, families, staff, service providers and relevant others is an important part of the strategy.

Surveys, focus groups, interviews, meetings or other mediums may be required to gather satisfaction or experience data, understand complaints, look at outcomes and analyze patient safety events, amongst other things. Added to clinician experience, the data will help to identify and then prioritize quality improvement initiatives.

Setting objectives for the improvement initiatives, deciding on indicators to measure improvement and then monitoring progress are key activities. A tool such as SMART (Specific, Measurable, Achievable, Realistic and Timely) may prove useful in setting objectives. Many organizations have quality improvement specialists who can advise on strategies and help to gather data and providers should connect to and work with their organization's processes.   Particular care should be taken when collecting patient data that all appropriate legislation and organizational policies are complied with. Some organizations may require a Privacy Impact Assessment (PIA) in order to collect certain kinds of personal data.

Non patient-specific information about the quality improvement activities of the telehealth service, results and learning should be shared with clients, families, staff, service providers, organization leaders and other organizations as appropriate to develop a service that is responsive to patient need.

Practicing in a Telehealth Service

Who is a suitable telehealth provider?

All individuals have the potential to become telehealth providers provided they have suitable training (described below). Clinicians must be licensed and registered with the appropriate regulatory or licensing body.

Individuals providing service from inside institutions such as hospitals will often require credentialing and be granted privileges within that institution. In some cases, providers may need to be credentialed and granted privileges at both their own institution and the institution hosting the client or patient. These requirements should be clarified with the involved organizations before delivering service. Be particularly vigilant if there are jurisdictional issues.

> *There is an increasing demand for services that are provided across jurisdictional boundaries. For example a patient who resides in British Columbia may ask to see a provider in neighbouring Alberta. In these cases, as the regulatory environment is rapidly changing to address these new scenarios, it is essential to consult with the appropriate regulatory or licensing bodies in both jurisdictions to determine if a provider is in compliance with regulations.*

What training is required to become a telehealth provider?

Service providers who provide telehealth services should be oriented to telehealth and trained in the following areas:

- How to safely use telehealth equipment
- How to manage equipment breakdowns as well as how to ensure preventive maintenance
- Communication techniques and etiquette with clients, including ensuring client understanding of telehealth
- What to do when an unexpected or emergency clinical situation occurs
- Where to find additional telehealth education and training materials
- Identifying, reducing and managing risks to client and staff safety

What are the responsibilities of a telehealth provider?

Providers of telehealth services have a number of important responsibilities:

- Deciding whether clients or patients are appropriate for telehealth
- Providing clients and patients with timely, complete, and accurate information about telehealth services, such as the potential benefits, risks, and the limitations of telehealth
- Obtaining documented informed consent from the client or patient
- Obtaining sufficient information to provide safe and effective care that protects the privacy and confidentiality of patients
- Practicing to the standards expected by legislation, regulatory bodies, professional standards of conduct and ethics, and relevant organizational policies

- Preparing timely and accurate documentation of each clinical service in the client or patient's health record

- Ensuring that important information such as consultation reports, reporting of child protection concerns, or concerns about suicidality reach the appropriate professionals or agencies

- Following up with patients to determine telehealth efficacy for client or patient outcomes and to also address any barriers to patient progress

The responsibility of the telehealth provider in the context of other professionals who are involved in the client or patient's care should be clarified prior to the service taking place. For example, a physician who receives a referral from another physician to see a client or patient using telehealth may assume a consultant role. The telehealth physician in this case will only assume responsibility for the client or patient during the telehealth session and will return responsibility to the referring physician once the consultation is complete. In contrast, a physician who assumes care for a client or patient will take responsibility for the assessment, treatment, and follow-up until the client or patient is discharged.

Who is a suitable client or patient for telehealth?

Individual clinicians and organizations are responsible for deciding who is appropriate or not appropriate for telehealth. Factors that could influence this decision include the nature and severity of the clinical problem, the developmental stage of the client or patient, the availability of staff to support the session, the level of comfort of the clinician, and organizational polices.

When considering a client or patient for telehealth, several questions may be posed that will help guide decision-making:

1. Would the provider feel confident seeing the client or patient in her/his own physical office?

2. Would the provider feel confident seeing but not being able to physically touch or otherwise intervene with the client or patient?

3. How would the provider get help if the client or patient experienced an unexpected or even catastrophic situation during the telehealth session?

Where should there be more caution about telehealth suitability?

Although there are no absolute contraindications for telehealth services, the following client and patient profiles may require more shared or cautious decision making:

- Clients or patients who are at risk for violent acts against themselves or others due to conditions such as acute psychosis, mania, or intoxication

- Clients or patients who have symptoms that may be exacerbated by the use of telehealth technology, such as paranoid delusions related to electronics

- Clients or patients with unstable medical concerns that require monitoring such as delirium or substance withdrawal

- Clients or patients with significant physical symptoms that require physical examination where a suitable professional is not available on location to perform the required manoeuvres

Where it is felt that a patient is not suitable for a service using telehealth, alternative service options should be discussed.

How do you obtain informed consent for telehealth?

Consenting procedures for telehealth are similar to those for other mental health and substance use services. They are often tied to a provider's professional regulatory or licensing body, professional standards of practice, and organizational policies. Clients or patients should be made aware of the option to decline telehealth services at any time and what other routes to treatment exist if they decline or are considered unsuitable for telehealth. The consent discussion and the client or patient's decision should be documented in an appropriate clinical record. Some clients or patients may not be able to consent on the account of their age, cognitive capacity, or illness. In these cases the consent of a substitute decision maker may need to be sought in accordance with the appropriate legislation and organizational policies.

What types of treatment are suitable for telehealth?

It is suggested that most treatments that can be delivered in a face-to-face office setting are amenable to telehealth. These include:

- Psychiatric (medical) consultation
- Medication prescription and followup
- Individual psychotherapy such as cognitive behavioural therapy
- Parent skills training
- Psychoeducation

What types of treatment are not suitable for telehealth?

While there has been no evidence that any treatment is unsuitable or even unsafe for telehealth, treatments that require significant personal or physical contact with a client or patient are unlikely to be suitable. Examples include psychological testing, play therapy, and neurodevelopmental assessment.

How should a client or patient's physical symptoms or problems be addressed during a telehealth visit?

Some clients or patients may have symptoms or problems that require physical examination, laboratory investigation and imaging. In these instances, a healthcare professional such as a nurse or physician who is located in the client or patient's community will prove invaluable for performing necessary manoeuvers and following up on the results of investigations. Primary care physicians in BC who participate in such a way are able to bill for these services under the Medical Services Plan.

How should telehealth services be documented?

Telehealth services should be documented in a clinical record in the same way and to the same standard as if the client or patient had been seen face-to-face.

What should be known before beginning the telehealth consultation?

The service provider should receive all necessary client or patient information before performing a service. This may include (but is not necessarily limited to):

- Health status
- Previous visits to healthcare providers

- Diagnoses
- Consultation reports
- Medications
- Any existing service plan

Performing a Medication Reconciliation improves safety and is a requirement in most organizations. This requirement applies to telehealth services as well.

How must providers prepare for unexpected or emergency situations?

It is essential that providers of telehealth services have plans in place for unexpected or emergency situations prior to seeing clients or patients. These plans should be discussed with all parties involved in the telehealth session. An essential part of any discussion is designating who is clinically responsible in the event of an unexpected or emergency situation. In the vast majority of cases, the clinical responsibility will be delegated to a clinician 'on the ground' in the client or patient's vicinity.

Examples of unexpected or emergency situations include the following:

- A malfunction of the telehealth equipment or network infrastructure
- A client or patient experiencing extreme agitation or distress
- A client or patient posing a risk of harm to themselves or another person, including a child
- A client or patient experiencing a medical emergency such as a seizure
- The elopement of a client or patient

It is recommended that the following resources be made available to assist during an unexpected or emergency situation where feasible:

- A technical support person at both the provider's location and the client or patient's location
- A staff person at the client or patient's location that can physically attend to the client or patient when asked to do so by the provider
- The phone numbers of security staff and authorities such as police and emergency medical services at the client or patient's location
- Access to appropriate certificates for providers who are qualified to perform assessments and committals under the Mental Health Act

Planning for unexpected or emergency situations and the necessary resources can be documented in the Memorandum of Understanding (MOU), policy manual or other suitable document that clarifies the roles and responsibilities of the involved parties. This is of particular importance where a telehealth provider is working through one agency (such as a health authority) and connecting to another agency to provide service.

Best Practice would dictate that when using telehealth to provide clinical services to a mental health patient, a mental health professional should always be available to support.

What are the ethical issues in providing a telehealth service?

Practicing at a distance creates a unique relationship with the client or patient that requires attention and adherence to professional codes of ethics and principles. The ethical implications of telehealth go beyond issues of privacy and confidentiality and providers should be familiar with their organization's ethics policy to resolve any ethical dilemmas.

Ethical issues in telehealth may include:

- Providing suitable services for clients or patients who opt out of telehealth
- Pressure to provide a level of care that is not feasible using telehealth
- Requests from clients or patients for investigations or treatments that are not appropriate
- Ensuring that telehealth services do not supplant or disrupt existing services in a remote community

Other ethical issues may arise that are related to the growth of e-Health and m-Health modalities such as online support groups, mobile health apps, and computerized (automated) therapy. Providers should follow their organization's ethical codes when considering new technologies.

What are some important 'tips' for providing an effective telehealth session?

Establishing a pattern of practice such as a routine or even a 'script' can help providers cover important ground and avoid mistakes during a telehealth session. A recommended routine for beginning a telehealth session would include:

- Introducing everyone participating in the session, including individuals who may be out of view of the cameras
- Verifying the identity of the client or patient with at least two unique identifiers such as full name and date of birth
- Obtaining and documenting informed consent for the telehealth session (this step is often performed and documented prior to the session taking place)
- Participants should wear clothing that is comfortable. Clothing with complicated repeating patterns such as stripes or herringbone may cause an effect called moiré to appear on video displays. They are best avoided. Neutral colours are recommended.
- Making sure the client or patient understands any service information provided beforehand, such as a telehealth brochure or video. This information should be provided in a developmentally appropriate format and in languages that are common in the service area.

> *It is often helpful to remind participants that the transmission of audio during a telehealth session can be delayed very briefly. Leaving a pause after making a statement or asking a question will help mitigate this. Participants should be reminded that only one person should speak at a time in order to ensure that words are heard clearly.*

Participants should be made aware of what steps to take if technical difficulties are experienced or if the connection should fail. Often the provider and client or patient will connect by telephone or other alternate means if this happens.

The Setting and Equipment for Telehealth Services

Telehealth Equipment and Networks

Before providing telehealth services to clients, practitioners should familiarize themselves with the provision and policies relating to telehealth in their organization to ensure that data can be sent reliably and securely, technical support is available and equipment is regularly checked and maintained. It is also helpful to know what systems are in place to ensure that critical connectivity is maintained during the telehealth encounter.

What type of setting is appropriate for telehealth?

Both rooms in which the client or patient and the provider participate in the telehealth service should be considered examination rooms regardless of the rooms' other intended uses. As such, the rooms should have adequate space to accommodate telehealth service delivery, including space for clients, families, service providers and other staff as required. They should also have appropriate audio and visual privacy including measures such as:

- Soundproofing to prevent people outside the room from hearing what is taking place
- Curtains, shades, or other means to prevent people outside the room from viewing what is taking place
- A sign or other means of indicating that a service session is taking place

The security of telehealth equipment should be considered. Access to equipment, devices and facilities should be controlled through appropriate methods such as locking mechanisms, passwords, safe and secure storage.

The room should be brightly lit with a light source that is as close to daylight as possible. Examples of suitable light sources include windows, fluorescent daylight, or full spectrum light bulbs. Light sources should not cast shadows upon any of the participants' faces. Backdrops should contain as few distractions as possible. Complicated backdrops and patterns will sometimes worsen the quality and speed of video transmission. A solid blue coloured backdrop was often recommended in the past, but modern video equipment is able to compensate for very bright or dark backgrounds. It is still advisable to avoid extreme colour palettes.

What type of equipment is needed to provide telehealth services?

Telehealth equipment must meet all relevant safety laws, regulations and codes for telehealth equipment. A variety of equipment is available to meet the needs of telehealth service providers. To meet legislated demands for privacy and security, as well as the professional standards required of most regulated healthcare providers, it is essential that telehealth equipment employ security measures such as encryption to the greatest practical extent. In practice, this usually means at least 128-bit encryption from the moment the video is transmitted from the provider to the client or patient and vice versa.

Providers in British Columbia should be aware that the Freedom of Information and Protection of Privacy Act (FOIPPA) that governs public institutions specifically prohibits the transmission of personal information (including health information) outside of Canada without the consent of the client or patient except in special circumstances required by law. This requirement functionally prohibits services that are hosted in the United States such as Microsoft Skype and Apple Facetime. Interested parties should consult Part 3, Divisions 1 and 2 of FOIPPA (1996).

Supporting infrastructure should be adequate to provide for a video bandwidth of at least 384 Kbps and an audio bandwidth of 7 kHz in both directions. In many cases, higher bandwidths are possible and preferable to reduce episodes of poor image quality ('pixelation') and audio quality ('stutter').

The camera at the client or patient's location should ideally have the ability to pan, tilt, and zoom to allow the provider to adjust the image for clinical benefit. This is particularly true when examining individuals who are not able to tolerate a long interview; they may be observed while engaging in clinically relevant behaviours while the provider interviews family members and other suitable informants. Microphones should allow voices to be captured without interfering with the provider's examination of the client or patient. A microphone that sits on a table in front of the client or patient or hangs overhead is preferable to a microphone that must be worn or brought close to the mouth. Both the client or patient and the provider should have video displays that provide bright images with adequate resolution to perceive changes in affect and expression.

How should equipment and networks be maintained?

The clinical practice of telehealth is inextricably linked with equipment that is fit for purpose and networks that can safely and securely maintain the telehealth link. The telehealth team should ensure that equipment is properly tested on installation and that any problems with use are addressed and monitored. Clear and concise service level agreements outlining expectations, rights and remedies over equipment performance should be maintained.

Equipment should be interoperable within and outside the organization. One way to accomplish this is by using equipment that conforms to the International Telecommunications Union standard H323. Systems to ensure continuation of the telehealth encounter should be established should there be an equipment failure.

Relevant safety laws, regulations and codes for telehealth equipment should be adhered to. These include the Canadian Standards Association (CSA) Canadian Electrical Safety Code (CSA 22.1), the CSA Safety Requirements for Medical Electrical Equipment (CSA 60601.1), Industry Canada's Electromagnetic Interference Standard (ICES 003) and Health Canada's Medical Devices Act and Regulations.

Regular preventive maintenance plans should be established to maintain, upgrade and replace equipment. This plan should be linked to the feedback of users to ensure user acceptability.

Where should participants and equipment be placed in a telehealth room?

Participants should be seated in an arrangement that allows everyone to see and hear each other comfortably. The video cameras should be placed in a position to allow both the client or patient and the provider to see each other's faces and expressions.

It is important to place the cameras as close to the video screens as possible so that the direction of the eye-gaze of the participants appears natural. The participants will appear to be looking past one another if the cameras are placed far above or away from the video screens. This effect can make it appear that the participants are disinterested or paying attention to something else.

> *Participants should be reminded to look into the camera at regular intervals. It will give the appearance of making direct eye contact and can enhance rapport if used judiciously.*

Microphones should be placed close enough to the participants that speaking can be done at a comfortable volume without straining. It is wise to place telehealth equipment in an area that makes it unlikely to be tampered with by clients or patients, in particular young children and agitated individuals.

What are some other considerations for choosing the setting and equipment for telehealth?

A number of factors should be considered when choosing and purchasing specific telehealth equipment:

- Ease of use
- Price
- Portability
- Interoperability with existing equipment and infrastructure
- Availability of service and support
- Ease of upgrading the hardware or software

A strategy for maintaining and upgrading the telehealth equipment is essential in order to minimize disruptions to service, anticipate the obsolescence of equipment, and address security risks posed by newly identified vulnerabilities.

All providers of telehealth services should have appropriate back up equipment and arrangements in place should an equipment or infrastructure failure occur before or during a telehealth session. Planning may include identifying an alternative location from which to perform the service, making an alternate piece of equipment available to substitute for the failed equipment, or using alternate communication methods such as telephone conferencing.

Infection control considerations

Telehealth equipment that comes into contact with clients or patients should be cleaned and disinfected at regular intervals, preferably pre and post-session in accordance with infection control standards and organizational requirements. This is particularly relevant for remote controls and

microphones. Care should be taken to use cleaning agents that are safe for sensitive electronic devices.

Mobile telehealth units taken to different hospital settings such as inpatient units, busy outpatient clinics, the Emergency Department or Intensive Care Unit may be particularly vulnerable to transmitting infection. Staff should follow the infection control policies of their organization.

Guidelines for Telehealth Services in Special Situations

Clients and patients who are unable to give consent

Examples include young children and clients or patients of any age with severe illnesses such as advanced dementia or psychosis.

Children

The British Columbia Infants Act (1996) states that even young children may consent to their own treatment without parental consent if they understand the nature and consequences, and the reasonably foreseeable benefits and risks, of the care. The Act further states that the provider must determine that the health care is in the best interests of the child. Regardless of whether the child is in a position to consent, the nature of the telehealth service including who will be involved and what to expect during and after the visit should be explained in a developmentally appropriate way.

Individuals with severe illness

A suitable substitute decision maker such as a spouse, parent, or child is the preferred person to make decisions about the healthcare of someone who is incapable of consenting on their own. In some cases of severe mental illness it is appropriate for a designated individual such as the director of an institution to consent to emergency or life-preserving treatment on an individual's behalf. In BC these situations are described in the Mental Health Act (1996).

Clients and patients with disabilities and cognitive, visual, or hearing impairments

Consider the nature of the disability or impairment and how it may affect the choice of modality for assessment and treatment. For example, individuals with significant visual impairments may benefit from audio-only telehealth modalities if the healthcare provider does not need to perform a visual examination. Some individuals with significant cognitive impairments may require physical examination manoeuvers and sophisticated neuropsychological testing that are not possible using telehealth. These individuals will need to receive services face-to-face.

A number of technological enhancements may benefit individuals with visual or hearing impairments. Modifying the brightness, contrast, and size of the image on a display monitor may benefit someone with a visual impairment. Using headphones may enhance the experience for someone with a hearing impairment.

Clients and patients with significant cognitive impairments demand a suitable informant who can provide collateral information to the healthcare provider.

Clients and patients who require interpretation services

It is possible to use interpretation services during a telehealth encounter in much the same way as a face-to-face service. Similar guidelines apply:

- A qualified interpreter should be sought; family members and friends are not suitable except for trivial matters or emergency situations
- The participants should speak in concise phrases to give the translator opportunity to translate quickly and accurately
- Participants should pause briefly after each statement to allow time for the voices to transmit through the telehealth equipment and network
- The provider should ensure that the client and family understand the service information provided and document this in the client health record. Clear, appropriate language should be used and culturally relevant materials should be provided.

Interpreting through telehealth has one potential advantage for participants who do not need to see the interpreter: An interpreter can be added to a session without physically attending either participating site. In these situations the interpreter joins via an 'audio-only' connection. This may allow for more transparent interpretation.

Clients and patients who are potentially unstable, agitated, at risk of harming themselves or others, or may elope

There are many examples of individuals who are at risk. Children and adolescents are often impulsive and may experience a crisis during a telehealth session. An individual with a psychotic illness may display disorganized or even violent behaviour. A client or patient who is suffering from severe depression or post-traumatic stress disorder may experience a suicidal crisis when difficult material is discussed. It is important to consider whether these individuals are suitable for telehealth service. This is ultimately a clinical decision that is the responsibility of the healthcare provider. Some guidance is offered in the Practicing in a Telehealth Service section of this document.

Providers should be trained to identify, reduce and manage risks to client and staff safety and should regularly participate in safety briefings to share information about potential safety problems, reduce risk of error and improve quality of service.

If the provider decides that an at-risk client or patient is suitable for telehealth, it is essential that the client or patient is accompanied to and from the session by a responsible individual such as a friend, family member, or healthcare professional. This individual serves several potential functions including:

- Providing transportation to and from the appointment
- Providing emotional support to the client or patient, especially after a session where difficult or traumatic material is discussed
- Providing collateral information to the provider
- Supervising a client or patient who needs to leave the room briefly during the service
- Providing assistance during an unexpected or emergency situation

In some organizations, such as the Youth Forensic Psychiatric Services of BC, the attendance of a responsible individual is a requirement for service provision.

Appendices

Appendix A: References

Accreditation Canada (2014). Telehealth Services Standards.

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Appendix B: Starting a New Telehealth Service

Implementation of telehealth in the mental health setting requires some advance planning and preparation. This is especially crucial in relation to clinical applications which require specific steps to mitigate potential privacy and safety risks. Interested parties are advised to consult with their local health information technology professionals, experienced telehealth clinicians, and regulatory bodies. Two online resources (University of Colorado Denver (no date); US Department of Health and Human Services(2013) may also be of help, although they focus on the American experience of telehealth.

It is suggested that the following readiness components need to be in place prior to initiating use of clinical telehealth services:

1. **Training**: All staff involved in the telehealth service have completed training in areas such as (a) policy and standards relating to telehealth, (b) best practices in the use of telehealth with the population they intend to serve, (c) technical training to use the telehealth equipment, and (d) coping with unexpected and emergency situations.

2. **Technical Readiness**: Telehealth equipment that is intended for direct service delivery should be approved for clinical use. Many organizations have a process for evaluating and approving telehealth technologies. It is best to consult with the organization's information technology department to see if candidate equipment is suitable for its intended use. Plans should be made for regular maintenance, upgrades, replacement, and technical support before starting to deliver services.

3. **Site and Room Readiness**:   Clinical telehealth requires use of rooms that (a) protect privacy and confidentiality, (b) are comfortable and safe for all participants, and (c) support good quality sight and sound. We make comment on these aspects in the section entitled The Setting and Equipment for Telehealth.

4. **Operational Readiness**: Each telehealth site needs to have operating procedures in place for referrals, scheduling, storage of clinical documentation, collection of evaluation and outcomes measures, and coping with unexpected or emergency events such as technical failures, deterioration of a client or patient, and harm to a client or patient.