How to plan and conduct telehealth consultations with children and adolescents and their families

World Health Organization

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Contents

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Abbreviations and acronyms

COVID-19	coronavirus disease 2019
HCP	health-care professional
WHO	World Health Organization

Glossary

Asynchronous teleconsultation: Transmission of health data (e.g. health history, test results, images) through an electronic communication system to a health-care professional (HCP), who uses the information to evaluate a case or render a service. Also called "store and forward telemedicine". Also called "asynchronous telehealth", "asynchronous telemedicine" of "store and forward".

Caregiver: An adult who cares for an infant, child or adolescent. Caregivers include parents, family members and non-family members. Their role may be formal (e.g. legal guardian) or informal and may be paid or unpaid.

Client: A person who receives health-care services, otherwise known as a "patient". In this guidance, refers to an infant, child or adolescent rather than to their caregiver.

Digital health: An umbrella term for digital technologies used to support health and health-related fields. Includes mobile health (use of mobile wireless technology for health), electronic health records, telehealth, telemedicine, wearable devices, robotics and artificial intelligence. 1

Health-care professional: A person who has been formally trained and is registered with a relevant organization to provide health care. They include doctors, dentists, nurses, allied health professionals, mental health professionals and, in some countries, community health workers.

Synchronous teleconsultation: A teleconsultation in real time.

Teleconsultation: Use by an HCP of electronic communication and software to provide remote clinical services to clients without an in-person visit. Also referred to as "client-to-provider telemedicine".

Telehealth: A broad range of technologies and services to provide client care remotely and improve health-care delivery and systems. In addition to clinical services, telehealth provides other services, such as provider training, administrative meetings, continuing medical education and health promotion.

Telemedicine: Delivery of health-care services at a distance. Includes a consultation between an HCP and a remote client, remote monitoring of client health or diagnostic data by an HCP, transmission of medical data (e.g. images, notes and video) to an HCP and consultations between HCPs for case management.2 The term is used interchangeably with "teleconsultation"; related terms include "client-to-provider telemedicine", "tele-prescribing", "tele-education", "tele-monitoring" and "tele-practice".

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1 WHO guideline recommendations on digital interventions for health system strengthening. Geneva: World Health Organization; 2019 (**https://www.who.int/reproductivehealth/publications/digital-interventions-health-system-strengthening/en/**).

2 Classification of digital health interventions. Geneva: World Health Organization; 2018 (WHO/RHR/18.06) (**http://apps.who.int/iris/bitstream/handle/10665/260480/WHO-RHR-18.06-eng.pdf?sequence=1**).

Overview

Teleconsultations are increasingly part of global health care; however, there are few resources to guide best practice for their use with children and adolescents. This document is intended to provide practical guidance to health-care professionals (HCPs) in planning, setting up and conducting teleconsultations with infants, children, adolescents and their families or caregivers. It outlines a range of clinical and non-clinical factors for deciding when a teleconsultation is appropriate.

Teleconsultations involve the use of information and communications technology to provide clinical services to clients by an HCP without an in-person visit. Teleconsultations can be categorized as synchronous (occurring in real-time by videoconference, telephone or platforms such as WhatsApp and Facetime) or asynchronous (transmission of health data, such as health history, test results or images, through an electronic communications system with no real-time or live interaction). This guidance focuses on synchronous teleconsultation.

This guide does not make recommendations about the diagnosis or treatment of conditions and is not intended to replace sound clinical judgement. It does not include information on health-care services delivered with use of a computer program, app or social network site, nor does it include information on use of telehealth for consultation between HCPs when a client is not present or for medical education.

Scope and target readership

The document provides practical guidance on organizing teleconsultations with infants, children, adolescents and their families or caregivers. The guidance is designed to be used by a wide range of HCPs such as doctors, nurses, midwives, allied health professionals and community health workers who have been formally trained and are registered with a relevant organization to provide health care to infants, children and adolescents in various settings (e.g. community, primary care, hospitals).

The guidance is intended to be relevant both in countries where teleconsultation is already used and in countries in which teleconsultation systems are being strengthened. Furthermore, the guidance may be of interest to policy-makers who are developing health systems and to health facility managers, as it signals some opportunities and challenges in teleconsultation. It may also be of interest to faculty involved in medical education and training. The aim of this practical guidance is to encourage greater use and consistency in teleconsultations.

It is recognized that health needs, health systems, health and technology literacy and workforce capacity differ widely by country and within countries. Teleconsultations are used in the context of each country and health system and are intended to fit into the country's digital health architecture. Effective implementation should therefore reflect the behavioural and organizational changes required with regard to factors such as software and communication channels and also the legislative and policy environment. A cohesive approach to implementation should be supported, in which teleconsultations are suitable for each context and country; however, the guidance does not describe these aspects in detail. The reader is referred to other WHO guidance *(see Links to other WHO resources).*

Development of the guidance

This guidance is based on evidence from two reviews of the published and grey literature and on input from an international group of contributors, including HCPs and clients with a range of experience in teleconsultation. The contributors consisted of an international multidisciplinary advisory group convened by the Centre for Adolescent Health, Melbourne, Australia, and a group of peer reviewers that consisted of clinicians experienced in child and adolescent health in high, middle- and low-income countries convened by WHO.

The first review was of publications on teleconsultations with adolescents aged 10–19 years, while the second was conducted to identify evidence and issues specific to children aged 0–10 years that had not been captured in the first review. For each review, eight databases were searched and relevant articles published in English, French or Spanish were included. In addition, Internet searches were performed to find relevant information from health professional and telemedicine organizations. A total of 117 articles and four websites were used for the two reviews. Only six of the articles were from low- and middle-income countries, and the suggestions and recommendations below are therefore based mainly on evidence high-resource settings. As telehealth is becoming a routine service even in low-resource settings, the suggestions and recommendations in this document may be useful to guide HCPs in preparing and delivering teleconsultations with children and adolescents and their caregivers in those settings.

Links to other WHO resources

WHO has issued several clinical and public health guidelines on digital health. "Digital health" is broader than teleconsultations, as, in addition to telehealth and telemedicine, it includes mobile health applications, electronic health records, wearable devices, robotics and artificial intelligence. The WHO resources listed below (and also at the end of the document) include recommendations that may be useful for governments, policy-makers and health organizations involved in developing or strengthening their teleconsultation systems.

- **WHO guideline: recommendations on digital interventions for health system strengthening**
- **WHO interim guidelines: implementing telemedicine services during COVID-19: guiding principles and considerations for a stepwise approach**
- **Classification of digital health interventions**
- **Telemedicine opportunities and development in Member States**
- **Youth-centred digital health interventions: a framework for planning, developing and implementing solutions with and for young people**

1. Context

1.1 Brief timeline

Real-time teleconsultations can be traced to the mid-twentieth century, when specialists at a psychiatric institute in the USA consulted with primary care doctors at a distant psychiatric hospital using television technology. During the remainder of the century, teleconsultations in many high-income countries followed largely the same model, technology being used to connect clients and their primary care doctors with a specialist at another location. In the past two decades, teleconsultations have increasingly been used to deliver services directly to clients in various settings, including the client's home, school or residential care or youth justice facility. Although the use of teleconsultations has steadily increased, until the end of 2019 most HCPs continued to deliver most, if not all, consultations face-to-face. In 2020, the use of teleconsultations escalated rapidly as a result of the COVID-19 pandemic and the subsequent "lockdowns" in many countries, which restricted face-to-face consultations to severe health issues or medical emergencies. While most HCPs experienced challenges in delivering services remotely during the pandemic, many identified advantages of teleconsultations and appreciated the circumstances in which a teleconsultation would be preferable to a face-to-face consultation. Many clients had similar experiences.

Regardless of the trajectory of the COVID-19 pandemic, increased familiarity with teleconsultations by both HCPs and clients is expected to lead to greater use in the future. Thus, teleconsultations will become increasingly used in many settings, mainly to supplement to face-to-face consultations, including in low- and middle-income countries.

1.2 How teleconsultations with children and adolescents differ from those with adults

In general, the procedure for teleconsultations with children and adolescents is similar to that for adults (see section 2). Several issues, however, are either unique to or exacerbated in sessions with infants, children and adolescents and should be recognized by HCPs. These are summarized in Fig. 1 and described in more detail below.

Fig. 1. ***How are teleconsultations with children and adolescents different from those with adults?***

- **Rapid clinical deterioration**: The physical health of infants and young children can deteriorate much more quickly than that of adolescents and adults. Further, the early warning signs of serious illness in this age group may be more difficult to recognize, especially without a physical examination. The risk of missing signs of serious illness in infants and young children is therefore increased in a teleconsultation.
- **Ability to communicate**: When the client is a newborn, infant or toddler and HCPs cannot conduct a physical examination, they rely almost entirely on information provided by the caregiver, although pre-school and primary school-aged children may be able to verbalize some of their symptoms. The challenge is usually greater when the client has a communication disability.
- **Ability to engage with the teleconsultation**: Young children and those with cognitive, sensory, or behavioural difficulties may find it difficult to sit in front of a screen throughout a teleconsultation (see ***Case study 1***). The varying ability of younger and older adolescents to engage should also be recognized.
- **Multiple stakeholders**: Because caregivers typically play an active role in the health care of children and of many adolescents, HCPs commonly communicate with several people during a teleconsultation.
- **Setting**: Teleconsultations with children and adolescents may be conducted in age-specific settings, such as schools, out-of-home care and youth justice facilities. The procedures might need to be adapted to the setting, especially to ensure consent, privacy and confidentiality.
- **Privacy and confidentiality**: It may be more difficult to ensure privacy and confidentiality in a teleconsultation than in a face-to-face consultation. In contrast, in some low- and middle-income countries, limited space in a provider's waiting room and office may impede privacy even in face-to-face consultations, and teleconferencing may improve privacy and confidentiality. Concern about privacy and confidentiality is a known barrier to health-care use among adolescents and may be exacerbated in a teleconsultation at home (see below for more detail).
- **Abuse and neglect**: It may be more difficult to identify abuse and neglect in a teleconsultation than in a face-to-face consultation (see below for more detail).
- **Early intervention:** Early diagnosis and intervention are essential in paediatric health care (e.g. for congenital, neurodevelopmental and behavioural disorders), which may be more difficult in a teleconsultation because of limited observation of behaviour (see ***Case study 1***) and lack of a physical examination.

Case study 1

An 8-year-old Australian boy was referred by his general practitioner to a paediatrician for assessment of possible attention deficit hyperactivity disorder. His mother had been concerned about his behaviour for a number of years, and his teachers had recently raised concern that he was easily distracted in class and found it difficult to sustain his attention to complete tasks.

A video telehealth consultation was conducted for him at home with his mother. Establishment of the video connection took about 10 min, and the connection was interrupted several times; the consultation was eventually conducted on the phone. The boy attended briefly at the start, before leaving to play. He appeared pale and thin, relatively impulsive and interrupted the consultation repeatedly. The limited interaction raised concern about his verbal comprehension and speech. He did not make eye contact on the screen, and left the room. The doctor tried to have a private discussion with the mother but was unsure whether the boy could overhear the conversation, as he wandered in and out of the room. In addition to concern about the boy's attention, his mother reported that he was anxious and had significant social difficulty. He also found it very difficult to settle to sleep and usually did not falling asleep until 22:00 or 23:00. She raised no concern about his physical health; however, his diet was limited, with little or no meat. His mother did not know his weight, as there were no scales at home.

The doctor sent parent and teacher questionnaires by e-mail to the mother and asked that they be completed and returned before the next appointment, which was arranged face-to-face, so that he could both interact with the child and examine him.

1.3 Existing evidence

Studies have shown that teleconsultations with children and adolescents are feasible for a wide range of conditions and that clients and caregivers are generally satisfied with remote health-care services, particularly via videoconference. Studies also show that clients' financial costs (e.g. for transportation, parking, lost wages) are substantially lower for teleconsultations than for face-to-face consultations. Currently, the cost-effectiveness of paediatric teleconsultations for a health service is unknown, as the costs of setting-up and maintaining such service have not been sufficiently measured.

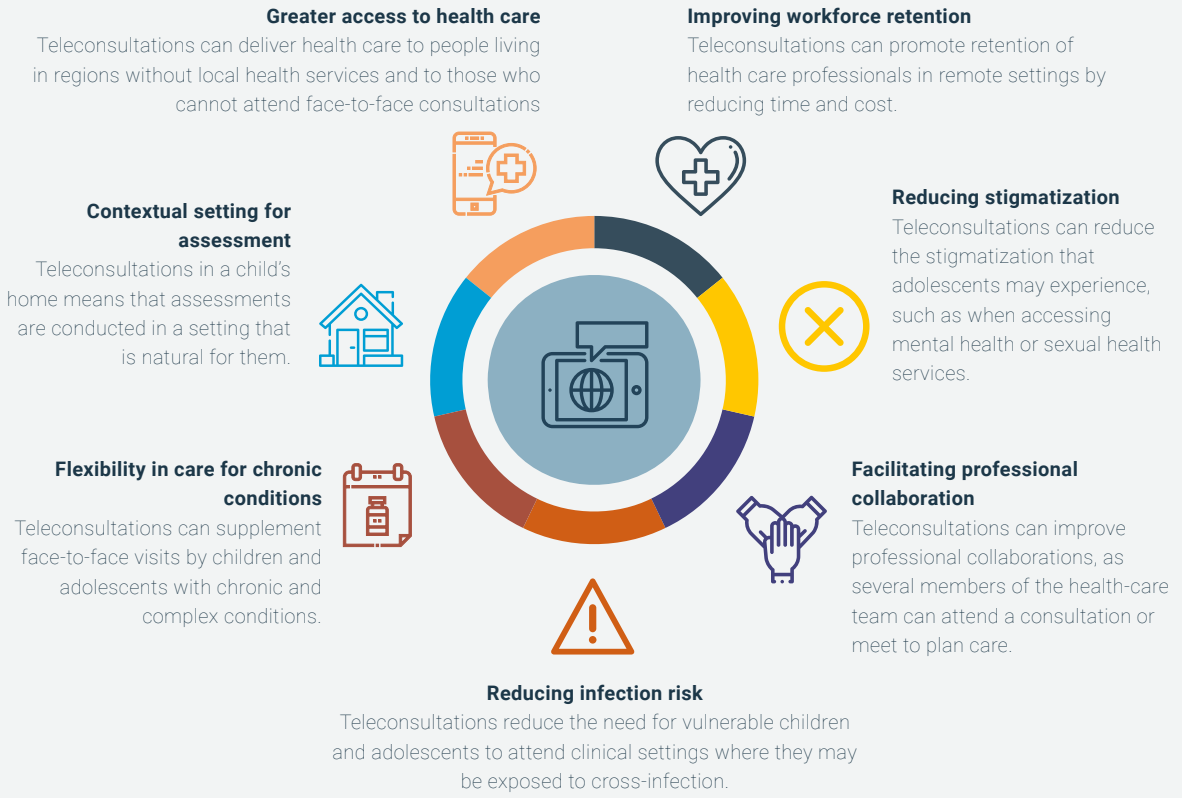
Evidence on the clinical outcomes of teleconsultations with children and adolescents is generally limited to small trials or case–control, cohort and descriptive studies. The best evidence is from assessments of the treatment of psychological, sensory, neurological and behavioural conditions and of the coordination and management of chronic diseases such as asthma and diabetes. For these conditions, studies indicate that teleconsultation can result in outcomes equivalent to those of face-to-face care. Good evidence is lacking on the use of teleconsultation for conditions that require or benefit from a physical examination and related investigations, most studies reporting only descriptive data. Evidence for use of teleconsultations for assessing and managing acute conditions is limited to descriptive reports of clinical practice during the COVID-19 pandemic, which, to date, have not reported client outcomes. There is very little empirical evidence on adverse effects of teleconsultations.

1.4 Benefits and challenges of teleconsultations

1.4.1 Benefits

WHO recommendations on digital interventions for health system strengthening, although not specific for children and adolescents, are based on evidence of the effectiveness, acceptability, feasibility and equity of client-to-provider telemedicine. A long-appreciated advantage of teleconsultations is delivery of services to people living in rural, remote and underserved areas, who might otherwise have inadequate health care. Recently, interest has grown in use of teleconsultations to enhance usual care and to overcome some of the challenges faced by health-care services in low- and middle-income countries. The main benefits of teleconsultation are summarized in Fig. 2 and described in more detail below.

Fig. 2. Benefits of teleconsultations



- **Reducing barriers to access to health care:** Teleconsultations can reduce
  - time and financial barriers to attending health care appointments (e.g. transport and parking costs, lost wages, school absence, care for other dependants);
  - barriers for people living in rural, remote and underserved areas who may not have physical access to a health centre, for those whose physical access is limited by security measures (e.g. in conflict zones) and for those with physical or intellectual disabilities; and
  - barriers for caregivers, such as inability to leave their homes to attend a consultation with their child or those who live in a different location from the child (because of divorce, family breakdown, employment or migration). Extended family may also attend consultations.
- **Reducing the risk of infection:** As seen during the COVID-19 pandemic, widespread use of teleconsultations can minimize viral transmission in community and clinical health settings. Teleconsultations outside the context of an epidemic or pandemic can also reduce the risk of cross-infection among vulnerable children and adolescents (e.g. those with cystic fibrosis or a primary or secondary immunodeficiency, including HIV/AIDS) by limiting their exposure.
- **Providing flexible models of care for children with chronic and/or complex conditions**: Some children and adolescents with chronic and/or complex conditions require frequent medical appointments. Teleconsultations to supplement face-to-face visits can be useful for clients and their caregivers by reducing the burden of frequent appointments and the impact on caregivers' employment and children's and adolescents' schooling. Teleconsultation may be particularly valuable when children's and adolescents' medical symptoms, such as severe fatigue, physical disability or behavioural difficulties, make face-to-face appointments particularly challenging.

- **Contextual assessment:** Teleconsultations make it easier for several family members to attend a consultation and allow HCPs to meet parents, grandparents, siblings and foster carers who might not be able to attend a face-to-face appointment. When a child or adolescent is participating in a teleconsultation in their home, HCPs can observe them in a more natural setting, which may enable more accurate assessment of some developmental milestones.
- **Reducing stigmatization**: Teleconsultations may reduce the stigmatization experienced by adolescents during health services for mental health conditions or for sexual or reproductive health. For example, some adolescents in small communities appreciate geographically distant consultations so that they do not meet people from their local community.
- **Facilitating professional collaboration**: Teleconsultations can improve professional collaboration by enabling members of the health-care team to participate in the same consultation with a client and caregivers or for HCPs to participate in multidisciplinary team meetings in the absence of the client or caregiver.
- **Improving workforce retention**: HCPs may benefit from the convenience of teleconsultations that allow them to deliver care to distant settings without incurring the time, cost and inconvenience of travel. For example, the possibility of delivering services remotely has been shown to increase retention of psychiatrists in youth justice facilities.

1.4.2 Challenges

Despite these many potential benefits, teleconsultations may be limited by a number of challenges, some of which are systemic and not unique to child or adolescent teleconsultations, including poor integration into the health-care system, a potential increase in inequality of disadvantaged populations and difficulties in receiving payment for services (Fig. 3).

Fig. 3. Challenges to teleconsultations

Practical suggestions for addressing some of the challenges are described in section 2. Challenges to the accuracy of diagnoses, assessing safety, ensuring privacy and developing rapport with both children and adolescents and their caregivers are listed below.

- **Obtaining an accurate diagnosis or assessment:** It may be more difficult to make an accurate diagnosis or assessment without conducting a physical examination and in-person observation of behavioural symptoms, non-verbal cues and some aspects of the caregiver–child and parental relationships. Observations shared by video, image or audio may be influenced by the ease with which clients can use teleconferencing to share private information. For young children especially, HCPs must rely heavily on information provided by caregivers, teachers and others.

  Beyond the lack of a physical examination, an additional challenge for making an accurate diagnosis is when specialized clinical equipment is required (e.g., ophthalmologists may require remote testing equipment such as tonometers, binocular function and motility testing software and ancillary imaging modalities).

Although preliminary evidence suggests that non-urgent learning, behavioural and neurobiological conditions can be accurately assessed via teleconsultation, especially video teleconsultations, the change in the mode in which assessments are made may alter assessment and influence the results. This is especially pertinent if decisions based on data from remote assessments determine the intervention services offered to the client.

- **Assessing and responding to safety concerns**: As HCPs have less control over the environment in a teleconsultation session than in a face-to-face session, it is more difficult for them to assess a client's safety and to respond to a crisis or emergency. Safety concerns are raised when a client unexpectedly leaves a session or has a medical emergency, imminent risk of self-harm or suicide or concern that the client (or the caregiver) is at risk of harm from others, including child abuse, neglect or sexual coercion.
- **Ensuring privacy and confidentiality**: It is more difficult to ensure the privacy and confidentiality of a consultation when it is conducted remotely. The client may not be aware of the value of a private space or may not have a private space in which to participate in the consultation. The risk of breaching confidentiality is increased if another person controls the client's device or if a client uses someone else's device to participate in the teleconsultation, especially if the consultation involves exchange of written messages (e.g. SMS, chat function), test results or images that can be seen, saved or accessed by others. More malevolently, teleconsultations with adolescents are susceptible to deliberate breaches of privacy through spyware installed by a controlling caregiver or partner. HCPs should therefore assess whether a teleconsultation would compromise safety or expose the client to risk of harm. While concepts of privacy and confidentiality depend on the culture, HCPs should be aware that lack of privacy may be a significant barrier to engagement with and assessment of adolescents.
- **Promoting engagement and developing rapport**: Some clients and their caregivers may place less importance on a teleconsultation than on a face-to-face consultation. The potential consequences include failing to seek a private space in which to participate in the consultation, connecting to the consultation from an inappropriate location (e.g. while driving or in bed) and taking part in a consultation while doing other tasks (e.g. housework, shopping, socializing). Some HCPs may find it more difficult to develop a rapport with children and their families via teleconsultation if a relationship has not previously been established. Some children and adolescents may feel anxious about being seen on a screen, which may interfere with the therapeutic rapport.
- **Containing challenging behaviour**: It is more difficult to contain challenging behaviour in a teleconsultation than in a face-to-face consultation. For example, anxious or defiant adolescents may refuse to join a call, refuse to sit where they can be seen on the screen or prematurely end a teleconsultation.
- **Dealing with interruptions:** A videoconference may be impeded by insufficient bandwidth or difficulty in connecting to the Internet. Frozen screens and Internet failure increase the time required to complete a consultation, may complicate clients' and carers' understanding of instructions and tasks and are more tiring for the HCP and the client. Consultations conducted in the client's home may be interrupted by disturbances specific to the home environment (e.g. family members leaving the room and interruptions by non-participating family members or pets).
- **Exacerbating inequality:** Teleconsultation may itself introduce inequality, socio-economic, geographical and linguistic disadvantages. In general, clients with low incomes are less likely than those with high incomes to be technologically literate, have access to the necessary technology, have sufficient data or credit to participate in video or telephone calls and have a private place to participate in a session.

People living in rural and remote areas are much less likely than those living in urban areas to have coverage with a mobile-broadband network and access to the Internet in their home. The discrepancy in mobile-broadband coverage between urban and rural areas is a worldwide phenomenon and is most pronounced in countries where telecommunications are least developed. In some countries, 17% of the population live in areas with no mobile coverage, and 19% are covered only with a 2G network.[3]

It may be more difficult to conduct a teleconsultation with families whose first language is not spoken by the HCP, even when an interpreter is available. Teleconsultations with families who are not proficient in the language of the health service or the HCP take longer. The addition of interpreters connecting from different devices may also increase the likelihood of technical problems.

- **Integration with health-care systems**: While teleconsultations have been adopted rapidly by many HCPs during the COVID-19 pandemic, relatively few health-care systems have integrated teleconsultations into prescribing, referral and financial reimbursement. Insufficient payment and the inability to bill for services rendered are commonly cited barriers to teleconsultations.
- **Managing provider fatigue**: Delivery of health-care services via teleconsultation makes consultations more complex, often less predictable and longer than face-to-face consultations. Online consultations are more tiring than those conducted face-to-face, especially with poor-quality audio or video, time lags and other technical interruptions, such as frozen screens or network disconnection. There is also significantly less non-verbal communication, so that HCPs have to work harder to both interpret and convey meaning. Videoconferences increase the size of faces on the screen and involves closer eye contact, both of which require more alertness. Teleconsultations may therefore feel more intense and leave HCPs feeling emotionally drained.

1.4.3 Specific challenges in low-income settings

The challenges to using teleconsultations in low-income settings are similar to those in other settings but are exacerbated by social, political, legal and technological factors, which in turn can raise ethical questions for HCPs. The most deprived populations in wealthy countries may face similar challenges. Some of the dilemma in use of teleconsultations is related to the advantages of promoting access to health services without increasing inequality of access. There is no strong evidence of the impact of teleconsultations with children and adolescents in all settings, and research on access, usefulness and costs in low-income countries and settings is particularly scarce. The main barriers include:

- **Availability of information technology and communications:** While more than 90% of the global population has access to a mobile-broadband network (3G or greater), about one fourth of the population in countries with the least-developed telecommunication systems have no access. Africa is one of the regions with both the lowest rate of coverage (23% of the population has no access to 3G or greater) but the fastest growth in access.[1] Even with geographical availability and individual access, poor general and technological literacy are challenges. For example, most HCPs in low-income countries do not own a feature-rich smartphone with a connection to the Internet, although this situation is changing. In virtually every community, those most in need of access to health services (vulnerable groups, including adolescent girls and extremely poor people) have the least access to the Internet and the fewest means to negotiate its use

3 Measuring digital development. Facts and figures 2020. Geneva: International Telecommunications Union, Development Sector; 2020 (**https://www.itu.int/en/ITU-D/Statistics/Documents/facts/FactsFig.s2020.pdf**).

- **Health system:** Many low-income countries are still strengthening universal access to essential primary health services, and access to more complex health-care delivery, such as videoconsultation, is still aspirational. With rapid advances in Internet access and technological literacy, however, it will be important to consider how health-care systems, programmes and policies even in the poorest settings should be modified to accommodate teleconsultations.
- **Lack of national e-health policies or laws:** Scaling up teleconsultations requires an enabling environment constituted by laws, policies, political will and funding commitments, which are often lacking or underdeveloped. Whatever decisions are made and policies and laws developed, consideration should be given to making the best use of limited resources rather than emulating or adapting initiatives from widely different settings.
- **Burden of disease:** Technologically appropriate, culturally sensitive options must be chosen according to a country's burden of disease in children and adolescents, the needs of its population and the health-care system. In low-income countries, children and adolescents have both a high burden of communicable diseases and a growing burden of noncommunicable diseases, which, because they are chronic and require continuous care may be more suitably addressed by teleconsultations.
- **Teleconsultation in countries with large rural populations:** Countries with large rural populations stand to gain the most from teleconsultation. In low-income countries, beyond lack of access to the Internet and poor technological literacy, attention should be given to empowering rural communities to use teleconsultation.
- **Ethical considerations:** In contexts of extreme poverty and lack of resources, while it may be technologically possible to make diagnoses by teleconsultation, it is important to consider the ethical challenges of diagnosis in the absence of resources to provide appropriate treatment. Additional challenges are cultural differences in views of child and adolescent autonomy, privacy and confidentiality **(see Case study 2)** and reconciling them with the best standards of care.

Case study 2

A recently married 18-year-old adolescent in rural India experienced menstrual irregularity that put her at risk of anaemia. She had no access to a specialist in her region. As part of a health promotion project in her village, she was offered a teleconsultation with a specialist. In line with local cultural norms, the family rather than the client had to agree to any health care she might receive. Many phone calls to explain the technicalities, advantages and necessity of a teleconsultation were required before the family agreed to an appointment. Privacy was impossible to obtain in the teleconsultation, which took place in a one-room house. The male family member (not her husband) who owned the only smartphone was present, with the client, her mother-in-law and six other women from the family and neighbourhood. All questions on medical history were answered by the client's mother-in-law, as it was deemed disrespectful for a daughter-in-law to speak in front of her in-laws. Thus, neither her sexual history nor any other significant medical history could be obtained, nor could any other potentially sensitive information be sought, such as on the young woman's emotional well-being or any risks at home. The young woman was managed in the context of these limitations. The consultation nevertheless was an excellent opportunity to educate the women of the village, of three generations, about menstrual management and dietary habits.

2. Conducting a teleconsultation

Teleconsultations can address problems of distance and access but are still associated with many of the challenges of health system interventions in general, including poor case management due to insufficient training, poor managerial support, limited infrastructure and poor access to equipment and supplies. These considerations should be addressed, in addition to the specific implementation requirements of digital health (for related guidance, see Links to other WHO resources).

The suggestions made below are based largely on evidence from countries in which videoconferencing is used, most of which are high-resource settings. All the recommendations cannot be applied to a teleconsultation in a setting without adequate resources or in an emergency situation. As telehealth matures to become routine even in low-resource settings, however, these suggestions may be useful to guide HCPs in preparation and delivery of teleconsultations with children and adolescents and their caregivers.

Fig. 4 summarizes the steps in planning and conducting a teleconsultation.

Fig. 4. The teleconsultation pathway

Teleconsultations for health services

"Teleconsultation" means delivery of health services in real time by a health-care professional to a client at a separate location with information and communications technology, such as a videoconference, mobile phone or app.

The COVID-19 pandemic is providing an opportunity to consider how teleconsultations can be integrated within health services for children and adolescents.

Teleconsultations can increase access of children and adolescents to health care, but clients who need on-person consultations, such as infants with acute health problems, must be identified..

How to set up a teleconsultation service

Click on the respective step for detailed information

STEP 1

Understand the regulatory environment.

STEP 2

Determine whether a teleconsultation is appropriate.

STEP 3

Create a virtual clinic.

STEP 4

Develop teleconsultation protocols.

STEP 5

Prepare clients for a teleconsultation.

STEP 6

Organize interpretation if necessary.

STEP 7

Conduct the teleconsultation with client and their caregivers

STEP 8

Coordinate post-teleconsultation activities (e.g. payment, follow-up appointment)

Studies show that...

Clients and carers have expressed strong satisfaction with teleconsultations, especially though videoconferences.

Teleconsultations reduce the financial costs for carers and can minimize school absence for children and adolescents.

It is more difficult to maintain privacy in a teleconsultation, which can complicate certain consultations with adolescents.

Teleconsultations with children and adolescents are best considered adjuncts to health care delivered in person, rather than replaciements.

2.1 Before the teleconsultation

Before undertaking a teleconsultation, it is important to understand the regulatory environment, decide whether a teleconsultation is appropriate, create a virtual clinic, develop a protocol, prepare clients and their families and organize interpretation if necessary (Fig. 5).

Fig. 5. ***Before the teleconsultation***

Understand the regulatory environment

- Understand the regulatory environment
- Consider the standards of practice, legal and regulatory issues, privacy and confidentiality, informed consent, ethics and reimbursement.

Consider whether teleconsultation is appropriate.

- Consider the risks and benefits of teleconsultation for each situation and decide on each case according to the characteristics of the client and their environment (age, language, medical condition, setting, client preferences)
- Availability of technological resources
- Purpose and requirements of the consultation

Create a virtual clinic

- Identify the appropriate technology and equipment
- The choice of technology should be appropriate to and adequate for the clinical service to be delivered, e.g. high-quality microphone and cameras.
- Check Internet bandwidth
- Bandwidth ≥ 384 Mbp/s is recommended for video consultations.
- Validate data security
- The platform must be compliant with relevant privacy regulations and meet the security and privacy required for health services.
- Review your physical space.
- Replicate a typical clinical experience as much as possible.
- Consider your personal presentation.
- Maintain the same professional presentation for a teleconsultation as for a face-to-face consultation.

Develop a teleconsultation protocol.

- Create a visual checklist of the components and steps of the teleconsultation (See an example in Fig. 6.)
- Describe staff roles and responsibilities
- Create a comprehensive safety plan

Prepare clients, their legal guardians and families for the teleconsultation.

- Prepare a concise client information sheet to explain the process (See example in Fig. 6)

Organize interpretation if necessary

- In advance of the teleconsultation
- by a qualified medical interpreter if feasible

2.1.1 Know the regulatory environment.

Some countries, such as India, rapidly introduced new regulations on teleconsultations during the COVID-19 pandemic. (The experience of rapid implementation of telemedicine during the COVID-19 pandemic is summarized in the interim guidance **Implementing telemedicine services during COVID-19: guiding principles and considerations for a stepwise approach**.) In other countries, policies and regulations on teleconsultations were significantly eased during the pandemic, and it is unclear whether those changes will be made permanent. The onus is on HCPs to be aware of current regulations. Where there is no specific policy or regulation, HCPs should be guided by the regulations for face-to-face consultations, as delivery of health-care services via teleconsultation is held to the same standards of practice.

> When conducting teleconsultations, HCPs must be aware of and comply with the standards of practice, legal regulations and ethical requirements in their jurisdiction of practice.

Standards of practice: *Teleconsultation is not treatment but a mode of delivering health-care services. Therefore, health-care services delivered via teleconsultation are held to the same standards of practice* as those delivered in face-to-face consultations (see for example **WHO/UNAIDS Global standards for quality health-care services for adolescents**).

Legal and regulatory issues: Regulations governing the provision of teleconsultation differ by country and sometimes within countries, which precludes a uniform recommendation. Rather, HCPs should understand and adhere to the relevant laws and medical regulations in their jurisdiction of practice.

Understanding of several types of regulation is particularly important. There are regulations on prescribing, on sharing images of children or adolescents (especially if the images include intimate or potentially sensitive parts of the body) and on the provision of services to a client in the same or a different jurisdiction from the HCP, such as whether a license is required for both. In some jurisdictions, there may be prohibitions on the classes of medications that can be prescribed in a teleconsultation (e.g. stimulants, opioids).

Familiarity with legal and regulatory requirements for mandatory reporting is important, as these also apply to teleconsultations. The legal aspects of providing teleconsultations to children and adolescents whose parents are divorced are the same as those of face-to-face consultations. In some settings, such as teleconsultations with adolescents in school health services, additional legal aspects may have to be clarified. When providing teleconsultations to adolescents in justice settings, it is important to clarify the client's legal status (e.g. before or after sentencing) and the role of the HCP (e.g. to provide a forensic evaluation for use in legal proceedings or to provide routine clinical care) and to share this information with the client as would be done in a face-to-face consultation.

Privacy and confidentiality: In general, the laws on privacy and confidentiality are the same for a teleconsultation and for face-to-face encounters. For example, laws for protecting the privacy of minors who provide consent for their health care continue to apply. If the teleconsultation is recorded, the laws on the recording of private conversations in the practice's jurisdiction must be known. They would typically require clients to provide written consent for recording and for the recording to be stored securely.

Informed consent: The requirement for informed consent for health care services differs substantially around the world. Even within countries, requirements may differ according to the practice's jurisdiction, the age of the client and the purpose of the consultation. Local, regional and national laws on the age of consent for health care, the conditions for which consent is required and a requirement for verbal or written consent for delivering care by teleconsultation should be respected. Consistent with usual practice, assent should always be obtained from a child or adolescent.

Ethical considerations: Best ethical practice should be applied and all relevant ethical guidelines complied with (see for example recommendations on privacy, confidentiality, informed consent and capacity for decision-making in WHO/UNAIDS Global standards for quality health-care services for adolescents). Some issues, particularly safety and inequality, may be inadvertently exacerbated in teleconsultations. Before a teleconsultation begins, the client and the family should be informed about the limitations of the remote format, their right to refuse a teleconsultation and the possibility that the health issue might have to be addressed face-to-face.

Reimbursement: Before the COVID-19 pandemic, many studies were conducted on the difficulty of service providers in obtaining reimbursement for services provided though teleconsultation. During the pandemic, many countries relaxed the requirement for insurance for billing of services provided by teleconsultation. Before the pandemic in Australia, for example, the Government subsidised teleconsultations only if the client lived more than 15 km from the closest health service. This restriction was removed during the pandemic to promote access to teleconsultation.

2.1.2 Consider whether a teleconsultation is appropriate.

Teleconsultation is not suitable for all clients, caregivers or health conditions. The risks and benefits of teleconsultation should be considered for each situation and decided case by case. The limitations of teleconsultations should be considered in deciding whether it is appropriate.

Teleconsultations with a medical specialist at a distant site when the client is in the same room as the HCP have been shown to be successful; however, experience during the COVID-19 pandemic indicated various challenges and contraindications to successful teleconsultations in a client's home. In determining whether a teleconsultation is appropriate, the client's and carer's characteristics, the availability of technological resources and the purpose or requirements of the consultation should be considered, as summarized in Fig. 6 (see also Case study 3).

Fig. 6. ***Consider whether a teleconsultation is appropriate***

Client characteristics

Age:

- Does the client's age put them at risk of rapid deterioration?

Language:

- Do the client and caregiver have the language skills necessary to effectively participate in a teleconsultation?
- Is an interpreter available if needed?

Sensory, cognitive and behavioural impairment:

- Does the client have impairments that might make it difficult for them to take part in a teleconsultation?

Environment:

- Does the client have sufficient privacy for the teleconsultation?
- Is there any anticipated risk to child safety?
- Are there likely to be distractions that significantly interfere with the teleconsultation?

Client preference:

- Would the client or their caregiver prefer a face-to-face consultation?

Technology

Availability of technology:

- Do you and the client have sufficient bandwidth and network connection?
- If images are necessary, can the client provide them?

Special equipment:

- Do you need special medical devices or equipment for the teleconsultation?

Data privacy and security:

- Are you using platforms that adhere to privacy regulations and security standards?

Purpose of the consultation?

Generally, for a teleconsultation:

- Triage
- Patient education and coaching
- Mental health assessment and counselling
- Sensory, cognitive and behavioural assessments
- Chronic disease review

Consider with caution:

- Prescribing

Generally not appropriate for a teleconsultation:

- Physical examinations
- Conditions requiring images of genitalia
- Acute medical concerns

While a teleconsultation may be preferable to no consultation in some circumstances, the potential implications of a teleconsultation conducted when there are known contraindications (e.g. a client's impairment precludes them from participating, severe illness or a high risk of rapid deterioration) should be considered. In such circumstances, the client should be advised of the limitations of the teleconsultation before or at the beginning of the session and offered an opportunity to refuse it.

Characteristics of clients and their environment

Age: Beyond providing education to caregivers, teleconsultation is generally not suitable for the care of infants, especially for new parents and caregivers with low health literacy. The condition of infants (and children in general) can deteriorate much more quickly than that of adolescents and adults, and HCPs may miss important cues in an assessment conducted via teleconsultation. If the purpose of the visit is a sensory, cognitive or behavioural assessment, young children may have difficulty in focusing on tasks on a screen, which may invalidate the assessment.

Language: Lack of proficiency in the first language of the HCP does not preclude a teleconsultation. More time should be allowed for teleconsultations when there are language differences or when interpreters are required. Even with interpreters, however, evidence suggests that teleconsultations with an HCP who is not proficient in the client's and caregivers' language are less likely to be successful than face-to-face consultations.

Sensory, cognitive and behavioural impairment: While sensory, cognitive and behavioural assessments and treatments can be conducted remotely, teleconsultation may not be appropriate for clients with significant sensory impairment (vision, hearing or motor) or behavioural or emotional dysregulation (e.g. severe anxiety or distress) that limits their ability to understand and engage with the HCP online (see Case study 1) or for children and adolescents with physical disabilities that limit their ability to undertake the assessment online. If the child or adolescent can participate in the consultation only with significant in-person support, the HCP should consider whether the caregiver is adequately equipped for this role. In general, the HCP should determine whether the client's impairment is likely to interfere significantly with their ability to participate in a remote consultation and whether the information obtained will be meaningful.

Environment: In determining whether it is appropriate to conduct a teleconsultation in a client's home, privacy, distractions and safety should be considered. Privacy and confidentiality are important issues in working with older children and adolescents and a recognized challenge for HCPs in teleconsultation. Privacy is compromised mainly when an adolescent does not have access to a private space or when a caregiver insists on accompanying the client or overhearing the conversation. The impact of lack of privacy on ensuring a safe, high-quality teleconsultation should be considered carefully.

Lack of a private, quiet space increases the likelihood that the teleconsultation will be interrupted by distractions from sources such as a television, noise from other rooms, siblings, neighbours or animals. Although some teleconsultations may be successful despite such distractions, they are not appropriate for conducting sensory, cognitive or behavioural assessments that will be used to make decisions about the long-term care of the child. In some circumstances, such distractions obviate a valid mental health assessment.

"Non-neutral" environments are not suitable for teleconsultation. These include situations in which abusive or hostile family members are present or carers cannot contain disruptive behaviour by the child.

Preference: Clients who express a preference for face-to-face consultations should be provided with this mode of consultation insofar as possible.

Availability of technological resources

Teleconsultations are less likely to be successful in low-resource settings. If the purpose of a teleconsultation is to make a diagnosis, it will not be appropriate if the technology or equipment necessary for an accurate diagnosis or assessment is not available.

Availability of technology: Teleconsultations in which images are shared will require more advanced technology and connections than those that could be conducted over the telephone. An assessment or a diagnosis should not be made by video if the client or the HCP has insufficient bandwidth or network connection. If the diagnosis relies on examination of an image (e.g. photo or scan), a diagnosis should not be made if the image is not acceptably clear for an informed opinion by the HCP.

Specialized equipment: The type of equipment necessary for an assessment depends on local protocols. In general, a teleconsultation will not be appropriate if lack of access to the equipment or technology required according to local case management protocols will compromise quality and safety. For example, remote assessment of some respiratory conditions may require spirometers and oximeters, and remote ophthalmological testing may require tonometers, binocular function, motility testing software and ancillary imaging modalities.

Medical device testing: Teleconsultation is not suitable for remote testing of medical devices, unless the validity of remote calibration of a device has been demonstrated empirically. For example, children with hearing loss will require face-to-face appointments for initial stimulation of a hearing device, equipment checks or visits related to device function, whereas children with implanted health devices (e.g. a pacemaker) could have their device checked remotely.

Purpose and requirements of the consultation

The purpose and requirements of the consultation are important in determining whether a teleconsultation is appropriate. For example, a teleconsultation may be appropriate for all children, regardless of age, language, impairment and other factors, if the purpose of the consultation is to renew a prescription for a well-controlled condition or if they have an established relationship with the HCP. In contrast, if the purpose of the consultation is to deliver extremely bad news, a teleconsultation is unlikely to be appropriate. HCPs should use their clinical judgement to determine the appropriateness of a teleconsultation.

Administrative purposes: If local regulations allow, teleconsultations may be used for administrative consultations. For example, if a client and their medical history are well known to the HCP, a teleconsultation can be used to provide a medical certificate or referral to another HCP.

Prescribing: Remote prescription of some classes of medication is contraindicated. As stated previously, the HCP should be familiar with the jurisdictional regulations on prescribing by teleconsultation. In many jurisdictions, drugs of addiction cannot be prescribed other than in a face-to-face consultation. Caution should be exercised in prescribing medication if the client's responses to the medication cannot be appropriately monitored.

Follow-up: Teleconsultations can be used to follow up a face-to-face consultation, for example to review the patient's status or discuss laboratory or imaging test results that were not available at the time of the face-to-face consultation.

Triage: Teleconsultations can be used for initial triage to determine which clients would better be seen in person and which clients can safely be seen in a remote consultation. Triage is more accurate when the child's comprehensive medical record is available. Computer algorithms are increasingly used to ensure the safety of triage.

Patient education and coaching: Teleconsultations are appropriate for client education and for coaching children, adolescents and their caregivers. For example, remotely delivered education and coaching to caregivers and extended families of children with neurological and behavioural disorders increase caregivers' skills and reduce difficult behaviour in children.

Counselling, mental health assessment and treatment: Teleconsultation can be used for mental health assessment and treatment, but its suitability may depend on the mental health condition, its severity and the context. In mental health assessment and treatment, particular attention should be paid to privacy and confidentiality, with protocols to respond to the risks of self-harm and suicide. Teleconsultations can be effective for psychosocial interventions and what is commonly known as "talking therapy". Mental health conditions can also be assessed in teleconsultations, although the HCP may find it difficult to accurately assess non-verbal symptoms.

Sensory, cognitive and behavioural assessments: Assessments can generally be conducted via teleconsultation if other contraindications, such as severe impairment that interferes with the test, are absent and the assessor informs the client of the potential implications and limitations of the testing method and in any subsequent report. Scores obtained by remote testing should be interpreted with caution, especially if the scores have implications for access to education or support services. Some assessments require face-to-face engagement for comprehensive evaluation of social cognition, including rapport-building, pragmatic communication and interactive play.

Chronic disease review: Teleconsultations are often well suited for clients with a chronic health condition, at least for some appointments. Children and adolescents with a chronic illness and their families often express a preference for teleconsultation, especially when the illness is well controlled or there is a heightened risk of cross-infection.

Physical examinations: Teleconsultations are generally not appropriate for conditions that require a physical examination in order to make an accurate diagnosis (see for example Case study 3). Cases that require auscultation, palpation, percussion or close examination of skin texture or appearance should be seen face-to-face. In some circumstances, essential examination findings can be obtained from a remote site (e.g. a primary HCP undertakes an examination on behalf of a specialist HCP); however, the results do not always replicate the findings of the responsible HCP when they undertake their own clinical assessment.

Conditions that require images of genitalia and other sexual body parts: Images (e.g. electronically transmitted photos or video) showing the genitalia or other sexual body parts of infants, children or adolescents should not be accepted. Doing so may expose both the HCP and the caregiver to charges of using a service for the purposes of child pornography.

Immediate medical concern: A teleconsultation is contraindicated for an infant, child or adolescent with a severe illness or at high risk of rapid deterioration (see Case study 3).

2.1.3 Create a virtual clinic.

A video consultation in which the client and the HCP can see and hear each other on screen with no obvious time lag is the preferred mode. Although teleconsultations can also be conducted by telephone or mobile apps, these platforms are significantly less accurate for making a diagnosis or providing treatment. Teleconsultations are more likely to be successful if a "virtual clinic" is well organized and with good technological equipment, bandwidth and Internet connection, data security and the physical space in which the consultation will be held, as summarized in Fig. 5.

Equipment: Technology should be chosen that suits the clinical service being delivered. High-quality microphones and cameras added to the computer may be superior to those that are integrated into the purchased device. A larger screen allows more natural interaction with clients than a tablet or smartphone screen. On a laptop or desktop computer, monitors that are ≥ 68.6 cm are ideal, although teleconsultations can be conducted with smaller screens. If a smartphone screen is used, placement of the phone in a horizontal rather than a vertical position will allow viewing more of the client. High-quality microphones amplify clients' voices and soften ambient noise. Headphones also help to improve audio quality. Currently, there are no minimum standards for the equipment to be used for teleconsultations.

Bandwidth: "Bandwidth" defines the volume of data that can be transmitted over the Internet in a certain time, calculated in megabits per second (Mbp/s). As a rule, HCPs require a bandwidth ≥ 384 Mbp/s to transmit audio and video at a speed that allows natural real-time interaction and assessment of changes in clients' visual and auditory cues. If a bandwidth ≥ 384 Mbp/s is not available, teleconsultations can be conducted on low-bandwidth platforms such as Skype, which requires a minimum speed of 1.28 Mbp/s. Consultations at lower bandwidths are more likely to be disrupted by frozen screens and poor audio quality.

Data security: Individual HCPs should consult their organizations about the teleconsultation platforms that ensure the data security and privacy of clients, and the organizations shall ensure that the platforms comply with security and privacy standards. For example, in Australia, platforms must comply with the 1988 Privacy Act. Even for platforms that comply with the relevant privacy regulations, a strong password should be used to reduce the likelihood of data breaches. Non-commercial (i.e. free) versions of applications are unlikely to comply with security and privacy laws. Patient images should not be sent via standard texting applications on mobile devices.

Physical space: The physical space should replicate a typical clinical experience as much as possible. The camera should be set at eye level against a neutral background. To reduce distraction of children and adolescents, the room should look professional, with minimal decorations. The room lighting should allow clear vision without undue shadows or glare. The sound quality in rooms with hard surfaces can be improved by placing carpets or rugs on the floor, curtains on the windows and sound panels or textiles on the walls.

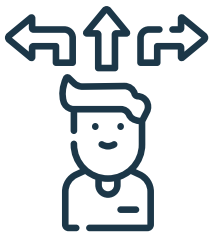
Personal presentation: The same professional presentation (e.g. clothing, grooming, behaviour) should be maintained in a teleconsultation as in a face-to-face consultation, as this increases the confidence of clients in their HCP and teleconsultation.

2.1.4 Develop a teleconsultation protocol.

A well-organized teleconsultation system allows HCPs to focus on providing clinical care. Organizations that provide teleconsultations should develop a protocol for the health service, according to relevant legal and ethical regulations. The components of teleconsultation protocol might include the following.

Checklist: A visual map or checklist of the components and steps in delivering teleconsultations helps organizations to identify the steps in the process and establish the roles and responsibilities of various staff, although the workflow will depend the context in which the teleconsultation takes place. Some basic steps are illustrated in Fig. 7. Other examples of teleconsultation workflows can be found at the California Telehealth Resource Centre (**http://caltrc.org/**).

Fig. 7. ***Teleconsultation checklist***



Before a teleconsultation

- **Determine** whether a teleconsultation is appropriate for the client
- **Inform** clients (see also Fig. 6)
  - of the possibility of teleconsultation
  - of the limitations of teleconsultation
  - how to join and what to do if the connection is lost
- **Schedule** appointments and manage client flow
- **Assess** whether there are safety concerns (see the section Safety planning)
- **Review** medical records and test results (depending on the health system, the latter may have to be sent in advance by the client or caregiver)
- **Connect** the provider and client remotely

During a teleconsultation

- Obtain informed consent.
- Verify the identify of participants.
- Establish expectations.
- Maintain privacy.
- Use time wisely.
- Communicate effectively.
- Develop rapport.
- Manage difficult behaviour.
- Deal with technical problems.
- Perform a physical assessment from a client report, visually or with a device
- Assess and treat mental health issues.
- Use assessment tools.
- Provide pharmacotherapy.

After a teleconsultation

- Keep medical records.
- Organize payment.

Staff roles and responsibilities: Include a description of staff roles and responsibilities in the organizational protocol. This will depend on the resources available and may include:

- a (dedicated) teleconsultation coordinator, who, like office staff in a traditional health practice, is the client's first point of contact and is responsible for billing and follow-up appointments; and
- a (dedicated) staff member responsible for ensuring that all the necessary equipment is available and in working order, including computers, Internet access, microphones and headsets.

Safety planning: Before the consultation, develop a comprehensive safety plan, including protocols for managing urgent needs and emergencies and consideration of situations in which confidentiality may be breached, and contact details of an emergency HCP (e.g. when there is a sign of a perpetrator of family violence, when a severely distressed child or adolescent loses the Internet or phone connection or when there is a suspected medical emergency such as increasing breathlessness or altered consciousness). Safety protocols will depend on whether the client is participating in the teleconsultation from home or in a supervised setting such as a medical clinic, school or justice facility.

- If the setting is the client's home, the safety plan should identify and have up-to-date contact details for emergency services (e.g. ambulance, mental health team, police) in the client's area, as well as telephone crisis helplines. A key element of the plan might be an agreed phrase or codeword that signals if the child, adolescent or caregiver feels in danger.
- If relevant, a description should be given of how to respond to an adolescent or caregiver who is engaging in a video or phone consultation while driving. Even if it is not illegal to drive while participating in a teleconsultation in some countries, the driver and any passengers are at greater risk of an accident.
- If the client is at a supervised site (e.g. a school), emergency management will require collaboration between the HCP and staff at the site. The safety plan should identify who can physically intervene during an emergency and the local or community resources that can be included in emergency management protocols and the client's system of care.

Practical application of the safety plan should be clearly stated in the protocol. For example:

- How would the HCP escalate concern online or during a phone consultation?
- How would the HCP contact or locate a child or adolescent at risk of harm?
- How could the child or adolescent communicate to the HCP that they feel at risk of harm?
- Who should be contacted in an emergency, and how will they be contacted?

2.1.5 Prepare clients and their caregivers and families for the teleconsultation.

If clients and their caregivers are prepared for the teleconsultation, it is more likely to run smoothly. HCPs and health-care services should prepare a concise client information sheet explaining the process, which should be sent to the client and their families or caregivers, for example by email or post, before the consultation. The following steps, which are summarized in Fig. 8, can be used as a guide. The examples are suggestions only and are not intended to cover all situations; they should be adapted to the platform being used the circumstances and the context in which the teleconsultation is being conducted.

Fig. 8. ***Steps in creating an information sheet for clients and their caregivers***

Steps	Considerations and examples of statements
Step 1: Confirm the name of the client, the name of the HCP, the date and time of the teleconsultation and, if relevant, the requirement that the child or adolescent be present.	If the teleconsultation is organized by a caregiver, the information sheet might begin with a statement such as: Dear [insert name of caregiver], [insert client's name] is scheduled to meet with Dr [insert name of HCP] via video on Friday 19 June at 9:00. As [insert client's name] is the client, they must be present for the appointment. If the teleconsultation is organized by the client (or the adolescent will be attending independently), the statement might be: Dear [insert client's name], you are scheduled to meet with Doctor [insert name of HCP] via video on Friday 19 June at 9:00.
Step 2: Identify the technology that will be used for the teleconsultation.	Identify the technology that the HCP will use, check that the client can participate with that technology, and offer an alternative if the client cannot use the named technology: Our clinic prefers to conduct teleconsultations by videoconference. If you do not have access to a device that allows videoconferencing or do not have enough data for videoconferencing, please contact our clinic and we will arrange a telephone consultation. Provide instructions on how to access the software that will be used in the teleconsultation (e.g. Zoom): We use a videoconferencing site called Zoom. Zoom works best on a laptop or computer with a camera, but you can also use a phone. If you don't already have Zoom on your computer or phone, you will have to download it before our meeting. To download Zoom, go to **https://zoom.us/,** and click on "Sign up". It takes about 2 min for Zoom to load ontp most computers.
Step 3: Explain privacy issues.	The type of software used in a teleconsultation will determine the level of privacy and confidentiality that can be achieved. Inform the client of the degree to which the platform used adheres to the privacy laws of the jurisdiction of practice: Doxy.me complies with the privacy laws of [insert name of country], so that it is more private and protective of your data than some other platforms. Inform all clients and their families or caregivers that other platforms may not comply with the relevant privacy laws (e.g. WhatsApp, Zoom, FaceTime, Facebook Messenger, Google Hangout, Skype) and that these platforms may introduce additional risks of breaching privacy: During the lockdown, we can use Skype for teleconsultation; however, be aware that this platform does not fully guarantee data protection and there is a certain risk of privacy breaches. Obtain consent to record the teleconsultation, or state that the teleconsultation will not be recorded. To protect the privacy of the HCP, clients might be asked not to record the session: In accordance with privacy regulations, we will not record the teleconsultation. We also request that you do not record the session.

Step 4:
Describe how to join the teleconsultation.

Describe how to join a teleconsultation, and advise clients that they may have to wait, to reduce the likelihood that the client or caregiver thinks that they are not connected correctly to the teleconsultation:

> On the day of your appointment, our clinic will email you a link to the teleconsultation. Just before your appointment time, click on the link, which will take you to the "waiting room". Dr [insert name of HCP] will then "admit" you at the exact time of your appointment. If Dr [insert name of HCP] is late for the appointment, you may have to wait to be let in.

Step 5:
Suggest a suitable room and equipment.

Finding a private space:

> It is best if you are in a quiet , private space for the teleconsultation. A room with a door that you can shut will increase privacy.
>
> If you don't have a private space inside your house to take part in the consultation, you may want to find another location, such as a backyard or a stationary car.
>
> Please do not attempt to participate in the teleconsultation while driving.

Identify what to bring to the consultation:

> Make sure your child has their favourite toy or something else they can play with.
>
> Make sure you have access to paper and crayons for drawing, as these might be needed during the consultation as part of the assessment.
>
> Please bring your current medications in their packaging to the consultation so that Dr [insert name of HCP] can check that you are taking the right dose.
>
> You may find it helpful to have paper and a pen with you during the consultation to write down important information.

Reducing distractions:

> To reduce distractions, we ask that you turn off the television, radio and other devices and consider moving pets or other animals to another space if they might be disruptive.

Increasing Internet connection:

> To improve the quality of the video, close any unused programs on your computer.

Setting up equipment:

> A table on which you can place your computer or phone is preferable. If you will be using a laptop, consider placing something under it so that the camera is closer to eye level. If you plan to use a phone, make sure you don't have to hold it throughout the meeting by finding some way to prop it up and still be seen on the screen.
>
> Try to ensure that the light is either in front of or to the side of you, as light behind you will make it difficult to see you on the screen. If the light is from windows behind you, we suggest that you block it out.
>
> If you are using the camera on a smartphone, turn the phone to the horizontal position as the image is much better.

Arranging for multiple attendees (e.g. family therapy):

> So that Dr [insert name of HCP] can see everyone, try to sit in a semi-circle in front of the screen.
>
> If it is too difficult to squeeze everyone in front of a phone or laptop camera, family members can join the teleconsultation on other devices (e.g. laptops, tablets, phones). If you use more than one device, each device should be in a separate room so that you don't get audio feedback.

Step 6: Advise what to do if the connection fails.	If the connection fails during the consultation, we will try to reconnect, but we may have to reschedule the consultation to another date and time. If the connection fails during the consultation, Dr [insert name of HCP] will phone you. Keep your telephone close by during the consultation.
Step 7: Outline the billing process.	If there is a fee for the teleconsultation, announce the cost and the payment process. For example, if credit card payment is required, the following statement might be used: After your appointment, one of our administrative staff will ask you to provide your credit card details over the phone. The cost of the teleconsultation is as follows: [insert as appropriate].
Step 8: Explain how clinical paperwork will be handled.	The type of clinical paperwork for a teleconsultation depends on existing practice (e.g. how referral is handled). The example below shows how prescriptions are handled in one practice. If your child needs a prescription, Dr [insert name of HCP] can either mail it to your home address or email it to you or to your usual pharmacy. If you would like the script emailed to a pharmacy, please email the name, email address and phone number of the pharmacy to our clinic.
Step 9: Arrange follow-up.	Provide a brief statement on follow-up arrangements: If your child needs a follow-up appointment, our clinic staff will be in touch to organize it.
Step 10: Provide a clinic contact.	Provide clients with details of who to contact and how if they have any questions or concerns. If you have any questions or concerns about participating in a teleconsultation, please contact our clinic at [insert phone number].

2.1.6 Organize interpretation.

Organize any interpretation required in advance. The availability of and the organization for obtaining an interpreter depend on the health service, context and country. Although use of a qualified medical interpreter is preferred, this may not always be possible, as in face-to-face consultations.

2.2 During the teleconsultation

This section provides suggestions for conducting teleconsultations with children and adolescents, which are also summarized in **Fig. 7**. In considering application of these recommendations, the development, age and capabilities of the child or adolescent, the local context and the type of health care provided should be considered.

2.2.1 Obtain informed consent.

The requirement for informed consent for a teleconsultation differs among and within countries. For example, in Australia, medical doctors are not obliged to obtain informed consent for general medical care delivered during a teleconsultation; however, the ethical obligations of psychologists require informed consent before they provide psychological services, regardless of the mode in which services are delivered. In India, consent must be obtained from a client or their legal guardian for any medical procedure. Consent may be either verbal or written for minor examinations or procedures but must be in writing for major diagnostic or surgical procedures and anaesthesia. In the USA, informed consent for a teleconsultation is a legal requirement in some but not all states.

If informed consent is required, the process for obtaining consent should be incorporated into the teleconsultation workflow described above. If verbal consent is sufficient to meet the legal requirements, consent should be obtained at the start of the consultation and a written statement to that effect added to the visit note. If written consent is required, it should be obtained before the consultation insofar as possible, so that the teleconsultation can focus on the client's care. The procedure for obtaining written consent will depend on the availability of resources.

Options for obtaining written consent include through:

- an informed consent form emailed or posted with the client information sheet to clients, asking them to sign the form, scan or photograph the signed form and email or post the signed form to the clinic;
- an informed consent form emailed with the client information sheet to clients, asking them to use an e-signature on the consent form before the consultation; or
- posting of the informed consent form on the client portal to be signed electronically before the teleconsultation.

Regardless of how informed consent is obtained, clients should be clearly informed of the process and the risks, limitations and benefits of the teleconsultation.

2.2.2 Verify the identity of participants.

Verify that the person receiving the service is the intended client. Begin the teleconsultation by confirming who is present at both the client's site and the HCP's site, including those not on camera. In some cases, and only if the device allows it, it may be helpful to provide a virtual tour of the HCP's space to give clients a better idea of the clinical environment and to assure them that no one else is present. Provide clients with a 360° view by using the magnification function or the panoramic view or manually moving the device. Clients might be invited to do the same.

2.2.3 Establish expectations.

HCPs should inform clients and their caregivers about what is and is not possible in the teleconsultation. For example, while a teleconsultation may be appropriate for routine review of children with some chronic health conditions, it will be less appropriate for those conditions in which routine clinical decisions are influenced by test results. Similarly, the sicker (and younger) the child, the less appropriate teleconsultations are likely to be for anything other than triage (i.e. whether they should attend a clinic or go directly to an emergency department). This does not necessarily obviate a teleconsultation but may require a subsequent in-person assessment.

If the teleconsultation is the first of what are likely to be many sessions (e.g. counselling, family therapy), the HCP may frame it as a "meeting" attended by all relevant parties. This provides opportunities to develop rapport and allows time to discuss: how the teleconsultation might work best (e.g. should the sessions be short or long;

should breaks be scheduled); how to safeguard privacy; what to do if there is a challenging escalation in emotions or interactions; what to do if there is a risk of harm; and any questions or concerns of the client and the family about the teleconsultation.

2.2.4 Maintain privacy.

Maintaining privacy can be more difficult in a teleconsultation if a private space cannot be assured, the likelihood that someone not involved in the consultation may overhear, sharing of devices, the possibility that spyware is installed on the client's device and difficulty in removing a caregiver from the consultation. Strategies for ensuring privacy if the client is attending the teleconsultation alone include encouraging clients to use headphones, for HCPs to pose questions that can be answered by yes or no and use of the chat function on the teleconsultation platform, if available, so that clients can type replies while limiting their disclosure to household members. If a client and carer or a client and spouse are both attending the teleconsultation, ensure privacy and confidential discussions by asking them to connect from separate devices, if available, so that one can be "removed" from the visit when necessary. The HCP could consider terminating the session if an appropriate level of privacy cannot be achieved or maintained.

If it is not possible to maintain an appropriate level of privacy but it is still considered reasonable to continue the consultation (see for example see Case study 2), HCPs should alert clients to a potential breach in confidentiality and obtain informed consent from the client before beginning the consultation.

If the client is seen in a school or justice setting, the set-up at the client's site should be checked to ensure that privacy can be maintained in the room in which the consultation is conducted. If a staff member at the client's site is present during the consultation, they must also be familiar with, and adhere to, processes designed to protect the client's privacy and confidentiality.

2.2.5 Use time wisely.

Some children and adolescents find it difficult to maintain focus throughout a teleconsultation (e.g. young children and those with cognitive difficulties, hyperactivity, autism or anxiety). If this is anticipated, the session should be structured so that the client is in front of the screen only when necessary. For example, the initial connection or login does not require the presence of the child. Similarly, the caregiver can provide a history or other relevant information and receive instructions about medication and follow-up, without the child being in front of the screen. Young children should be required to be in front of the screen only when it is necessary to obtain information or provide direct instruction. The structure of the session should be announced to the caregiver at the start.

2.2.6 Communicate effectively.

Strategies for effective online communication should be discussed at the beginning of the session. For example, if a slight lag in the audio makes it appear that people are talking at the same time, adding a small pause after each statement could be suggested. If members of the group are in fact talking at the same time, each person should be asked to raise their physical or virtual hand (if available on the platform) when they wish to speak.

Clients and accompanying adults could be asked to confirm clinical observations and interpretations verbally. As non-verbal cues may not be evident in a teleconsultation, the HCP might slightly exaggerate their tone of voice, facial expressions and physical gestures. Showing a "high five" or "thumbs up" on camera could be an alternative to verbal encouragements such as "good job" and can help convey to the child or adolescent that the HCP is listening. Intonation and cadence of voice can be used to communicate severity.

When important information about diagnoses or treatment is conveyed, clients or their caregivers should be asked for feedback to ensure that the information and their expectations are correctly understood to minimize any misunderstanding. For example, at the end of each consultation, key information and discussion could be summarized to reinforce messages and avoid misconstruction. If the videoconferencing platform has a whiteboard feature, HCPs can use it to document information or draw diagrams to explain an idea or concept to the client and caregiver.

2.2.7 Develop rapport.

It may be more difficult to develop rapport remotely, particularly if the child or adolescent is shy, anxious or defiant or if an adolescent girl with a controlling husband is uneasy. As children and adolescents often depend on their caregiver or spouse to access care, a positive therapeutic alliance should be formed with both caregivers and the child or adolescent.

As in face-to-face sessions, good eye contact, appropriate body language and active listening are essential to develop rapport in a teleconsultation. Eye contact can be enhanced by placing the camera at eye level and using the "picture in picture" function of the videoconferencing platform to see what the client is seeing. Body language can be used to express empathy and interest: leaning forward conveys empathy, while leaning backwards shows interest in hearing more. Active listening can be demonstrated in summary statements, reflections and observations. Clients must be given the opportunity to speak or assert control over the conversation throughout the session. Older children and adolescents in particular should be encouraged to participate actively in the consultation, speaking for themselves as much as possible. Active participation builds children's and adolescents' health literacy.

Opening the session in a conversational style is a good way to promote rapport with some clients. A brief question-and-answer game can help establish rapport with younger children while also collecting information. For example, the HCP could take turns in answering questions with the client: "What is your favourite TV show?", "What is your favourite colour?", "What is your favourite food?", "How many siblings do you have?". Asking the child or adolescent to share their interests (e.g. music) can also help build rapport. Younger children could be asked to show their work on camera or use screen-share options to create art or play a game; e.g. Zoom has a "whiteboard" feature on which a client and a clinician can draw together or play a game. The approach must be developmentally appropriate.

2.2.8 Manage difficult behaviour.

Difficult behaviour is more complicated to manage in a teleconsultation than in a face-to-face consultation. Children and adolescents may withdraw from the session or fail to engage with it simply by removing themselves the frame of the camera. This is a particular issue with children who have cognitive difficulties and those who are hyperactive, autistic, anxious or defiant. The same behaviour management strategies should be used as in a face-to-face session. Caregivers could be consulted about how they usually manage such behaviour. Specific options for teleconsultations include asking caregivers to remain in the camera frame and to call the child back to the camera to answer a question. A session might be re-scheduled if behaviour management strategies do not return the client to the screen. In the re-scheduled teleconsultation, the caregiver might be instructed to turn off the self-monitoring image and to seat the client further from the camera so that they remain in the frame. If the teleconsultation is for family therapy, the session could continue even if the child or adolescent leaves, as long as their safety is not a concern.

The HCP should be prepared to de-escalate a situation if there is a significant increase in emotion or behaviour that is counterproductive to the aims of the consultation. If such a situation is anticipated, a discussion could be held with the client and/or caregiver to reach agreement on what to do if the session cannot be brought back to a workable level. If all else fails, this might consist of closing the session. Consent for this strategy should be sought at the start of the session.

2.2.9 Resolve technical problems.

Technical issues during the teleconsultation should be anticipated. A discussion could be held with the client and family or caregiver on the types of issues that might occur and how to resolve them. For example, during videoconferences, technical issues are more likely when several people are connected from different devices (e.g. interpreters, medical students). If the videoconference is disrupted by a frozen screen, people who do not have to be on the screen could be asked to turn their cameras off. If the problem is with the audio, a phone could be used for this component. If these solutions are not successful, the remainder of the session could be conducted only by phone or a mobile app. The phone numbers of all participants should be handy in case phone contact is necessary. If a mobile app is used, all the participants at the clients' location could be informed that this may introduce additional risks of lack of privacy because of variations in apps' privacy practices.

2.2.10 Perform a physical assessment.

As for any consultation, teleconsultations should always be guided by the principle of "do no harm". When an accurate assessment cannot be made or a reasonable standard of care provided without a direct physical examination, a face-to-face consultation should be arranged. Management of the client in the event of a rapid deterioration in physical health during the teleconsultation should be included in the safety planning section of the protocol developed by the health service (see section 2.1.4 for more information on safety planning).

To the extent to which they are appropriate, a physical assessment in a teleconsultation can be based on:

- a client report,
- visual assessment of a child on screen,
- visual assessment of a child on a photo or video,
- measurements provided by an adolescent or caregiver or
- assessment with a home device.

Client report

In addition to asking about signs and symptoms in the teleconsultation, it might be useful for clients and/or their caregivers to complete a generic or condition-specific questionnaire, e.g. a patient-reported outcome measure, before the appointment. Routine psychosocial assessments, which are recommended practice for adolescents, could also be conducted before the appointment, as long as privacy and confidentiality are assured. In some organizations, pre-visit assessments can be completed by clients on a patient portal.

Visual assessment on screen

If the teleconsultation is conducted by videoconference, visual (screen) inspection of children and adolescents can be used to assess their overall appearance and features such as activity level, emotional affect, cough, stridor, pallor, cyanosis, scleral icterus, clubbing, neck asymmetry or masses, abdominal girth or distention, muscle wasting, swelling of the extremities, skin rash and visible neurological deficits. Some skin rashes may be visible

and potentially diagnosable if they are the major concern. Other rashes and skin lesions, which can be informative for several diagnoses, are less clearly seen, and HCPs should set a low threshold for arranging a face-to-face visit.

Although a client's heart and lungs cannot be examined with a stethoscope, HCPs can count the respiratory rate and observe respiratory effort while the client is talking or after a physical effort. Clients and caregivers can be asked to demonstrate particular techniques, such as use of a spacer device for asthma medication.

Other examinations can be modified for teleconsultations. For example, pragmatic assessments of strength can be conducted by asking the client to perform tasks, such as assessing wrist strength by asking the client to remove the lid of a jar. A more extensive musculoskeletal examination can be completed with use of the paediatric **Gait Arms Legs Spine (pGALS) checklist**, which has now been adapted for video administration (**V-pGALS**), in which caregivers are asked to feel the joint in question for obvious warmth or swelling or to palpate to identify the point of maximal tenderness.

Visual assessment of photos or videos

When the teleconsultation is conducted only by telephone or a closer visual examination is required, the HCP can ask caregivers to take a video or photo of the relevant area and send it by email or text message. This method can be useful for some skin conditions (e.g. eczema, impetigo, abscess); injuries (e.g. deformity and function, pale versus pink); animal bites; examination of tonsils, throat and mouth; eye conditions; post-operative wounds; and burns. When this method is used, regulations on privacy and confidentiality and on sharing images of children must be respected.

Measurements provided by the adolescent or caregiver

Children's height and weight can be measured by children's caregivers. Caregivers (and some adolescents) can be taught to check the pulse. It might be useful to develop a protocol for obtaining these measurements at home.

Home medical devices

Some clients will have access to medical devices that allow accurate home measurements and monitoring. For example, some families may have a blood pressure cuff. If the cuff is for the care of an elderly relative, however, the cuff size may be suitable for a larger adolescent but not for younger children.

Technologies that can be used effectively at home are being developed rapidly. They include digital stethoscopes and otoscopes, devices for remote monitoring of glucose and pulse oximetry, wearable devices to monitor physical activity and vital signs and even devices that can capture an electrocardiogram or monitor sleep.

2.2.11 Assess and treat mental health conditions.

The delivery of mental health care is highly compatible with teleconsultation. Mental health can usually be assessed from verbal and visual information obtained by videoconference; physical examination is rarely required. Similarly, "talking therapy" can be conducted by videoconference or telephone consultations. HCPs should nevertheless have a plan to ensure safety, which may include a face-to-face consultation, for example if the client expresses suicidal ideation, self-harm or is agitated. The section on resources lists publications on the principle of remote psychological support and detailed guidelines for teleconsultations for paediatric mental health care from the American Academy of Child and Adolescent Psychiatry Committee on Telepsychiatry and the American Telemedicine Association.

The WHO Equip project supports HCPs in providing psychological care remotely. A course is available for providers to learn skills for remote work.

2.2.12 Use assessment tools.

Although face-to-face assessment remains the gold standard, validated tools can be used to conduct remote assessments of clients for language, sensory, cognitive, neurological, psychological and behavioural disorders (e.g. the caregiver and teacher questionnaires used in Case study 1). Such assessments are feasible if the necessary technical equipment is available, the Internet connection and bandwidth are optimal, and clients can concentrate on tasks without distractions. Small screens, poor quality or disrupted vision and poor audio quality invalidate an assessment.

Ask the client to use a split screen if possible, with one screen showing the assessor and the other the task (e.g. a block design task). Touch screens can make tests more natural for children, as they can directly touch the screen to respond. It might be helpful to digitize (e.g. scan and convert to a pdf) some test materials, as digitized materials are usually clearer and more stable than material held to the screen. Digitized versions also increase the standardization of materials, as they are not affected by variables such as light and size.

When a remote assessment is conducted, the HCP should be aware of any modifications to the original tool (e.g. scanned visual stimuli, PowerPoint pictures, touch screens, online games) and identify any loss of validity associated with such modifications. Relatively few tools have been validated for remote administration, for which the norms may differ from those for face-to-face administration. The type of modification and the limitations of remote assessment should be considered in reporting the findings of an assessment. As decisions based on data from remote assessments can influence the type of intervention, such as care away from home, any data obtained by teleconsultation must be validated because of the implications on the longer-term outcomes of children and adolescents.

2.2.13 Prescribing medication

Specific regulations on prescribing via teleconsultation may depend on the geographical location of the HCP and of the client. Regulations on prescribing some classes of medication may be different for teleconsultations, in which certain medications cannot be prescribed in some countries. Such regulations are designed to reduce the practice of "Internet prescribing", when prescriptions are provided without appropriate evaluation of or monitoring for side-effects.

A potential advantage of teleconsultation is that HCPs can view all the medications currently used by the client, which is not usually the case in face-to-face consultations. It may be appropriate to ask clients or their caregivers to show all their current medications on screen for an assessment of their appropriateness and to ensure that the medications are being used correctly.

As in a face-to-face consultation, a prescription should always be created on paper and signed (or with a valid digital signature). The way in which clients obtain the prescription reflects local regulations and resources. In some settings, a clinic might send a prescription via fax or email directly to the client and to the caregiver's nominated pharmacy or post a hard copy to the client's home address. Regulations on sending prescriptions directly to the client electronically (e.g. email or text) vary. For example, in some low- and middle-income countries,

HCPs photograph prescriptions and send them electronically to clients, who then go to a pharmacy to have them filled. In other settings, laws prohibit HCPs from sending prescriptions directly to clients via email or text message to reduce the likelihood that clients will have prescriptions dispensed at several pharmacies. In some countries, governments are distributing electronic prescribing software nationally.

If a medication that does not require a prescription is recommended, the client or caregiver must clearly understand the name of the medication, what it is for and the dose required. The client could be sent an email or text message with specific information, or the client or caregiver could be asked to write down the instructions.

2.3 After the teleconsultation

2.3.1 Maintain medical records.

Medical documentation should be consistent with the usual requirements, including that a consultation was conducted remotely and the medium used (e.g. video telephone, WhatsApp). For example,

> I saw María by teleconsultation, seeing her with her mother for part of the consultation and then alone. She could not connect by video, so we connected by telephone.

If the HCP is working off-site, there should be a process for accessing, documenting, storing and transmitting records securely.

If electronic medical records are used and remote access to the medical record is available, the usual processes will probably be in place. If remote access to electronic records is not available, the following points should be considered in electronic management of medical records:

- How are records documented and stored? For example, are the files protected by a password, or is email communication encrypted and secure enough to email notes without this requirement?
- How will notes be uploaded into the electronic medical record?
- How and when will notes stored elsewhere be deleted?
- What back-up processes are available if the Internet is not available?

2.3.2 Organize payment.

Regulations on payment for teleconsultations differ by country. The payment process is largely determined by the usual billing practice of the health service, whether services are publicly or privately funded and the availability of technological resources. In some countries, health services provided within the public health system are free, and billing is unnecessary. If payment is required, the process for collecting payment should be stated in the teleconsultation protocol. Regulations on billing and reimbursement in the practice jurisdiction should be consulted, on the understanding that they may be subject to change. Before the COVID-19 pandemic, HCPs in most countries met substantial barriers to receiving payment for teleconsultation services. In response to the pandemic, many governments amended their regulations to ensure that the reimbursement for a teleconsultation is equivalent to that for a face-to-face consultation of the same complexity. In some jurisdictions, equivalent billing is required only for consultations conducted via videoconferencing and not for those conducted by telephone, which may be billed at a lower rate. Only the time spent consulting with a client should be billed and not the time spent on setting up the technology.

In privately funded health services, information on billing rates should be included in the client information sheet. Payments by credit card can be collected over the telephone or through a payment platform integrated into dedicated teleconsultation software. Other options include invoicing the payee after the consultation, who uses an electronic bank transfer to pay the bill.

3. Taking care of oneself

Delivering health care via teleconsultations is new for many HCPs and brings with it novel challenges and rewards. As mentioned previously, online consultations are often more demanding on HCPs and can take more time, leaving them feeling drained and at risk of burn-out. Sufficient time must be reserved for teleconsultations and regular breaks taken away from the screen. Be kind to yourself, and reach out to your colleagues if you need support.

Resources

1. Telepsychiatry toolkit. Washington DC: American Academy of Child and Adolescent Psychiatry; 2021 (**https://www.aacap.org/AACAP/Clinical_Practice_Center/Business_of_Practice/Telepsychiatry/toolkit_videos.aspx**).
2. American Academy of Child and Adolescent Psychiatry. Clinical update: Telepsychiatry with children and adolescents. J Am Acad Child Adolesc Psychiatry. 2017;56(10):875–93. doi: 10.1016/j.jaac.2017.07.008
3. Telemedicine and COVID-19 implementation guide. Washington DC: American Academy of Neurology; 2020:1–9 (**https://louisville.edu/medicine/tech/teleheath-files/AANeu-Telemed%20COVID-19%20implementation%20guide%20March%202020.pdf**).
4. North Highlands (CA): California Telehealth Resource Centre (**http://caltrc.org/).**
5. Ekberg S, Danby S, Theobald M, Fisher B, Wyeth P. Using physical objects with young children in "face-to-face" and telehealth speech and language therapy. Disability Rehabil. 2019;41:1664–75. **http://dx.doi.org/10.1080/09638288.2018.1448464.**
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7. Guidelines for MHPSS staff providing tele-MHPSS to clients during the COVID-19 pandemic (field test version – 24.04.2020). Los Angeles (CA): International Medical Corps; 2020 (**https://www.mhinnovation.net/guidelines-mhpss-staff-providing-tele-mhpss-clients-during-covid-19-pandemic)** and online training package for PFA for COVID-19 Outbreak response, May 2020 (**https://pscentre.org/?resource=online-pfa-training-for-covid-19-additional-module-pfa-for-children**).
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10. Paediatric gait arms legs and spine assessment. Complete joint assessment (video). Maidenhead: National Rheumatoid Arthritis Society; 2020 (**https://jia.org.uk/resource/joint-assessment-video/**).

11. Classification of digital health interventions V 1.0. Geneva: World Health Organization; 2018 (**https://www.who.int/reproductivehealth/publications/mhealth/classification-digital-health-interventions/en/).**

12. Telemedicine: opportunities and development in Member States: report on the second global survey on eHealth. Geneva: World Health Organization; 2010 (**https://apps.who.int/iris/handle/10665/44497).**

13. WHO guideline: recommendations on digital interventions for health system strengthening. Geneva: World Health Organization; 2019 (**https://www.who.int/reproductivehealth/publications/digital-interventions-health-system-strengthening/en/).**

14. WHO interim guidelines: Implementing telemedicine services during COVID-19: guiding principles and considerations for a stepwise approach. Manila: World Health Organization Regional Office for the Western Pacific; 2021 (**https://iris.wpro.who.int/bitstream/handle/10665.1/14651/WPR-DSE-2020-032-eng.pdf).**

15. Youth-centred digital health interventions: a framework for planning, developing and implementing solutions with and for young people. Geneva: World Health Organization; 2020 (**https://www.who.int/publications/i/item/9789240011717).**

16. Equip project: Providing psychological care remotely. Geneva: World Health Organization; 2020 (**https://whoequipremote.org/en-gb/node/275**).

World Health Organization