Virtual care for Teachers –
A new frontier

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Presenter Disclosure

Presenter: **Lisa Graves**

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- Any direct financial relationships, including receipt of honoraria: grants from the following organizations AAFP, SOGC, AADMD, NIDA, AFMC, Health Canada, Dartnet

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This program has received no external financial support

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Objectives of today's topic

1

Describe

- Describe the role of virtual care in Family Medicine clinical settings.

2

Provide

- Provide key curriculum objectives for teaching virtual care in postgraduate programs.

3

Plan

- Plan to optimize teaching virtual care competencies to residents in their clinical settings.

Definition of virtual care

"any **interaction** between patients and/or members of their circle of care, occurring **remotely**, using any forms of communication or information technologies with the **aim of facilitating or maximizing** the quality and effectiveness of patient care."

virtual care applications, defined as video and phone visits, e-visits, e-consults, and messaging with clinician.

Virtual care is not new

- Increases patient access to medical care

- Domains where virtual care has been practiced:
  - Remote communities
  - Anxiety and mental health follow up
  - Chronic disease management and
  - Opioid agonist treatment

Sztein DM, Koransky CE, Fegan L, Himelhoch S. Efficacy of cognitive behavioural therapy delivered over the Internet for depressive symptoms: a systematic review and meta-analysis. J Telemed Telecare 2018 Sep;24(8):527-539

Bohingamu Mudiyanselage S, Stevens J, Watts JJ, Toscano J, Kotowicz MA, Steinfort CL, et al. Personalised telehealth intervention for chronic disease management: a pilot randomised controlled trial. J Telemed Telecare 2019 Jul;25(6):343-352

Lamb T, Pachana NA, Dissanayaka N. Update of recent literature on remotely delivered psychotherapy interventions for anxiety and depression. Telemed J E Health 2019 Aug;25(8):671-67

Furlan AD, Zhao J, Voth J, Hassan S, Dubin R, Stinson JN, et al. Evaluation of an innovative tele-education intervention in chronic pain management for primary care clinicians practicing in underserved areas. J Telemed Telecare 2019

Morin KA, Parrotta MD, Eibl JK, Marsh DC. A Retrospective Cohort Study Comparing In-Person and Telemedicine-Based Opioid Agonist Treatment in Ontario, Canada, Using Administrative Health Data. Eur Addict Res. 2021;27(4):268-276. doi: 10.1159/000513471. Epub 2021 Mar 11

Uptake prior to 2020

- Technology availability
- Strict regulatory controls (confidentiality of data)
- Payment models

Tuckson RV, Edmunds M, Hodgkins ML. Telehealth. N Engl J Med 2017 Oct 19;377(16):1585-1592

Kahn JM. Virtual visits: confronting the challenges of telemedicine. N Engl J Med 2015 Apr 30;372(18):1684-1685

Kichloo A, Albosta M, Dettloff K, Wani F, El-Amir Z, Singh J, et al. Telemedicine, the current COVID-19 pandemic and the future: a narrative review and perspectives moving forward in the USA. Fam Med Community Health 2020;8(3):e000530

Virtual care and pandemic

Primary care practices rapidly transitioned from in-person to remote care in 2020 when pandemic started

Hollander JE, Carr BG. Virtually perfect? Telemedicine for COVID-19. N Engl J Med 2020 Apr 30;382(18):1679-1681 [doi: 10.1056/NEJMp2003539]   [Medline: 32160451]

Fisk M, Livingstone A, Pit SW. Telehealth in the context of COVID-19: changing perspectives in Australia, the United Kingdom, and the United States. J Med Internet Res 2020 Jun 09;22(6):e19264 [FREE Full text] [doi: 10.2196/19264] [Medline: 32463377]

Virtual care shift in Canada

❑ **Prevalence increased dramatically during the pandemic 2020**

   Rates of virtual care use in Canada rose from 10%–20% in 2019 to 60% of all health care visits across provider categories in April 2020, falling back to 40% of all visits in 2021.

❑ **While overall usage rates have since decreased and stabilized, virtual care is now standard practice**

- The **hybrid model** of care reflects the effective integration of both in-person and virtual care.

- Recent surveys show **two-thirds of Canadians** would like to consult with physicians virtually.

○ *Canada Health Infoway. 2018 Canadian physician survey. Physicians' use of digital health and information technologies in practice. Toronto, ON: Canada Health Infoway; 2018*

○ *Shaver J. The state of telehealth before and after the COVID-19 pandemic. Prim Care 2022 Dec;49(4):517-530*

○ *Dorn SD. Backslide or forward progress? Virtual care at U.S. healthcare systems beyond the COVID-19 pandemic. NPJ Digit Med 2021 Jan 08;4(1):6*

○ *CMA Physician Workforce Survey 2019. Ottawa, ON: Canadian Medical Association; 2019.*

○ *National Survey | Summary | Confidential | Draft Conducted by Nanos for the CFPC, June 2021 Submission 2021-190*

Virtual visit is here to stay

❑ An early pandemic scoping review found **positive perceptions** of telehealth among a variety of health care providers.

LeBlanc M, Petrie S, Paskaran S, Carson DB, Peters PA. Patient and provider perspectives on eHealth interventions in Canada and Australia: a scoping review. Rural Remote Health 2020 Sep;20(3):5754

Another scoping review of mostly internal medicine providers also had largely **celebratory findings**.

Doraiswamy S, Abraham A, Mamtani R, Cheema S. Use of telehealth during the COVID-19 pandemic: scoping review. J Med Internet Res 2020 Dec 01;22(12):e24087

❑ virtual visits **similar to face-to-face** visits on most measures

❑ The **diagnostic agreement** between physicians was 84% between face-to-face and virtual visits

Dixon RF, Stahl JE. A randomized trial of virtual visits in a general medicine practice. J Telemed Telecare. 2009;15(3):115-7. doi: 10.1258/jtt.2009.003003. PMID: 19364890.

❑ Results from a survey of just over 2,000 physicians conducted for Canada Health Infoway and the CMA in April and May 2021 and released in August 2021 showed about **64% will maintain or increase their current level of use**.

Virtual visit appropriateness and benefits

- Effective in resolving a range of **nonurgent** clinical concerns, including chronic disease management, medication follow-up, and assessment of simple rashes
- Works best for consultations about **chronic conditions** where the physician and patient have a pre-established relationship, and ongoing assessment does not require physical contact
- Virtual visits **reduce barriers** to care for certain populations, such as older adults with mobility issues, opens door for patients who may not be able come to the clinic, perhaps because of physical, travel, or time-related challenges.
- Virtual care increases **appointment efficiency**, because discussions during virtual visits are more focused.
- provides a **window** into a patient's home environment
- **Not appropriate** for care of a new patient with whom they had no prior relationship.
- *Mixed perceptions* of its appropriateness for use in mental health, pediatric, or palliative care.

Fujioka JK, Nguyen M, Phung M, Bhattacharyya O, Kelley L, Stamenova V, Onabajo N, Kidd M, Desveaux L, Wong I, Bhatia RS, Agarwal P. Redesigning primary care: Provider perspectives on the clinical utility of virtual visits. Can Fam Physician. 2023 Apr;69(4):e78-e85. doi: 10.46747/cfp.6904e78. PMID: 37072204; PMCID: PMC10112733

Shaw S, Wherton J, Vijayaraghavan S, Morris J, Bhattacharya S, Hanson P, et al. *Advantages and limitations of virtual online consultations in a NHS acute trust: the VOCAL mixed-methods study*. Southampton, UK: NIHR Journals Library; 2018.

Ritchie O, Koptyra E, Marquis LB, Kadri R, Laurie AR, Vydiswaran VGV, Li J, Brown LK, Veinot TC, Buis LR, Guetterman TC. Virtual Care: Perspectives From Family Physicians. Fam Med. 2024 May;56(5):321-324. doi: 10.22454/FamMed.2024.592756. Epub 2024 Apr 15. PMID: 38652849; PMCID: PMC11216767.

Patients appreciate virtual care

- **Two-thirds of Canadians** would like to consult with physicians virtually.

- **Satisfaction with virtual care** during the first part of the pandemic was high among patients

- A nationwide survey of 1,800 people 91% of those polled were **satisfied or very satisfied** with the care they had received virtually.

- **42%** would **prefer a virtual** method as the first point of contact with their physician.

- Patients finds virtual visits **similar to face-to-face** visits on most measures

❑ patients are happy with time spent with the physician

❑ ease of interaction and personal aspects of the interaction.

❑ Reduce barriers

❑ Travel and cost

the future of connected health care reporting Canadians' perspective on the health care system. Ottawa, ON: Canadian Medical Association; 2019

CMA Physician Workforce Survey 2019. Ottawa, ON: Canadian Medical Association; 2019.

National Survey | Summary | Confidential | Draft Conducted by Nanos for the CFPC, June 2021 Submission 2021-190

Dixon RF, Stahl JE. A randomized trial of virtual visits in a general medicine practice. J Telemed Telecare. 2009;15(3):115-7. doi: 10.1258/jtt.2009.003003. PMID: 19364890.

Drawbacks/concerns and Barriers

- May **not be the best option for all patients.**

- Family medicine providers in one study, shared **concern about performing effective and acceptable assessments** or diagnoses (labs and other investigations)during virtual visits.

- Family medicine providers described "**virtual inhibition,**" or a lack of human touch and connection, as a major challenge

- Worries that FP would miss **nonverbal cues** from the patient and struggled to express **nonverbal empathy**.

- More difficult to prescribe a new medication or diagnose a new condition.

- Patients and PCPs **disagreed regarding virtual visits' impacts on their relationship.** Patients felt that the virtual environment influenced the **provider's attentiveness**. In contrast, providers appreciated the insight into patients' home lives and felt it **strengthened the relationship**

arrillo de Albornoz S, Sia KL, Harris A. The effectiveness of teleconsultations in primary care: systematic review. FamPract 2022 Jan 19;39(1):168-182

Bokolo Anthony Jnr. Use of telemedicine and virtual care for remote treatment in response to COVID-19 pandemic. J Med Syst 2020 Jun 15;44(7):132

Andreadis K, Muellers K, Ancker JS, Horowitz C, Kaushal R, Lin JJ. Telemedicine impact on the patient-provider relationship in primary care during the COVID-19 pandemic. Med Care 2023 Apr 01;61(Suppl 1):S83-S88

Advancing Virtual Care: Falk's report

- Will Falk, a policy expert in digital health, was commissioned by federal government

- 1. Care is care. Virtual care is no longer an adjunct therapy.

- 2. Key health information components — diagnostic test results, prescriptions, consults and referrals— should always be created in a usable digital format.

Falk's report, The State of Virtual Care in Canada as of Wave Three of the COVID-9 Pandemic: An Early Diagnostique and Policy Recommendations, was officially released on June 29, 2021

Teaching Virtual Care

- Who is providing virtual care?
- Who is teaching virtual care?
- Do you have a curriculum and the tools to teach virtual care?
- Do you feel confident in assessing the quality of the virtual care provided and that learners are acquiring the necessary competencies?

Curriculum Objectives For Postgraduate programs

- Undergraduate curricula have existed pre-pandemic (Wahesh and Dicker, 2019)
- Rapid increase in UME curricula during the pandemic (e.g. Frankl et al 2021)
- AAMC has guidance for telehealth education (www.aamc.org)

Transition from UG to PG

Family medicine residents will arrive with varying degrees of exposure to telemedicine teaching

Consideration needed on how to "catch up" residents

Postgraduate Curriculum

- Identification of curriculum gaps (Sakumoto et al, 2021)
  - Patient safety and appropriate use
  - Access and equity
  - Communication
  - Data collection and assessment
  - Technology
  - Ethical and legal requirements

Postgraduate Curriculum

- Stivel et al, 2020 examined 43 curricula from 11 countries at all levels
- Costich et al, 2021 curriculum for pediatric residency case-based presentations, direct observation form completion
- Savage et al, 2022 curriculum for internal medicine residency curriculum and mini CEX

Family Medicine Curriculum

- Ha et al 2020 family medicine residency (single residency in USA) single 50-minute lecture using format of:
  - Set up
  - Patient rooming
  - Conduct virtual visit
  - Finish encounter

Competencies (FM)

- Hart et al, 2022 Delphi process and literature review
  - Systems based, professionalism, patient care, practice-based learning and improvement, interpersonal and communication skills, medical knowledge
- AAFP competencies (medical informatics)
- STFM competencies
- AAMC (UME)

STFM curriculum

- Developed by the STFM Telemedicine Task Force convened in June 2020
- Used Kern's framework to develop competencies
- Needs assessment through review of the literature
- Learning objectives mapped to the AAMC competencies with additional competencies through consensus
- Integration of UG and PG curricula

STFM Curriculum

Module	AAMC[a] competency domain	ACGME[b] core competency and subcompetencies	Learning objectives	Teaching method in module
Introduction to telehealth	Patient safety and appropriate uses	• Practice-based learning and improvement: investigate and evaluate patient care practices, appraise and assimilate scientific evidence • Systems-based practice: coordinate patient care within the health system, incorporate considerations of cost awareness and risk/benefit analysis	• Describe the appropriate uses of telehealth • Discuss the benefits and limitations of telehealth • Identify factors that impact patient and practice barriers to incorporating telehealth • Explain the roles and responsibilities of team members in telehealth encounters	• Evidence-based research on current telemedicine uses, risk and benefits • Review of telemedicine barriers including patient readiness and access to technology • Interactive point-and-click graphics and multiple-choice question

The telehealth encounter	Communication; data collection, and assessment			
		• Interpersonal and communication skills: create and sustain a therapeutic relationship with patients and families • Patient care and procedural skills: gather essential and accurate information, counsel patients and family members, make informed diagnostic and therapeutic decisions • Medical knowledge: demonstrate an investigative and analytical approach to clinical problem solving and knowledge acquisition, apply medical knowledge to	• Establish a therapeutic environment and develop effective rapport with patients • Obtain a history and conduct an appropriate physical examination through telehealth • Incorporate information from the patient's surroundings into the clinical assessment • Apply appropriate medical decision-making in the context of providing care at a distance, including escalating care when necessary • Complete documentation for telehealth encounters	• Case-based teaching with standardized patient videos: learners assess therapeutic environment, clinical symptoms, and respond to multiple-choice and free response questions • Interactive exercisesto navigate communication challenges (including sample scripts) and identification of health risks in environmental • Tutorial videos on best practices for webside manner, physical examination, medical decision-making

| Requirements for telehealth | Technology for telehealth; ethical practices and legal requirements (privacy regulations, informed consent, professional requirements) | • Systems-based practice: advocate for quality patient care and optimal patient care systems, work in interprofessional teams to enhance patient safety and improve patient care quality | • Describe the technology requirements for a telehealth encounter
 • Resolve common telehealth technical issues
 • List the documentation requirements
 • Identify the key elements of an effective telehealth work environment | • Point-and-click interactive exercises for technology troubleshooting
 • Review of Health Insurance Portability and Accountability Act (HIPAA) compliance, documentation requirements including sample language and resources |

| Access and equity in telehealth | Access and equity (mitigate bias, promote health equity, address potential barriers to use) | • Professionalism: demonstrate professional conduct and accountability, humanism, and cultural proficiency
• Interpersonal and communication skills: create and sustain a therapeutic relationship with patients and families | • Describe how telehealth may mitigate or amplify socioeconomic gaps in health care access
• Assess and accommodate patients' needs, preferences, and potential cultural, social, physical, cognitive, and linguistic/communication barriers to technology use
• Use telehealth to effectively deliver care for special populations (child/adolescent, geriatric patients with dementia or in a nursing home, patients at risk for intimate partner violence, LGBTQI patients, incarcerated patients, mental health care) | • Interactive, case-based scenarios for telemedicine visits with pediatric and adolescent patients; dementia and nursing home patients; lesbian, gay, bisexual, transgender, queer, and intersex (LGBTQI); mental health patients; visits with interpreters
• Reflective questions on cultural competence, barriers to care, maintaining confidentiality |

Future of telehealth	Technology for telehealth (Emerging technologies)	• Practice-based learning and improvement: investigate and evaluate patient care practices, appraise and assimilate scientific evidence • Systems-based practice: incorporate considerations of risk/benefit analysis, advocate for quality patient care and optimal patient care systems, participate in identifying system errors	• Describe the current trends in telemedicine delivery models and new technologies • Describe the types of technological innovations that may impact telemedicine in the future, including artificial intelligence • Discuss methods of data acquisition • Describe methods of interpreting healthcare data and subsequent utilization of this data	• Review of emerging innovations (remote patient monitoring and artificial intelligence), for chronic care management and population health • Evaluation of emerging technology with consideration to impact on physician-patient relationship, safety/quality, and ethical, equitable care

National Pilot of STFM curriculum

- 7 medical schools
- 17 residency programs
- 1 school had both residency and UME programs accepted (WMed)
- Total of 1203 learners
- 5 modules, 15-30 minutes each
- 78% reported new knowledge, attitudes and skills
- 80% indicated at right level for them

- Bajra R, Frazier W, Graves L, Jacobson K, Rodriguez A, Theobald M, Lin S. Feasibility and Acceptability of a US National Telemedicine Curriculum for Medical Students and Residents: Multi-institutional Cross-sectional Study. JMIR Med Educ. 2023 May 8;9:e43190.

Objective three

Plan to optimize teaching virtual care competencies to residents in their clinical settings

What are your challenges in teaching Virtual care?

-
-
-
-

Considerations for clinical preceptors

- How do preceptors use virtual care in practice?
- Ensure equipment is available (camera , microphone, double screens) for learner
- Visits are 'same' as in person visit
- Is the visit appropriate for virtual care?

Considerations for clinical preceptors

- Tie virtual care to patient centered approach, equity and needs of community
- Possibility of direct supervision of video-telephone visits
- Remote versus in person supervision
- Transition to practice

McGill Telemedicine Module

- Developed under COVID
- 1hour telemedicine module and discussion – online, of course!
- Core curriculum of First year McGill Family Medicine residents
- Module includes
  - the key elements of a telemedicine visit
  - professional and legal requirements
  - a comparison of potential benefits, challenges and pitfalls of telemedicine
  - the CanMEDs roles used to evaluate
 - a tool to assist in the skills development

eCommunication Skills

- **Webside manners** : a clinician's ability to transfer bedside manner relational skills via technology
- **Telecompetence** : requisite skills and proficiency that clinicians should demonstrate to foster relationships, promote healing, and convey empathy during virtual visits.

Key learning points for residents

- Telemedicine is a tool and it compliments standard in-person care. Remember that context matters. Reasonable care is contextual and requires an assessment of risks and benefits
- Physicians need to continuously consider if the issue being addressed is in fact suitable for a telemedicine visit.
- Know your legal requirements for security and privacy.
- Understand the benefits and challenges of telemedicine

Guides
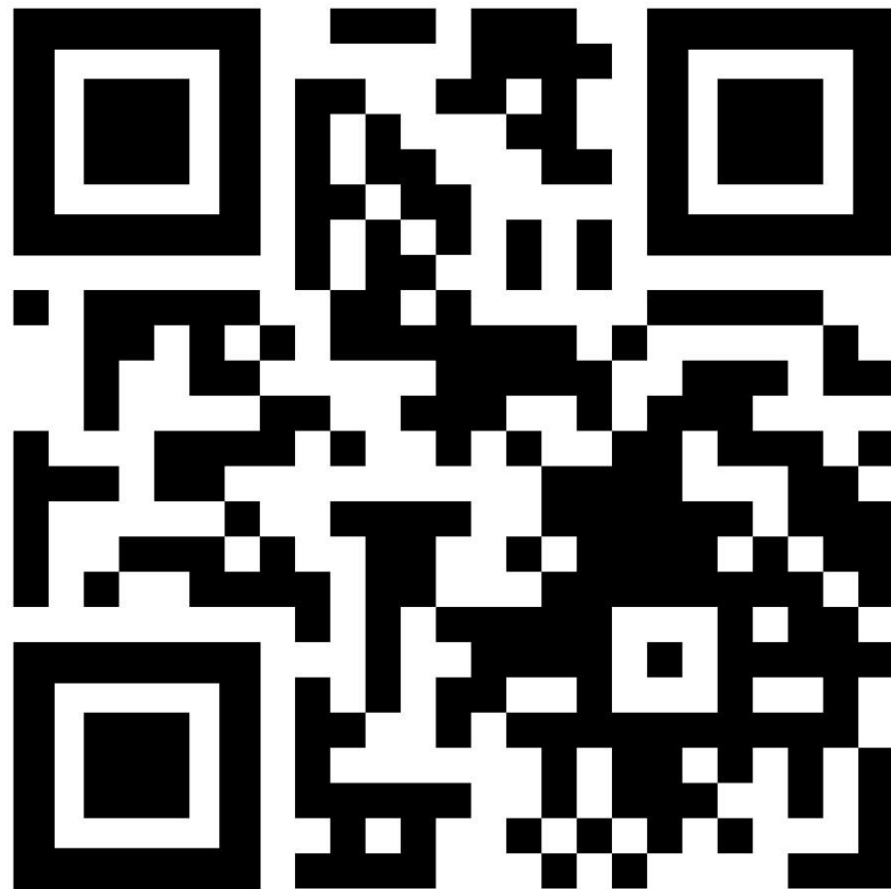
TELEMEDICINE @ HERZL: THE ESSENETIALS

WHAT IS IT ?

The practice of medicine at a distance using information and communications technologies
- Phone call
- Video conference

HOW DO YOU DO IT?

A teleconsult (phone or video) is the same as a regular visit. With a few additional key elements. It's the primary way we will be offering care to patients during the COVID 19 Pandemic. Here are the key steps.

1. Introduce yourself:
Tell them who you are and why you're calling. Ensure that you and the patient are in a confidential setting. If it's a video visit, hold your identification badge up to the camera. If you are resident let the patient know who the supervising doctor will be, and that at some point you will review the case with them.

2. Confirm the patient ID:
On the phone ask them for their, Name, DOB and Home Address. If it's a video visit, have them hold their RAMQ up to the camera.
I Confirm their current location in case the patient goes into distress and you need to call emergency services!

3. Consent the patient:

Cleveland Clinic
Center for Excellence in
Healthcare Communication

Top 10 Tips for Virtual Visits
Clinician Communication

Judgement on appropriateness for resident visits

4. Proceed with the visit:

Try your best to determine at the beginning of the interview if the visit is appropriate for telemedicine. Here are some examples, but you should always use your clinical judgment

Appropriate
- Coughs and Colds
- Simple UTI
- Dermatology (via his res video only video)
- Contraception Counselling
- STI screening and Counselling
- Mental Health
- Routine screening and DM f/u

| NOT Appropriate |
- New Rx for Narcotics benzodiazepines and stimulants
- Rx changes for unstable or relapsed patients taking Methadone or Suboxone
- Rx for cannabis
- Suspected otitis media that requires treatment (i.e. young infants < 6 months or prolonged fever > 48hours or severe illness)
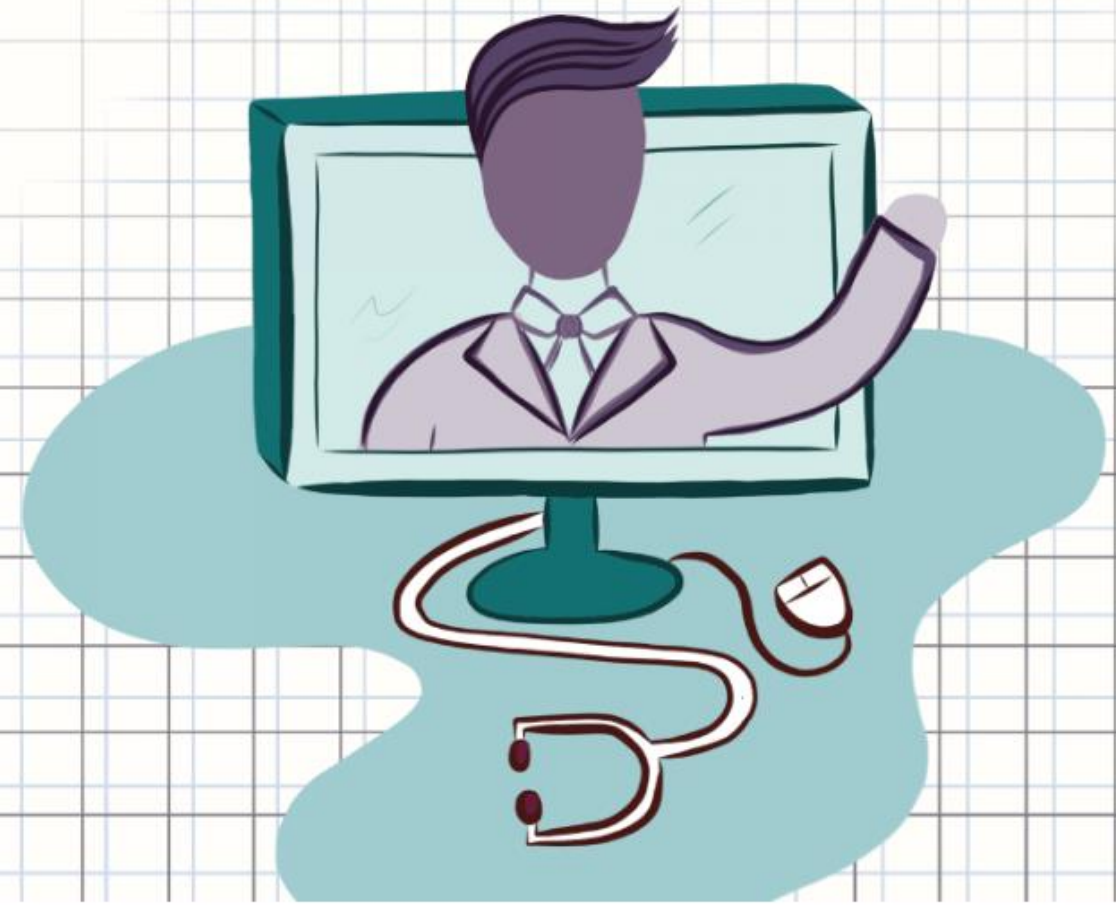
FÉDÉRATION DES MÉDECINS
OMNIPRATICIENS DU QUÉBEC

Other teaching tools

Objectives and Assessments tied to CanMEds roles

Communicator: being able to communicate clearly with patients using technologies (phone and other electronic devices) but also gather key information on history without physical assessments.

Professional: protecting privacy of patients when providing telemedicine care.

Health advocate: need to be able to determine suitability for virtual care for that patient, while ensuring equitable access to virtual care.

Scholar : developing new skills as telehealth evolves and taking an evidence-based approach to telemedicine.

Leader : ensuring equitable and safe digital healthcare access for patients.

Collaborator: collaborating with multidisciplinary teams.

Expert: being able to adopt and manage the use of new technologies to deliver patient centered care.

Learner assessment

- Communicator skills examples
  - Create rapport and relationship of trust
  - Importance of smiling on camera or on the phone
  - Use of typing (is it distracting, helpful?)
  - Address lack of direct eye contact (where is the camera, where is the screen?)
  - Patient feedback on effectiveness of visits

Questions and comments

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