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CONFERENCE ON  
HIV CARE & TREATMENT

# Incorporating Telemedicine into Care in an Urban HIV Clinic

Zsofi Szep MD, MSCE

Associate Professor of Medicine

Partnership Comprehensive Care Practice

Drexel University College of Medicine

Philadelphia, Pennsylvania

# Disclosures



- Zsofi Szep has no relevant financial or non-financial interests to disclose



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# Learning Outcomes



- At the conclusion of this activity, the participants will be able to:
  1. To describe the implementation of a telemedicine program in an urban HIV clinic in order to improve access to care
  2. To adapt an existing telemedicine program to replace in person visits during the COVID-19 pandemic
  3. To discuss patient and provider barriers and facilitators to telemedicine visits in an HIV clinic



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# Outline



- Role of Telemedicine in HIV/Infectious Disease Care
- Partnership Overview
- 2018 Drexel Telemedicine Task Force developed a Telemedicine Protocol for the Partnership
- July 2019 Partnership became a pilot site for Telemedicine
- March 2020 Partnership adapts a virtual protocol with Telemedicine Visits only due to COVID19



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# Outline



- July 2020 Hybrid Partnership Model with In-Person and continued Telemedicine Visits
- Telemedicine Visit Cases
- Conclusions and Future Directions



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# Definitions



- **Telehealth:** Includes a wide array of clinical services using internet, wireless, satellite and telephone to delivery health care and clinical information remotely
- **Telemedicine:** A subset of telehealth that involves the use of electronic communications and software to provide clinical services to patients without an in-person visit.
  - Virtual visits through real-time, live video conferencing



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# Telemedicine and HIV



- HIV Telemedicine models generally target specific populations
  - Rural Communities
  - Prisoners
  - Veterans
- Telemedicine could increase accessibility for patients and improve clinic attendance in an urban setting



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# Telemedicine for Patients Living with HIV



- Barcelona virtual clinic model for established patients living with HIV (n=50)
  - Acces to multidisciplinary care team including HIV specialist, Internal Medicine Specialist, Psychiatrist, Pharmacist, Social Worker and Nutritionist
  - Telemedicine visits available with all care team members
  - **Results:** Improved coordination of care and closer follow up of patients involved in the virtual clinic model
  - Virtual clinic model offered to all patients
  - Patients need to be technologically savvy to be able to participate in this model of care



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# Patient Attitudes About Using Telehealth for HIV Care



- Survey of 371 patients presenting to an outpatient HIV center in Houston, Texas in 2018
  - Median age 51, 36% female, 63% African American
- 57% of participants were more likely to use telehealth for their HIV care if available as compared with in-person visits
- 37% of participants would use telehealth frequently or always as an alternative to in-person visits



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# Physicians' Perceptions of Telemedicine in HIV Care



- Web-based self-administered anonymous survey was sent to physicians providing HIV care in Ontario, Canada
- 48 participants completed the survey
- 62% of respondents reported using some form of telemedicine in their practice
  - 86% telephone
  - 69% email
  - 24% teleconsultation



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# Physicians' Perceptions of Telemedicine in HIV Care



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- 83% of participants reported that the barrier to adopting telemedicine is the perception that this modality does not allow for comprehensive assessment of their patients' health
- 65% of participants agreed that patients may not feel adequately connected to them as a provider using telemedicine
- 85% of participants agreed that telemedicine could improve access to care



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# Partnership Telemedicine Goals



- Improve HIV viral load suppression
- Reduce hospital admissions/ER visits for preventable conditions
- Improve patient adherence to medication regimen: HIV, other chronic conditions
- Improve blood glucose control in patients with diabetes
- Improve blood pressure in patients with hypertension



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# Overview of Drexel Partnership Comprehensive Care Practice in 2019



- 1681 individuals living with HIV seen in 2019
- 65% male
- 78% African American, 11% White, 10% Hispanic
- 44% Heterosexual, 40% MSM, 12 %IDU, 3%Perinatal
- 110 new patients seen, 44 newly diagnosed
- 86% of patient seen had an HIV viral load<200



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# Partnership Telemedicine Task Force Developed in 2018



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- Multidisciplinary Team consisting of clinic staff and providers
- **Goal:** Develop a telemedicine protocol to incorporate into the Partnership multidisciplinary care model
- Monthly meetings in consultation with Drexel University Practice Chief Medical Informatics Officer Dr. Edgar Chou and his team, Drexel University Office of Compliance and Legal team
- Consultation with Consumer Advisory Board



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## 1. Patient Selection

- Established Partnership patients

## 2. Scope of Practice

- Medical
- Case Management
- Pharmacist
- Clinic Nurse
- Behavioral Health Specialist



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## 3. Consent

- Can be obtained in person or over the phone by a provider or staff member
- Consent needs to be scanned into patient's chart
  - For consents obtained over the phone, discussion needs to be documented in patient's chart

## 4. Scheduling

- 15, 20 and 40 minute Telemedicine Appointment types created
- Front Desk Staff schedules appointments



## 5. Technology Resources

- Patients need to download Zoom app on their smart phones or personal computers
  - Front Desk or Outreach Staff Member able to assist patient with accessing zoom app
- Providers use either webcam enabled PC or laptop in the clinic



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# Patient Instructions

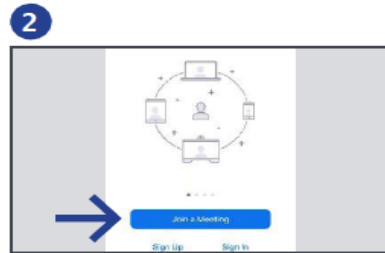
## Telemedicine Meeting Instructions

### FROM MOBILE DEVICE



Go to the **App Store** on your mobile device.

Search for **Zoom Cloud Meetings** and download at no cost.



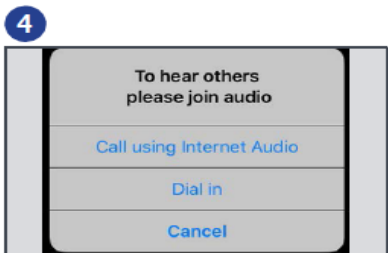
Once downloaded, click the app to launch.

Click **Join a Meeting**.

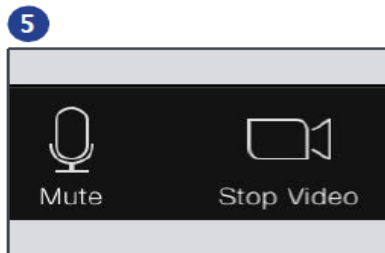


Enter the **9-digit meeting code** from your provider and click **Join**.

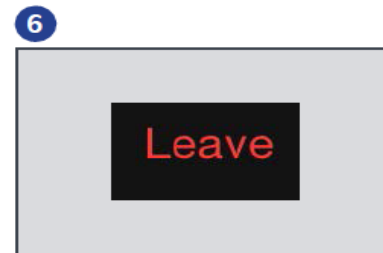
Enter in the **Meeting Password** from your provider.



Select your audio method: Internet Audio\* or Dial in\*



Once joined, confirm **video is on** and **microphone is unmuted**.



When finished, click **Leave**.



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# Provider Instructions



## Telemedicine Meeting Instructions

### FROM DESKTOP COMPUTER

1



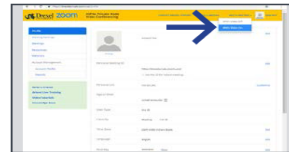
Go to [drexel.zoom.us](https://drexel.zoom.us) in a web browser. Click **Sign in using HIPAA Private Mode**.

2



Sign in with your **DrexelOne ID** user id and password.

3



At the top-right, select **Host a Meeting - With Video On**.

If using for the first time, a Zoom App download may start automatically.

4



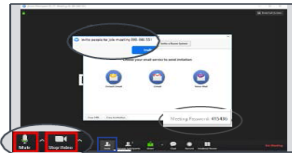
The **Zoom App** will launch in a separate window.

Select one of the audio methods: **Phone Call** or **Computer Audio\***

Follow the on screen instructions for connecting to the meeting audio.

\*requires a headset with mic

5

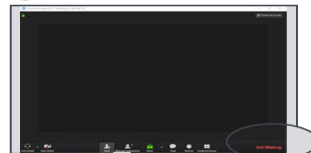


Select the **Invite** button from the bottom ribbon. A new window will pop-up.

Read the **9- digit meeting code** at the top of the window to your patient. Give the patient the **Meeting Password** at the bottom of the window.

Once the patient has joined, confirm **video is on** and **microphone is unmuted**.

6



When the meeting is finished, click **End Meeting** from the bottom ribbon.



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## 6. Billing

- Varies by insurance carrier
- Some visits conducted by staff members may not be billable

## 7. Documentation

- Clinic Visit note with telemedicine attestation
  - Documentation of patient and provider location
  - Documentation of consent

## 8. Geographic Requirement

- Initially both the patient and provider had to be physically present in the state of Pennsylvania to be able to conduct a telemedicine visit



# Drexel Partnership Telemedicine Workflow



## 1. Telemedicine Consent and Instructions provided to new or established patients during in person visits or via telephone

- Front Desk Staff, Case Managers ,Outreach Team and providers able to consent patients in person or over the phone
- Instructions provided to patients with consent in person
- Clinic staff available to help patients download/test ZOOM app on smartphone
- Outreach Specialist available to assist patients remotely



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# Drexel Partnership Telemedicine Workflow



- 2. Front Desk or Outreach Staff schedules telemedicine appointment**
- 3. Patients contacted 24 hours prior to appointment to ensure they have access to zoom and are able to participate**



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# Drexel Partnership Telemedicine Visit



- **Day of the Appointment:**

- Physician arranges HIPAA zoom meeting 5 minutes prior to scheduled appointment and starts meeting
- Physician contacts patient via phone and instructs patients to launch zoom and provides meeting ID and password
- Documentation of visit occurs in EMR ensuring completion of telemedicine attestation
- Physician notifies front desk staff via EMR to contact patient to schedule a follow up appointment in person vs telemedicine
- Physician notifies MA team if a lab appointment needs to be scheduled



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- Patient to be in a secluded room with a closed door and not in public location (they should be reminded that sensitive health topics may be discussed)
- Patient possesses the appropriate hardware and wi-fi connection/data plan to be able participate





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# Barriers to Telemedicine Acceptance



- Lack of comfort with telemedicine technologies by patients and providers
- Fewer than expected patients with barriers to attending in-person appointment
- Limited reimbursement



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# COVID-19 Pandemic Transformed the Telemedicine Landscape



- Insurance companies expanded coverage to include all telemedicine visit types including from home
- States relaxed licensure requirements allowing for care delivery across state boundaries
- Government waived enforcement of HIPAA regulations to allow for use of consumer audio and video communications for telemedicine visits



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# Shift from In-Person Visits to Telemedicine Only Visits



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# Telephone Script for Patients



- “For your safety and due to the COVID-19 outbreak impacting our community, the Partnership Comprehensive Care practice has canceled all routine in person appointments. Your provider is available for a visit through video chat or phone. I can provide you with instructions on how to download the zoom app if you have a smart phone or through your computer or laptop. If you don't have a smart phone or computer, the visit can be done by phone. Please follow CDC recommendations to wash your hands frequently and stay at home as much as possible. Only go out to the grocery store or pharmacy and only if it is absolutely necessary. Be safe!”



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# Telemedicine Staff Roles

- Conducts scheduled telemedicine visits from 8:30-11 am and 1-4 pm
- Covers urgent tasks and urgent telemedicine visit requests

Medical Provider



- Provide ongoing assessment of the client's and other key family members' needs and personal support systems

Case Manager



- Provide psychological and psychiatric screening, assessment, diagnosis, treatment, and counseling services

Psychiatrist



- Conduct telemedicine visits with patients referred by the medical providers as well as check in with current patients on Behavioral Health's case load

Behavioral  
Health  
Consultant



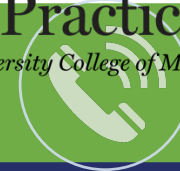
- Assist with medication adherence for patients
- Work with Walgreens for pillbox distribution.
- Manage medication refill requests

Pharmacist



- Obtain consent over the phone, walk patient through downloading HIPPA ZOOM
- Follow-up on tasks from patient portal

Front Desk



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# Virtual Clinic Day



- **AM Clinic Session: 8:30-12:00pm**
- **Zoom Team Huddle at 8:25am**
  - Zoom meeting with medical providers, psychiatrist, behavioral health specialist, nutritionist, pharmacist, office manager, front desk staff, medical assistant, outreach specialist and case managers to review list of patients scheduled for telemedicine visits in the morning
  - Front desk staff alerts providers if there are any urgent telemedicine visits referred from the on call provider
- **8:30 am -12:00 pm** medical providers ,psychiatrist and gynecologist if scheduled conduct visits via telemedicine
  - T20 or T40 visits via HIPAA ZOOM or telephone
  - Providers able to refer patients to meet with pharmacist, behavioral health specialist, nutritionist or case manager
- **PM Clinic Session :1pm- 5:00pm**
- **Zoom Team Huddle at 12:55pm**
  - Zoom meeting to review patients scheduled for the afternoons
- **1:00-5:00 pm** medical providers, psychiatrist or gynecologist if scheduled conduct visits via telemedicine



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# Partnership Monthly Medical Visit Summary



2020	# of Attended Medical Visits	# of Missed Appointments
January	479 in person visits	303
February	425 in person visits	320
April	438 telemedicine visits	103
May	459 telemedicine visits	65
June	440 telemedicine visits	107

# Hybrid Visit Model During the COVID-19 Pandemic



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## Phase 1

- **Week of June 29, 2020**
- Re-open lab for uninsured patients who need bloodwork first then to patients who are unable to get to LabCorp or Quest or not eligible for home lab draws.
- Will open lab 1-2 days per week

## Phase 2

- **Week of July 6, 2020**
- Faculty and staff onsite to conduct telemedicine visit as well complete the application dress rehearsal for using Epic in clinic.
- Schedules will be staggered to allow social distancing
- **Week of July 13, 2020**
- Modified schedule for faculty and staff to be onsite for in person visits as well as continuing telemedicine visits onsite and remotely
- Two providers per session with staggered schedule

## Phase 3

- **Week of August 17, 2020**
- All faculty and staff working onsite
- Three providers per session with in person visits with staggered schedule
- Telemedicine visits conducted onsite vs remotely
- Add 1-2 weekly sessions for "same day scheduled sick visits"



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# Telemedicine Visits Incorporated into Staff and Provider Roles



Patient Service Representatives

Continue to schedule mostly telemedicine visits and instruct patients to access zoom

Medical Providers

Continue to do mostly telemedicine visits via telephone, HIPAA zoom or Doximity video call

Pharmacist or Clinic Nurse

Available via zoom for medication adherence, diabetes or blood pressure management or smoking cessation counseling

Case Management

Continue to be available via zoom for their patients and for new patients



# Telemedicine Visits Incorporated into Staff and Provider Roles



Behavioral Health Consultant

Continues to be available via zoom and able to refer patients to psychiatrist for telemedicine visit

Nutritionist

Continues to be available via zoom for diabetes or weight management



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# Case 1: Follow up Telemedicine Visit



- 32 yo woman with history of HIV (dx in 2006) with a long history of difficulty taking her meds due to fear of side effects. 1 year ago she was able to take a single tablet regimen, abacavir/dolutegravir/lamivudine for 1 month consistently but stopped due to insurance issues. She has had follow up appointments and was changed to a another single tablet regimen bictegravir/emtricitabine/tenofovir alafenamide but has not started due to her fear of side effects.



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# Case 1: Follow up Telemedicine Visit



- Patient willing to start bictegravir/emtricitabine/tenofovir, motivated by COVID-19 pandemic
- She was started on medications and was also referred to Clinic Nurse to follow up with patient to help with adherence



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# Case 1: Follow up Telemedicine Visit 1 month later



- Patient started bictegravir/emtricitabine/tenofovir 1 week after last visit, she did not experience any side effects
- Clinic Nurse followed up with patient weekly
- Follow up labs pending.



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# Case 2: New Patient Telemedicine Visit



- 44 yo woman with a history of HIV diagnosed in 2006 who presented via telemedicine visit to re-establish care. She has had a difficult time engaging in care since her diagnosis. She has not disclosed her status to anyone. Her son was recently hospitalized which motivated her to take care of her own health. She has not been on antiretroviral therapy since her pregnancy. She was willing to start antiretroviral therapy as long as it was a simple one pill once daily regimen.
- Patient was started on bicittegravir/emtricitabine/tenofovir



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# Case 2: New Patient Telemedicine Visit 1 Month Follow Up



- Patient started taking bictegravir/emtricitabine/tenofovir 1 week after previous visit and has not missed any doses since starting.
- She needed assistance with scheduling lab work. Clinic staff reached out to her and scheduled a lab appointment.
- Follow up labs pending.



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# Case 3: Lost to Care Patient Telemedicine Visit



- 29 yo woman with hx of HIV diagnosed at the age of 19 who was last seen in clinic 1 year ago. She reports doing well with her antiretroviral regimen dolutegravir and emtricitabine/tenofovir alafenamide which she has been taking consistently. She has 2 young children which makes it difficult for her to come to the clinic. She is ok with going to a lab location near her home to get lab work done.



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# Telemedicine Lessons Learned During COVID-19



- Majority of outpatient HIV visits can be effectively managed via telemedicine
- Remote access to Electronic Medical Records and wide availability of smart phones facilitated telemedicine accessibility
- Logistics of telemedicine can be developed and deployed rapidly including work flow and staff training
- Federal government relaxed restrictive regulations including interstate licensing, data confidentiality issues and reimbursement



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# Conclusions



- Telemedicine visits are now the new normal for health care
- We were able to engage more patients into care during a telemedicine only visit period than previously during in person visits prior to COVID19
- Clinic Nurse, Pharmacist, Nutritionist, Behavioral Health Specialist and Case Managers are able to conduct telemedicine visits
- Telemedicine visits allow for an in-depth evaluation of the patient's home environment



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# Future Directions



- Continue to incorporate telemedicine visits into clinic work flow
- Medication Adherence visits with pharmacist or clinic nurse
- Telemedicine smoking cessation counseling visits with clinic nurse
- PrEP visits via telemedicine
- Medication Assisted Treatment visits via telemedicine
- Peer Recovery Specialist available to patients via telemedicine



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