

Mid-Atlantic Telehealth Resource Center Summit 2017



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Developments in Telepsychiatry:

An Asynchronous Model for
Integrating Behavioral Health into a
Primary Care Setting

*With all due credit to Dr. Peter
Yellowlees and his group at UC Davis*

A Feasibility Study of the Use of Asynchronous Telepsychiatry for Psychiatric Consultations

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Objective: This study examined the feasibility of conducting psychiatric consultations using asynchronous, or store-and-forward, video-based telepsychiatry. **Methods:** Video-recorded 20- to 30-minute assessments of 60 nonemergency, English-speaking adult patients in a medically underserved county in California were uploaded along with other patient data to a Web-based record. Two psychiatrists then used the record to provide psychiatric consultations to the referring primary care providers. **Results:** Eighty-five percent of patients received diagnoses of mood disorders, 32% diagnoses of substance use disorders, 33% diagnoses of anxiety disorders, and 5% other axis I diagnoses. Psychiatrists recommended short-term medication changes for 95% of the patients and provided guidelines for possible future changes. **Conclusions:** This study—the first

study of asynchronous telepsychiatry to be published—demonstrated the feasibility of this approach. This type of assessment should not replace the face-to-face psychiatric interview, but it may be a very helpful additional process that improves access to care and expertise. (*Psychiatric Services* 61: 838–840, 2010)

There are substantial shortages of mental health care providers in rural America (1), and primary care providers serve as the sole clinical contact for the vast majority of patients with mental illness (2). Distance and limited resources prohibit the traditional kinds of specialty referrals seen in more developed regions (3). Telemedicine has been cited as providing at least a partial solution to these shortages and difficulties by linking distant specialists with rural providers.

Traditionally, there have been two main types of telemedicine: synchronous, which typically relies on live, two-way interactive video transmission to a remote area, and asynchronous (store-and-forward), which transmits clinical information via e-mail or Web applications for later review by a specialist. Synchronous communication used for psychiatric treatment, or telepsychiatry, has been well described in the literature, is diagnostically valid, and is associated with good clinical outcomes and high

patient satisfaction (4,5). This type of service, however, has not been implemented as widely as predicted because of administrative issues (for example, complex scheduling across clinics, patients, and providers), reimbursement and financial issues, long waiting times and a lack of specialists who are interested (6), and the absence of the required technical infrastructure in rural underserved areas (4,6).

Asynchronous telemedicine has been commonly used and well received by pathology, cardiology, radiology, dermatology, and other fields (7). Psychiatrists have long-standing expertise in providing consultations about patients without conducting a full face-to-face assessment (8–10), and this study addressed the feasibility of the next logical step, which is to develop a process for, and undertake a number of, asynchronous video-based telepsychiatry consultations.

Methods

We received funding to conduct a feasibility and interrater reliability study of asynchronous telepsychiatry. This brief report describes the feasibility component as approved by the University of California, Davis, Institutional Review Board. We undertook 60 asynchronous telepsychiatry consultations with English-speaking adult patients between April and November 2008. All participants were identified as having psychiatric problems that warranted a nonurgent psy-

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THE
REAL
WORLD



Telepsychiatry and the Patient Centered Medical Home

Traditional approaches to support primary care providers retaining and managing their own patients include:

1. Direct consultations and assessments
2. Indirect consultations – phone, email, secure messaging, shared EMR

Add to this:

- Addition of asynchronous consultations – using video as data



Why Asynchronous Telepsychiatry?

1. Huge need to increase access to expertise
2. Supports medical home and lets primary provider keep patient – consultation model of care.
3. Improved “curbside consult.”
4. Telemedicine often not used as much as expected in these settings – we seem to know what doesn’t work
5. ATP allows data to be changed/improved or focused between patient and reporting provider
6. Increased acceptance of web visits and asynchronous medicine.

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The Concept of Asynchronous Telepsychiatry (ATP)

The Same process as “store and forward” radiology, pathology, dermatology, etc..

4 Steps:

1. A clinical examination is ordered
2. Structured data captured at the exam is sent to an expert
3. The expert reviews the data and writes an opinion
4. The opinion is sent to the originating provider, who may further discuss with the expert as required.

Work Flow

Referral site and PCP

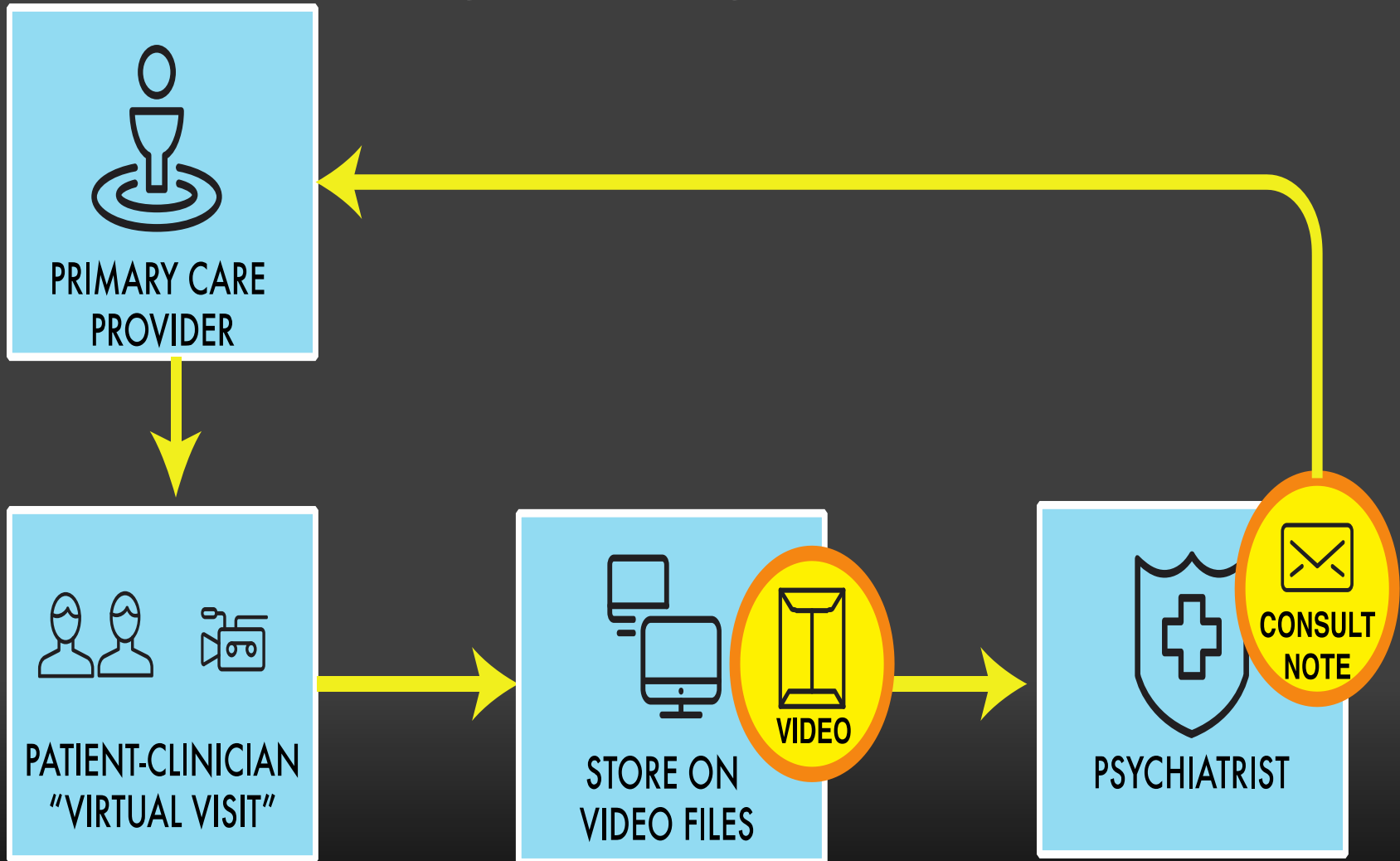
- Makes referral and documents health history and psych assessment results
- Consent and video acquisition of ATP interview (virtual visit) either through local interviewer, or from a distance by navigator
- Transmits consult electronically to consulting psychiatrist
- Medical record keeping

**HIPAA
secure
electronic
trans-
mission**

Consulting psychiatrist

- Receives consult and returns a report to referral site within specified time
- Maintains medical record of consult
- May message with PCP for further clarification

Work Flow





Technical requirements: Video Camera

- Digital, can be attached to laptop, with special attention to audio recording sensitivity – may need extra echo cancellation capacity
- Wide-angle lens adapter (often necessary in small rooms)
- PTZ functions less relevant

Video Recording The Interview

- **Examining Room Size** – Minimum of approximately 9 x 9 feet.
- **Camera Position** – On a tripod, laptop, or monitor with patient 3-4 feet away from screen. If an in-room interview is occurring will typically need to be about 6 feet away.
 - Wide-angle lens field of view to include both the patient and the interviewer.
 - It is important to capture both patient and interviewer, in a way that the consultant can see their faces and interaction.
- **Lighting** – No external lighting equipment necessary; standard room illumination sufficient in most circumstances.

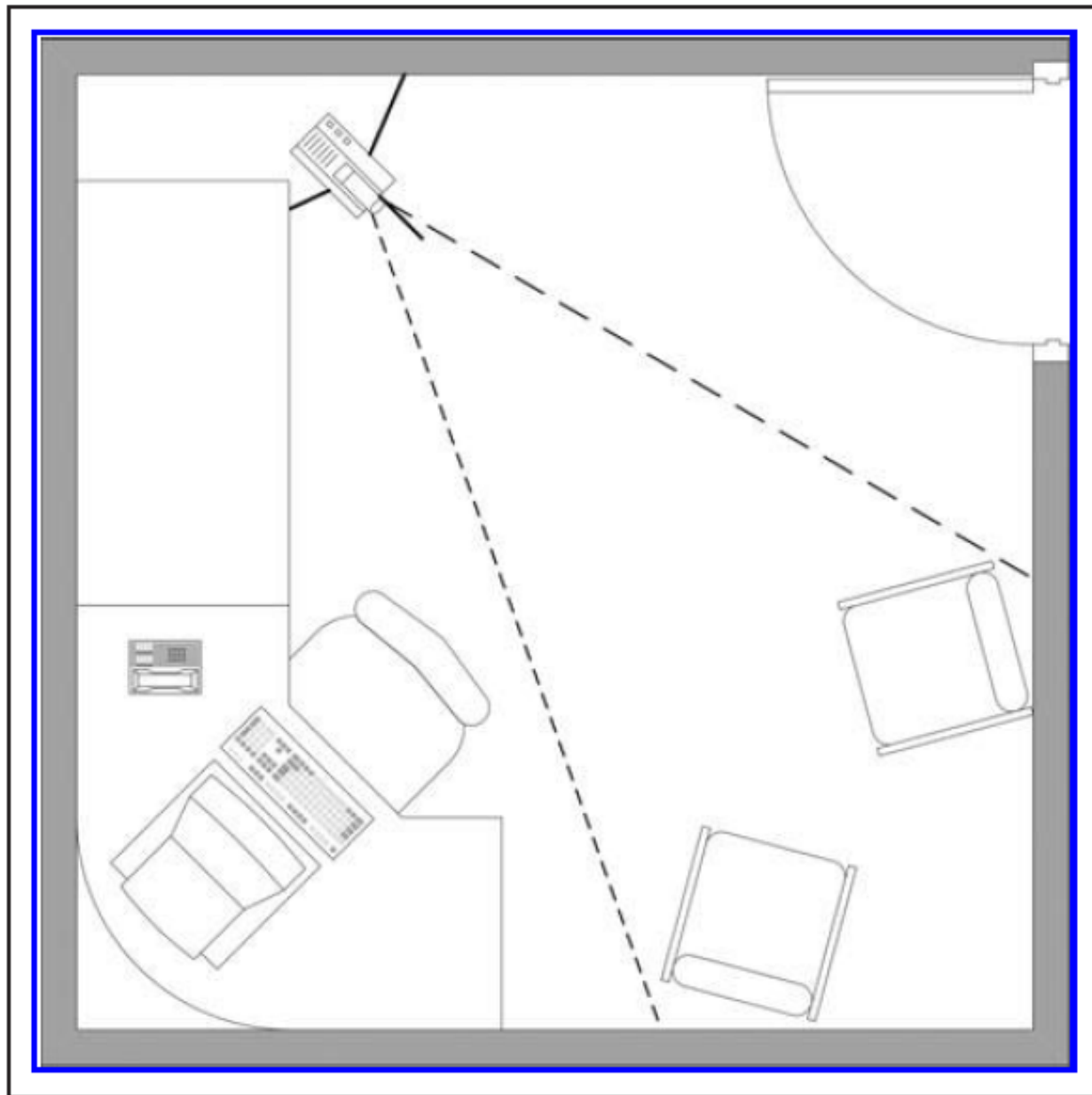


Fig. 2. Typical room setup and wide-angle-lens field of view.

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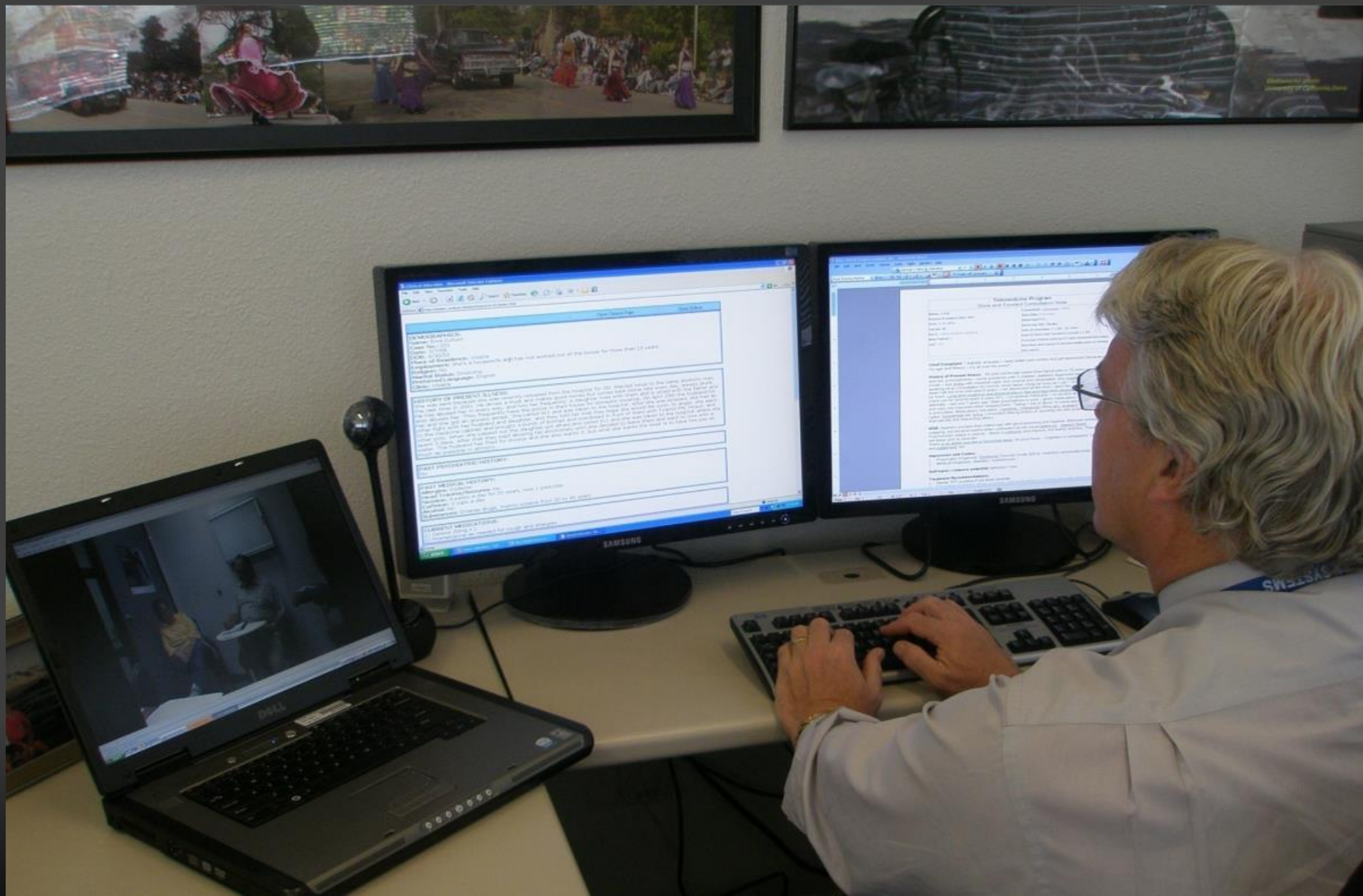


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Typical ATP interview with care navigator and patient both recorded on split screen, which is designed to mimic YouTube in functional capacity.



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THE INTERVIEW

- Check for focus, clarity, and adequate views of camera prior to interview.
- Digitally record interview.
- Obtain minimum data collection (Initial Telepsychiatry Intake and Assessment Form).



FOLLOWING THE INTERVIEW

- Upload interview and minimum data collection set along with any additional documents (i.e. labs, etc.) on any computer with a secure network connection.
- Review interview and documents if necessary.
- No alterations of video in any way once recorded.
- Label video, data collection set, and additional documentation to become part of a secure, retrievable medical record.
- Send to consultant on any computer with a secure network connection.



FOR THE CONSULTANT

- Complete consultation evaluations on any computer with secure network connection.
- Setup may vary according to preference. One proposed setup is to use three computer screens- 1 for video, 1 to review EMR and any pre-collected data, and 1 to write report while observing recorded consult.
- Upload interview video and clinical histories.



FOR THE CONSULTANT

- Review video interview, data collection set, any additional documentation and complete the consultation note.
- Upload a diagnostic evaluation and treatment plan and send to PCP on any computer with a secure network connection.
- PCP download evaluation and modify the patient's treatment.
- PCP and Psychiatrist not uncommonly clarify one or two patient issues on secure messaging after consult



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