

The Signal

Clinical Research Technology Comparison: Telemedicine Versus Video Conferencing for Healthcare

Telemedicine or telehealth solutions may not be new, but virtual video visits are becoming more common for communication between patients and healthcare providers thanks to COVID-19. In clinical trials, the application of telemedicine technology is still evolving. Clinical trials have far more considerations and challenges beyond the basic patient-clinician interaction. A telemedicine platform intended for clinical trials must provide broader functionalities to accommodate the various needs of sponsors, CROs, patients, clinicians, investigators, research site staff, and regulators, as well as meet international regulatory requirements.

Therefore, medical research sponsors should consider the protocol's requirements when selecting a video-enabled communication and collaboration platform, carefully distinguishing between a telemedicine solution built specifically for clinical trials and an all-purpose video conferencing platform.

Prominent video conferencing solutions like Zoom or Webex, for example, target the healthcare industry by marketing features like high-resolution video, crisp audio, screensharing with annotations, and video recording. These tools help to facilitate simple, remote patient-physician consultations. However, there are few, if any, features that cater to the specific nuances of medical research, such as shared, encrypted calendars and multi-language support. In addition, these video conferencing tools rarely mention research sites or have any features designed to simplify the workflows for this important stakeholder. Finally, any mention of HIPAA is usually in the context of "compliance" through a Business Associate Agreement (BAA), and supporting documentation is usually rife with ambiguities.

On the other hand, telemedicine platforms designed specifically for clinical research, such as [SmartSignals Telemedicine](#), provide clinical research sponsors with a multi-functional ecosystem to digitize and improve the clinical research process for all stakeholders. These purpose-built platforms improve the patient and site experience as well as help sponsors access a wider, more diverse participant pool through remote or decentralized trials. Other important characteristics that make these solutions ideal for clinical research include:

- HIPAA, HITRUST, and/or SOC 2 certification (not just "compliance")

- Integration with eCOA, eConsent, or EDC systems as well as medical devices (sensors and wearables, scopes, etc.)
- Multi-party encrypted calendaring
- Training and support by clinical science and medicine experts familiar with clinical trial operations

To help distinguish between the two types of platforms described, we compare Signant's Telemedicine solution with a generic video conferencing solution in the table below.

Solution Characteristic	SmartSignals Telemedicine Solutions	Video Conferencing Solution
Communication Infrastructure	<ul style="list-style-type: none"> • No application needed to download • Adjustable bitrate to prioritize video or audio • Support for +45 languages 	<ul style="list-style-type: none"> • Download required • Uncontrolled video & audio quality
Scheduling & Coordination	<ul style="list-style-type: none"> • Notifications & calendar are HIPAA compliant • Visits can be scheduled and managed by administrators, patients, or clinical staff • Shared calendars show everyone's availability • Supports on-demand, unscheduled visits 	<ul style="list-style-type: none"> • Scheduling with patients requires a non-HIPAA-compliant personal calendar • No visibility into time availabilities
Regulation & Security	<ul style="list-style-type: none"> • HIPAA, HITRUST, and/or SOC 2 certified • GDPR, 21 CFR part 11 and Privacy Shield compliance • Accommodates multi- or single-tenant instances to comply with international regulatory requirements, and to ensure materials remain within their designated geography 	<ul style="list-style-type: none"> • Not certified for HIPAA, HITRUST, or SOC 2 • Video, audio, chat, and files flow through or are hosted on servers located outside of country where consultations take place • Downloading programs may result in the program sharing information with other applications • No control over information • BAA is very light security, not the same as HIPAA certification
Business Workflows	<ul style="list-style-type: none"> • Video conferencing functionality can be used for eConsent, patient engagement, site qualification and inspection, and other functions of clinical trials • Queuing mechanism to triage and load balance video visits • Video visits plus documentation - sync video and capture documentation simultaneously • Capture data from sensors & wearables, telemetry • Images and other files are treated as medical content so it is encrypted and stored securely, can only be accessed through user privileging rights • Integration with devices - e.g. dermatoscope & stethoscopes • Facilitates clinical encounters in multiple formats - video/audio/text/in-person visits supported • Interoperability with existing healthcare & pharmaceuticals ecosystems e.g. EMR, EDC • Single sign on 	<ul style="list-style-type: none"> • Requires software for video visits, electronic informed consent, outcomes assessments, etc. • No user management to the degree needed e.g. site, clinical users, cannot dictate access level to medical content • Medical content is not stored securely • Most do not integrate with any eClinical technology

[Contact us](#) to learn more and connect with telemedicine experts for your next clinical study.



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