

Telemedicine Web cast Participant Questions

The following answers have been provided by James Marcin, MD, MPH,
Pediatric Critical Care, U.C. Davis Children's Hospital
(jpmarcin@ucdavis.edu)

1. What are the major costs involved in establishing a telemedicine program (in a rural hospital?)

- ➔ This is a good but difficult question to answer. It really depends upon what "program" you are setting up.
- ➔ First, there are equipment costs. Low end (from web cams) to high end (stand-alone videoconferencing units) range from \$200 to \$6,000+. You need two of these, one for each site (or, one of each, depending upon needs of clinician).
- ➔ Second, there are telecommunications fees if using ISDN or T1 ranging from \$120/month to \$1,000/month. Internet is also possible (free) but less reliable.
- ➔ Third, personnel (the real costs) of tech support, telemedicine coordinators, medical directors, scheduler, etc, must be considered. Often, these jobs can be done by existing personnel but the telemedicine coordinator is very important and they need protected time.

2. What challenges should be anticipated before establishing a telemedicine program?

- ➔ It really depends upon whether you are doing ER, inpatient or outpatient telemedicine. You NEED a physician champion (on both ends), administrative support (on both ends), and a well thought out clinical model or plan. You also need at least one good technician familiar with telemedicine or video conferencing to get the connection working. Then, it is necessary to have a "telemedicine coordinator" (preferably at both ends) to help coordinate consultations, test equipment, teach users and provide continuing support.

3. How is parental consent obtained during a tele-trauma or pre-hospital telemed consult? Or, is it even required?

- ➔ California requires consent prior to telemedicine; however, if it is an emergency, we forgo obtaining consent just as we would for any other emergency therapies or surgery. Many states do not require consent, which I believe, will become standard in the future, as telemedicine becomes incorporated in the routine care of patients – just like we don't get consent for bedside consultations or phone consultations. Our state requirement was made just when telemedicine was starting and was considered a "new" technology. You need to check with your medical-legal personnel regarding your institution's policy on this.

4. How is telemedicine physician consultation compensated?

→ Compensation is typically similar to in-person consultations. For outpatient consults, there are telemedicine modifier codes. Medicare reimburses (although some regulations apply, such as the remote site must be HPSA, rural). Medicaid is left up to the individual states. More than not, states have Medicaid legislation detailing reimbursement for telemedicine. Private payers often reimburse, but some are resistant. Some states have laws requiring private insurance providers not to discriminate. Our institution prefers (if possible) to establish contracts with the remote sites such that they pay per block of time or per month to the consultant site; then and the remote site can do the billing themselves.

5. In your experience have EMS providers been receptive to physician consultation through telemedicine?

→ Good question. I think that EMS providers working in EDs like it. Field-scene-transport telemedicine is sometimes of value, sometimes not. A doctor trying to stick his/her nose into an experienced field provider's way is sometimes NOT helpful. The utility (in my opinion) of transport telemedicine has yet to be defined.

6. Dr. Marcin and Dr. Latifi, you both describe the value of having telemedicine available for facilities to improve the care of children could you please address any specific concerns or issues related to HIPPA and did your legal departments have any specific concerns or recommendations as you set up your systems (i.e. long distance medical risk issues, etc.?)

→ First, many institutions require a consent form be signed prior to telemedicine use detailing description, purpose, risks (none, really), and alternatives. Part of the reason for this is because you are sharing medical information with other providers. The State of CA, for example, requires consent for all telemedicine consultations. If it is an emergency case, then consent (similar to other procedures) is not needed if the physician feels that it is necessary for the care.

→ Second, regarding line security, most high-end video conferencing units (Polycom, Tandberg) do their own encryption-decryption on sending and receiving, respectively. There are also telecommunications that are secure (HIPPA compliant) including a telephone line, ISDN, and T1. The web is not "secure" but there are ways to make it secure (eg, creating a VPN).

→ Our legal department does not require anything more (insurance, waivers) for us to conduct telemedicine consultations. In fact, it can be argued, that we are able to provide better care over telemedicine than over telephone. The consulting MD is at risk for lawsuits in both telephone and telemedicine. Most hospitals do NOT require more insurance or special policies to cover telemedicine.

7. What is the cost for installation, maintenance, and replacement for telemedicine units in ambulances? Does the system require additional EMS staff on the rig?

➔ We do not use telemedicine in ambulances. Scene telemedicine is sometimes of value, sometimes not. A doctor trying to stick his/her nose into an experienced field provider's way is sometimes NOT helpful. The utility (in my opinion) of transport telemedicine has yet to be defined. The locations that use telemedicine during transport do not have additional EMS staff. It can be argued in some circumstances (long distance ambulance or fixed wing transports) that telemedicine could be very useful.

8. As you have embarked on this process, you built in an extensive, impressive, evaluation process with many disciplines involved - do you have specific evaluation templates that could be shared with others as they consider developing and implementing a system such as yours and if so how should or could we access such?

➔ I would like to know more about what you mean by "evaluation process." You are welcome to email me at jpmarcin@ucdavis.edu for questions. For quality and satisfaction of care evaluations, yes, I can share what I have with you. The satisfaction surveys, the quality of care assessment tools, also. We also have some Policy and Procedure guidelines, which I can also share, if this is what you mean by "evaluation templates."

9. What incremental gain in type, severity and criticalness is gained with the video system over a good audio system?

➔ Good question. This depends upon the use of the telemedicine. Most often, the high-end videoconferencing units automatically adjust what proportion of the bandwidth is used for video (usually around 80-90%) and audio (usually 10-20%). Video is really key, since audio doesn't require much. Typical baseline needs are 384kbs transmission rates, minimum.