

Case Study #17

TELEMEDICINE IN PAEDIATRICS, USA

Emergency departments located outside major cities often lack the equipment or expertise to safely assess and treat acutely ill or injured children. This can lead to medication errors and a higher risk of serious injury and death.



APPROACH

In response, the University of California Davis Children's Hospital developed a model of video conferencing to connect specialists to emergency departments across rural areas of California. Doctors treating children in any of the participating 24 emergency departments can get 24/7 advice from a paediatric emergency and critical care consultant. Using a standardised triage protocol and reference cards triage nurses assess whether a telemedicine consultation is necessary. If appropriate, the doctor pages the on-duty specialist who can see the examination room and access the child's test results.

UC Davis paediatricians also host monthly lectures and training sessions on paediatric critical care which are broadcast to the remote sites. Staff are encouraged to identify areas of care in which they require further training.

The service required investment in both the training of staff in rural emergency departments, and the installation of video-conferencing technology. Initially the service was run by volunteer consulting paediatricians from UC Davis but payment mechanisms are now being introduced.



IMPACT

A review analysed 320 cases and compared them with traditional telephone consultations. Preliminary results show that the model improves diagnosis, as well as the treatment process. Telemedicine consultations were found to lead to a significant reduction in physician-related medication errors compared to telephone-only consultations (7.1% vs 25.9%). In addition, patient satisfaction is higher and physicians prefer telemedicine consultations compared to conventional telephone consultations.

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Sources

<http://www.innovations.ahrq.gov/content.aspx?id=1870>

