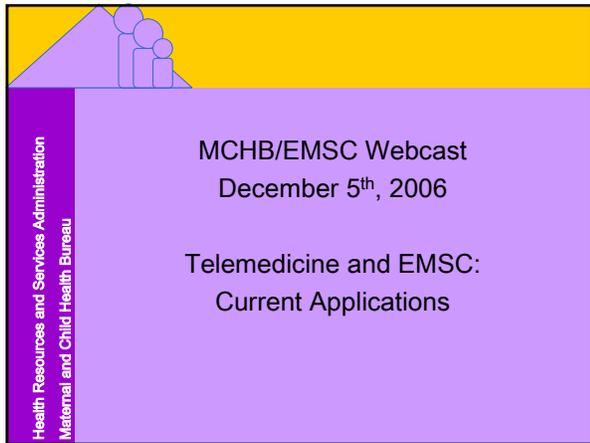




Health Resources and Services Administration
Maternal and Child Health Bureau

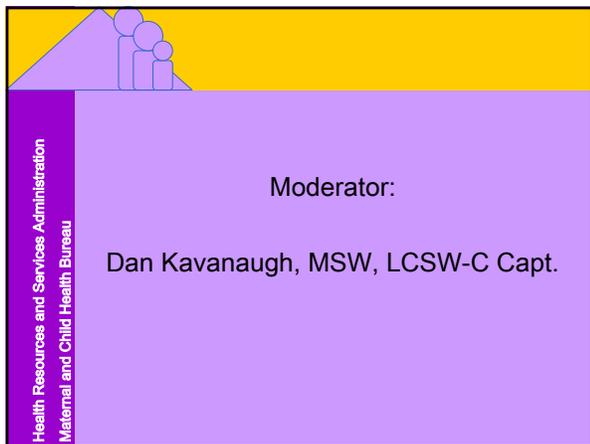
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Health Resources and Services Administration
Maternal and Child Health Bureau

MCHB/EMSC Webcast
December 5th, 2006

Telemedicine and EMSC:
Current Applications



Health Resources and Services Administration
Maternal and Child Health Bureau

Moderator:
Dan Kavanaugh, MSW, LCSW-C Capt.



Telemedicine and EMS-C The Medical Perspective

James P. Marcin, MD, MPH
Pediatric Critical Care
UC Davis Children's Hospital

Emergency Medical Services for Children
Webcast
December 5, 2006



What is Telemedicine?

- Interactive health care over distance using information or telecommunications technology
- Two types:
 - Store-and-forward
 - Live-interactive




Why Telemedicine?

Regionalization improves efficiency and quality



Telemedicine allows our expertise to be available on any street corner



Telemedicine Becoming the Standard of Care

- Telemedicine consultations are increasing between 30% to 50% annually (Frost & Sullivan)
- Improved quality and lower cost of equipment
- Improved quality and cost of telecommunications
- Increased opportunities for funding
 - Office for the Advancement of Telehealth (OAT)

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Telemedicine Becoming the Standard of Care

- Favorable changes in reimbursement
- Physician shortage
- Getting over the "early adopter" hump
- Post 9-11 & Katrina: terrorism, natural disasters

- Telemedicine expected to cover 15% of all "health care" by 2015 (Waterford, Inc.)

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Benefits of Telemedicine

- Reduction in the distance barrier to access
- Improvements in quality of care
 - Consultant and primary provider communication
 - Education to providers and trainees
- Increase in patient/provider satisfaction
- Reduction in overall health care costs
 - Increased access to care
 - Higher quality of care
- Increased efficiency of tertiary centers

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Telemedicine: Prehospital Setting



- Telecommunications
 - Portable satellite
 - Broadband technology
 - Mobile triaging unit
 - Local ER with telco
- Military medicine

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Telemedicine: During Transport

- Telemedicine support during transport
 - From the scene
 - During interfacility transports
- Telecommunications
 - Satellite
 - Wireless networks
 - Cell phone

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Telemedicine: In the Emergency Department

- Non-Children's Hospitals EDs are less prepared with regards to equipment, training
- CDC Report (February 2006)
 - 40% of EDs lack 24/7 access to pediatricians
- IOM: Future of Emergency Care - (June 2006)
 - "Children make up 27% of all ED visits, but only 6% of EDs in the US have all of the necessary supplies for pediatric emergencies."

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Telemedicine: In the Emergency Department



- Studies comparing in-person ED visit with telemedicine ED visit
- Successful programs
 - Fills a need
 - Commitment of programs

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Telemedicine in Northern CA

- Telemedicine network to 9 rural Emergency Departments
- 24/7 access to PEM or CC physicians
- AHRQ and EMSC Funded Projects
 - Quality of Care
 - Medication Errors
 - Parent Satisfaction
 - Referring Provider Satisfaction
 - Transfer appropriateness

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Telemedicine in the ED: Preliminary Results

- What we have found so far...
 - Trends towards higher quality of care
 - Higher parent satisfaction of care
 - Higher referring provider consult satisfaction
 - No difference in transport frequency
- Some doctors never use it...
- Some doctors really like it!

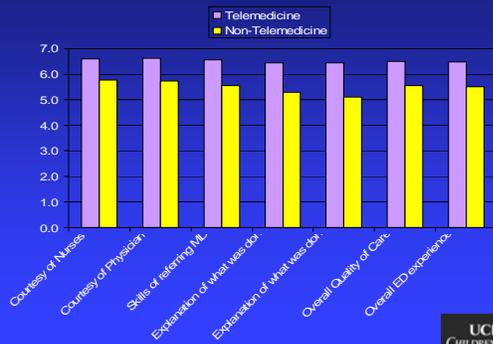
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Quality of Care

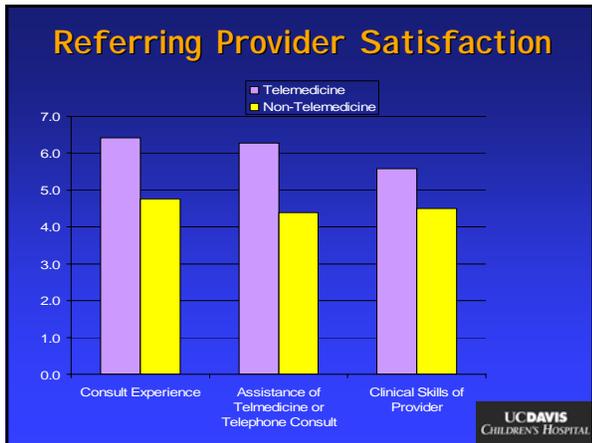
	Telemedicine	Non-Telemedicine
Physician plan for disposition and follow-up	6.0	5.7
Overall Quality of Care	5.4	5.2
Would you want this doctor caring for your child?	5.2	5.0

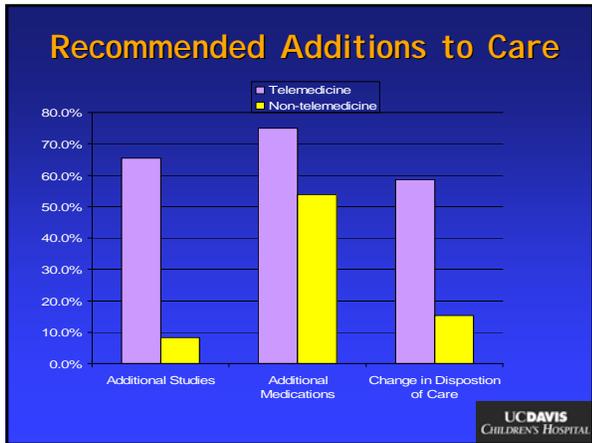
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Parent Satisfaction



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Telemedicine: In the ICU

- More than 150 ICU consultations
- Good quality of care as assessed by PRISM III
- High parent satisfaction

Telemedicine: For Inpatients

- Consultations provided by pediatric cardiology, gastroenterology, infectious disease, and others

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Conclusion

- The use of telemedicine is increasing
- Telemedicine can assist along any point of the EMS-C pathway
- Some have established successful ED telemedicine programs and hope to disseminate this technologic tool to:
 - Decrease access barriers
 - Reduce disparities in care
 - Improve the quality of care





Thank You!

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Medical Peripherals

General Exam Camera



Fundus Scope

Otoscope



Slit lamp Imager



Digital Stethoscope



Colposcope



Tele-ultrasound



Nasopharyngoscope





Health Resources and Services Administration
Maternal and Child Health Bureau

Rifat Latifi, MD, FACS

Note: Dr Latifi's slides will be available for download with the archive of the event



Health Resources and Services Administration
Maternal and Child Health Bureau

Questions and Answers

Please visit <http://www.mchcom.com> for and archive of this event and others.
