The Use of Telemedicine in Pediatric and Home Care

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Disclosures

No Conflicts of Interest to disclose
UC Davis Telemedicine

- Connecting to >100 sites/year
- >38,000 total consults to date
- >5,900 pediatric consults to date
- Applications at UC Davis
- Interpretation of studies
- Outpatient services
- ED services (stroke, trauma, ICU)
- Inpatient ward, ICU, NICU
- Remote Patient Monitoring (RPM)
- Training, Mentoring, Education
- Use by Advanced Practice Provider
- Ongoing Evaluation–Research–CQI
Interpretation of Services

- Tele-radiology: standard of care
- Cardiac ultrasound
  - Cyanotic Congenital Disease Screening
- EEG interpretation
- Retinopathy screening
- Pathology second opinions
Outpatient Telemedicine

- Patient centered
- Increased quality
- Educational
  - Increased capacity
  - Reduced referrals
- Increased efficiency
- Reduced costs
  - Fewer tests
Telemedicine to the Emergency Department

- ED Subspecialty Services
  - Stroke
  - Trauma
  - Critical Care
  - Mental Health - Psychiatry

- Rural EDs not prepared for children
  - 50% of EDs treat <10 children/day
“Should this patient be transferred?”
“We have a sick baby...”
UCD Pediatric ED Telemedicine Program

Parent Satisfaction

- Courtesy
- Knowledge
- Overall

Telemed
Phone
UCD Pediatric ED Telemedicine Program

~20% reduction in transfers among similarly ill children resulting in overall cost savings

Quality of Care

Med Errors
Inpatient Telemedicine

- Rural Critical Access Hospitals
- Community Hospitals
- Nighttime coverage
- Newborn Nurseries
- Skilled Nursing Facilities
Telemedicine for NICU
Telemedicine for Trauma-ICU
Telemedicine for Home Health

- Health & Disease management
  - Diabetes, Ventilation, CHD, Hypertension
Training, Mentoring, Education

- Inherent to telemedicine model
- Remote provider and family education
- Shared educational videos
  - Providers
  - Patients
Advance Practice Providers

- Audiologist services
- Lactation consultations
- Behavioral Health
- SART
- Speech Language Therapy
- OT/PT
Project ECHO
Extension for Community Health Care Outcomes

- Collaboration & Education to community providers
  - Hepatitis C, University of New Mexico (NEJM 6-2011)
- Use telehealth technologies to Build Capacity
- UC Davis: Management of chronic pain
- Opportunity: financial sustainability
Snapshot of Telehealth in USA

- 32% of the 4,727 hospitals use telehealth (HIMSS)
- 8% of EDs use telehealth
- 2012-2013: >10 million tele-patient encounters in US
Barriers to Utilization

- Costs of equipment, telecommunications
- Licensing practitioners
- Credentialing practitioners
- We’re already busy
- Payment

Alignment of payment with delivery of quality of care
Fulfilling the Triple Aim

- **Population Health**: Telemedicine improves coordination and quality of care...
- **Experience of Care**: Telemedicine results in increased access & satisfaction with care....
- **Per Capita Cost**: Telemedicine can result in a significant ROI in many clinical models of care...
Thank You

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