Transforming Rural Emergency Care with Telehealth

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Speaker Introduction

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Conflict of Interest

Brian Skow, MD, FACEP & Jason Wickersham, MD
Have no real or apparent conflicts of interest to report.
Agenda

• Objectives
• Current state of rural emergency medicine
• Impact of telemedicine on rural healthcare
• Demonstrate telemedicine use and life-changing outcomes
• Recommendations to transform rural healthcare
• STEPS
Learning Objectives

1. Demonstrate how eEmergency telemedicine transforms rural healthcare and engages clinicians
2. Explain current challenges facing rural emergency care
3. Evaluate the effectiveness and benefits of telemedicine
4. Define solutions to deliver safer and efficient patient care with the use of telemedicine
5. Identify real-life case studies and patient outcomes
Introduction to HIMSS IT Value STEPS™

**Satisfaction**
- Retention and recruitment of professional workforce
- Provides support for services such as nursing documentation, transfer assistance & avoidance

**Treatment/Clinical**
- Provides on-site physicians and other clinicians support with non-routine emergencies
- Able to connect to specialists, such as neurologists, cardiologists, neuro and burn surgeons

**Savings**
- Avoided transfers
- Miles saved
- Time saved for bedside physician and other providers
Rural Emergency Care Challenges

- Workforce shortages
- Geographic isolation
- Diminishing community economics
- Low healthcare margins
- Increasing reliance on specialists and expensive technologies
- Demand for quality
Critical Access Hospitals

Must have 25 or fewer acute care inpatient beds

Located more than 35 miles from another hospital

Maintain an average LOS of 96 hours or less for acute patients

Must provide 24/7 emergency care services

Designation given to certain rural hospitals by CMS

Designed to reduce the financial vulnerability and improve access to rural healthcare


Note: Alaska and Hawaii not shown to scale

Rural America Farming Trauma

AVERA MCKENNAN

CAREFLIGHT, THE GOOD LORD, AND A MIRACLE
PARKSTON MAN SURVIVES HORRIFIC TRACTOR ACCIDENT
Douglas Bormann, 57 year old male
Rural America Farming Trauma
Rural America Farming Trauma

*Disclaimer: Patient consent was received to use this x-ray*
Rural America Farming Trauma

Bucket Loader Handle
Rural America Farming Trauma
Rural America Farming Trauma

Volunteer BLS Ambulance

Rural Hospital

eEmergency Button

eEmergency Hub
Rural America Farming Trauma
Rural America Farming Trauma

*Disclaimer: Patient consent was received to use these x-rays
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Rural America Farming Trauma

Helicopter & Trauma Center
Rural America Farming Trauma

*Disclaimer: Patient consent was received to use this x-ray
Rural America Farming Trauma

AVERA MCKENNAN

CAREFLIGHT, THE GOOD LORD, AND A MIRACLE
PARKSTON MAN SURVIVES HORRIFIC TRACTOR ACCIDENT
Family Practice Physician’s Perspective – Trauma Case

SITUATION
Unique Difficult Airway Course

SUPPORT
Further Complicated by Coumadin for A fib

PHYSICIAN OPINION
Assisted with Intubation Decision
Impact of ER services in rural communities

- Economic development
- Expands options for workforce
- Access to needed services in emergent situations
- Engage rural communities in rural health care system development
- Subject matter experts and coordinators for the health care environment of providers, patients and staff
- Create transitions of care coordination with urban health care system alignment

Source: https://www.healthit.gov/providers-professionals/benefits-critical-access-hospitals-and-other-small-rural-hospitals
Acute Stroke Care
Acute Stroke Care

Jason W. Wickersham, MD
Avera St. Benedict Health Center
Acute Stroke Care
Acute Stroke Care TPA Administration
Acute Stroke Care
Acute Stroke Care
SITUATION
Young man and good friend

SUPPORT
Neurologist gave risk specifics

PHYSICIAN OPINION
Provided immediate access to specialist
Emergency Telehealth Suite of Services

- Team of Telemedicine Board-Certified Emergency Physicians
- Nursing Documentation
- Transfer Assistance
- Behavioral Health Assessment Team
- Interpretation of EKG, X-Ray, CT, Ultrasound, Lab Values on Video or via Phone
- Translation Services
- Rapid Helicopter or Fixed wing support
Emergency Telehealth Suite of Services

- Burn Center Referrals
- ePharmacy Consults
- Procedural Assistance
- Protocols for local facilities to meet CMS guidelines for quality initiatives including: Chest pain, Stroke, Sepsis and Airway
- Physician and Nursing CME education
- Critical Incident Stress Debriefing following disaster, major trauma and deaths
- Assistance with Disaster Tree Activation Calls (ex., Wessington Springs tornado)
Telehealth Procedure Education

- Cloud-based education for rural sites
- Approximately 30 procedure educational sessions for physicians & other clinicians:
  - Chest tube placement
  - Easy IO
  - Pig tail catheter
- Offers 2-day FCCS critical care course
- Annual training event for airway education, presented by The Difficult Airway course™
- 350+ clinicians access education/month
Transforming rural emergency healthcare with Telemedicine

- Right care at the right time
- Access to specialty services
- Support for local rural staff
- Reduces healthcare costs & improves quality outcomes
- Avoids unnecessary transfers & transfers appropriate patients efficiently
- Site specific educational opportunities
- Improves recruitment and retention of rural healthcare providers
- Most importantly **SAVING LIVES!**
Telehealth Challenges/Barriers

- Reimbursement
- Licensing/credentialing of physicians
- “Big brother” feeling
- Change management process at originating site
  - Workflow changes
  - Technology trust concerns
  - Building relationships and trust with providers & patients
  - Educating local providers on benefits & efficiencies
Recommendations for creating successful telehealth program

- Engaging clinicians early in the process of implementing telehealth
- Fostering relationships, customer service and trust must be top priority for telemedicine providers
- Educate government officials & other public policy leaders
- Constant innovation to improve care
- Collaboration between telemedicine providers & local providers
- Offering educational opportunities to rural providers
STEPS: Satisfaction

**INCREASES**
Satisfaction of Rural Providers
By increasing physician recruitment & retention by 81%

**DECREASES**
Provider Isolation
By offering immediate assistance to specialists
STEPS: Treatment/Clinical

INCREASES
Access to physicians **21 minutes** sooner than Local MD

DECREASED
Potentially avoidable transfers by **3,864**
STEPS: Savings

INCREASES
Miles saved by 700,000

DECREASES
Costs associated with avoidable transfers by $28 Million
Telehealth Saves Lives: Fera’s Story

![Image of a young girl in a snowy landscape]
Telehealth Saves Lives: Fera’s Story

Plentywood, Montana
Telehealth Saves Lives: Fera’s Story
Telehealth Saves Lives: Fera’s Story
Telehealth Saves Lives: Fera’s Story
Telehealth Saves Lives: Fera’s Story
Fera’s injuries:
• Flail chest
• Bi-lateral hemopneumothorax
• Jaw fracture
• Bi-lateral scapula fracture
• Arm fracture
• Multiple cervical spine fractures
Fera’s first words:

“Did anyone else get hurt?”

“God saved my life, so now I can save others.”
Telehealth Saves Lives: Fera’s Story
Questions

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THANK-YOU for completing online session evaluation!