The National Telehealth Webinar Series

Presented by
The National Network of Telehealth Resource Centers
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- Upper Midwest Telehealth Resource Center (UMTRC)

- Telehealth Technology Assessment Center (TTAC)
A Soothing Salve for Wound Healing: Telemedicine

Produced by the
Southeastern Telehealth Resource Center

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A SOOTHING SALVE FOR WOUND HEALING: TELEMEDICINE

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The National Network of Telehealth Resource Centers
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Disclosure

• No off-label product discussion
• No conflict of interest with this presentation
• Advisory Board of Winchester Labs, Inc. (SalJet™) [no compensation]
• Partial patent on Davol, Inc. PLWS flexible tip
Goal of Medical Specialists

• Goal of wound care specialists
  – Offer best known and available standard of care
    • In timely, efficient, cost effective manner
    • Consistent across the continuum of care
    • Progressed when appropriate
Achievement of Goals

• Rural areas and where specialists not available
  – **TELEMEDICINE**
    • Electronic access to specialists for physicians, health care providers, and patients
Telemedicine

• Delivers care to those who would otherwise
  – Do without
  – Have to drive or be transported long distances where specialists available
Telemedicine

• Fuels economic development
  – Health care key consideration for business prospects for rural areas
Telemedicine in wound healing

• Wound healing and wound management is a prime candidate for telemedicine
• Development of a suitable telemedical system in this field could have a significant effect on
  – wound care in the community
  – tertiary referral patterns
  – hospital admission rates

History of Current Telemedicine at Archbold Medical Center

• Began Telemedicine 2004 as part of GA Rural Health Initiative grant
• Joined GPT, state-wide telehealth network, 2007
• AMC is hub & spoke site
  – Serves as one of GPTs IT Hubs, housing a server
  – Serves as Specialty Site and Patient Presenting Site
Telemedicine at AMC

- Specialists for telemedicine and teleradiology providing remote consults
  - Dermatologist
  - Psychiatrist
  - Surgeon
  - Podiatrist
  - Neurosurgeon
  - Cardiologist
  - Interventional cardiologist
  - Physical therapist – Certified Wound Specialist
Archbold Medical Center

• Flagship hospital - JDAMH
• Out patient wound center – ACWM&HM
• 3 affiliate hospitals
• 3 swing bed (sub-acute) hospitals
• 3 nursing homes
• Psychiatric hospital
• Specialty clinics
• Urgent care facility
• Hospice
• Home health agency
• 2 Visiting Nurse Associations
Archbold Medical Center
Wound Management
Clinical Educator

• Affiliate hospitals, swing beds, and nursing homes
  – Visited once monthly
    • Consults, Wound Rounds, inservices, treatment complex wounds, etc.
  – Nursing homes send wound report of every wound weekly
  – Send photos of every wound weekly – telemedicine laptop
Archbold Medical Center
Wound Management
Clinical Educator

• Schedule dictates when patient seen
  – Emergent consults
  – Problems with patient/resident treatments
  – Other facilities seen on as needed basis

• Most distant facilities one hour away
Telemedicine Consults
Wound Management
Clinical Educator

• Consults
  – Clinician does not have to travel
    • Time to spend with other patients, etc.
    • Gas
    • Bad weather
  – Emergent and new patient consults
    • Scheduled quickly
    • No long waits
Telemedicine

• Real time
  – Interactive: patient and clinician

• Store-and-forward
  – Transmission and storage of photos/data for future use
  – Less expensive
  – Easier to use and maintain
  – Most common
Equipment

- Computers
- Software
- Specialized medical cameras
- Video equipment
- High speed telephone lines
- Encryption technology
Advantages

• Patient can stay with local physician
• Consults
  – Patient does not have to travel for access to a specialist
    • Rural areas
    • Time off from work/school
    • Expense of ambulance
    • Time on stretcher
Advantages

• Facility
  – Decrease ED visits
  – Increase patient census
  – Decrease complications
  – Decrease costs
Real Time Telemedicine Sites

- Image sending station
- Transmission network
- Receiving image review station
  - Two screens
    - Wound on one
    - Consultant on the other
Telemedicine Consult Advantages

• Examination
  – Sound excellent
    • Can talk back and forth in real time
    • Precise audio
  – Visuals better than naked eye
    • Can enlarge, etc.
  – Displays diagnostic data
    • Images
    • Lab values
  – Interactive real time video - Split screen so both can see both parties
Integumentary Clinic - AMC

• Once monthly
• Facilities contact me re: patients needing to be seen
• I identify patients to be seen on monthly wound rounds
• MD requests clinic consults
• New consult or follow up
Integumentary Clinic - AMC

• Flagship hospital
  – Gregory Patterson, MD, FACS, CWS
  – Harriett Loehne, PT, DPT, CWS

• Affiliate hospital or nursing home
  – Patient
  – PT/PTA/nurse
  – Attending physician
  – Family/caregiver
Integumentary Clinic - AMC

- Scheduled with person in charge of main site
- She or I notify sites of times to have patients ready in telemed rooms at distant sites
- Remote site sends to me prior to clinic
  - Face sheet
  - H & P
  - Current meds
  - Wound culture reports
  - Last wound assessment
Integumentary Clinic - AMC

- Information available for MD at Clinic
  - Current prealbumin
  - Current lab values
  - Wound measurements day of consult, including depth
  - Previous wound assessments (photo books for NHs)
  - Patients' charts
  - Swabs for probing
  - Forceps if needed
Location of wound: sacral
Size: 3.5(L) x 2.9(W) x 2.9
Drainage: moderate/Minimal
Date: 2/15/10 Time: 11:30 a.m.
Advantages

- Documentation of exam/consult
  - Templates in program
    - Key immediately into system
    - Print out at patient’s facility to include in chart
  - Email/call with comments
  - Consultation form sent for live visit
Telemedicine Consults
Wound Management
Disadvantages

• Unable to palpate the wound or periwound tissue
• Unable to determine depth and undermining by feel
• Unable to detect odor
• PT/PTA/nurse with patient can describe and measure for you
Telemedicine
Store and Forward

• Regular monitoring through photodocumentation
  – Sent weekly to my Telemed laptop
    • HIPPA compliant
    • Can do consult/follow-up from any location
  – Program stores the data
  – Automatically placed in individual folders and archived for continuity
Photodocumentation  
Patient Folders

• Telemedicine Folder
  – Demographic form
  – Referral form
  – Scan in
    • Recent labs
    • H & P
    • Procedures
  – Images
Photodocumentation
Advantages

• Can monitor status of wound
• Appropriate dressings
• Appropriate management
• Detect progress or lack thereof
• Can send back with notations and questions
Technical overview of a Web-based telemedicine system for wound assessment

- Store-and-forward telemedicine system using the Internet
- Clinician obtains data from a patient
- Transmits the data to a Web site that the physician may remotely access at his or her convenience
- Allows for easy transmission and access of digital images of patients' wounds
- Enables multiple types of data needed for comprehensive patient management to be summarized, organized, and displayed in a meaningful way

Advantages

• Continuum of care
  – Consistent
    • Follow wound management orders
    • Use of products
  – Proper staging of pressure ulcers
    • Appropriate interventions
  – Great addition to weekly wound reports from NHs
Telemedicine for Problematic Wound Management: Enhancing Communication Between Long-Term Care, Skilled Nursing, and Home Caregivers and a Surgical Wound Specialist

• From 2003 through 2005, 120 patients seen during the course of telemedicine and subsequent direct consultations
• Email photos and Plan of Care only
• In only 2 cases (1.67%), upon physical examination, the surgeon changed the previously established diagnosis and management plan
• Telemedicine consultations provide accurate chronic wound assessment
• Management plans created prior to a direct evaluation by a specialist are valid

The impact of telemedicine on outcomes of chronic wounds in the home care setting

- Improved healing rates
- Decreased healing time
- Decreased number of home health visits
- Decreased number of hospitalizations related to wound complications
- Viable option for delivering quality, cost-effective care to chronic wound patients in the home care setting

Surgeon Consults

• Burn victim – saves unnecessary transfers to other hospital + family journey

• Rafael Grossmann, MD – Eastern Maine Medical Center
  – 59 emergency TM consults compared to telephone consults
    • Unnecessary transfers practically eliminated
    • Medical errors reduced 75%
Feasibility and acceptance of telemedicine for wound care in patients with chronic leg ulcers

• 41 chronic leg ulcers of different origin in 14 patients
• Initial in-person visit - leg ulcers were assessed and classified, and underlying diseases noted
• Follow-up visits done by home-care nurses
• Once a week 1-4 digital images of the wound and surrounding skin and relevant clinical information transmitted via a secure Website to an expert at the wound care centre.
• Experts provided assessment of wound status and therapeutic recommendations
Feasibility and acceptance of telemedicine for wound care in patients with chronic leg ulcers

- 89% of 492 teleconsultations
  - Quality of images was sufficient or excellent
  - Experts were confident giving therapeutic recommendations
  - Treatment modalities were changed or adapted in one-third of the consultations
  - Significant decrease in visits to a general physician or the wound care centre

Teleassessment Compared with Live Assessment of Pressure Ulcers in a Wound Clinic: A Pilot Study

- Plastic Surgeon reviewed laptop images 20 wounds, 17 individuals with spinal cord injury
- Then assessed patient and wound live
- % of agreement
  - 95%: need to change wound management
  - 95%: need for referral
  - 85%: satisfaction for making treatment decisions
  - 80%: need to obtain additional information
Advantages

• Continuum of care
  – Prevention of pressure ulcers
    • Go to computerized documentation
    • Check integumentary documentation
    • Coordinate Braden Score with Protocols
    • Check prealbumins
Wound Management
Advantages

• Education
  – In-service – as many as 4 facilities
    • All see each other on split screen
    • Can talk and listen in real time
  – Patients and caregivers
  – Health care providers
Learning through telemedicine: case study of a wound care network

- Effective learning can be fostered in a telemedicine network
- Contributes to quality healthcare
- Learning is in some respects more effective in the telemedicine setting than it would be in face-to-face care giving

Reimbursement

• Covered by insurance in Georgia - Rural Health Initiative
  – If insurance covers being seen in person, must cover via telemedicine if seen in one of several sites
Reimbursement
Wound Management

• Originating sites covered by Medicare
  – Office of physician or practitioner
  – Hospital
  – Critical access hospital
  – Rural health clinic
  – Federally qualified health center
  – Skilled nursing facility
  – Hospital-based dialysis center
  – Community mental health center
Reimbursement

- 5% bonus if patient resides in federally designated Physician Shortage Area
- Originating facility also receives site fee
Reimbursement

• January 1, 2010
  – SNF can use C0406-G0408 (previously just for inpatient hospital setting)
    • Modifiers GT or GQ
Reimbursement

- Store-and-forward
  - Not CMS definition of Telemedicine
  - Reimbursable by Medicaid under section 1905 of SSA in 27 states
Future

• Obama economic stimulus plan: American Recovery and Reinvestment Act of 2009 – $2.5 billion to invest in infrastructure and tools for promotion of telemedicine in real time

• Annual net cost savings to Medicare estimated $2-4 billion

Telemedicine

- Raises our standard of care in an efficient and cost-effective manner

- Promise for continued efforts as wound specialists to serve our growing communities
My Littlest Loves

Ian

Colin
GO HEELS!
The National Telehealth Resource Center Webinar Series

3rd Thursday of every month

Next Webinar:

Telehealth Topic: *Step-by-Step: Starting a Telehealth Program*

Presenter: California Telemedicine & eHealth Center

Date: Thursday, March 15, 2012

Times: 11:00 A.M. Pacific (1:00 P.M. Central, 2:00 P.M. Eastern)