



# **The National Telehealth Webinar Series**

Presented by  
The National Network of Telehealth  
Resource Centers

# Telehealth Resource Centers

<http://www.telehealthresourcecenters.org>

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- Telehealth Technology Assessment Center (TTAC)



# A Soothing Salve for Wound Healing: Telemedicine

Produced by the  
Southeastern Telehealth Resource Center

January 16, 2012

(9:00AM HST, 11:00AM PST, 12:00AM MST, 1:00PM CST, 2:00PM EST)

# A SOOTHING SALVE FOR WOUND HEALING: TELEMEDICINE

*The National Telehealth Webinar Series*

*Presented by:*

*The National Network of Telehealth Resource Centers*

*February 16, 2012*

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**Clinical Educator**

**Archbold Center for Wound Management & Hyperbaric Medicine**

**Archbold Medical Center**

**Thomasville, Georgia**

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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



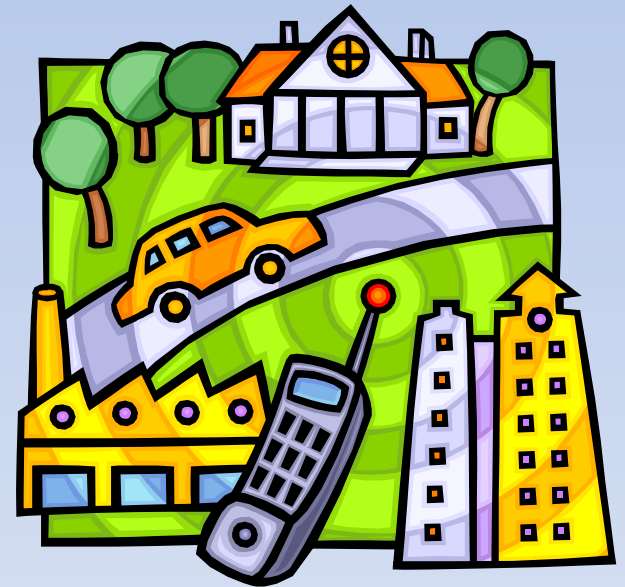
# Archbold Medical Center

- 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

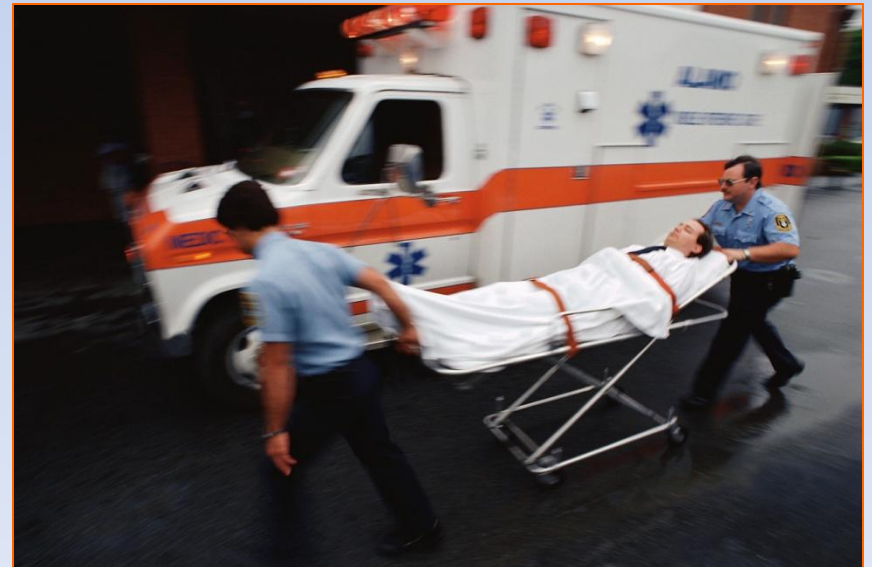
# Equipment

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

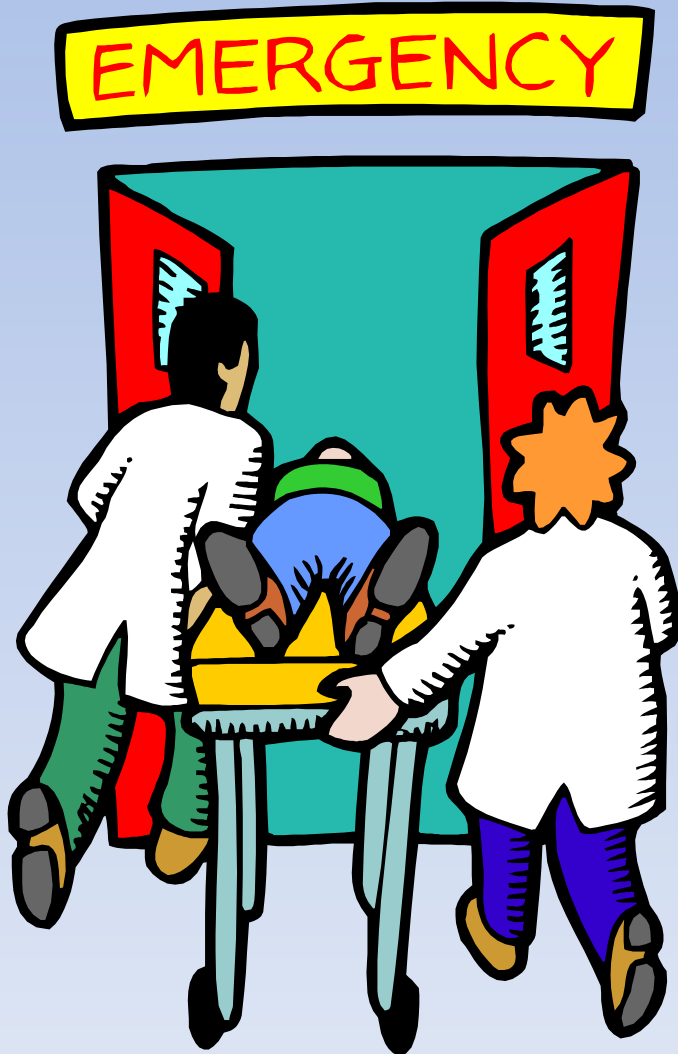


# Advantages

- 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



We now have a technical support line to assist you with any technical issues. Please contact Wire One at  
**1-866-303-3093**



# 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



me: [redacted]  
#: [redacted]

Location of wound: sacral  
Size: 3.5(L) x 2.9(W) x 2.9(D)  
Drainage: moderate/minimal

2/15/10 Time: 11:30  
a.m.

AFTER SINGLE

MANAGEMENT

# 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

Search

- Mail
- Favorite Folders
  - Inbox (57)
  - Unread Mail
  - Sent Items
- Mail Folders
  - All Mail Items
  - Personal Folders
    - Deleted Items (2)
    - Drafts
    - Inbox (57)
    - Junk E-mail
    - Outbox
    - RSS Feeds
    - Sent Items
    - Search Folders
    - Business Contact Manager

### Inbox

Search Inbox

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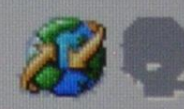
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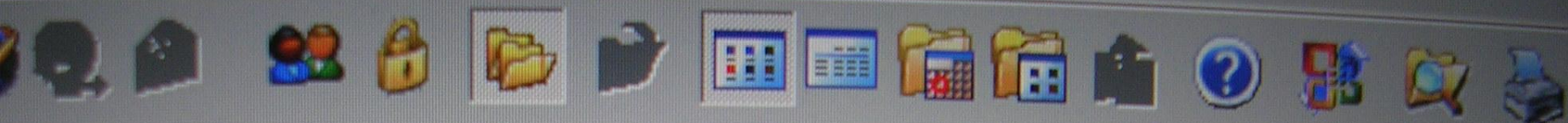
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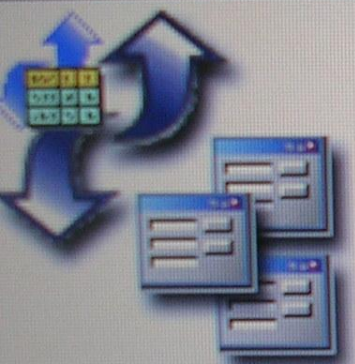






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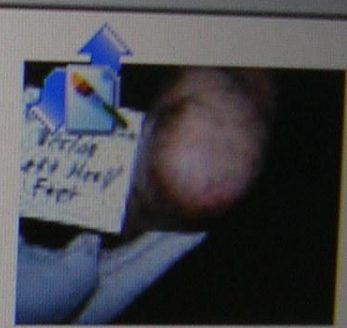
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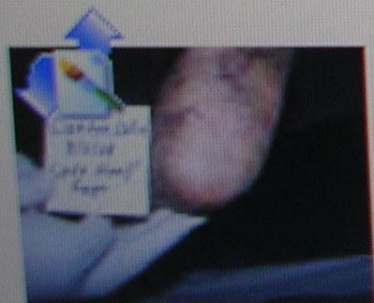
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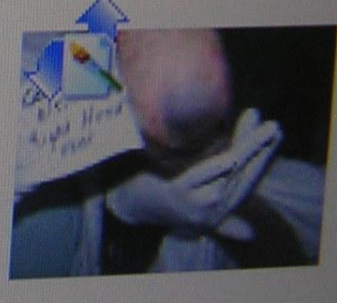
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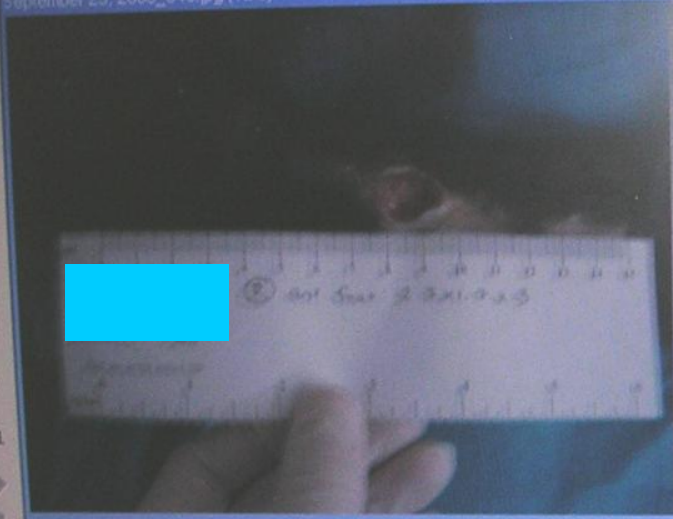
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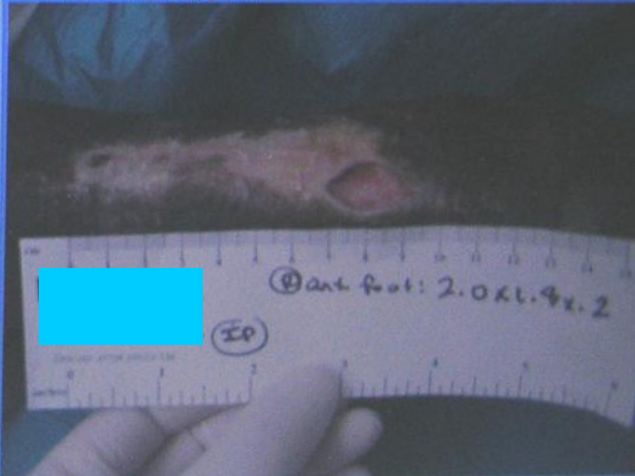
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October 6, 2008\_033.jpg (12%)



October 13, 2008\_024.jpg (12%)



Click and drag on the image to pan



PPNH 1-18---2-9, 2010 042.jp (22%)



[Redacted]

wound: **Right Heel**  
**5 x 2.5**  
**Light**

Date: **1/22/10**

Drainage:

DISCARD AFTER SINGLE USE

ARCHBOLD CENTER FOR WOUND MANAGEMENT



# 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

Document Manager

System Folder Document Communication View Help

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# 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

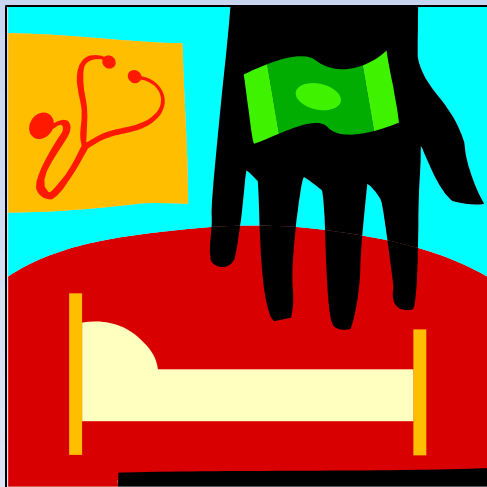
- Education
  - In-service – as many as 4 facilities
    - All see each other on split screen
    - Can talk and listen in real time
  - Patients and caregivers
  - Health care providers

# 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



Chelmsford N. A Newly Approved CMS  
Medicare Package Expands Reimbursement  
Coverage for Telehealth Originating Sites  
Beginning January 1, 2009.

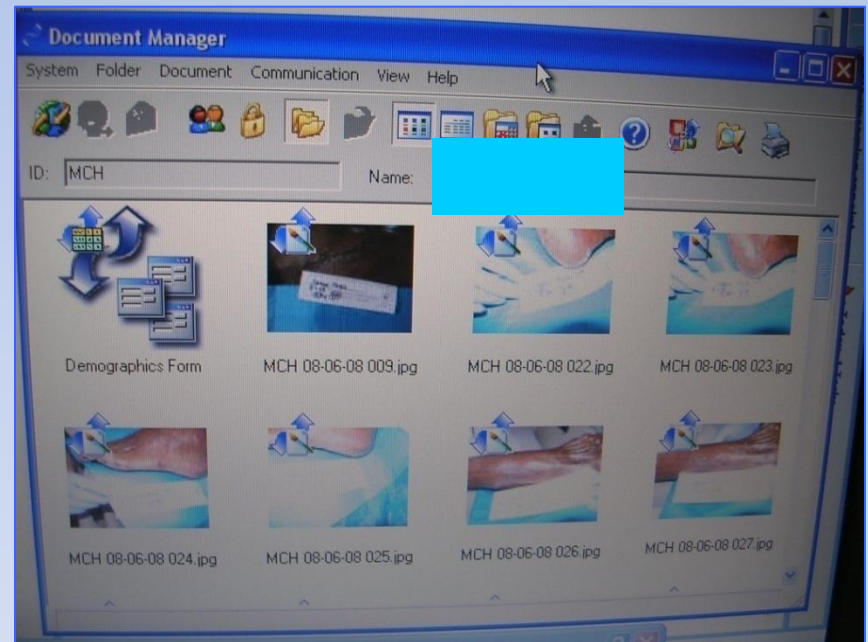
<http://www.prweb.com/releases/2009/01/>

# 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<sup>1</sup>
- Annual net cost savings to Medicare estimated \$2-4 billion<sup>2</sup>



1. Carlson T. Highlighting Telemedicine. Today's Wound Clinic.3:Sept/Oct 2009.  
2. Arthur Little. Outcomes of an Integrated Telehealth Network Demonstration Project.

# 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

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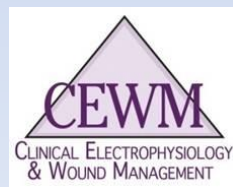


# GO HEELS!





***THANK YOU***





# The National Telehealth Resource Center Webinar Series

3<sup>rd</sup> 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)