Telehealth for Wound Care

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Disclosures

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I have the following potential conflicts of interest to report:

- Founder: ShutterHealth.com; myWoundWatch app
What is Telehealth?

• Telehealth = Telemedicine
• “...use of medical information that is exchanged from one site to another through electronic communication to improve a patient’s health.”

American Telemedicine Association: americantelemed.org
Align with General Healthcare

Goals

• Improve patient experience of care
  – Empower patients, proactive approach
  – After hours access
  – Reduced travel, outpatient visits

• Improve the health of population
  – Rural, underserved urban regions

• Reducing per capita cost of health
Figure 1. How Doctors Use Telemedicine and How Patients Benefit.
Adapted from the American Telemedicine Association. ICU denotes intensive care unit.
Telehealth: Current State in USA

- US Department of HHS estimates >60% of all health care institutions and 50% of US hospitals use telehealth
- Predicted that by 2020 all large employers will cover telehealth services for their employees
- 31 states, + DC require commercial insurers to provide equal coverage
- Medicaid no state restrictions, Medicare limited
- All US states cover teleradiology
- 36 cover home-based services

Tuckson, RV. NEJM 377;16:1585-1592
Telehealth: Think Outside the Office

• **Innovation**: attracts capital for development
  – User friendly interface for patient and provider
  – HIPAA compliant and secure

• **Integration**: EMR + telehealth service = more efficient delivery of care

• **Access**: Projected shortages will increase need for services in rural and underserved urban populations
Telehealth: Think Outside the Office

• **Reimbursement:** Supports move towards **value over volume**, reorganize payment models
  – Insures need to incentivize for service delivery at low costs
    • Pilot studies needed

• **Consumerism:** The public expects convenient, real time access (similar to other sectors of the economy)
Scope of the Problem

- Estimated that 2% of USA population has a non-healing wound
- $50 billion/year (conservative number)
  - 10x the WHO budget
- Data from the US Wound Registry reported
  ~66% heal in 15 weeks
  - 10% take 33 weeks
How Does this look in CLI/Wound Care?

1. Real time evaluation
   1. Image capture/compare, communicate
2. Access to a specialist in rural areas
3. Can we reduce...
   1. Readmissions?
   2. Office visits?
4. Quicker wound healing rates?
5. Screen those at risk to prevent CLI?
MyWoundWatch app
HIPAA compliant, iOS platform
Improving and saving lives by utilizing imaging & analytics technology to measure, document and analyze the healing of chronic wounds.

WoundCare Centers
Clinics
Group Medical Practices
Skilled Nursing Facilities
Home Health Care
Hospitals
Military
Product Suppliers
Telemedicine

www.WoundWiseIQ.com
WoundWise IQ

Technology Elements

- IMAGE CAPTURE
- MOBILE APP
- ALGORITHMS
  - Calculate in seconds
- HIPAA COMPLIANT
- SAAS CLOUD
- WEB DASHBOARD
  - Wound Trending
  - Wound Editor
  - Administration
    - Add patients, wounds
    - Manage users
- Patient EMR Integration
- Wound Care Ctr. Mgmt.
- Wound EMR System Integration
- Integrated Display
  - For Decision Support

Report:

- Width: 2.37 cm
- Length: 3.06 cm
- Area: 5.19 cm²
- Edges: Attached
- Undermining: None
- Necrotic Tissue Type: N/A
- Necrotic Tissue Amount: 20 percent after debriding
- Skin Color Surrounding Wound: White
- Granulation Tissue Color: Pink
- Granulation Tissue Amount: 70
- Exudate Type: Serosanguineous
- Exudate Amount: Moderate
- Sinus Tract/Tunneling: None
- Epithelialization Amount: 10
- Stage: Stage III
- Exposed Tendon/Muscle: None
- Exposed Bone: None
- Exposed Hardware: None
- Peri-Wound: WDI
- Odor: None

www.WoundWiseIQ.com
More work is needed; with Physicians as leaders:

<table>
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<tr>
<th>Topic</th>
<th>Recommendation</th>
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<tr>
<td>Physician leadership</td>
<td>Physicians should seek to enhance telehealth care delivery through collaborations with telehealth technology and service providers and contribute to the evidence base by comparing telehealth outcomes with usual care.</td>
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<td>Reimbursement</td>
<td>Current Procedural Terminology codes should be updated to facilitate reimbursement-related research in fee-for-service settings, and the effect of alternative payment models that use bundled telehealth services should be studied to determine purchaser returns on investment.</td>
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<td>Licensure</td>
<td>The necessary facilitation of interstate licensure should be supported by ongoing research regarding any quality-of-care issues that may arise.</td>
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<td>Liability</td>
<td>Evidence is necessary to better understand what, if any, quality and safety risks may differentiate telehealth service delivery from traditional in-person care.</td>
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<td>Human factors</td>
<td>Research on user-centered design is needed to facilitate the integration of telehealth into clinical workflows and to optimize patient engagement.</td>
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<td>Device interoperability and data integration</td>
<td>Evidence-based best practices and standards that support the most effective integration of devices and data streams from clinician and patient telehealth engagement should be widely shared.</td>
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<td>Privacy and security</td>
<td>Standardized guidelines are necessary and should be based on evidence and best practices to support appropriate safeguards and regulatory oversight.</td>
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<td>Performance measurement</td>
<td>Enhanced evidence is required to address gaps in existing telehealth-related clinical performance measures and enhance those currently available.</td>
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<td>Patient engagement and the evolving patient-physician relationship</td>
<td>Evidence-based guidance is needed to support health professional counseling and engagement with patients and caregivers across the full spectrum of telehealth services and technologies.</td>
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<td>Research design and methods</td>
<td>Telehealth research in real-world settings requires alternative research designs, new research methods, and innovative analytic techniques that supplement traditional randomized, controlled trials and should be supported with enhanced funding and an expanded workforce.</td>
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Telehealth for Wound Care:

But a question of when...
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