Telemedicine: What, How, And Why!

Lucas Lumbley, CAPM
Telemedicine Manager

May 17, 2016
University Health System

• Nationally recognized academic medical center and network of outpatient health centers
• Lead Level I Trauma Center for 22 South Texas counties
• Community First Health Plans
• Community Medicine Associates
• Teaching partner with University of Texas Health Science Center
A Higher Level Of Care

University Hospital, in partnership with UT Medicine

- Level I Trauma Center
- Level II Pediatric Trauma Center
- Pediatric Burn Program
- University Transplant Center
- Maternal/Fetal Medicine
- Level III Neonatal ICU
- Heart Vascular Lung Institute
- Certified Stroke Center
- Certified Palliative Care Program
- Level 4 Epilepsy Center
Magnet: The “Gold Standard” in patient care
5% of U.S. hospitals

U.S. News & World Report:
#1 in San Antonio
#6 in Texas
Top 50 in the U.S. for Nephrology

Specialized care:

Good health, safety & supporting our community:

Technology, employee learning & efficiency
What is telemedicine?

• Telemedicine vs. Telehealth
Telemedicine

- Live Interactive
- Store and Forward
- Remote Patient Monitoring
What is the Need for Telemedicine?

• Shortage of providers and specialists across the region

• Increased efficiency
  – Hub and spoke model

• Benefits to patient
  – Increased access
  – Increased convenience
  – Decreased associated costs

• Patient Demand
For what can telemedicine be used?
Telemedicine Use Cases

• Emergency Medicine
  – Tele-stroke
• Chronic Disease Management
  – Neurology, Nephrology, Hepatology, Infectious Disease, Urology
• Behavioral Health
• Post Discharge Follow Up
• Patient Education
• Provider Education
## Telemedicine at UHS

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious Disease - Jail</td>
<td>Increased access/quality of care, increased provider efficiency</td>
</tr>
<tr>
<td>Nephrology - Jail</td>
<td>Increased access/quality of care, increased provider efficiency</td>
</tr>
<tr>
<td>Neurosurgery</td>
<td>Increased provider efficiency</td>
</tr>
<tr>
<td>Rehab</td>
<td>Increased provider efficiency, increased training for clinic staff</td>
</tr>
<tr>
<td>Endocrinology</td>
<td>Increased access to care</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>Increased quality, increased care delivery model, increased access to care, significantly increased show ratio</td>
</tr>
<tr>
<td>Diabetes Education</td>
<td>Increased access to care, improved clinical outcomes</td>
</tr>
<tr>
<td>Urology</td>
<td>Increased access to care</td>
</tr>
<tr>
<td>Nephrology</td>
<td>Increased access to care</td>
</tr>
<tr>
<td>Hepatology</td>
<td>Increased access to care</td>
</tr>
<tr>
<td>Neurology</td>
<td>Increased access to care</td>
</tr>
</tbody>
</table>
Implementing a Successful Telemedicine Program

• Obtain stakeholder buy-in
  – Registration, clinic staff, providers, IT, billing, etc.

• Select the appropriate project
  – Does the specialty have a stance on telemedicine?
  – What kind of patients can we see?
  – How does reimbursement work?

• Define success metrics
  – Clinical, operational, financial

• Build an appropriate infrastructure
Building an Appropriate Infrastructure

- Equipment
  - HIPAA Compliance
  - Scale to what you need
    - Peripherals?
  - Ease of use is important
  - Interoperability is key
    - Do you need images or videos saved?

- Utilizing your medical record
  - Do you have sufficient documentation?
  - Ensure continuity of care
Contracting and Telemedicine

• Pay per click model
  – Fee for service
  – Cost per patient or cost per visit

• Pay for time model
  – Pay for specialist time, usually in block, and you are responsible for booking the patients

• Pay for volume model
  – Similar to capitated model
Lessons Learned

• Make sure you have appropriate pre-visit workup

• If technology or workflow isn’t easy, adoption will be poor

• Educating patient on telemedicine should be a high priority
  – Increase show rate
  – Increase patient satisfaction

• Telemedicine can be used for many but not all scenarios
Reimbursement

• Texas Medicaid Pink Book¹
  – Two distinct definitions of telemedicine and telehealth
  – Patients must receive in-person evaluation for same diagnosis or condition being rendered via telemedicine.
    • Excludes mental health if purpose of telemedicine is to screen and refer for additional services
    • To continue receiving services, patient must have an in-person evaluation at least once within 12 months before receiving telemedicine.
  – Requires written informed consent
Telemedicine

Distant Site & Patient Site

- Distant Site – location of provider rendering services
  - Must be one of the following:
    - Physician
    - CNS
    - NP
    - PA
    - CNM

- Patient Site – where the client is physically located while the service is rendered
  - Must be one of the following:
    - Established medical site
    - State mental health facility
    - State supported living center
    - Schools

- Tele-presenter must present the patient
Telehealth

Distant Site & Patient Site

- Distant Site – location of provider rendering services
  - Must be one of the following:
    - Licensed professional counselor
    - LMFT
    - LCSW
    - Psychologist
    - Licensed psychological associate
    - Provisionally licensed psychologist
    - Licensed dietician

- Patient Site – where the client is physically located while the service is rendered
  - Must be one of the following:
    - Established health site
    - State mental health facility
    - State supported living center
    - Schools

- Tele-presenter must present the patient and be readily available
  - Exclusion for services relating only to mental health
Billing for Telemedicine/Telehealth

• Normal procedural code but added modifier for telemedicine/telehealth
  – 99213 in person would be 99213-GT in telemedicine

• Patient site bills for the facility fee
  – For telemedicine, Q3014
    • Q3014 is not a benefit for telehealth services.
Billing for Tele-monitoring

- Set up and installation code - 99090
- Online evaluation and management for home tele-monitoring services
  - 99444 – office or outpatient hospital setting
    - Services provided by NP, CNS, PA, MD
    - Can be billed once per seven days
  - 99090 GQ – home health agency or outpatient hospital
    - Can be submitted daily
Private Payers

• 1997 - TX enacted a private insurance parity law\textsuperscript{3}
<table>
<thead>
<tr>
<th></th>
<th>Initial Cost</th>
<th>Session 1</th>
<th>Session 2</th>
<th>Session 3</th>
<th>Session 4</th>
<th>Session 319</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expenses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hardware</td>
<td>$2,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Training</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Overhead/Staffing</td>
<td>-</td>
<td>$100.00</td>
<td>$100.00</td>
<td>$100.00</td>
<td>$100.00</td>
<td>$100.00</td>
</tr>
<tr>
<td>Physician Time</td>
<td>-</td>
<td>$450.27</td>
<td>$450.27</td>
<td>$450.27</td>
<td>$450.27</td>
<td>$450.27</td>
</tr>
<tr>
<td>Gross Cost</td>
<td>$2,000</td>
<td>$550.27</td>
<td>$550.27</td>
<td>$550.27</td>
<td>$550.27</td>
<td>$550.27</td>
</tr>
<tr>
<td><strong>Benefits</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visit Income</td>
<td>-</td>
<td>$556.54</td>
<td>$556.54</td>
<td>$556.54</td>
<td>$556.54</td>
<td>$556.54</td>
</tr>
<tr>
<td>Net benefit</td>
<td>-</td>
<td>$6.27</td>
<td>$6.27</td>
<td>$6.27</td>
<td>$6.27</td>
<td>$6.27</td>
</tr>
</tbody>
</table>

*Overhead/Staffing calculated using $25 per hour for MA salary/benefits, overhead, and small portion of registration salary.

*Physician Time based off of Median Salary for endocrinologist

*Visit income based off of 4 hour time slots (2 new-patient and 5 follow-ups) (99214*2 and 99213*5)
Non-Traditional Benefits

- Increased access to care for patient
  - Increased patient satisfaction
- Increased show ratio
- Increased provider satisfaction
# Store and Forward-Ophthalmology

<table>
<thead>
<tr>
<th>Expenses</th>
<th>Initial Cost</th>
<th>Month 1</th>
<th>Month 2</th>
<th>Month 3</th>
<th>Month 4</th>
<th>Month 5</th>
<th>Month 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware</td>
<td>$73,800</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Training</td>
<td>$2,500</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Overhead/Staffing</td>
<td>-</td>
<td>$16,000</td>
<td>$16,000</td>
<td>$16,000</td>
<td>$16,000</td>
<td>$16,000</td>
<td>$16,000</td>
</tr>
<tr>
<td>Interpretation</td>
<td>-</td>
<td>$24,000</td>
<td>$24,000</td>
<td>$24,000</td>
<td>$24,000</td>
<td>$24,000</td>
<td>$24,000</td>
</tr>
<tr>
<td>Gross Cost</td>
<td>$76,300</td>
<td>$40,000</td>
<td>$40,000</td>
<td>$40,000</td>
<td>$40,000</td>
<td>$40,000</td>
<td>$40,000</td>
</tr>
<tr>
<td>Benefits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eye Photo Income</td>
<td>-</td>
<td>$60,828</td>
<td>$60,828</td>
<td>$60,828</td>
<td>$60,828</td>
<td>$60,828</td>
<td>$60,828</td>
</tr>
<tr>
<td>Net benefit</td>
<td>-</td>
<td>$20,828</td>
<td>$20,828</td>
<td>$20,828</td>
<td>$20,828</td>
<td>$20,828</td>
<td>$20,828</td>
</tr>
<tr>
<td>Cumulative Total</td>
<td>($76,300)</td>
<td>($55,472)</td>
<td>($34,644)</td>
<td>($13,816)</td>
<td>$7,012</td>
<td>$27,840</td>
<td>$48,668</td>
</tr>
</tbody>
</table>

*Overhead/Staffing calculated using 25$ per hour for MA salary/benefits, overhead, and small portion of registration salary.

*Eye Photo Income - Calculated using minimum of 1200 visits for each facility multiplied by the facility portion of 92250 code.
Non-Traditional Benefits

- Increase in appropriateness of visits
  - Pre-screening allows more abnormal eyes to get seen in clinics
- Increase in percent of patients with annual eye screening
- Increased show ratio

![Pie chart showing the distribution of normal, abnormal, and picture error results for Store & Forward Ophthalmology.]

Avg. telemedicine eye screening – 12 min.
Avg. in person screening – 30 min.
The Future of Telemedicine
Questions?

References


2. Texas State Legislature 2015 Session HB 1878;
   [http://www.capitol.state.tx.us/tlodocs/84R/billtext/pdf/HB01878F.pdf#navpanes=0](http://www.capitol.state.tx.us/tlodocs/84R/billtext/pdf/HB01878F.pdf#navpanes=0)

3. TX Insurance Code, Title 8, Sec. 1455.004