Telemedicine Technology – Specialty, Financial, and Psychological Implications and Its Impact on Modern Medicine

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Telemedicine Technology – Specialty, Financial, and Psychological Implications and Its Impact on Modern Medicine

Shivani Desai

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Lehigh Valley Health Network, Allentown, Pennsylvania

BACKGROUND / INTRODUCTION

Telemedicine efficiently treats patients using multiple physicians; its reach is significant and requires greater spotlight

Telemedicine technology connects patients at rural or spoke locations to a consulting specialized physician at a hub location
- Uses video conferencing, telecommunications, and phone interactions: video monitors, speakers, High Definition camera
- Reimbursement regulations remain an issue with the technology
- Physicians and patients benefit tremendously with the convenient use of new technology to interact

Methods

- Researched applications of telemedicine to different specialties
- Spoke to Lehigh Valley Health Network employees regarding implementation of technology to the network
- Studied most used network of telemedicine: hub-and-spoke model
- Interpreted research studies to determine financial impacts & psyche behind the new technology

RESEARCH

Teleneurology is one of the most common specialties that uses the technology; LVHN has a hub and spoke network set up with the Emergency Department in Hazleton:

Fig 1: Shivani Desai, July 15 2016, Hub-and-Spoke Model

Fig 2: Shivani Desai, June 21 2016, Telestroke Mobile Telemedicine Unit: Hazleton ED
- Reimbursement: Medicare (31 states), Medicaid (47 states)
- Billing and Coding: table of actual codes used to bill for telemedicine services at Lehigh Valley Physician Group (LVPG)

Table 1: Billing codes for telehealth services for LVPG – attained from private billing company used by LVPG

<table>
<thead>
<tr>
<th>Codes Used For Billing</th>
<th>Service Provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone evaluation and management services by physician or other healthcare professional-5-10 mins</td>
<td>99441</td>
</tr>
<tr>
<td>Telephone assessment and management services provided by qualified non-physician healthcare prof – 11-20 mins</td>
<td>98967</td>
</tr>
</tbody>
</table>

RESULTS AND CONCLUSIONS

- Technology costs range from $20,000-$25,000 for a hub facility and around $25,000-$30,000 for a spoke facility
- However, annual savings from using this technology for Teleneurology and Telecardiology are significant: nearly $400,000 and $500,000 respectively
- Mercy Health System study showed a 35% decrease in patient average length of stay in hospital and 30% fewer anticipated deaths
- Physicians are able to optimize patient flow and tend to more critical patients in office settings
- Telemedicine proves to increase quality of care, increase access to care, and decrease cost for healthcare networks
- Increasingly states are now mandating equal reimbursement for telehealth services *Parity Law
- Medicaid and Medicare increasing coverage for all insurers
- Health networks stand to save thousands of dollars in transports, ED costs, and staffing
- Contribution profits are substantial for bottom-line analysis

FUTURE IMPACTS

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References

Fig 3: Shivani Desai, June 21 2016, Video Monitoring Camera for Mobile Unit