

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

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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

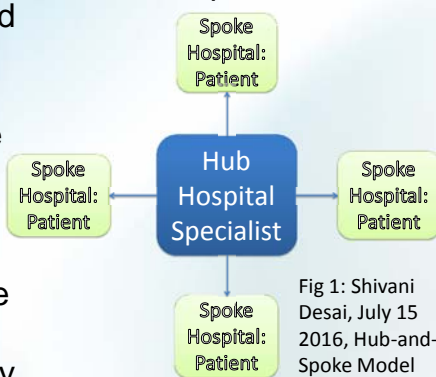


Fig 1: Shivani Desai, July 15 2016, Hub-and-Spoke Model

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 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)

Codes Used For Billing	Service Provided
Telephone evaluation and management services by physician or other healthcare professional- 5-10 mins	99441
Telephone assessment and management services provided by qualified non-physician healthcare prof – 11-20 mins	98967

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

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

FUTURE IMPACTS

- 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

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