Expanding Nurse Practitioner Care Using Telehealth

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The River Practice

- The River Practice a nurse practitioner led LLC was recently formed to serve patients in the rural areas of Western Pennsylvania using a technology based system called Exam Med. Based on a need to provide a continuum of care to patients even when the office is closed, this system will serve as a method to provide quality appropriate, evidence-based and billable care to patients during the off hours and on weekends. This will provide the patients with healthcare by a provider who knows them and understands that illness and injuries happen outside of office hours. The system provides a safe, HIPPA compliant method to "see" patients via a smart phone or tablet. Protocols are set in place to screen the appropriateness of the visit and patients schedule appointments with the provider. The information is stored in the EHR that is held in the system. The presenters will show examples of how the technology is used and the potential benefits to NP providers and their patients.

COI

- The presenters are providers and part owners of the River Practice
Objectives

1. Discover cutting edge technology that can expand their practice.
2. Discuss potential benefits of having a system that is HIPPA compliant that allows patient and provider flexibility.
3. Engage in cutting edge technology to promote patient care.

The River Practice

Telehealth

• Not new
• Used for many years via telephone, CB radios and other communication devices
• Studies as early as 1978 using televisions with video capacity to increase access to care in vulnerable populations
Telehealth in Primary Care

• Case Example of how we used to do it:
  • I received a call regarding a 6 year old boy who develops a rash. I asked the mother questions and asked her to bring the child in for a visit. She tells me she does not have transportation and sends me a picture of the rash. I ask her to look at the mattress and she tells me she recently bought the mattress at a yard sale. I treat the child. I am not able to bill and I document the phone call.

Telehealth

• Telehealth or telemedicine is the use of telecommunications technology to provide medical information and services to geographically distant populations.
• Telehealth has applications in:
  – Diagnosis
  – Treatment
  – Education
  – Research

Telehealth

• Studies with telehealth have been found in:
  – Dermatology
  – Radiology
  – Cardiology
  – Nursing care and patient adherence
Telehealth

2 modes of telehealth

- Real-time
- Store and forward

The literature reveals barriers to adoption due to:

- Privacy and security
- Reliability of information
- Technological challenges such as bandwidth and interfacing
- Lack of technology and money in areas of need
- Cost
- Lack of standards and interoperability
- Licensure issues across states (Antoun, 2013)

• Concerns

- Still not enough outcome data on the impact of quality of care (Currell et al., 2000)
- Over or under diagnosis due to x-ray and tests transmitted via telehealth (Chandhanyingyong et al., 2007)
- Accuracy of teleconsultation due to lack of palpation and smell (Boodley 2006)
Benefit

- Access to care
- Patients get actively engaged in their care (Pare, et al, 2007)
- Teleconsultation with specialist
- Home management of chronic conditions

Telehealth in Primary Care

- Acute care visits (low risk)
- Chronic disease management
- Medication adherence
- Coaching
- Education
- Monitoring
Appalachia

The River Practice

Found a system that decreases the barriers and allows access to primary care!

ExomMed
VIRTUAL CLINIC. REAL ACCESS.
**ExamMed**

- Platform for The River Practice
- Supports real time face to face interaction
- HIPPA Compliant Servers and Communication
- Allows for Consultants to be in same “room”
- Notes and video interaction serve as “chart”

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**ExamMed**

- Diagnostic Ordering
- E-prescribing
- Continuity across various platforms and systems
- Facilitates coordination of care across the continuum

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![Picture of actions](image-url)
Early Findings

• Grandmother’s like it
• Teenagers think it is obvious
• College Students find it easy
• Working adults “want it when they want it”

Early Findings

• NP’s were leery but it works !!!!!!!!!!!!
• It is fun
• Conditions address are limited
Through Clinic

• Beta trial to explore application
• Effective for more chronic conditions than thought
• Fun for all, patients, staff, and NP
• Offers care where there would have not been any

Virtual Visits

<table>
<thead>
<tr>
<th>Total Pts</th>
<th>23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Felt chief complaint was emergent</td>
<td>17% [4]</td>
</tr>
<tr>
<td>ER Avoided</td>
<td>50% [2]</td>
</tr>
<tr>
<td>Medications prescribed</td>
<td>6%</td>
</tr>
<tr>
<td>Testing prescribed</td>
<td>40%</td>
</tr>
<tr>
<td>Specialty MD referrals</td>
<td>10%</td>
</tr>
<tr>
<td>MH counseling</td>
<td>6%</td>
</tr>
</tbody>
</table>

• Complaints
  – Cold symptoms/vertigo/ear aches
  – Mental Health
  – General not feeling well
  – Follow-up appointments
  – 1 non-acute chest pain
  – Pain (toe, back, abd)
  – GI issues

Satisfaction Survey

<table>
<thead>
<tr>
<th>Question</th>
<th>Always</th>
<th>Usually</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often did the provider listen carefully to you?</td>
<td>100%</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>How often did the provider explain things in a way you could understand?</td>
<td>100%</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>I left with a good understanding of the things I am responsible for with my health?</td>
<td>97.0%</td>
<td>1.0%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>If I need to see a provider again I plan to return to this clinic.</td>
<td>93.1%</td>
<td>8.1%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>I would refer a friend or family to this clinic.</td>
<td>100%</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>I felt my privacy was protected today</td>
<td>100%</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Outcomes

• Hypertension control
• Improved Hgb A1c
• Healthier life style
• Definitive treatment in a timely manner

Potentials

• Increased follow up for Bricks and Mortar practice
• Decreased utilization of Emergency Departments
• Decreased hospital readmission rates
• Increase follow up in hospice and home health

References

• Pare, G., et al. (2010). Telemonitoring in the context of diabetes, asthma, Heart Failure, and Hypertension: A systematic review. J Am Med Inform Assoc, 17, 212-221.