Tele-Nephrology to Enhance Nephrology’s Reach

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Disclosure Information

- Baxter Healthcare Corp.: Honoraria, Grants, Consulting
- Davita: Honoraria, Consulting
- Sanofi-Genzyme: Consulting, Honoraria Grants
- Medtronic
Objectives

• Describe how telenephrology can enhance access to specialty care
• Evaluate steps to starting telehealth
Why Telemedicine?

• Decrease burden of care for our patients
• Improve Quality of Care
• Improve distribution of nephrologists

Myths

• NOT “Quick Medicine”
• NOT an “easy way to bill”
• NOT easy to stand up

Schneider KM, O'Donnell BE, Dean D. Health Qual Life Outcomes. 2009 Sep 8; 7:82.
Why Telemedicine?

Exhibit 4. Geographical Distribution of Nephrology Fellowship Programs and ESRD Patients per Nephrologist by HRR, 2011

ESRD Patients per Nephrologist
- Yellow: 28.0 - 61.7
- Blue: 86.7 - 105.2
- Green: 61.8 - 74.2
- Dark Blue: 105.3 - 446.9
- Light Green: 74.3 - 98.6

Number of Programs
- Red: 7 - 13
- Dark Red: 5 - 6
- Dark Magenta: 2
- Magenta: 1

Source: GW Health Workforce Institute analysis of Dartmouth Atlas of Health Care; Fellowship program data from ACGME.
Why Telemedicine?
5 years later

- I have learned every barrier to starting a telemedicine program
- Overcame those barriers and now have a nephrology telemedicine program
- UAB eMedicine
  - Remote patient monitoring
  - Telemedicine for CKD-Ambulatory
  - Inpatient Tele-nephrology consultation
Outline

• Telemedicine for ESKD Patients
  • Replacement of the face-to-face
  • Telemonitoring
  • Other Uses
• Telemedicine for Non-ESKD Patients
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• Telemedicine for ESKD Patients
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• Telemedicine for Non-ESKD Patients
Replacing the Face-to-Face

• Originating Sites
• The Visit
• Everyone else that makes a visit possible
Location, Location, Location

• Distant Site-Location of the Physician
• Originating Site- Location of the Patient
  • Medical Facility or Home?
  • Rural
    • Transplant
    • KDE
Medicare Eligible Originating Sites

- Physician or Practitioner Office
- Home
- Hospitals
- Critical Access Hospitals
- Community Mental Health Centers
- Skilled Nursing Facilities
- Rural Health Clinics
- Federally Qualified Health Centers
- Hospital-Based or Critical Access Hospital (CAH)-Based Renal Dialysis Centers (including satellites)
- Not Free Standing Dialysis Units
Medical Facility as the Originating Sites

- **Pros**
  - Nurse is available
  - Can provide state of the art equipment
  - Can get labs
  - Assures access to a computer

- **Cons:**
  - Requires originating site fee
  - May require contracts between physician and site for only one or two patients.
Home as the Originating Site

- **Pros**
  - Convenient
  - No originating site fee

- **Cons**
  - No way to draw blood
  - Patient must have a computer and broadband access
Currently, all outpatient telemedicine services are being provided at county health departments.

The following map delineates active and planned ADPH sites in Alabama.

- 1.2 Million in USDA Grants
- $300,000 in ARC Grants
- Daniel Foundation Grants
Replacing the Face-to-Face

• Originating Sites
• The Visit
• Everything Else
The Visit

• Interactive Videoconferencing
• Physical Exam
  • Mucous Membranes- High Definition Camera
  • Auscultatory exam- Bluetooth stethoscope
  • Exit site- High Definition camera
  • Edema- High Definition Camera
  • Vascular Access??—Currently excluded by Medicare

• Labs
• Therapy Monitoring
Current Insurance Coverage of the Replacement for a Face-to-Face

Medicare- As of 1/2016 CMS added the 90963-66 as a covered home dialysis code for telemedicine.

- 90963,64,65, and 66 with the GT modifier
- Originating site- Q3014
- Requires synchronous interactive videoconferencing

Other insurances: State by state basis
Replacing the Face-to-Face

• Originating Sites
• The Visit
• Everything Else
Everything Else

• Go through the exercise of all the steps patients take to see a provider.
Patient Cycle

1. Reminder Letter
2. Schedules an appointment
3. Comes to an appointment
4. Signs consent
5. Pays Co-Pay
6. Electronic Check In
7. Triage: Visits, Med Reconciliation
8. Brought Back into a room
9. Check-out
10. Provider Notified
11. Provider Visit

Provider Visit is highlighted.
Patient Cycle

1. Reminder Letter
2. Schedules an appointment
3. Electronic Check In
4. Provider Notified
5. Check-out
6. Documentation
7. Provider Visit
8. Brought Back into a room
9. Triage
10. Vital Signs
11. Med Reconciliation
12. Vitals
13. Med Reconciliation
14. Schedules an appointment
15. Satisfaction Survey
16. Provider notified
17. eMedicine Coordinating Center
18. Pre-Loading Pool of Nurses
19. External Site RN
20. EMR Team
21. EMR RTC Order
22. Clinical Informatics
23. ECC
24. Clinic Staff
25. Patient experience team
IT Support

- Can’t be understated, the need for IT support
- No vendor knows all system required for telehealth
- Requires in depth training of an IT team
- Put limits on how long a telehealth appointment goes with poor IT before stopping.
Marketing

• People will not know about telehealth unless you market what you have accomplished

• Drive adoption
  • Other providers
  • Nursing staff
  • Patients
Provider Time

- Telehealth does not change the amount of time needed to see a patient in general
- It is a transfer of time to another location
- Making the economic model work for outpatient telehealth can be challenging
  - Already have clinic space and overhead
  - Not a time saver for the provider but a big time saver for the patient
- Provider Telehealth Burnout
Quick note on education

- Survey of patients on dialysis in Network 18 (229 HD units)
- The presentation of treatment options was delayed: 48% either after or <1 month before the first dialysis
- Not presented about modality: PD 66%, Home HD 88%, renal transplantation 74%
- HCPCS codes G0420 and G0421 – For group and individual education for CKD are covered by CMS.

Mehrotra R et al. Kidney Int. 2005
Conclusions

• We must continue to work through challenges of telehealth in order to provide care to patients in need and who are unable to travel.
• Telehealth holds promise to reduce patient burden and improve outcomes
• Just as has been done with transplant the telehealth benefit for home dialysis which eliminates rural/urban divide should be provided for KDE, transplant, and rare disease.
• Still have a long way to go before it becomes mainstream