Assistive Technology Service Delivery During a Global Pandemic

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Conflict of Interest (?)

- We have no conflict of interests to disclose
- We are not paid spokespersons for any of the technologies mentioned

Objectives

- Describe the traditional service delivery process
- Outline telemedicine response to the COVID-19 pandemic
- Identify strengths and weaknesses of telemedicine service delivery

Overview

- UPMC Center for Assistive Technology (CAT)
  - Multidisciplinary clinic
  - Outpatient clinic
    - Wheelchair, Seating/positioning
    - Audiology
    - Augmentative/Alternative Communication
    - Adaptive Driving/Driver Rehabilitation
    - Computer access evaluations

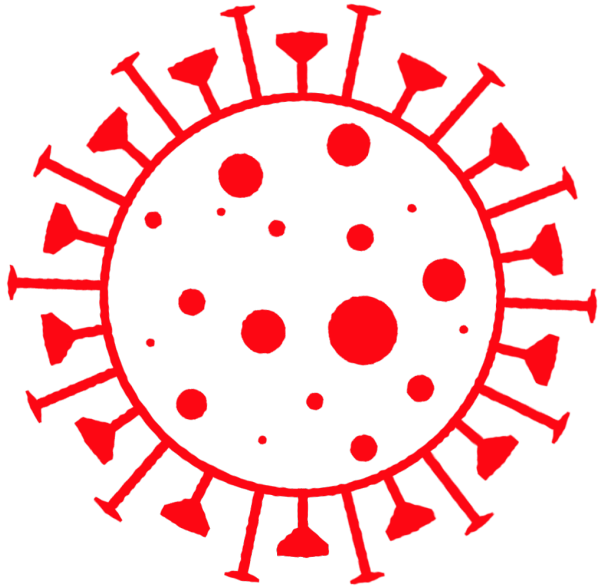
- Team Members
  - Physical Medicine & Rehabilitation physicians
  - Physical Therapist
  - Occupational Therapist
  - Speech Language Pathologist
  - Audiologist
  - Assistive Technology Professional (ATP)
  - Rehabilitation Engineers
  - Client/Families
  - Administrative support staff

Traditional Service Delivery

- Referral from PCP or referring physician
- Schedule face-to-face evaluation with CAT physician AND therapist
- Evaluation for assistive technology (in-clinic)
  - PM&R physician and clinician
  - Hands-on clinical simulation of equipment with ATP present
  - Follow up visit for home evaluation scheduled between ATP and client
- Letter of Medical Necessity
  - Submitted to insurance for review and funding
- Return to clinic for final delivery
- Follow up
  - Routine follow-up with client for maintenance, repairs, adjustments

Impact of COVID 19

- Lockdown
- Limited face-to-face interaction between clinicians, physicians, and clients
- PPE shortage
- Medically complex clients
  - Vent dependent
  - Immuno-compromised
  - Multiple comorbidities



Service Delivery with Telehealth

- Referral from PCP or other referring physician
- Schedule face-to-face evaluation with CAT physician AND therapist

✓Evaluation for assistive technology
- PM&R physician and clinician
- Hands-on clinical simulation of equipment with ATP present
- Follow up visit for home evaluation scheduled between ATP and client

- Letter of Medical Necessity
  - Submitted to insurance for review and funding

✓Return to clinic for final delivery

✓Follow up
- Routine follow-up with client for maintenance, repairs, adjustments

Telehealth Protocol

- Referral received
- Coordination between client, ATP, and clinic schedules
  - ATP becomes the “connection” to the client via audio/visual two-way communication
  - Video chat software
    - EPIC
    - Microsoft Teams
    - Zoom
  - Supportive technologies
    - Smartphone
    - Tablet
    - Laptop

Telehealth Protocol (cont.)

- ATP visits client in client's home and establishes connection with clinic using video chat
- Therapist and physician jointly conduct Face-to-face evaluation
  - Demographics
  - Pertinent diagnoses
  - Activities of daily living
  - Instrumental activities of daily living
  - Physical motor assessment
    - ROM
    - Transfers
    - Functional tasks to assess strength, coordination
  - Functional mobility
    - Observe ambulation with or without ambulatory aid
    - Timed Up and Go assessment (TUG)

Telehealth Protocol (cont.)

- ATP collects anatomical measurements for recommended equipment
- ATP collects home assessment details
  - Home accessibility
    - Doorway widths
    - Main point of entry
    - Steps to enter
    - Layout of home for device operation
- ATP brings trial (demonstration) devices into client's home
  - Test drive mobility device throughout client's own home with clinician supervision

Service Delivery Revisited

- Letter of Medical Necessity is submitted
- Follow up telemedicine visit scheduled
  - ATP
  - Client in their own home
  - Clinician in clinic
- Final fitting/delivery
  - Final demonstration with client's recommended equipment
  - Final fitting and adjustments are completed to client's specific needs
- Encourage communication to ensure support after delivery and continued successful use of recommended equipment

Does it work?

Strengths

- Client is observed in their own environment
- Accurate home assessments
- Real-world trials within the context of the client's everyday routines
- Reduce burden
  - Less travel for client
  - Decreased monetary expense for travel and medical transportation expense
- Potential to reduce wait times

Weaknesses

- Complex cases are not appropriate for telemedicine
  - Pressure wounds
  - Complex seating needs due to contractures, scoliosis, or other deformities will need to be assessed in-person
  - Major change in condition
    - ALS, MS, MD progression
    - Need for major changes in device configuration that cannot be demonstrated in home
- Potential increase burden on ATP
  - Increase in travel
  - Time during travel is not productive
- Connectivity
  - Phone/internet service reliability

Conclusion

- Telemedicine has provided access to clients who may not have been able to access services due to inability to travel, high-risk medical condition that limits their ability to leave their home, or could not afford to travel great distances to receive proper care.
- Telemedicine has the potential to result in better assistive technology recommendations due to better information gathering techniques, seeing the client use equipment in their own home, and decrease device abandonment.
- Telemedicine has the potential to reduce wait times due to fewer number of visits between ATP and client, and quicker turn-around times for specifications of recommended equipment.
- Always Client-Centered
  - keep the needs, abilities, preferences in mind throughout the entire process

Thank you!

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