Objective:

Identify advances in clinical assessment and management of selected healthcare issues related to persons with developmental disabilities

Identify and emphasize attitudes that enhance the opportunities for persons with DD to achieve their optimal potential.

Develop strategies to promote community inclusion in meeting the needs of persons with developmental disabilities.

Notes:
Introduction to Augmentative Communication

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Important Terms

- AAC-Augmentative and Alternative Communication
- SGD-Speech Generating Device
- EADL-Electronic Aids to Daily Living

Who is appropriate for referral?

- Trauma (TBI)
- Cerebral Palsy (CP)
- Autism (and other PDD)
- Developmental Delay
- Verbal Apraxia
- TBI/Trauma
- Aphasia (after CVA)
- ALS
- Verbal Apraxia
- Parkinson’s
- MS
- Developmental Disability
- Head and neck cancers

Who is appropriate (cont.)

- Receptive language function stronger than expressive
- Poor intelligibility to familiar and/or unfamiliar listeners
- Intelligibility expected to decline
- Success with no tech or low tech systems
- Low total number of signs/symbols/intelligible vocalizations
- Frustration when communicative attempts are not understood
- Communicative Intent

When to refer?

Children:
- Communicative intent
- Frustration
- Cause and effect
- Success with other alternative means of communication
Adults:

- Soon after diagnosis when loss of communication ability is expected, especially with head and neck cancers and ALS
- When communication not improving after CVA or TBI
- Can Voice Bank
- Insurance changes may be coming that would result in loss of device if admitted to Hospice, Hospital, SNF

**Screening Tools**

- The Multimodal Communication Screening Task for Persons with Aphasia
- Augmentative Communication Screening Checklist
- Communication Success Screening Tool
- The Communication Matrix

I have an appointment, What can I do until then?

**Communication Book**  **Alphabet Board**  **Partner Assisted Scanning**

**Writing**  **“Two-fisted” Communication**

**What is needed to submit for funding?**

**Documents**
- Therapist Reports
- IEP
- Test results
- Insurance Cards
- Eye exam

**People**
- Family
- Therapists
- Teachers
- Caregivers

Who does the evaluating?

**SLP**  **OT**

**What should happen during an evaluation?**
Physical Assessment

- **Sensory**
  - Vision
  - Hearing
  - Sensation
- **Access method**
  - ROM
  - Coordination
  - Strength
  - Possible switch sites
- **Transport method**
  - Mobility
  - Seating/positioning
  - Gait
  - Strength

Speech and Language Assessment - What’s not working?

- **Speech**
  - Establish Treatment Diagnosis
  - Oral motor exam
- **Language**
  - Comprehension
  - Methods of expression
  - What has been trialed?
  - Response to communication breakdown
- **Cognition**
  - Problem solving
  - Memory
  - Attention
  - Developmental Age

FYI...

- Loaners or rentals can often be acquired for those with short-term needs or for whom response to the devices are questionable

• It is most important to establish the medical necessity of the device.

• We are prescribing Durable Medical Equipment
Device Trials

- Must rule out lower level devices before trialing higher level ones, always must make most economical choice
- May need to trial equipment from more than one vendor

What if it is questionable if a person is willing or able to use an SGD?

- Further evaluation sessions
- Loaner device
- Collaboration with school or individual’s SLP
- Rental Devices (also good for short-term needs)

If someone is not yet appropriate:

- Educate family on introducing choice making and cause and effect
- Provide information on entry-level communication strategies/devices
- Provide education on prerequisites for higher-tech devices (Come back when…)

An appropriate device has been determined. Now what?

- Collect documentation
- Complete Letter of Medical Necessity, Client Information Forms and Prescription
- Get physician’s signatures
- Entire packet off to vendor
- Vendor submits to insurance
- WAIT!

3 Possible Responses

Approval
Deferral
Denial

If denied or deferred…

- Start with addendum or appeal
- Sometimes multiple letters are necessary
- Continue appeals up to court hearing if necessary
Training/Follow Up

Initial
- Device setup/make overlays
- Initial customization
- Educate on operation, use, programming

Follow up
- Ongoing customization
- Training on more advanced programming
- Respond to questions/problems

Therapy
- Implementation
- May be done through school or outpatient in most cases

Types of devices

No-Tech Options
- Communication boards
- Communication book
- Eye-gaze boards
- Partner assisted scanning
- Gestural system
- Sign language
- Picture Exchange Communication System

Picture Exchange Communication Systems
- Traditionally low tech
- Often a good stepping stone to higher tech devices
- Can now be high tech (ProxTalker)

“Over-the-Counter” options
- Talking buttons
- Talking photo albums
- Low-end communicators
- Tablets/Cell Phones

Lower Tech Devices
- Feature Overlays
- Digitized speech
- Accessed by touch or switch
- May have more advanced features like toy or environmental control
- Low-tech device covered by insurance are getting harder to find
- Relatively cheap
Text-to-Speech

Type a message and speak

Built in acceleration techniques
- Word Prediction
- Abbreviation Expansion

Can generate messages by Scanning

High Tech Devices

- Dynamic Display
- Synthesized Speech
- Multiple access Methods
- Built in Environmental Controls
- Large Variety
- Costly

What about environmental controls (ECUs)?
- Can typically control anything that can be operated with a remote that uses infrared technology
- Can purchase units to make other items controllable (beds, lamps, doors, etc.)

Other available high-tech device functions
- Texting
- Cell phone by bluetooth
- Take and store photos
- MPS
- Bookshare
- Skype
- Internet access
- PC functions (word processing, etc.)
- Learning tools
- E-mail

Methods of Accessing High Tech Devices

- Direct selection
- Scanning
- Headmouse
- Eye gaze

Scanning
- Indicator moves from 1 item to the next
- The user stops the cursor when it arrives at intended message
- Can adjust timing, pattern, feedback and rate to accommodate differing abilities
Types of switches for scanning

- Mechanical - can accommodate different touches, i.e. “light touch”
- Sensor
- Sip and puff
- Proximity

Switches can be placed near any part of the body that can be moved

What is a headmouse?

- Most resemble webcams
- The user where a reflective sticker or tape on forehead, bridge of glasses, brim of ball cap
- When the person looks at a target and lingers, that target is selected

How does eyegaze work?

- A camera built into the device tracks the pupils of the user
- The user makes a selection by looking at the target and either dwelling or blinking to make a selection
- No need to move anything but the eyes

Selection methods can be combined

Dedicated Devices
- For communication only
- Built to withstand abuse
- Funded by insurance
- Research based
- Costly
- Good technical support
- Good volume and speech quality
- 3 year+ warranty

Tablets
- Many other uses
- Break easily
- Not typically covered by insurance
- Apps often not research based
- Only 1 or 2 access methods
- More socially accepted
- Minimal technical support
- Limited warranty on hardware
- Many choices
- Questionable voice quality, limited volume

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However…
- Some manufacturers have addressed this by converting tablets to dedicated devices (locking into communication app), adding sturdy cases and amplifiers
- Often, but not always, less expensive than dedicated devices
- Add 3-5 year warranties and technical support

These things are expensive, how much does insurance typically cover?
- No Fault-100%
- Medicaid-100%
- Medicare-80%
- Private insurance-varies
- Combination-varies.

Funding…

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What if my patient does not have adequate coverage?
- Loan closets
- Schools
- AT loans
- Manufacturer Scholarships
- Donated devices
- eBay

Challenges
- Insurance changing rapidly, people on Medicare may have to rent-to-own-have to return device if admitted to hospital, SNF, Hospice if they have not had it 13 months
- Many insurance companies try to avoid paying

Questions?
- Contact information
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