





AAC in Pediatric ICU and Acute Care Settings: A Requirement for Best Patient Care

Rachel Santiago, MS, CCC-SLP
John Costello, MA, CCC-SLP
Boston Children's Hospital
Boston, MA







Disclosures

- Rachel Santiago is a full time salaried employee at Boston Children's Hospital
- John Costello is a full time salaried employee at Boston Children's Hospital



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Augmentative Communication/Autism Language Programs



Amanda O'Brien, SLP Alycia Berg, SLP Jenny Abramson, SLP Rachel Santiago, SLP Jennifer Bluxton, OTR, ATP Drew Mancini, SLP-CFY

Katie O'Neil, SLP Elizabeth Rose, SLP Loren McMahon, OTR/L John Costello, SLP Rebecca McCarthy, SLP

Meghan O'Brien, SLP Michelle Howard, SLP Amalya Sinaby, SLP Peggy Dellea, OTR Christina Yu, SLP





Augmentative Communication/Autism Language Programs

Outpatient Augmentative Communication Program

Outpatient ALS Augmentative Communication Program




Outpatient Clinic Consultation

- Tracheostomy Clinic
- Cerebral Palsy Clinic



Inpatient Augmentative Communication Program

- Intensive Care Units
 - Cardiac
 - Medical
 - Medical/Surgical
 - Neonatal
- Acute Care Units

A little about us...

Rachel Santiago:
Speech-Language Pathologist
Clinical Coordinator, Inpatient Augmentative Communication Program

John Costello:
Speech-Language Pathologist
Director, Augmentative Communication Program; Pediatric ACP and ALS Programs

Michelle Howard:
Speech-Language Pathologist,
Inpatient Augmentative Communication Program



AGENDA

- Define communication vulnerability & research discussion
- Common barriers to successful AAC in ICU/acute care
- Patient profiles
- Phases of communication need
- Children vs. Adults: Child and Pain
- Trends and patterns of care
- Domains of assessment
- Bedside intervention: Tools and strategies



What is communication vulnerability?

- Vision so poor that the patient is unable to read/see, even with corrective lenses
- Inability to understand loud speech, even with hearing aids
- Inability to produce speech that is intelligible to the team
- Altered mental status
- Inability to speak or understand the language of the medical team



Who is communication vulnerable?

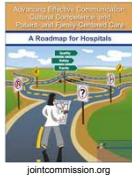
Individuals with:

1. Pre-existing hearing, speech, cognitive disabilities
2. Recent communication difficulties due to disease/illness/accident/event
3. Recent communication difficulties due to medical treatment (e.g., intubation, sedation)
4. Linguistic differences
5. Limited health literacy
6. Limited ability to read/write
7. Cultural differences/mismatch



Why Do We Care?

- Joint Commission Standards:
 - Identify needs
 - Address needs
- Patient-satisfaction scores
- Research shows poor communication affects patient outcomes
- Minimize adverse events resulting from poor patient-provider communication



Join Commission on Communication Vulnerability



Effective communication is:

“The **successful joint negotiation** of meaning wherein patients and health providers exchange information, enabling patients to participate actively in their care **from admission through discharge** and ensure that the responsibilities of both patient and providers are understood. To truly be effective, **communication requires a two-way process (receptive and expressive) in which messages are negotiated until the information is correctly understood by both parties.**”



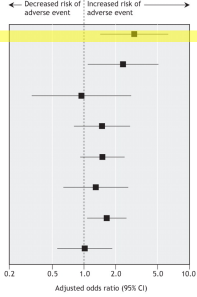
Research

- Patients with access to communication supports:
 - Receive less sedation
 - Transition more quickly
 - Have increased satisfaction with health care
 - Feel more in control Happ (2004) and Patak et al. (2006)
- Communication vulnerable patients are at increased risk for:
 - Serious medical events (Cohen et al., 2005)
 - Sentinel events (The Joint Commission, 2007)
 - Poor medication compliance/adherence (Andrulis et al., 2002; Flores et al., 2003)
- Patients meeting criteria for AAC/AT needs not always receiving services (Zubow and Hurtig, 2013)
 - Greatest need in ICU

Adverse Events & Communication



Factor	Adjusted OR (95% CI)
Physical communication problem	3.00 (1.43-6.27)
Psychiatric disorder	2.35 (1.09-5.05)
Social distancing problem	0.94 (0.32-2.78)
Charlson Comorbidity Index score > 1	1.49 (0.81-2.72)
Female	1.49 (0.92-2.41)
Age > 65 yr	1.29 (0.64-2.61)
Urgent admission	1.64 (1.07-2.52)
Teaching hospital	1.02 (0.56-1.85)



← Decreased risk of adverse event | Increased risk of adverse event →

Adjusted odds ratio (95% CI)

Bartlett, G. et al. CMAJ 2008;178:1555-1562
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Who does communication vulnerability impact?

Patient:

- Loss of control
- Limited participation in own care
- Low mood, anxiety, depression, worry, etc.



Family:

- Fear of family member's inability to gain attention, seek help
- Fear of family member's inability to express wants/needs
- Distress over temporary loss of family member's personality
- Ability to support and advocate on child/loved one's behalf

Staff:


- Delivery of quality care
- Don't have time to "figure it out"
- Education, discharge, and follow-through
- Limited communication attempts beyond the essential
- Supporting patient from emotional, psychological, and developmental perspective (especially long-term patients)

Happ et al., 2004; Magnus and Turkington, 2005; Costello, 2000

Barriers


Why is bedside AAC not a formal, required, or standard service at all hospitals?



Barriers to communicative success according to The Participation Model (Beukelman and Mirenda 1988)


- Access Barriers
 - Physical/motor
 - Cognitive
 - Literacy
 - Visual/auditory

- Opportunity Barriers
 - Policy
 - Practice
 - Knowledge
 - Skill
 - Attitude





Common Barriers in Acute Care

Practice Barriers	<ul style="list-style-type: none">• Focus on life sustaining/saving measures• Clinical priorities: medical > communication• Institutional or professional complacency
Attitudinal Barriers	<ul style="list-style-type: none">• Doctor/RN knows best• Less interference or interruptions by patient = easier bedside care• Lack of buy-in for implementation
Knowledge Barriers	<ul style="list-style-type: none">• SLP education on bedside AAC• Frontline staff education on bedside AAC• Accessibility of RN resources, trainings, educational materials
Resource Barriers	<ul style="list-style-type: none">• Lack of tangible materials• Lack of staff with clinical expertise• Time
Environmental Barriers	<ul style="list-style-type: none">• Storage space• Clean equipment policies• Equipment handling, pick up, bedside safety, bedside interference




What is commonly done to address communication vulnerability?

- Lip reading (by patient, by staff)
- Reliance on family/caregiver to interpret
- Gestures
- Pen/paper
- Alphabet board
- Hand drawn pictures
- Yes/no questions
- Non-English speakers
 - Ad hoc interpreters
 - Interpretation applications and software






Problem...

- **Family/caregiver burden**
- **Guessing (and guessing wrong)**
 - Potential for miscommunication is high
- **Ad hoc interpreters:** (Naples, et al, 2015)
 - Not bound by HIPAA
 - Higher risk of errors
 - Filtered information
- **Reduced access to the nurse-call system**
 - Alternative methods may be available but not appropriate or reliable
- **Weakness or motor impairment**
 - → Reduced ability to access 'standard' communication strategies
- **Yes/No questions:**
 - Limits patients' participation and direction of care
 - Often not provided with an option to indicate "I don't know," "Maybe," "I need more information."
 - Speaking beyond the immediate needs of patient is low



(Costello, 2000; Garrett et al., 2007; Patak et al., 2009)

Where to begin?

PATIENT PROFILES



Who might be communication vulnerable/in need of bedside AAC?

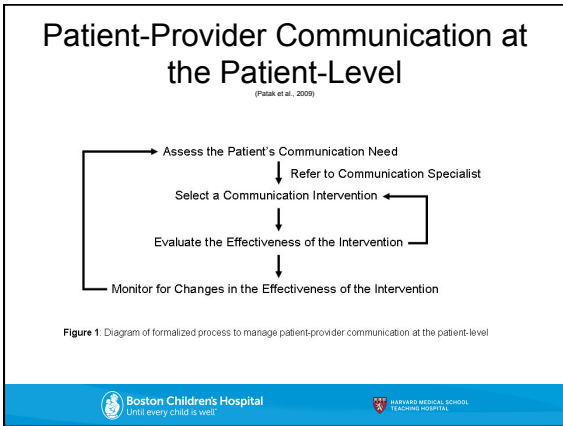
FEATURE MATCHED ASSESSMENT

Assess the unique needs and skills of the child (at all points of care) to make appropriate recommendations for tools and strategies

PHASES OF NEED

What types of intervention might be expected at different phases of recovery?



Patient Profiles:

- Patient Population
 - Communication vulnerable at baseline
 - Acute onset of communication vulnerability
 - At risk for communication vulnerability

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Patient Profiles

- Communication Vulnerable at Baseline
 - Baseline speech, language, and/or communication deficits
 - Patients who use AAC or AT outside the hospital environment
 - Intellectual disability
 - Tracheostomy or other form of mechanical ventilation
 - Language difference / Non-English speakers
 - Baseline motor skills that impact use and access to nurse call system

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Role of the SLP

- **Communication Vulnerable at Baseline**
 - Assist with adding medical related vocabulary to patients current communication system
 - Design and construct new communication supports
 - Explore optimal access options
 - Set up adapted call button
 - Identify patients who are appropriate for referral to our outpatient department
 - Disseminate information about how the patient communicates



Patient Profiles

- **Acute onset of Communication Vulnerability**
 - Intubation or other form of mechanical ventilation
 - New tracheostomy
 - Medical procedure, treatment, or device that impedes a patient's ability to effectively speak
 - Brain injury, aphasia
 - Aphonia, dysphonia or new onset vocal chord paresis
 - Dysarthria, unintelligible speech
 - Altered mental status; sedation
 - Psychiatric disorder
 - Decreased motor skills needed to effective use and access the nurse call system




Role of the SLP


- **Acute onset of Communication Vulnerability**
 - Evaluate current communication skills/bedside
 - Design and construct supports to meet needs (refer to phases)
 - Mount, train partners
 - Periodic reevaluation and modification or enhancement of communication supports as needed
 - Explore optimal access options
 - Set up adapted call button
 - Identify patients who are appropriate for referral to our outpatient department
 - Disseminate information regarding how the patient communicates
 - Provide education regarding communication supports and strategies to the family and medical team



**Communication Vulnerability:
Who does it impact?**


- **At risk for communication Vulnerability**
 - Risk for intubation or other form of mechanical ventilation
 - Pre-tracheostomy
 - Anticipated medical procedures or treatments
 - Degenerative condition
 - Positional restrictions


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Role of the SLP


- **At risk for communication Vulnerability**
 - BCH Model of Preoperative AAC
 - Allows patient participation in selection of tools and messages during less acute and stressful situation
 - Allows for time to familiarize with communication supports, leading to more functional use
 - Sense of control in own care
 - Preservation of personality
 - Message Bank when possible
 - School based/community based instruction and pre-planning
 - Vocabulary selection
 - Message banking
 - Creating materials


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Phases of Communication Need

- **Phase 1: Emerging from Sedation**
 - Gaining attention
 - Nurse-call
 - Bedside
 - Answering simple questions
 - YES - NO - I DON'T KNOW

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Phases of Communication Need

- **Phase 1: Emerging from Sedation**



Learn answer your questions:

YES - Activate a switch by my hand (or tapping your hand)


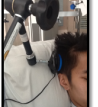

NO - Activate a switch by the left side of my head (or turning my head into your hand)





Please remember: I am having something given to me. I may not be awake and/or "not" in control!

Accessing the nurse-call system






...and more!




Phases of Communication Need




- **Phase 2: Increased wakefulness**
 - Everything from phase 1 and...
 - More relevant vocabulary
 - Picture boards
 - Alphabet boards
 - Multi-message voice-output communication aids
 - Voice amplification



Phases of Communication Need

- **Phase 2: Increased wakefulness**






...and more!

Phases of Communication Need

- **Phase 3: Broad and diverse communication**
 - Everything from phase 1 and 2 and...
 - Generative, robust communication
 - Encoding strategies
 - Internet access and mobile communication
 - Phone or video chat access
 - Environmental control (beyond nurse-call system)
 - Tablet
 - Computer
 - Leisure activities



Phases of Communication Need

- **Phase 3: Broad and diverse communication**



...and more!




Feature-Matched Assessment:

Systematic process by which a person's strengths, abilities, and needs are matched to available tools and strategies

(Shane and Costello, 1994)

Think about **baseline** and **anticipated** strengths, abilities, and needs



Assessment Domains

- At each phase of comm. need
- Monitor for changes by reassessing across various domains
- Monitor for increased communicative functions

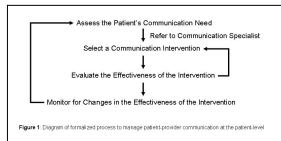


Figure 1. Diagram of formalized process to manage patient/proximal communication at the patient level.

Domains of Assessment:


- Cognition
 - Alertness/awareness
 - Sedation
 - Baseline status
- Speech and Language Skills
 - Use of speech, symbols, text, and communication displays
- Sensory
 - Vision
 - Hearing
 - Anticipated swelling/incision sites
- Respiratory Status
- Gestures
- Sign Language
- Literacy
- Vocabulary selection
- Medical Status
- Motor Skills
- Team members & Communication Partners
- Patient motivation & buy-in

Domains of Assessment: Bedside Considerations


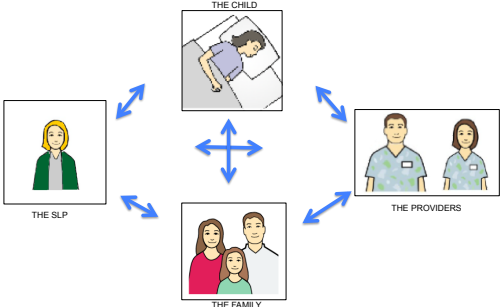
Assessment domain	Assessment considerations	System selection/feature matching considerations
Cognition • Alertness/awareness • Premorbid status	<ul style="list-style-type: none"> ○ Report of nursing staff ○ Ability to remain awake ○ Patient's ability to follow commands 	<ul style="list-style-type: none"> ○ Will determine if assessment should occur over several sessions, be postponed or continue. ○ Will determine complexity of instructional language and strategies introduced
Sensory	<ul style="list-style-type: none"> ○ Pre-morbid vision status ○ Current vision status ○ Availability of vision aids ○ Hearing ○ Pre-morbid hearing status ○ Ability to use hearing aids if needed 	<ul style="list-style-type: none"> ○ Symbol set representation selection including characteristics of text, symbols and overall layout ○ Use of voice output technology ○ Feedback loop of speech generating device ○ Use of FM system ○ Use of auditory scan component
Language comprehension and literacy screening	<ul style="list-style-type: none"> ○ Comprehension ○ Ability to answer yes/no questions 	<ul style="list-style-type: none"> ○ Match vocabulary and representation to current level of comprehension ○ Consider initial use of single message system for soliciting attention/assistance ○ Use of yes/no/maybe system or strategy

Communication Vulnerability Can Impact All Patients

BUT our treatment is not the same for all patients

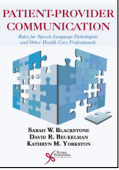


Children are NOT small adults




Basic Tenets (A-B-C-D-E-F) to Approaching the Child's Bedside

- Assure
- Bring
- Control
- Direct
- Emotion and Personality
- Fun



Costello, Santiago, & Blackstone (2015)



A-B-C-D-E-F

- **Assure** – In a hospital setting, a child is constantly on guard for the clinician who will invade their personal space and introduce an unwanted procedure
- **Bring materials and tools** with you to the first visit. For many children, 'seeing is understanding'
- **Control.** Children need to feel a sense of control in the hospital.

Costello, Santiago, & Blackstone (2015)

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A-B-C-D-E-F

- **Direct attention to the child.** While your behavior will ultimately be directed by the child's behavior, your attention should always be to the child first
- **Emotion and personality** - hospitalization is a very emotional experience. Loneliness, isolation, separation, anxiety, sorrow, etc. The reflection of personality is essential and is key to successful development and implementation of communication strategies.
- **Fun.** Children understand their world and cope through play. Despite potentially life threatening medical circumstances, you must be ready to focus on fun

Costello, Santiago, & Blackstone (2015)

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**Intensive Care Unit Experience:
through the Eyes of a Child**





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Children's reaction to pain

Toddlers and preschoolers (2-5 yr):





- Experience pain but can not always identify the source or location
- **'Magical thinking'** may lead child to believe their pain is punishment for real or imagined misbehavior... they believe the pain is someone's fault.



Children's reaction to pain

Toddlers and preschoolers (2-5 yr):

- **Communication needs:**
 - Children may view procedures as punishment for bad behavior
 - Important to:
 - Express Fear
 - Express Anxiety
 - Solicit parents and loved ones for comfort
 - Seek explanation and protection





Children's reaction to pain

School age (6 - 12 years)

- Can tell the location of pain
- Understand illness is caused by germs
- Believe staff's response depends on how well they express pain
 - Some children may withhold expression of pain to *avoid* RN interventions


Brewster (1982)





Children's reaction to pain

School age (6 - 12 years)

- **Communication needs:**
 - Children need to be able to effectively communicate matters of comfort and pain
 - Where?
 - How much?
 - What kind? (Nausea vs. aches vs. itchy)
 - What do I need now?




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Children's reaction to pain

Adolescents (13 and older)

- **Begin to understand:**
 - There are multiple causes of illness, that the body may respond to many different factors and illness is caused by physical weakness or susceptibility.
 - Different interventions may be needed to address illness and that staff act with necessary intent and empathy.

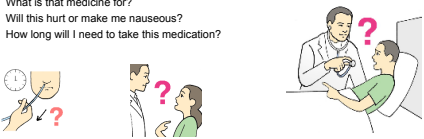



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Children's reaction to pain

Adolescents (13 and older)



- **Communication need:**
 - At this more mature stage, a child may eager to ask questions, interact with staff and understand the intent of intervention.
 - Will I be okay?
 - What is the plan?
 - What is that medicine for?
 - Will this hurt or make me nauseous?
 - How long will I need to take this medication?



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Trends and Patterns of Care
Across pediatric caseload



Objective

To analyze trends in AAC service delivery in patients referred for augmentative and alternative communication consultation in the pediatric intensive care and acute care settings.





Santiago, Howard, Costello, & Rabbar (2017)

Methods

- IRB approved retrospective review
- Reviewed EMRs and billing data of patients followed by a single speech-language pathologist in the Inpatient Augmentative Communication Program between December 2015 – May 2016 (n=168)
- Data was entered into the RedCap data collection software and analyzed

*n=168 does not represent actual total volume



Santiago, Howard, Costello, & Rabbar (2017)

Methods

- Information gathered and analyzed included:
 - Patient variables (age, baseline diagnosis, baseline communication status)
 - Admission variables (i.e. date, reason for admission, admitting department, etc.)
 - Assessment recommendations
 - Intervention recommendations

Santiago, Howard, Costello, & Rahbar (2017)



Results

- 168 unique patients were seen during the 6-month time frame for assessment
- 540 patient encounters
- 112 patients (67%) were seen for follow-up intervention encounters
- Mean number of follow-up encounters = 3.84 sessions

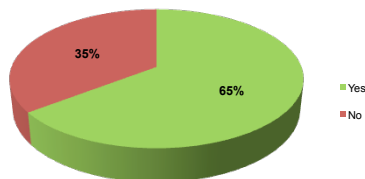
Patient ages ranged from 1 month – 32 years

Santiago, Howard, Costello, & Rahbar (2017)



Results

Baseline Speech, Language, and/or Communication Disorder



■ Yes
■ No



Discussion

- **Demographics:**
 - Over half of referred patients had a noted baseline communication impairment
 - Broad age range, with average of 11.82 years
 - High % of patients admitted with respiratory complications
- **Assessment Considerations:**
 - Low-tech picture-based communication boards most recommended along w/ unaided strategies
 - ~Half of patients required supported access strategies during first encounters
- **Intervention Considerations:**
 - High tech strategies typically recommended during follow up encounters, if recommended at all
 - >1/2 patients w/ follow up visits required new or modified AAC strategies



Limitations

- Retrospective review
- Single clinician caseload
- Referral bias



Santiago, Howard, Costello, & Rahbar (2017)



Conclusions



- Low-tech goes a long way!
 - Unaided and aided strategies should be explored
- Foundation of knowledge in AAC
- Access is key
- Be prepared, especially in the ICU
- Communication enhancement is DYNAMIC!



Santiago, Howard, Costello, & Rahbar (2017)



Trends and Patterns of Care Pediatric Patients Undergoing Tracheostomy



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Objective

For pediatric patients undergoing tracheostomy,

1. To **describe an approach to service delivery** throughout the recovery continuum and,
2. To **identify trends** in bedside AAC assessment and intervention recommendations



Santiago et al. (2017) – manuscript in process

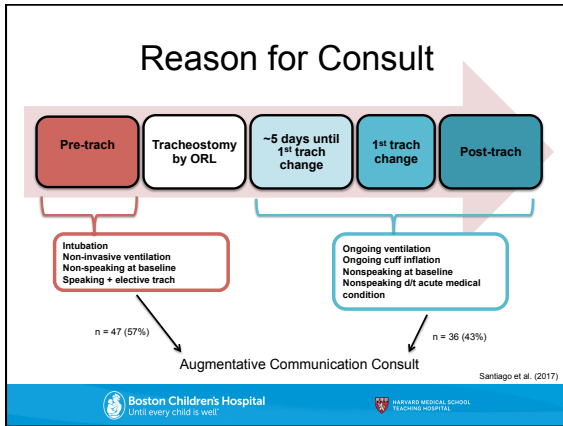
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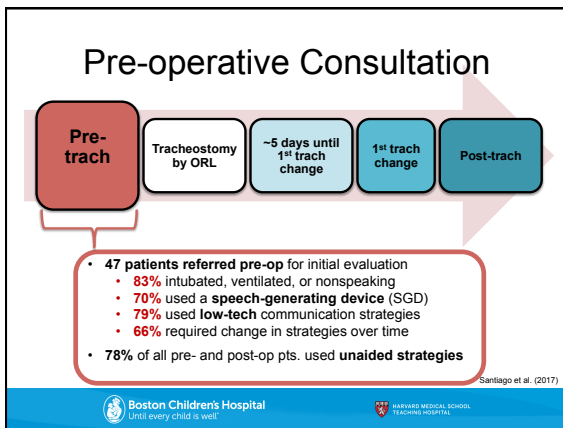
Methods

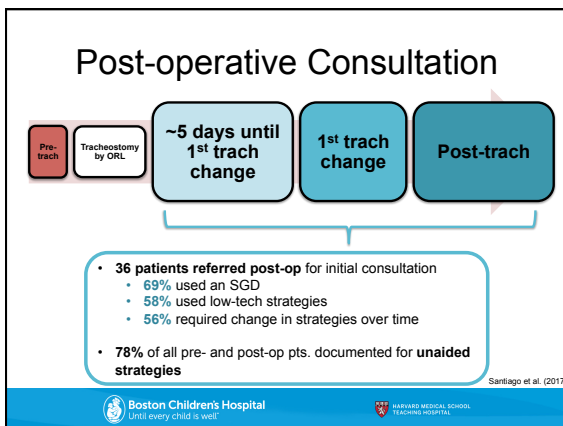
- Chart reviewed all patients who underwent tracheostomy *and* were followed by the Inpatient Augmentative Communication Program (ACP) between 2013-2016 (n=83)
- Looked at:
 - Timing of first evaluation (i.e. pre-operative or post-operative consultation)
 - Types of recommendations (i.e. tools and strategies)

Santiago et al. (2017)

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Limitations

- Referral bias
- Retrospective review
- Single clinician caseload



Santiago et al. (2017)



Recommendations



- Refer early when able
- Availability of varied SGDs for assessment and intervention
- Provision of low-tech and unaided strategies is key – SGDs are not *always* the answer
- Communication needs may change over time
- Follow-up throughout the recovery continuum

Santiago et al. (2017)



Trends and Patterns of Care

Early Mobility – ICU Patients with Prolonged Bedrest



Early Mobility Protocols

- Typically aim to:
 - Improve patient quality of life
 - Decrease hospital acquired conditions
 - Improve functional outcomes
- Involves gradual introduction of safe, developmentally appropriate activities
 - Mobility & early activity
 - Predefined screening process



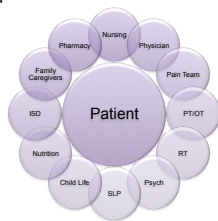
Early Mobility

- Early Mobility at BCH:
 - Johns Hopkins PICU Up!™ Program
 - Multidisciplinary effort that launched January 2017
 - Strong early mobility efforts exist, but areas for improvement
- Areas for Improvement:
 - Consult services within a scheduled timeframe
 - Engage bedside staff/parents in routine activities
 - Clear guidelines for inclusion/exclusion criteria
 - Improve interdisciplinary communication of mobility goals





Subcommittees

- Culture and Education Group
- Barrier Identification Group
- Safety Guidelines Group
- Measurement Group
- Intervention Group



PICU Up! Levels



- Levels w/ Tiered Activity Plans/Guidelines
 - Based on inclusion/exclusion criteria, severity of illness, behavioral state (SBS score)
 - Level 1 – SBS -3 to -2
 - Level 2 – SBS -1 to +3
 - (includes pts w/ intubation or tracheostomy, dialysis, femoral access)
 - Level 3 – SBS -1 to +3
- Parallels the “Phases of Communication Need” (Costello, Patak, & Pritchard, 2019)
- Will better capture consult orders for services
 - (PT, OT, Aug. Comm, Feeding, Child Life, Psych, etc.)
- Multidisciplinary approach w/ increased family & bedside staff involvement

Palliative Care & End of life

Introduce broad range of AAC tools and strategies to support:

- √Expression of needs
- √Social connectedness
- √Comfort
- √Nurse call

Palliative Care & End of life


Goals for the SLP


- Support and enable:
 - participation in daily care/decision making
 - express emotional state
 - discuss illness or concrete experience related to illness
 - expression of self
 - opportunities for control
 - social connectedness and emotional closeness
 - reflection/contemplation of positive life events
 - expression of legacy




**Palliative Care & End of Life
Lessons Learned:**

- A simple message can create a powerful connection (for patient and family), especially in the last days or hours of life
- Continued ability to communicate a simple message, even when intentionality is in question, can contribute to the legacy of emotional connection with loved ones

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**Palliative Care & End of Life
Lessons Learned:**


- Communication **needs and goals change** with disease progression
- Try to anticipate course of changing needs
 - Better to pre-plan and not need it, then need and not have it
 - Message banking (when able)
 - Tools with varied access options
- At each stage, make sure that maintaining 'the person' is foremost.


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**Palliative Care & End of Life
Lessons Learned:**

Always remember that the person with a life threatening illness is not the *only* person affected by loss of communication skill.



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Communication Kits



Productivity, time, and management issues may prevent SLPs from seeing all patients in need

- Some hospitals train front line staff (RNs, physicians, child life specialists, etc.) to support early communication needs
- **Caution:**
 - Staff education on “communication readiness”
 - Just because patient can’t use communication kit DOES NOT mean patient isn’t a candidate for AAC!

Communication Kits

- Provide education and in-service trainings
 - Aided AND Unaided strategies
 - Decision trees to guide selection of appropriate tools and strategies
 - When to consult SLP for further assessment as needed
- Communication toolkit:
 - Include inventory list
 - Include sign-out and sign-in sheet
 - Include descriptions of each tool and how to present (with special consideration for patients with reduced mobility, vision, and hearing)

Communication Kits

<ul style="list-style-type: none"> • Communication boards <ul style="list-style-type: none"> – Pictures – Alphabet – Varied displays (eye gaze, partner-assisted scanning, direct selection) • Non-English supports <ul style="list-style-type: none"> – Bilingual visual aids • Writing tools <ul style="list-style-type: none"> – Clipboard, pen/paper – Dry erase board – Boogieboard • Sensory aids <ul style="list-style-type: none"> – Magnifying glass – Voice amplifiers – (Personal hearing aids)* – (Personal glasses)* 	<ul style="list-style-type: none"> • Tools to gain attention <ul style="list-style-type: none"> – Voice-output communication aids – Chimes – Adapted nurse-call access • Simple mounting supports: <ul style="list-style-type: none"> • Switch arm • Tabletop or bed mount • Instructions
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Communication Tools and Strategies


- Custom tools and strategies
 - Usually with referral or formal consultation with inpatient augmentative communication specialist
- Pre-made; Ready-to-go tools
 - Accessible by front-line staff
 - “Communication Toolkit”
 - Later consult specialist for more in-depth assessment and intervention


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Communication Systems Are...

- Multimodal, not a single strategy
 - Not 'one size fits all'
- May require modifications and reassessment based on patient status
- May include a wide range of vocabulary & messages based on MANY factors


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Aided vs. Unaided Communication Strategies

- Unaided:
 - Natural forms of communication (including gestures and facial expressions) as well as manual signs and American Sign Language (ASL).
- Aided:
 - Communication that requires some form of external support (including line drawings, pictures, printed words, speech-generating device, etc.)


www.asha.org

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Access Considerations


- *How will the patient access their existing or new communication system?*
 - Baseline skills and needs
 - Anticipated effects of surgery or medical event (i.e. IV boards, incision sites, halo traction)
 - Anticipated environmental considerations (i.e. lay supine 48 hrs post op, nurse-call wall adapter)
 - Sedation
 - Weakness



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Environmental Considerations

- *How will implementation of tools, materials, and/or strategies affect cares and vice versa?*
 - Space
 - Placement
 - Positioning
 - Physical Therapy
 - Impact of medication
 - Eye gaze
 - Blurry vision
 - Generalized weakness
 - Physical restraints
 - Signage!



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Tools and Strategies





This is *not* an exhaustive list of aided tools! Keep in mind... there's more out there!

Tech is changing every day!

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Bedside Signage



- May be
 - General, premade signage
 - Custom
- Purpose:
 - Baseline communication strategies/ preferences
 - Helpful communication tips
 - Equipment set up
 - Presentation of materials



Sample Bedside Signs

- “I can understand what you are saying. Please speak directly to me.”
- “I blink *once* for YES and *twice* for NO”
- Please write when speaking with me. Use the dry erase board or typewriter”

TO SET UP THE ADAPTED NURSE CALL BUTTON:






Bedside Signs

All about me...

<p>Important people: Name, phone, job</p> <p>_____ _____ _____</p>	<p>At home I use:</p> <p><input type="checkbox"/> specialized equipment</p> <p><input type="checkbox"/> glasses</p> <p><input type="checkbox"/> contact lenses</p> <p><input type="checkbox"/> hearing aid</p> <p><input type="checkbox"/> communication devices</p>	<p>Name: _____</p> <p>Primary language: _____</p> <p>What I am proud of:</p> <p>_____</p>	<p>Other things I'd like you to know about me:</p> <p>_____</p>
<p>Favorites:</p> <p>_____</p>	<p>I understand information best when:</p> <p>_____</p>	<p>What I am learning:</p> <p>_____</p>	<p>My goal for today is:</p> <p>_____</p>
<p>Things that stress me out:</p> <p>_____</p>		<p>Things that calm and soothe me:</p> <p>_____</p>	

Yes/No/I don't know

- Pre-established, unaided strategies
 - Eye blinks
 - Gestures (thumbs up/down)
 - Eye gaze towards partner's hand (right hand = yes, left hand = no, look up = I don't know or Something else)



- Picture boards/cards

Gaining Attention: Bedside

- Voice-output communication aid (VOCA)



- Call chime
- Doorbell



Gaining Attention: Nurse-Call

- Hospitals mandated to supply specialty call cords. Contact:
 - Engineering
 - Distribution
 - OT, PT, SLP, RN Manager, others



Gaining Attention: Nurse-Call



Compatible adapters



Noddle, by Voxello



Pneumatic devices



Access switches,
various sizes

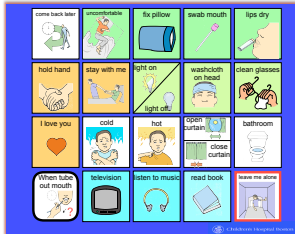









Communication Boards


- General comfort
- Body board
- Body positioning
- ABC
- QWERTY
- Customized





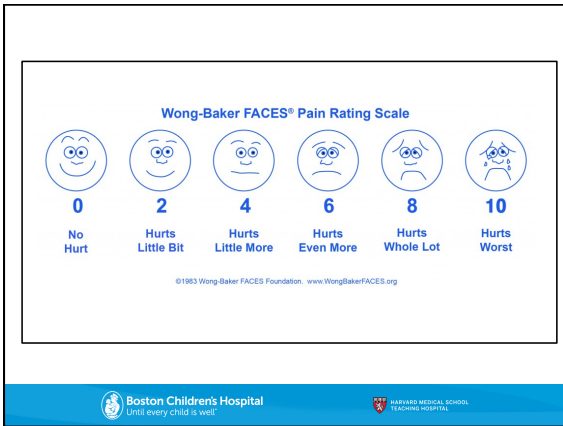



Communication Boards & Low-Tech Tools

- Picture-symbols and/or photographs
- Paired written labels
- Access:
 - Direct selection?
 - Partner assisted scanning?





Communication Enhancement: Non-English Speakers

- Support “closed loop” communication
- Bilingual materials and tools = ideal
- Collaboration with interpreter services for:
 - Digitized voice recording
 - Translated written messages
 - Culturally sensitive visuals

Bilingual Communication Boards/Aids

English	Arabic	English	Arabic
I have pain	لدي ألم	When call the doctor come	متى سوف يأتي الطبيب ؟
Suction mouth	شفط الفم	When will the reaction come	متى سوف يحصل التفاعل ؟
Pain helps	ألم يساعد	Thank you for your help	شكرًا جزيلًا لمساعدتك
I am sad	أنا حزين	I do not want this	أنا لا أريد هذا
I am bored	أنا متعب	I need an interview	أحتاج مقابلة
Cardiology	القلب	Please wait	الرجاء الانتظار
I need to go to the bathroom	أحتاج ان اذهب الى الحمام	Yes	نعم
What is this?	ما هذا ؟	No	لا
I am here	أنا هنا	Stop	توقف

INTERPRETING MEDICAL RELEASED CARD

Be available for an interpreter.

If you are unable to find an interpreter, call the hospital's language line.

Use the interpreter's name and title.

Use the interpreter's phone number.

Use the interpreter's address.

Use the interpreter's email address.

Use the interpreter's fax number.

Use the interpreter's website.

Use the interpreter's social media.

Use the interpreter's other contact information.

“KomHIT Refugee”

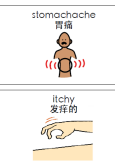
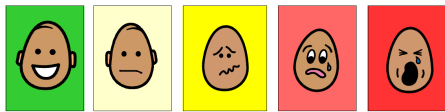


<https://kom-hit.se/flykting/>

Dart - Communication and Data Center at Sahlgrenska University Hospital in collaboration with Group Staff Communication and External Relations, Västra Götaland Region



痛苦 PAIN



Commercially Available Communication Boards

EZ Board by Vidatek
- <http://www.vidatek.com/ezboards.html>



Empower Communication Board™
by Attainment Company



Widgit Health






...and MORE!



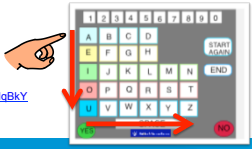
Eye Gaze

- Eye gaze communication boards





Partner Assisted Scanning

- Partner scans through messages using:
 - Auditory
 - Visual
 - Both
- Patient confirms selection using predetermined method






- How to: <https://www.youtube.com/watch?v=KyBkoffHgBKY>



Writing

- Dry erase boards
- Pen/paper
- BoogieBoard



Voice Output Communication Aids

- Allows for recording and playback of a single or series of messages
- Used for:
 - Gaining attention
 - Social scripts
 - Participation in motivating activities
 - Cause-effect
 - And (lots) more



Step-by-Step Communicator

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Speech-Generating Devices High-tech

- Digitized or Synthesized voice
- Access:
 - Physical direct selection
 - Eye gaze
 - Single or multi-switch scanning
- Mounting:
 - Rolling mount
 - Bedside mount
 - Wheelchair mount




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Speech Generating Devices High-tech, Mobile-tech

- Customizable AAC apps
- Picture-symbol
- Text-to-speech
- Full-communication apps
- Medical Communication apps – with prestored messages



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Speech Generating Devices on Tablets

Grid 3

Proloquo2Go

GoTalk Now

TouchChat

SoundingBoard

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Text-to-Speech

- Dedicated systems:
 - E.g. Lightwriter
- Mobile tech applications
- Computer/Laptop:
 - Software
 - Google Translate (NOT for translation!)
- Speech-generating devices

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Physical Access

Bedside mount

Angled switch

Eye gaze frame

Sip and Puff Switch

Floor & tabletop mounts

Sensor switches

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Voice/Sound Amplification

- Amplifies a weak voice
- Helpful for patients with vocal fold dysfunction and prolonged intubation
- Amplification d/t hearing loss in absence of hearing aids
- Transdermal microphones: great for BiPap
- Pocketalker for patients hard of hearing








This Year @ ASHA:



Sessions related to AAC in ICU, Patient-provider communication, or Communication in Healthcare:

THURSDAY		FRIDAY	SATURDAY
1003	MCO1	1305	SC 30
1004	6088	6224	1721
1021	4014	1375	1850
1028	1110	1474	4101
4010	1126	1528	6667
4564	6127	1546	
7002	1186	1562	
7094	7306	1627	
6078			

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