Meeting the Communication Needs of Patients in The ICU

Medical Aids Subsidy Scheme
23 January, 2020

Queensland Government

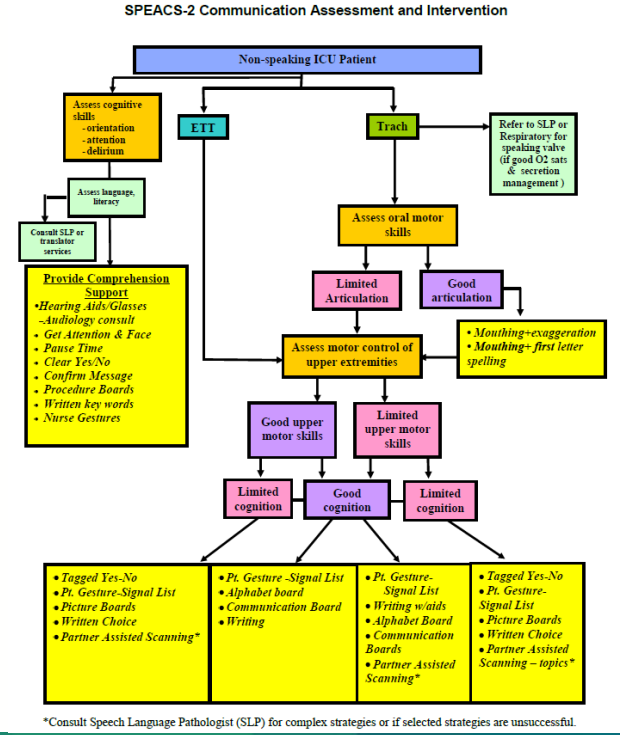
“We can’t change someone’s medical diagnosis,”

“But we can support people to maintain dignity, control and social connectedness, while expressing their true selves and remaining active members of the world around them.”

John Costello, Director of Boston Children’s Hospital’s Augmentative Communication Program

SPEACS

http://www.pitt.edu/~cmh1/happ/documents.html



Low Tech Communication Aids

Pros: Lightweight, easily portable, no need for power, low cost, can be easily cleaned if laminated, can be used when the patient is in a variety of positions.

Cons: Vocabulary may be limited, no voice output, need to be dependent on the communication partner, cannot save messages.

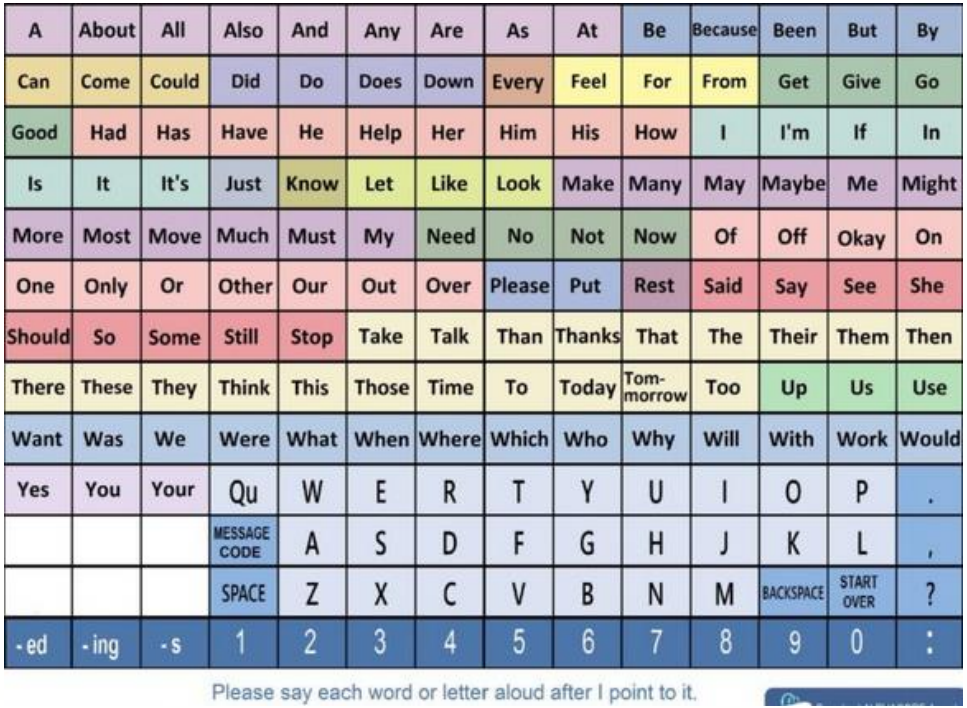
Considerations: Access (physical, visual skills), size, number of letters/phrases/symbols per page, spaces between cells, use of colour, skills of communication partner.

Writing

- Pen and paper.
- A doodle board/ mini white board.
- LCD writing board

Low Tech Communication

AlphaCore Communication board (Amy Roman)
https://amyandpals.com/communication-boards/



A	About	All	Also	And	Any	Are	As	At	Be	Because	Been	But	By
Can	Come	Could	Did	Do	Does	Down	Every	Feel	For	From	Get	Give	Go
Good	Had	Has	Have	He	Help	Her	Him	His	How	I	I'm	If	In
Is	It	It's	Just	Know	Let	Like	Look	Make	Many	May	Maybe	Me	Might
More	Most	Move	Much	Must	My	Need	No	Not	Now	Of	Off	Okay	On
One	Only	Or	Other	Our	Out	Over	Please	Put	Rest	Said	Say	See	She
Should	So	Some	Still	Stop	Take	Talk	Than	Thanks	That	The	Their	Them	Then
There	These	They	Think	This	Those	Time	To	Today	Tom-morrow	Too	Up	Us	Use
Want	Was	We	Were	What	When	Where	Which	Who	Why	Will	With	Work	Would
Yes	You	Your	Qu	W	E	R	T	Y	U	I	O	P	.
			MESSAGE CODE	A	S	D	F	G	H	J	K	L	,
			SPACE	Z	X	C	V	B	N	M	BACKSPACE	START OVER	?
-ed	-ing	-s	1	2	3	4	5	6	7	8	9	0	:

Please say each word or letter aloud after I point to it.

Low Tech AAC – Encoded Language

A. Main Needs	B. Positioning	C. Social
A-1 I need suctioning	B-1 Elevate Head of Bed	D-1 Hi, How Are You?
A-2 I am in pain	B-2 Lower Head of Bed	D-2 What's New?
A-3 I need to pee	B-3 Adjust Head Pillow	D-3 How's the Family?
A-4 I need the bedpan	B-4 Adjust Other Pillows	D-4 Please Be Patient
A-5 I am cold/hot	B-5 Pull Me Up	D-5
A-6 I need to be cleaned	B-6 Elevate Foot of Bed	D-6
A-7	B-7 Lower Foot of Bed	D-7 Tell Me More About it
A-8	B-8 Reposition me	D-6
A-9	B-9	D-9 It's So Good 2 C U

2018 Amy and pALS

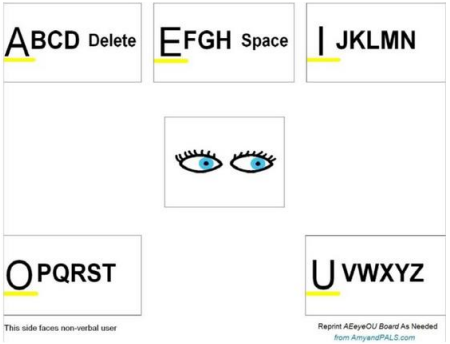
Stylus for Access

Hands Free Access to Low Tech Communication Aid

Eye Pointing

AEeyeOU board

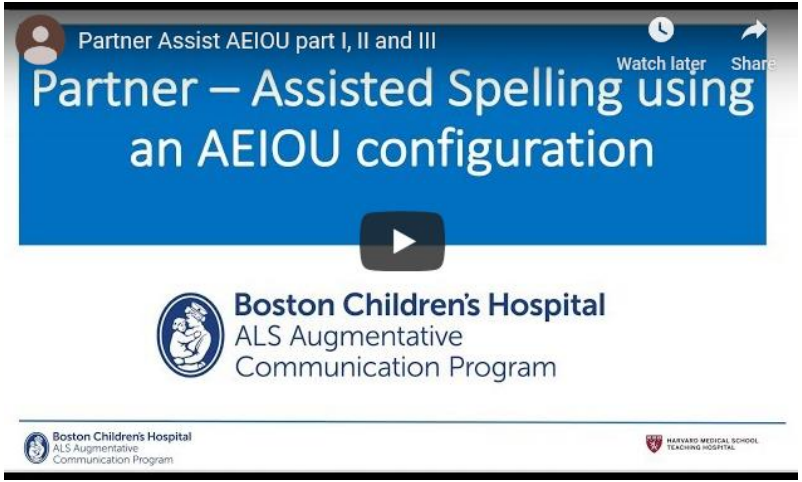
https://amyandpals.com/communication-boards/

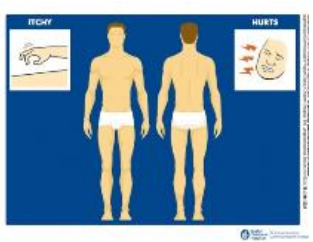


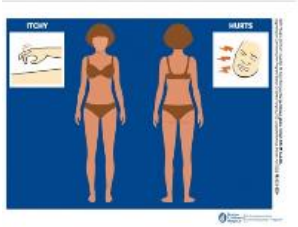
SPEAKBOOK

https://acecentre.org.uk/project/speakbook/

Partner Assisted Scanning







Boston Children's Hospital ALS Augmentative Communication Program

Speech Supplementation Strategies

https://praacticalaac.org/strategy/speech-supplementation-strategies/

Topic Cards

People	Places	Thing	Time	Question	Describe	Action
Family	Home	Food	Now	Who?	Looks like	Need or Want
Friends	School	TV	Before/ Past	What?	Used for	Help
Classmate	Work	Radio/ Music	Later/ Future	When?	Size	Tell

Alphabet Cards

A	B	C	D		Yes
E	F	G	H		
I	J	K	L	M	N
O	P	Q	R	S	T
U	V	W	X	Y	Z
New word	Not right	Start over	Next word	Thanks	No

Sydney Hospitals Speech Pathology Communication Tool Kit Project

COMMUNICATION TOOL KIT: A GUIDE TO COMMUNICATION IN ICU

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[3] Speech Pathology Department, Liverpool Hospital, [4] Speech Pathology Department, Bankstown Hospital
[5] Speech Pathology Department, Campbelltown Hospital, [6] Burns Unit, Concord Repatriation General Hospital

Background

Communication is an important tool which we use to relay our physical and emotional needs as well as share our identity with the world. Communication is adversely affected during illness, particularly when artificial ventilation is required and the ability to phonate is not possible. Patients report feelings of anger and low mood associated with altered communication which can result in reduced participation in rehabilitation[1]. Communication is particularly important in hospital for the reporting of symptoms and accurate diagnosis, discussion of treatment options including withdrawal of treatment, participating in care decision processes, engaging in the health service as well as for social interaction[1].

Professionals working in the Intensive Care environment report that successful communication is important although time consuming and feel that they lack training in this area[2]. Specific training targeting education has been shown to be vital in improving communication, and indeed improved communication has been linked with higher quality health care[3,4]. Intensive communication sessions between Intensive Care Unit (ICU) staff, patients and families also reportedly result in a reduction of length of stay and mortality rate for critically ill patients in ICU[5].

Aim

To develop a communication system for patient and staff use, specific to the ICU environment.

Method

The Speech Pathology Respiratory and Critical Care Clinical

Staff demonstrated an encouraging response to the proposed development of an appropriate augmentative and alternative communication device specific to the ICU with 83% indicating that they definitely would use a digital photo board should one be available, whereas 14% maybe would and 3% reported they would not use the proposed digital photo boards.

A number of suggested items/topics that staff would like to see on the digital photo communication boards were collated. Digital photos were subsequently taken and collected of specific ICU equipment and patient needs. A staff training package (consisting of a powerpoint presentation and one page summary) was also developed and implemented in group and 1:1 sessions at all sites. The training package focused on educating staff on multi-modal aspects of communication in order to facilitate effective and efficient communication exchange. The newly made communication boards were launched at the same time as the training sessions.

The digital photo communication boards contained: an alphabet board, ICU staff members (specific to each site), a human body diagram, pain scale and basic wants/needs, etc. (see Figures 1, 2 & 3 for examples from Communication Toolkit).

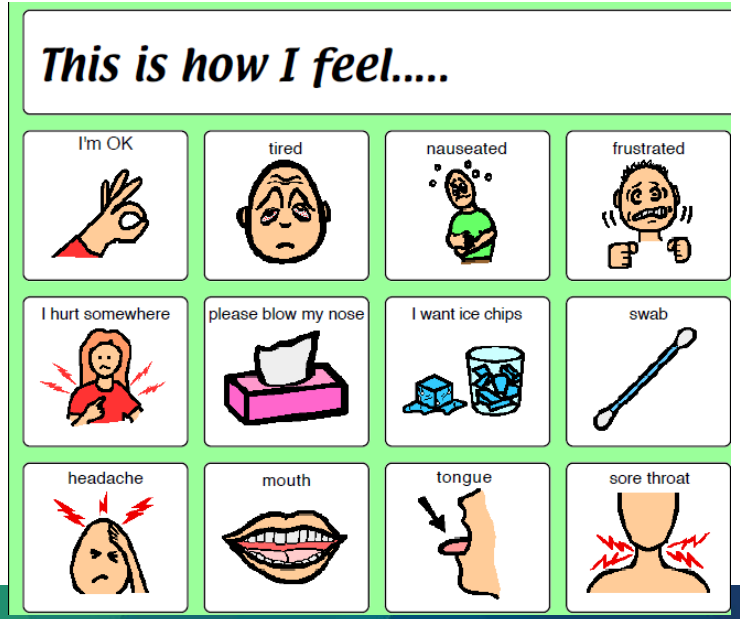
80 colour digital photo communication boards were developed and implemented across all 5 of the ICUs (Figure 4). 8 group and several individual education sessions were conducted and a total of approximately 100 multidisciplinary ICU staff educated. The digital photo communication boards were situated at the patient bedside, or attached to the equipment trolley in the room.

47 multidisciplinary ICU staff (15% medical, 57% nursing, 28% allied health) participated in the repeat survey. 92% of participants reported that they were aware of the digital photo communication boards and 81% reported using them

Free Hospital Communication Boards

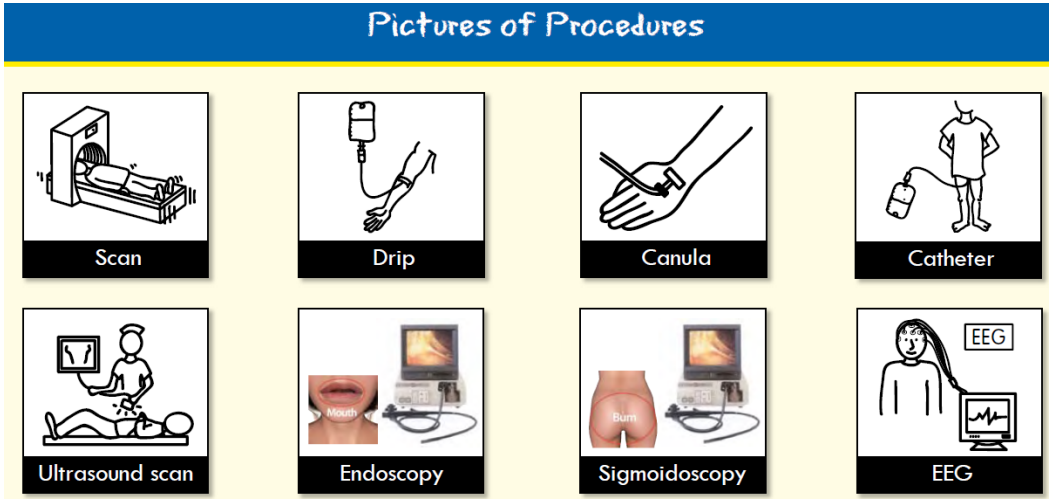
Amyspeechlanguage therapy.com

https://www.amyspeechlanguagetherapy.com/communication-boards.html



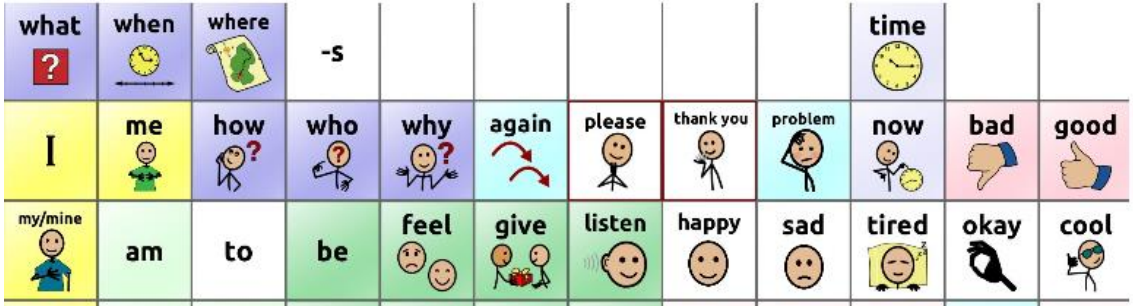
Hospital Communication Book

http://www.surreyhealthaction.org/downloads/Hospital%20Communication%20Book%20-%20version%202%20-%20web.pdf



Free Symbol Communication Boards

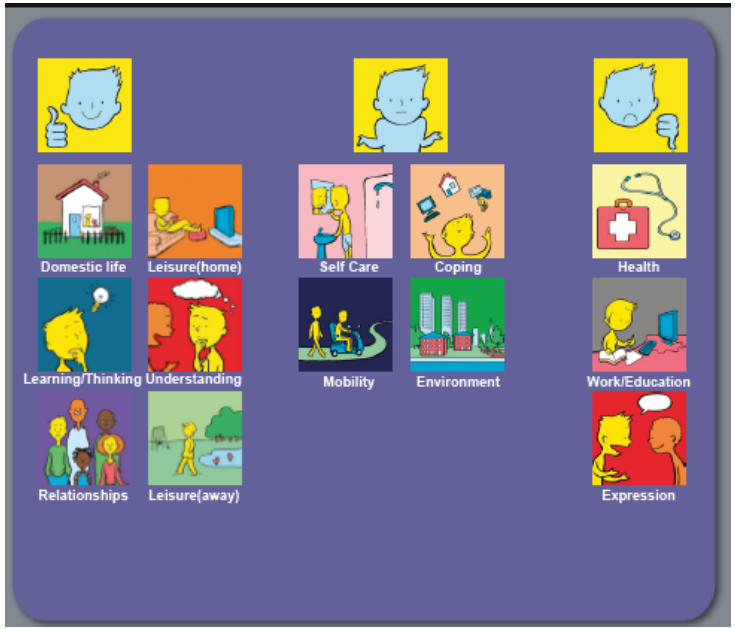
https://saltillo.com/chatcorner/content/29



https://www.tobiidynavox.com/software/content/core-first-1/#CoreFirstBoards

Emojis

Talking Mats



https://www.youtube.com/watch?v=Fmyt1fE-_U8

https://www.youtube.com/watch?v=T-fFCtQ5sBA

Gesture Board

Universal Gestures

Medication

Time

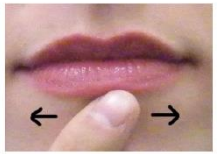
Telephone

Difficulty Breathing/Choking

Suction

Okay

Scratch



Mouth care

Drink

Garrett, K.L., Happ, M.B., Tate, J.A. 2006. University of Pittsburgh School of Nursing and Duquesne University. SPEACS: Study of Patient-Nurse Effectiveness with Assisted Communication. Developed with funding from the National Institutes of Health (5R01-HD043988).

PHIL'S GESTURE BOARD- Page 1

WHAT I'M TRYING TO SAY	WHAT I'LL DO	WHAT IT LOOKS LIKE
I'm using a gesture from my gesture board	Blink 2 times	Note: Phil will use a gesture. If caregiver doesn't realize that he is making a gesture, Phil will blink 2 times to signify that he is going to use a gesture.
My neck hurts/ I need to rest	Lay head to one side and close eyes	
Wipe my eyes Or Glasses	Squeeze eyes shut	
Clean/wipe my nose	Scrunch nose up	
My feet are cold	Stretch feet out	
Need towel	I will move head from side to side	
What time is it?	I'll lean my head to one side (eyes open)	

Improving Communication in Intensive Care through Adaptive and Alternative Communication

Nina McGinley, Staff Nurse, Intensive Care Unit. Linda Page, Speech and Language Therapy Lead for Augmentative and Alternative Communication. Stephanie Frearson, Clinical Improvement Advisor

NHS Ayrshire & Arran

Aim

Communication in Intensive care is compromised due to non-verbal barriers (Endotracheal and Tracheostomy ventilation). These have a negative impact to patient care, resulting in frustration and misunderstanding between patient and staff.

Our aim was to develop a new education and resource tool to improve standards in communication with the ventilated patient. We planned to improve multi-disciplinary collaboration, patient outcomes and gain the best possible ICU environment for 'Every patient, every time'

Methods

We secured Effective Practitioner funding to conduct our project. Speech and Language Therapy time was allocated through 'A Right to Speak'

effective practitioner

A survey of our ICU staff and also all other NHS Scotland Intensive Care Staff was conducted.

The results suggested lack of resources and skills to effectively communicate with a ventilated patient.

These improvements have enhanced not only communication but improved the overall patient journey thus enhancing individualised person centred care.

People at the Centre of Health and Care

Outcomes/results

On the 4th April 2014, we trialled the use of an Electrolarynx (Blom-Singer) on a ventilated patient. As far as we are aware this had not been done in the UK prior to this date.

This was a great success and it made a huge impact on the patient. She was, for the first time in 15 days able to "speak" and was quoted as saying "This is brilliant".

This was a key moment in our study. A simple MDT approach had enabled us to collectively make an impact on patient psychosocial wellbeing. We as a team had allowed a patient to communicate with her family and it was overwhelming to watch how a small device could make such a big difference.

Historically ICU has always been considered and indeed is, a specialised unit caring for critically ill patients and their families. In keeping with The Healthcare Strategy for NHS Scotland (Scottish Government 2010) this improvement project has made us realise that our skills and resources are transferrable organisation wide.

Quality Strategy Ambitions

'A change in culture across Scotland in the way that we deliver and engage in our healthcare'

The Scottish Government (2010) The Healthcare Strategy for NHS Scotland

Conclusions

ICU is dedicated to supporting the delivery of the Quality Strategy through improvements in clinical practice. This is the first stage of a 'macro' improvement project within ICU which when completed shall become an integral part of our ICU toolbox. In a short few months we have made beneficial changes to patient care and have benefited from gaining an improved MDT approach

Our project has led us to share our work at both local and national level. We are currently working alongside NHS Education for Scotland to share our work on the Knowledge Network to facilitate change nationwide.

NOW HEAR ME
It's my right to speak

The Patient has The Right to Speak, let's give them a voice.

References

1. NHS Education for Scotland , Effective Practitioner http://www.effectivepractitioner.nes.scot.nhs.uk/Default.aspx
2. 'A Right to Speak' www.scotland.gov.uk/publications/2012/06/8416
3. http://www.nes.scot.nhs.uk/education-and-training/the-knowledge-network.aspx
4. http://www.nes.scot.nhs.uk/

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Our values
Caring Safe Respectful

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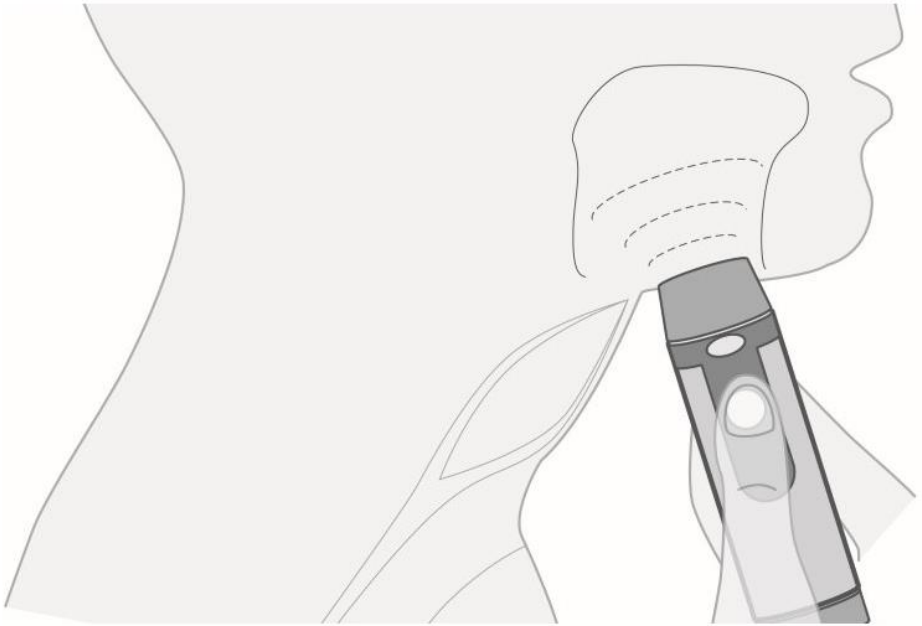
Artificial Larynges



High Tech Options

Mouse Alternatives

Head pointers

Quha Zono
gyroscopic mouse

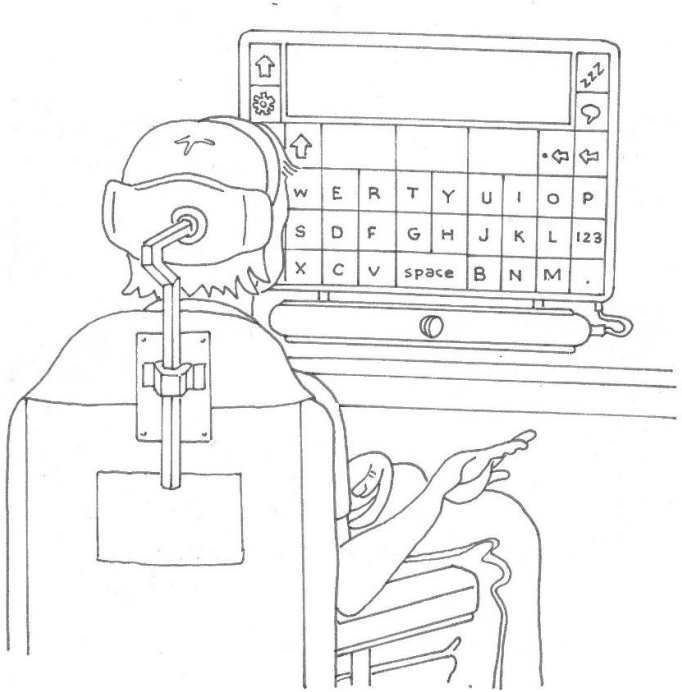
Nous eye blink switch

IntegraMouse
Plus

EMG switches

Brainfingers

Eye Gaze Speech Generating Devices



Literature

- Communication boards can be ‘tedious, slow and limited’.
- Gesture and silent articulation – ‘insufficient, disappointing and frustrating’.
- Devices need to be ‘effective, efficient, and satisfying from an end-user’s perspective’.
- ‘An app-based solution may represent a potentially useful and cost-effective means of delivering an AAC tool to ICU patients’. Tablets: ‘simplicity, ease-of-use, and familiarity’.

Mobashen, M.H., et.al. (2016). Communication aid requirements of intensive care unit patients with transient speech loss. *Augmentative and Alternative Communication*, 32 (4), 261-271.
http://dx.doi.org/10.1080/07434618.2016.1235610

Literature Cont.

Subthemes:

1. Hardware requirements
2. Software/user-interface requirements
3. Content requirements
4. Accessibility requirements

Mobashen, M.H., et.al. (2016). Communication aid requirements of intensive care unit patients with transient speech loss. *Augmentative and Alternative Communication*, 32 (4), 261-271.
http://dx.doi.org/10.1080/07434618.2016.1235610

Literature Cont.

Communication Needs Assessment and AAC Matching

Phase 1. Emerging from sedation so need the ability to attract attention and provide yes/no responses.

Phase 2. Patients are more alert and awake so need to be able to solicit attention, respond, ask questions, express concerns and emotions, make comments and solicit support, reassurance and encouragement.

Phase 3. Need for broad and diverse communication.

Mobashen, M.H., et.al. (2016). Communication aid requirements of intensive care unit patients with transient speech loss. *Augmentative and Alternative Communication*, 32 (4), 261-271.

http://dx.doi.org/10.1080/07434618.2016.1235610

Apps for Tablets

Predictable

Verbally

Proloquo4Text

CoughDrop

Grid

Proloquo2Go

SoundingBoard

SmallTalk Intensive Care

Mouse Access to iOS Devices

AMAneo BTi iPad adapter enables access to an iOS device using an assistive or ergonomic mouse/trackball/joystick/switch.

Message Banking

Communicator 5

Light Tech Devices

SoundingBoard

Grid

GoTalk NOW

Predictable

Grid 3

Augmentative Communication and ALS: A conversation with John Costello

Communication Aid Mounting Options for ICU

Attainment Company TabletTable, Spectronics

Brand	Mount	Pros	Cons
RAM	Clamp on	▪ Versatile ▪ Easy to move	▪ Unsure re clamp strength ▪ May be limited to flat/square surfaces
RAM	Suction	▪ Easy to move	▪ Limited to smooth, flat surfaces
Daessy	Table top	▪ Easy to move ▪ Easy to adjust	▪ Heavy ▪ Limited to tables/trays
Daessy	Rolling	▪ Able to be used with any equipment (bed, wheelchair etc) ▪ Position of device adjustable	▪ Bulky ▪ Requires clearance on the floor ▪ Need to be static when using it (eg not propelling wheelchair)
Rehadapt	Table top	▪ As per Daessy table top mount	▪ As per Daessy table top mount but may be lighter
Rehadapt	Rolling	▪ As per Daessy rolling mount	▪ As per Daessy rolling mount but may be lighter
Manfrotto	Clamp only	▪ Able to be used on flat, round, square surfaces ▪ Easy to operate	▪ Unsure about available attachments
Technical Solutions	Bed	▪ Sits under mattress, so moves with bed if head raised	▪ Bed use only ▪ Designed to remain in place, so may interfere with other equipment

AbleNet Table top suction mount for iPad, Spectronics.

Rehadapt floorstand

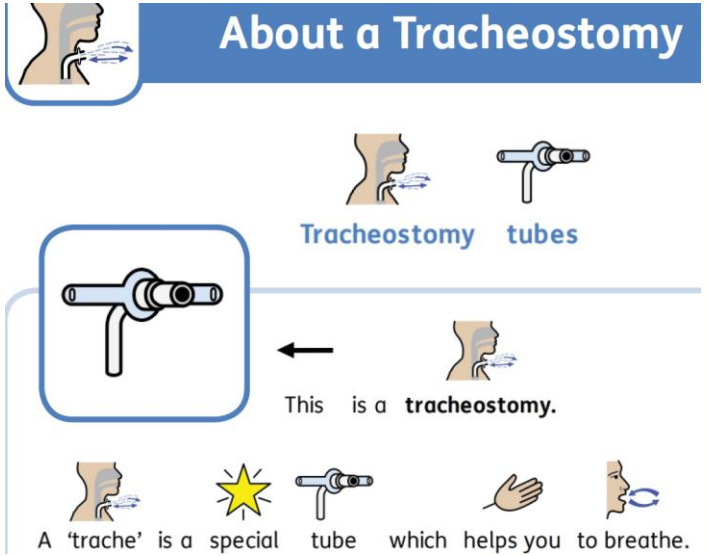
Communication Partners

Follow their lead: how to be a respectful communication partner (Amanda Hartmann – AssistiveWare)

https://www.assistiveware.com/learn-aac/follow-their-_lead-how-to-be-a-respectful-communication-partner

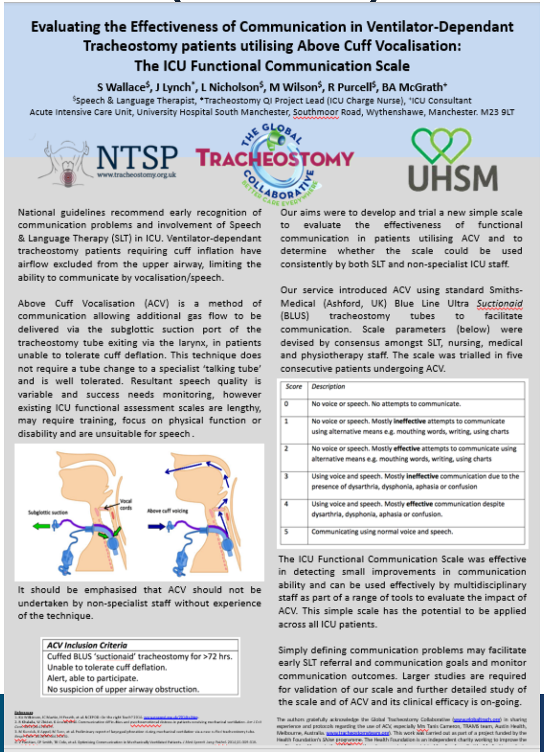
Accessible Health Brochures

- http://oxleas.nhs.uk/easy-read-guides/hospital-procedures/
- http://easyhealth.org.uk/categories/health-leaflets
- https://widgit-health.com/downloads/index.htm



Outcome Measures

- The Hospital Anxiety and Depression Scale (HADS)
- Ease of Communication Scale (ECS)
- ICU Functional Communication Scale



Evaluating the Effectiveness of Communication in Ventilator-Dependant Tracheostomy patients utilising Above Cuff Vocalisation: The ICU Functional Communication Scale

S Wallace[$], J Lynch[*], L Nicholson[$], M Wilson[$], R Purcell[$], BA McGrath[+]
[$]Speech & Language Therapist, [*]Tracheostomy QI Project Lead (ICU Charge Nurse), [+]ICU Consultant
Acute Intensive Care Unit, University Hospital South Manchester, Southmoor Road, Wythenshawe, Manchester. M23 9LT

National guidelines recommend early recognition of communication problems and involvement of Speech & Language Therapy (SLT) in ICU. Ventilator-dependant tracheostomy patients requiring cuff inflation have airflow excluded from the upper airway, limiting the ability to communicate by vocalisation/speech.

Above Cuff Vocalisation (ACV) is a method of communication allowing additional gas flow to be delivered via the subglottic suction port of the tracheostomy tube exiting via the larynx, in patients unable to tolerate cuff deflation. This technique does not require a tube change to a specialist 'talking tube' and is well tolerated. Resultant speech quality is variable and success needs monitoring, however existing ICU functional assessment scales are lengthy, may require training, focus on physical function or disability and are unsuitable for speech .

It should be emphasised that ACV should not be undertaken by non-specialist staff without experience of the technique.

ACV Inclusion Criteria
Cuffed BLUS 'suctionaid' tracheostomy for >72 hrs.
Unable to tolerate cuff deflation.
Alert, able to participate.
No suspicion of upper airway obstruction.

Our aims were to develop and trial a new simple scale to evaluate the effectiveness of functional communication in patients utilising ACV and to determine whether the scale could be used consistently by both SLT and non-specialist ICU staff.

Our service introduced ACV using standard Smiths-Medical (Ashford, UK) Blue Line Ultra Suctionaid (BLUS) tracheostomy tubes to facilitate communication. Scale parameters (below) were devised by consensus amongst SLT, nursing, medical and physiotherapy staff. The scale was trialled in five consecutive patients undergoing ACV.

Score	*Description*
0	No voice or speech. No attempts to communicate.
1	No voice or speech. Mostly **ineffective** attempts to communicate using alternative means e.g. mouthing words, writing, using charts
2	No voice or speech. Mostly **effective** attempts to communicate using alternative means e.g. mouthing words, writing, using charts
3	Using voice and speech. Mostly **ineffective** communication due to the presence of dysarthria, dysphonia, aphasia or confusion
4	Using voice and speech. Mostly **effective** communication despite dysarthria, dysphonia, aphasia or confusion.
5	Communicating using normal voice and speech.

The ICU Functional Communication Scale was effective in detecting small improvements in communication ability and can be used effectively by multidisciplinary staff as part of a range of tools to evaluate the impact of ACV. This simple scale has the potential to be applied across all ICU patients.

Simply defining communication problems may facilitate early SLT referral and communication goals and monitor communication outcomes. Larger studies are required for validation of our scale and further detailed study of the scale and of ACV and its clinical efficacy is on-going.

The authors gratefully acknowledge the Global Tracheostomy Collaborative in sharing experience and protocols regarding the use of ACV, especially Ms Tanis Cameron, TRAMS team, Austin Health, Melbourne, Australia. This work was carried out as part of a project funded by the Health Foundation's Shine programme. The Health Foundation is an independent charity working to improve the

Wholistic Care: Planetree

- Communicate through human touch
- Family, friends and social support
- Information and education
- Healthy communities
- People caring for people
- Food as therapy
- Overall wellbeing
- Architectural and interior design
- Spirituality
- Arts and entertainment

Conclusion

‘There is developing evidence that communication interventions with mechanically ventilated ICU patients are feasible, have utility and are safe’.

Zaga, C.J., Berney, S. and Vogel, A. (2019). The Feasibility, Utility, and Safety of Communication Interventions with Mechanically Ventilated Intensive Care Unit Patients: A Systematic Review. *American Journal of Speech-Language Pathology*, 28 (3),1335 – 1355.doi: 10.1044/2019_AJSLP-19-0001.

Thank you!

Any questions??

Other Articles of Interest

1.Carruthers, H. et. al. (2017). Which alternative communication methods are effective for voiceless patients in Intensive Care Units? A systematic review. *Intensive and Critical Care Nursing,* 42, 88 – 96. http://usir.salford.ac.uk/41992/

2.Dithole, K.S. et.al. (2017). Communication skills intervention: promoting effective communication between nurses and mechanically ventilated patients. *BMC Nursing*, 16 (74). doi:10.1186/s12912-017-0268-5

3.Holden, K. (2017). No Longer Voiceless in the ICU. *The ASHA Leader*. 40 – 42.

Other Articles of Interest Cont.

4. Hosseini, S.R., Valizad-Hasanloei, M.A. and Feizi, A. (2018). The Effect of using Communication Boards on Ease of Communication and Anxiety in Mechanically Ventilated Conscious Patients Admitted to Intensive Care Units. *Iran J Nurs Midwifery Res.,* 23 (5), 358-362. doi:10.4103/ijnmr.IJMR_68_17.

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6. Rosetta, A. and Fong, A. et. al. (2018). They can hear the silence: Nursing practices on communication with patients. *Canadian Journal of Critical Care Nursing*, 29 (4), 36-39.

Other Articles of Interest Cont.

7. Wallace, S. E. (2010). AAC use by people with TBI: Affects of cognitive impairments. Perspectives on Augmentative and Alternative Communication, 19(3), 79-86. doi:10.1044/aac19.3.79