RCSLT Guidance in AAC - member pages

1. About this guidance

A "word on a communication aid is _not_ just a word. It is a _strategy_ to make another person infer a word" (von Tetzchner, 2023)

This guidance aims to:

Support RCSLT members to recognise, assess, and offer intervention to people who may benefit from augmentative and alternative communication (AAC) tools, techniques or strategies.

This will be achieved by using evidence-informed practice, which includes:

- appreciating the lived experience of the AAC user*, their families and support networks and the impact this may have on intervention decisions,
- describing why an AAC user may have different communication support needs in varying contexts,
- describing the things that impact on the efficiency of speech, language and communication,
- describing the types of AAC tools, techniques and strategies that may improve speech, language and communication,
- describing the ways in which AAC enables individuals to communicate effectively and how this differs from using spoken words.

Provide clarity about the role of the speech and language therapist (SLT) working with AAC users. This will include:

- consideration of direct management approaches,
- working collaboratively with users, family members, other professionals and stakeholders,
- working collaboratively with other SLTs who share AAC knowledge and may work in the NHS, or independently, or those SLTs employed directly in a range of establishments, e.g., schools, colleges, care homes,

- the role of SLTs in advising commissioners and policy makers.

*Throughout this guidance we will use the term 'AAC user' to represent variations in the descriptive terms that may be used. As AAC is an intervention, rather than a diagnostic term we will use identity-first language, i.e., AAC user.

We acknowledge that existing literature uses terms such as 'Person who uses AAC (PwuAAC)', 'person with complex communication needs (CCN)', or 'aided communicator'; however, initiated by Communication Matters, a poll determined that 'AAC user' was the preferred term in the UK. Individual choice of preferred term may vary and should be respected (see recent survey reinforcing this debate).

The guidance has been co-produced by those with lived experience and with SLTs from across the UK. It is acknowledged that many of the references and resources cited have not been co-produced.

This guidance takes a lifespan approach. We will use the words people or individuals when referring to all ages, only specifying child, young person or adult when a statement refers to a specific age group.

2. AAC in context – supporting diversity

This guidance focusses on an intervention. Augmentative and alternative communication (AAC) is a collective term summarising a range of tools, techniques and intervention approaches that may be used to enhance speech, language and/or communication. AAC may be used temporarily or be useful over someone's lifetime.

The content within this guidance is written for speech and language therapists (SLTs). However, the field of AAC practice and research is collaborative and interdisciplinary, therefore, much of the content may be helpful to AAC users, family members, and other professions or stakeholders (see section 5).

The context of AAC practice and research is far ranging (Schlosser et al, 2005). It includes services to very young children, or those with life changing conditions that become evident during early childhood, or services to support adolescents and adults with on-going speech, language and communication challenges. AAC also applies to those with acquired communication challenges or to those with progressive and life-limiting conditions. Changes in communication efficiency may be acquired in childhood, adolescence or adulthood. There are very few contexts of practice for a SLT where an AAC tool or technique is not relevant.

The ultimate aim of any AAC intervention is to support the individual's autonomy and participation in everyday activities. We recognise the diverse linguistic and cultural perspectives of potential AAC users and their families (see resources: e.g., Lynch & Murray, 2023; Sadiku et al, 2022, Tönsing & Dada, 2023). We adopt a user-centred approach to considering the available evidence for AAC interventions.

In reviewing the disparate array of material, we consider types and levels of evidence. Knowing about levels of evidence helps us decide if we can make use of the information for 'our' AAC user or family. (See *Table 3*).

We consider three forms of evidence (i) research evidence, (ii) clinical practice evidence, and (iii) lived experience accounts (Sackett et al, 2000, *Figure 1*). This evidence can be found in scientific articles, practice based or general literature (journalism, blogs, magazines etc).

Figure 1: schematic representation of evidence based medicine/practice (EBM), taken from google images 10.07.23.

For the majority of potential AAC users we can frame our considerations using the International Classification of Functioning, Disability & Health, as a bio-psycho-social model describing ability and potential, rather than inability (ICF, 2013, Raghavendra et al, 2007). *Figure 2* offers a schematic representation of the elements that may influence the presenting characteristics of the individual who may use AAC, their environmental influencers and the activity and participatory enablers that an AAC intervention offers.
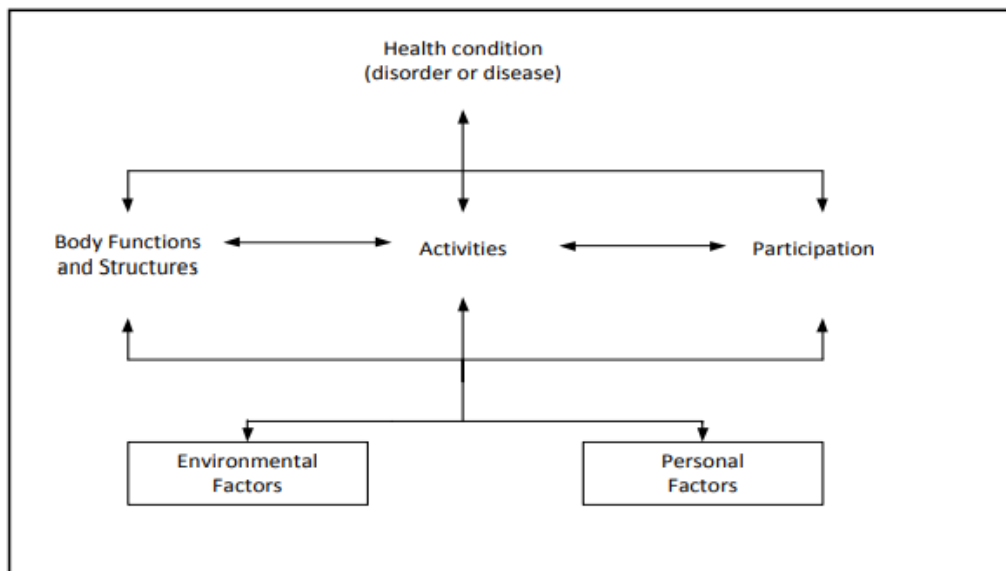

Figure 2: The ICF model: interaction of components (ICF, 2013)

2.1 Some cautionary notes:

- The array of available AAC tools, techniques and resources is extensive. It should not be assumed that one particular form of AAC is to be prized above all others. A 'one system' approach in any context is problematic for individual AAC user development. In fact, many AAC systems may not be the most appropriate form of AAC for an individual at that point in time, or ever. Processes used in the identification of the relevant AAC tool/s vary depending on the characteristics of each potential AAC user and their contexts of use.

- Using AAC to support speech intelligibility, language development or ability to understand language, or communication efficiency is not the same as therapy supporting speech, language and communication where no AAC system is used.

- It is important to note that appropriate AAC resource provision can happen via a local or specialist service. Provision of the AAC resource is usually the beginning of the journey to communication autonomy, not the end of the intervention. For example, we would not expect to become a proficient pianist by the mere provision of a piano, therefore we should not expect anything different in the provision of an AAC system, for example, proficiency in any activity, including learning an AAC system may take 10,000 hours of effort, much of this effort must be supported by SLTs and other key stakeholders (Omahen, 2009, Ericsson, Krampe, Tesch-Römer, 1993).

- Gaining AAC-mediated skills may take weeks or years and should be considered on an individual basis, and must include interventions that go beyond assessment, recommendation and receipt of an AAC system (*link to be added to relevant video*).

- AAC electronic developments are closely linked to aspects of assistive technology (AT), (e.g., environmental controls, educational technology) and artificial intelligence (AI) (e.g., smart technology). In this guidance we remain focussed on consideration of AAC, and where relevant highlight AI and AT components. For a more thorough consideration of AI or AT see resources page – *link to be added*).

- Current service and organisational structures vary across the four nations of the UK. There may be lessons to share from these differences. For example, education, health and care (EHCP) or continuing health care (CHCP) plans mean something in England that may not be known elsewhere. Also, the hub and spoke model of specialised and local AAC provision is understood in England, Northern Ireland and Wales but is not used in Scotland, where there are national, regional and local AAC services.

We reinforce the essence of the United Nations [Convention on the Rights of People with Disabilities](#) as core values that influence all aspects of AAC intervention. Disability is an evolving concept and often disability results from the interaction between persons with perceived impairments and attitudinal and environmental barriers that hinder their full and effective participation in society on an equal basis with others. Disability is a diverse concept and as such we need to treat each person who may benefit from AAC as an autonomous individual who needs supporting in ways that enable their freedom of choice and to enjoy independence and human interdependence that define all aspects of basic human rights.

3. AAC related terminology

3.1 What is AAC?

Augmentative and alternative communication (AAC) supports individuals to achieve their basic human right to be heard and included in an equitable way ([Communication Matters](), 2023).

AAC tools, devices, techniques and strategies enhance speech, language and communication contributions for people who cannot entirely rely on their unsupported communication abilities to convey their intended message.

Communication challenges may relate to physical, sensory, intellectual, learning or cognitive disabilities. Applying the ICF model to explore the benefits of AAC enables us to consider the impact of body, structure and function characteristics and their impact on a persons' autonomous activity and participation (ICF, 2013). AAC users have unique needs that require AAC to be customised to meet their specific speech, language and communication abilities and challenges. Individual needs and potential solutions are found by consideration of physical, cognitive and learning characteristics within different contexts. An individual's characteristics will change over time. An AAC tool must be chosen for how it can support communication changes. Use of AAC tends to result in a combination of several AAC strategies, rather than relying on, for example, one electronic communication device (*link to relevant video to be added*).

As communication includes more than just talking, AAC tools and techniques offer the user and their conversational partner different types of support. AAC can help an individual to understand what they might say and how they could say it. In this way the person can express thoughts and ideas when their unaided speech, language or communication skills do not do justice to their desired conversational contribution. AAC can support comprehension of conversational situations and enhance expressive skills. AAC may be used to support speech, or language or communication development. It may act as a method for those with established language and communication skills or support those losing speech, language or communication skills. The introduction of AAC also requires communication partner training to ensure that individual AAC user abilities and needs are recognised and supported appropriately. AAC users have differing abilities and bespoke communication support needs. Find out what the AAC user wants. For example, some may require continual co-construction support, others do not require repeated modelling of messages.

Please note: to support longevity of this guidance we have avoided using the names of currently available products. Instead, we describe the principles and attributes each method of AAC offers. In this way readers will be able to describe what type of AAC system best supports the AAC user and apply that to currently available products.

3.2 Some AAC definitions

For descriptive purposes, AAC strategies include both unaided and aided methods of communication. One challenge in the field of AAC is the array of terminology that may be used synonymously. The glossary provides their explanations.

3.2.1 Unaided communication

Refers to the use of methods involving the user's body, such as body movements, facial expressions, gestures, signing, eye-pointing, fixed gaze and vocalisations. One form of unaided communication includes a familiar person 're-voicing' the AAC users' own speech (Friedman et al, 2016, Pilesjö & Norén, 2021). This often includes a level of co-construction of meaning between conversational partners (Sellwood, 2011). Even with compromised physical abilities, unaided methods of communication can be quick and effective for many AAC users.

3.2.2 Aided communication

Involves the use of physical tools and techniques. These can include paper-based materials as well as electronic devices. Aided communication methods are rarely as quick as an unaided method but may offer more communication autonomy.

3.2.3 Paper-based solutions

Communication charts or boards, and notebooks or folders with no electrical or battery power supporting their use. Vocabulary provided in these paper-based systems can be as extensive and as complex as many electronic systems. These non-powered solutions may use different types of communication referent, including real objects, word, picture or symbol-graphic materials that act as conversational scaffolds (Harding et al, 2011).

3.2.4 Electronic solutions

Technology that makes use of equipment that has a power system. The device usually allows the individual to electronically access speech, picture, symbol-graphic, and/or written output.

There are a variety of electronic systems. Some are dedicated communication aids; others are PC platforms or tablet devices. Each with different attributes including voices, shapes, sizes and weights with capacity to store different amounts of vocabulary. This is done using a range of organisational structures, software packages, processing and internet platforms (Judge et al, 2023, Murray et al, 2019).

These types of aided AAC are summarised in *Table 1*.

Table 1 – Summary of types of Aided AAC

Attributes	Paper-based	Electronic
	Representation of a word or concept (written words/letters/pictures/symbol-graphics/photos/real objects)	
	Paper/cardboard/notebook/ Ring folder/plastic board/mat/…….	Device – box (dedicated aid, tablet, PC….)
		Battery or power source
	Software package/s for production and organisation of vocabulary	Software package/s for vocabulary organisation. Other software packages, e.g., camera, stories
		Operational software or platform
	Customisable sizes and weights	Differing weights and sizes
	Can be attached or fixed with readily available solutions, e.g., hook-loop touch fastening	Mounting systems available, e.g., to attach to wheelchair or table
	Co-produced speech/voice output with communication partner	Speech/voice output
	May include a message construction strip – if picture-graphics can be detached and moved.	May include on-screen summary of message construction

3.3 Accessing AAC

There are a range of ways to access an AAC system and individualised solutions may be required. Solutions to access needs may be bespoke, involving more professions than just SLTs. For example, some people will use their fingers to point to part of a page or a screen (direct access), while others who have additional physical challenges may benefit from accessing their AAC in different ways (indirect access). Alternative access features supporting aided communication could include non-powered and electronic techniques.

Paper-based or non-powered access features could include eye-pointing, partner assisted scanning (where the partner acts as the 'pointing finger'), use of vocalisation or gesture (*link to be added to resources webpage for video examples*).

Eye-pointing may involve unaided and aided techniques. For example, unaided techniques may involve looking at a desired object or person to convey a desire to have the object, or to speak with the person. Aided techniques may involve paper-based or unpowered scaffolds, e.g., an Eye-Transfer frame, which is a clear Perspex frame with visual referents attached (see *Figure 3*). Here the conversational partners are either side of the frame and use it as a means of recognising the eye-pointing choices of the AAC user whilst a message is

constructed. In this way, eye-pointing offers direct access to a vocabulary item. Partner assisted scanning is a manual scanning method supported by the conversational partner operating as the pointer (by physically pointing to items and/or or reading them out). The AAC user can indicate a yes/no response to the options offered. This describes an indirect method of access to an item of vocabulary. Over time using either approach allows the AAC user to build their desired message.

Figure 3: an eye-pointing access method, using a clear Perspex frame

Powered access features include anything that is powered and may be integral to the AAC system, or standalone plug-ins including: a switch, joystick, head mouse, touch screen or eye gaze unit and/or camera.

Switches offer indirect access to the vocabulary item, where an electronic scanning action is required. Joysticks or roller balls offer control of an on-screen cursor (like using a mouse). Touch screen, a head mouse or eye-gaze camera offers direct access to the vocabulary item (link to resources webpage with video clips – under construction). The principles of access are the same irrespective of paper-based/non-powered or powered methods.

Access features will require additional mounting and positioning technologies. Accurate positioning will involve a range of other professionals, including the Occupational Therapist, Rehabilitation Engineer or Healthcare Scientist. Many of these services will be available locally, for some these will only be available through UK specialised AAC provision (see Communication Matters website for further information).

3.4 Vocabulary considerations

The following considerations are relevant to those using text based, picture and symbol-graphic representations of vocabulary.

3.4.1 Static displays, dynamic displays and visual scene displays

Communication boards and electronic communication systems can have static displays where all letter or vocabulary items are always on display, similar to a QWERTY keyboard on a laptop. However, communication books and electronic systems can also have dynamic displays. These allow the person to navigate to items by moving across levels or pages, similar to a smart phone, or the screen of a laptop. These different ways of navigating to vocabulary place altered demands on learning and memory. These demands need to be considered when opting for one over the other (Thistle & Wilkinson, 2013). Consequently, SLTs need to explore memory, attention, sequencing and system navigation skills as a comprehensive aspect of determining which type of display best suits the person now and in their future.

Electronic visual scene displays provide a context for the user by having a photograph, picture or a virtual image. Behind the image there are 'hot spots' of stored messages or words, e.g., a picture of a playground including a girl on a swing. The swing has a hot spot that when accessed says aloud 'whoop, I am swinging' and acts to reinforce a label, an action or an activity relevant to the visual scene (Beukelman et al, 2015, Thistle & Wilkinson, 2015). Visual scene displays are used most with emerging communicators but also with those losing communication and cognitive skills.

3.4.2 Vocabulary organisation

Irrespective of the type of display used there are other considerations. Here we consider how vocabulary is organised. This can be for individual pages (screens) or across a whole communication system. It is worth noting that we do not speak a word by having it activated through the same neural route each time we use it, rather the domain of linguistics suggests the trigger for vocabulary access is context specific (van Balkom, 2020). There is not one route to word retrieval but potentially multiple routes. In AAC systems, vocabulary is typically organised in a row-column grid format is used for all forms or organisation, other than visual scene displays.

The three common forms of vocabulary organisation on AAC systems are (i) taxonomic, (ii) semantic/schematic, and (iii) encoded (Beukelman & Mirenda, 2013).

i) Taxonomic organisation: vocabulary is organised in categories, e.g., nouns, verbs, or topics (e.g., a list of clothing, transport, leisure pastimes). This allows an individual to give 'key word' information from accessing one page but requires the AAC user to navigate multiple pages to build a sentence.

ii) Semantic/schematic organisation: vocabulary is organised in such a way that a whole message can be produced from viewing and accessing one page. This will result in multiple appearances of the same vocabulary item across the whole AAC system, e.g., the verb 'to go' appears on several pages.

These organisational approaches include concepts of core/fringe vocabulary (Goossens', 1994) and pragmatic organisation of words and symbols over several pages accessed in a dynamic manner (e.g., Porter & Cafiero, 2009).

    iii)   Encoded (language) organisation involves sequencing two or more picture symbols, or logical letter codes to produce a word or phrase, e.g., semantic compaction systems of language representation (Baker 1986), word prediction (Trnka et al, 2007, 2008).

Many dynamic paper-based and electronic systems include elements of all three of these organisational systems (hybrids).

> 'The purpose of a communication display is to arrange language in space so individuals can[...]say what they wish to say as quickly as possible, and can do so with a minimal amount of effort' (Blackstone, 1993)

3.4.3 Symbolic representation

AAC systems offer speech, language and communication access to people at very different stages of development, injury or loss. Consequently, different forms of representing language and vocabulary are required.

There are published hierarchies of graphic-symbolic representation. Few have been well researched in terms of their relationship to language, or a person's cognitive development or decline, or their sensitivity to cultural and linguistic interpretation, e.g., Beukelman & Mirenda, 2013; Sadiku et al, 2022; Tönsing & Dada, 2023.

This poses challenges in terms of deciding how to represent a word or a concept for some individuals. The availability of different graphic-representation systems highlights how vital individualised assessment of language and cognition is for any AAC user, as this will inform SLTs understanding of possible levels of sense-making related symbolic representations (Murray & Goldbart, 2009; Sutton, 2016).

There is an emerging reporting of cultural and linguistic consideration for symbolic representation in AAC systems within the UK (e.g., Draffan et al, 2015). Whilst pleasing, these debates have long been considered under the auspices of the International Association for AAC (ISAAC) who have consistently and persistently supported international debate on matters of cultural and linguistic appropriateness of symbolisation. These sources offer guidance and networks to support our understanding of how to progress effectively in support of people who have a speech, language or communication need in a language other than English (see ISAAC website for further information).

3.5 Communication partners and types of AAC

Unaided AAC systems can be used in any environment, e.g., the swimming pool, the bathroom. They are spontaneous and facilitate communication between the AAC user and their regular communication partner/s. Of note, an unaided system requires a communication partner to understand the person's communicative meaning and the communication may not be understood by those people who are less familiar with their specific method of communication, e.g., a sign system or sign language.

The use of an aided communication system can support communication to a wider group of people. They can also be used in a wide range of settings, e.g., a paper-based system that is laminated can be used in the swimming pool. Sensitive communication partners are needed to ensure effective interaction. This can increase independence, particularly for those with severe physical involvement.

Different forms of AAC supports vary according to communication contexts, including the use of:

- the telephone
- emails
- forms of social media

In this way, output methods support participation in:

- social settings
- educational settings
- work settings

These methods support the expectation that AAC users can:

- chat with friends
- ask questions and respond to questions
- give novel information

Whilst we have outlined the key terminology associated with AAC, it is an ever evolving field and the language we choose to use in describing aspects of AAC or the people who may use it can be facilitating or disabling (Robinson, 2022).

A recent debate has offered a further way of conceptualising how to consider the elements of AAC and their relevance to the AAC user, their families, support networks and the professionals involved. This debate talks about the four Ps of AAC (Robinson, 2022) and is illustrated in *Figure 4*. If offers an at a glance way of considering the key components of AAC.
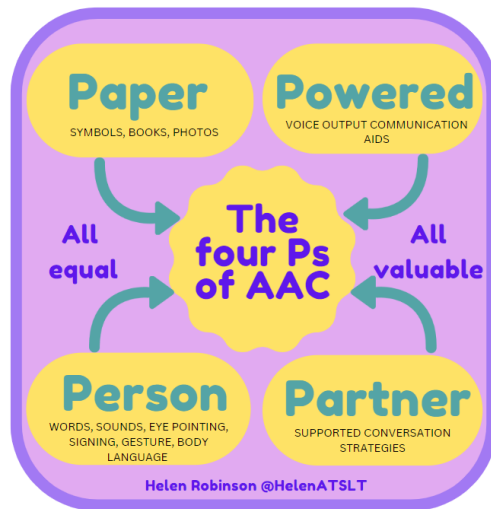
Figure 4: The four Ps of AAC (Robinson, retrieved 17 October, 2022, https://twitter.com/HelenATSLT/status/1581965150806212609?s=20)

4. AAC need, medical labels and speech & language diagnoses

The speech & language diagnoses and their associated characteristics may be developmental, lifespan or acquired. A key point of debate for over 20 years has been determining how many people might benefit from AAC and the presenting characteristics of these individuals. This has led to an increased understanding of the need for AAC supports service development and provision. There is a body of evidence that summarises international attempts to quantify the prevalence of people who could benefit from AAC (e.g., Beukelman & Mirenda, 2013; Light & McNaughton, 2012).

A UK based study concluded that whilst it is difficult to establish need due to the diversity of people who may benefit from AAC, the current best estimate of need for AAC in the UK is 0.5% of the population or about 500 per 100 000 population (Creer et al, 2016). This is the same as the estimate published by the Communication Champion (Gross, 2010) and is consistent with data from the Health Survey for England (Health and Social Care Information Centre, 2015). These current figures were established through review of existing literature (epidemiological investigation) and expert opinion. It is important to note that the focus of establishing these figures refers to the need for electronic (powered) AAC, as recommended through specialised provision. Creer et al (2016) acknowledge that whilst these are the most accurate figures on offer, they remain likely to underestimate AAC need, especially in adult social and health service provision. Many individuals who benefit from AAC do not need the input of the specialised AAC services as their needs are intended to be met at a local provision level.

Within the work cited to determine AAC need, prevalence is defined as the number of people who have a particular condition at one point in time. People who could benefit from AAC is defined as people for whom AAC would extend or support their ability to communicate. We acknowledge that describing people who use AAC by their condition is not reflective of how they should be viewed (World Health Organization (WHO), 2001) but using such descriptors allows for a level of quantification of need for services.

In the study by Creer et al (2016), specialist providers ranked the most common conditions and/or diagnoses of people who could benefit from AAC as: cerebral palsy, motor neurone disease, stroke/CVA, learning difficulties, neurodiversity (including Autism & ADHD), profound and multiple learning difficulties, multiple sclerosis, Parkinson's disease and Alzheimer's/dementia (ranked in order of need/referral to service). As shown in *Figure 5*, the epidemiological study shows the main disparities relate to Alzheimer's/dementia and Parkinson's disease where they are ranked as the highest expected numbers of people who may benefit from AAC, whilst neither are present in the top five conditions ranked by the specialist AAC providers.
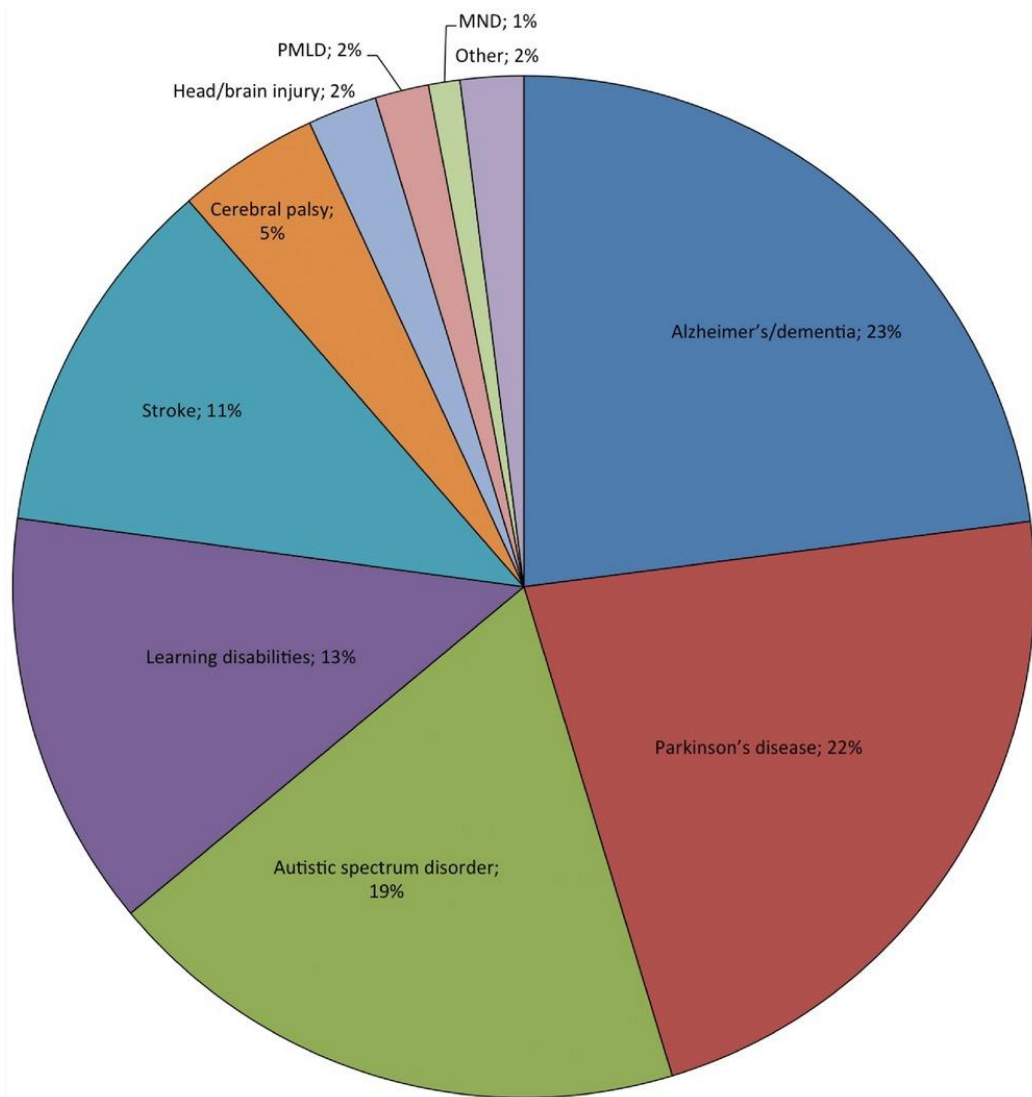
Figure 5: Epidemiological rankings: Percentage of the total number of people who could benefit from AAC in terms of the individual conditions (Creer et al, 2016, pp: 650). N.B. only the primary condition is presented but it is acknowledged that there may be many co-occurring conditions.

In the summary, a total of 97.8% of the total number of people who could benefit from AAC have nine conditions. The differences in reported clinical-specialist perception of need and prevalence of conditions suggests a number of things:

(i)   there may still be a huge unmet need,
(ii)   given the rising statistics in the dementias, this may become an increasing need,
(iii)   the specialist AAC providers perceptions of caseload characteristics may vary from local AAC providers' perceptions of caseload characteristics and AAC needs.

In conclusion, the current estimates provide us with the most comprehensive documentation of AAC need to date but they are likely to be an underestimation of need.

Having considered the medical terminology associated with AAC need and given that SLTs are specialists in speech, language and communication difficulties, an important consideration is how these conditions may translate into speech and language diagnoses. In understanding this, there will be an enhanced understanding of why individuals presenting with those characteristics may benefit from AAC interventions. SLTs should consider AAC tools and techniques as potentially supportive to anyone, child, young person, or adult presenting with the following speech, language and/or communication characteristics:

4.1   Speech and Language Diagnostic terminology

See glossary for further information on the following:

All developmental, lifespan, acquired unless specifically stated (presented alphabetically):
- Aphasia
- Aphonia/dysphonia (including laryngectomy)
- Cognitive Communication Impairment
- Developmental Language Disorder
- Dysarthria/anarthria
- Dyspraxia
- Developmental Language Difficulties
- Learning Disability
- Speech Sound Disorder
- Situational Mutism
- Social Communication Difficulties
- Stammer

5. Collaboration and co-production

SLTs are specialists in language and communication difficulties and as such strive to be part of interdisciplinary teams that support AAC assessment, provision, use and support. The practice, research and product field of augmentative and alternative communication is an interdisciplinary one. Whilst this guidance has been produced with a focus on the role and contribution of the speech and language therapist, it is crucial to acknowledge that many aspects of AAC service delivery are dependent upon successful interdisciplinary working and co-production with AAC users, potential AAC users, their family members and supporters.

Key professional contributors in a practice context include teachers, teaching assistants, occupational therapists, physiotherapists, nurses, rehabilitation engineers, clinical scientists, healthcare scientists, psychologists, support workers/personal assistants, carers and product suppliers. Professionals can be employed through statutory providers and/or through independent provision. How statutory and independent providers collaborate is currently determined at a local level and at times on an individual AAC-user basis.

Collectively, these professional contributors support
- understanding of the technology on offer,
- the means of accessing AAC,
- understanding how AAC supports communication, learning and employment,
- understanding how AAC is supported by additional AT tools and techniques,
- the means of accessing AAC to support independent or supported living,
- the means of integrating AAC with other technologies,
- the assessment, recommendation, implementation and review process related to AAC system availability, and
- understanding of the different funding procedures for AAC across the 4 nations of the UK.

It is important to recognise that service structures and provision varies across the four countries of the UK. For example, in Scotland there is one national NHS service that covers adults & children for most health boards (12 out of 14). Another national service (Education) covers commissioned areas to support children in access to education with a cross over to AAC. The rest (two health boards) have local specialist services. They work collaboratively with the local providers. There are no specific referral criteria.

In contrast, England and Wales offer a hub and spoke structure, where the AAC specialist services in England (14 In total, 3 – North, 3 – Middle, 4 – South, 4 - London) act as the hubs covering 10% of the AAC population who meet strict criteria. The remaining 90% of AAC users in England are supported at a spoke (local) level through statutory or independent assessment and by accessing various funding routes including the NHS, education, private or charitable organisations. In Wales there is one National EAT Service offering assessment and provision for electronic AAC. Local SLT Services provide paper-

based solutions. There are criteria for referral to both local and national services. All funding routes are via NHS-Wales.

In Northern Ireland there are 5 Health and Social Care Trusts and one Regional Specialist AAC service. There are specific referral criteria for the specialist regional service; however, SLTs within the 5 Health and Social Care Trusts and the Regional Team work collaboratively to manage and support AAC users.

For relevant policy and legislation in each country see our resources page (*link to be added*):
- England
- Northern Ireland
- Scotland
- Wales

For more information on specialist AAC provision, interdisciplinary contributions to supporting AAC identification and use, see Communication Matters resources:

- [assessment, funding & related charities](#)
- [AAC services and product suppliers](#)

6. Role of speech and language therapy in AAC

The role of the speech and language therapist in AAC management is summarised here and detailed in Section 7. *Management considers assessment, provision, implementation and on-going management.*

To assess the speech, language and communication abilities and needs of individuals of any age, regardless of whether they have developmental, lifespan, acquired or progressive challenges. From this assessment:

- To determine those individuals for whom an AAC intervention will alleviate speech, language or communication challenges,

- To collaborate with potential AAC users/existing AAC users, family members and other professionals in determining the best AAC recommendation and management plan and to continue to update this plan as necessary,

- To provide direct therapeutic input for AAC users as long as required to develop their language and communication potential via their AAC system,

- To carry out regular review of the AAC user's perspective, functioning and use of their AAC equipment, irrespective of their age, location or access to regular service support. AAC recommendation and provision is typically not a one-off event but the commencement of life-long intervention support. One AAC user/co-author commented 'it gives you a life',

- To influence local and national AAC initiatives.

The following points are essential in the AAC management process, but are presented recognising that individual SLTs' scope of practice or specialist knowledge of AAC will influence level of contribution expected:

- As a minimum, to recognise when an AAC assessment is required, and that there are no pre-requisites required for an individual to be considered for AAC,

- To recognise the referral processes and or criteria for specialist services in their country of the UK,

- To understand what a comprehensive assessment for AAC should include,

- To lead or facilitate appropriately detailed AAC assessments,

- To lead or contribute to the process of AAC recommendation/s, considering all relevant options and not just known already options,

- To liaise with specialised AAC and AT service providers (or if a specialised SLT to liaise with local services as per referrals),

- To lead and work collaboratively on AAC implementation processes for as long as is needed for the AAC user to achieve their potential with AAC tools and resources (including supporting language development or maintenance of language skills via AAC). This may include identifying an AAC champion to support on-going needs,

- To support access to funding for AAC when potential users do not qualify for NHS provision,

- To lead or contribute to on-going AAC training and support for AAC users, family members and staff,

- To ensure maintenance and repair of AAC devices via services responsible for the management of medical devices,

- To lead reporting of AAC clinical outcomes, including reporting of unmet needs,

- To facilitate AAC user review processes by recognising changing AAC needs across the lifespan,

- To recognise user and family support needs across the lifespan by signposting access to AAC role models, signposting to (re-) accessing AAC services, community teams and other outreach initiatives,

- To be responsible for maintaining and developing personal AAC clinical skills and knowledge,

- To influence more broadly by engaging with local and national initiatives that include reviews of:
    - UK service structures and provisions: e.g., local, specialist, specialised provision, and private provision
    - AAC standards of practice, including NHS and non-NHS locations of practice
    - Legislation and policy that impacts on AAC users, families and service structures
    - AAC research and development priorities and associated funding opportunities.

7. Practice guidelines for delivering a speech and language service in augmentative and alternative communication (AAC)

The RCSLT makes the following recommendations for delivering a speech and language service in augmentative and alternative communication (AAC).

As stated in Section 2., searching a scattered evidence base (Schlosser et al, 2005) is one of the recurring themes when reviewing types and levels of evidence for AAC management.

There are a limited number of studies investigating the personal impact of AAC, assessment and intervention approaches (*link to be added to reference list in resources webpage*).

It would be all too easy to dismiss this limited literature base but when one stops and considers a number of factors, it is pleasing to see the extent of this ever-growing evidence base. The challenges of appraising assessment parameters or intervention options becomes a little dizzying when one considers the breadth of AAC influence. One moment we may be considering a young child with a range of characteristics that impact on their speech, language and communication development, the next an adult with challenges that have impacted upon them across their lifespan, and then an adult with an acquired communication challenge, or an individual with a progressive or life-limiting condition.

All of these individuals operate in a wide range of contexts that includes community, early years, educational, social services, work environments and hospital settings. To appraise the AAC evidence base as it applies across all of these contexts and potential characteristics of the AAC users is no small endeavour. Therefore, we have been systematic in our process of reviewing available evidence by using key search terms and appraisal tools (link to resources webpage) to complete as wide an appraisal of the scattered literature as was feasible available time. Be under no illusion, we have not completed any systematic literature reviews as they would fail to generate sufficient breadth of information about current influencers of practice and on-going research priorities in the field of AAC. Therefore, in adopting a systematic approach to appraising the literature by identifying a search protocol, the following sections highlight the type and level of evidence available.

The guidance has been organised into key sections of consideration for any speech and language therapy services' remit in augmentative and alternative communication. We recognise that the term service has different connotations. A service may involve one clinician in statutory or private practice through to an extensive team of speech and language therapists with a broad geographical reach and/or a multi-disciplinary team that includes a speech and language therapist e.g., an 'early supported discharge' stroke team.

How to use the guideline statements

The guidelines are worded in such a way that speech and language therapists can consider them during the range of interventions they may provide for potential or existing AAC users, families and supporters. They are not listed in any hierarchical way. Each guideline is associated with a particular theme of AAC practice. There are seven themes of practice and 16 guidelines associated with these themes:

(i)   AAC user identity
(ii)   Awareness of AAC, skills, knowledge and clinical competencies
(iii)   AAC service structures and provision
(iv)   AAC assessment, recommendation and provision
(v)   AAC intervention/management
(vi)   Conversation partner training and support
(vii)   Managing transitions

A summary of the themes and associated guidelines is also available:

- [Summary of guideline statements](#)

7.1 AAC user identity

The premise of much AAC intervention is lack of attainment, inability or loss, and is often seen as an option that is the last resort, prizing any other forms of communication above it (e.g., Goldbart & Marshall, 2004; Iacono, 2019; Romski & Sevcik, 2005). There remains a perception that use of AAC will prevent speech development or recovery (Romski & Sevcik, 2005) or language and communication skill development or recovery (Smith, 2015). There is sufficient evidence and assurances to bust these perceptions of AAC as the last resort as being ill-conceived myths (Romski & Sevcik, 2005).

Another factor at play is the approach to collaborative practice, and where the AAC user and family members contribute to that process. A frame of reference that is not about deficit but about equal, diverse and inclusive possibilities alters perspectives on AAC and what it means to be an AAC user. Re-framed AAC can instantly be a window into what can be achieved rather than what might be absent. As an example, 'difficulties in social interaction' could be re-created as 'opportunities for social connectedness'. The lack of or loss of identity (as a non-speaker) can be turned around, for instance 'I am proud to be a communication aid user, it makes me who I am' (Moulam, co-author and AAC user). Recurring commentaries of this nature highlight the need for:

Guideline 1: Speech & language therapy services to be mindful of the identities, roles and contributions of the AAC users of the service by supporting access to interventions in a timely and individualised way.

This is not to say that the road to becoming an AAC user is without challenge, with the terms 'time, persistence and resilience' appearing in many accounts (Smith & Murray, 2011) ((*link to be added to resources webpages – video examples/accounts*). Accounts from family members attest to their fortitude and determination to often access AAC services and maintain that support over time (Goldbart & Marshall, 2004). As evidenced by a parent co-author of these guidelines, fortitude may be required to access NHS Continuing Healthcare (CHC, England) where an AAC user can be scored as having no on-going need in the "Communication" domain because they use AAC and are mis-perceived as having no on-going AAC/communication support needs.

Guideline 2: An AAC system is typically for life, regardless of the age at which it is introduced, and may take time to learn. This should be factored into the on-going management and support of the AAC user.

For example, where the AAC user has an effective picture-graphic system that enables communication, that AAC system should follow them and not be changed because they move environment or location and /or the support team have a preference for a different system.

Furthermore, as AAC primarily acts as a medium for conveying the speech, language and communication intentions of the user, nuanced to their linguistic and cultural context, it is important to consider these elements of identity when considering the type of AAC system and its attributes (Pert, 2022).

Guideline 3: Awareness of everyone's linguistic and cultural influencers should be recognised in any decision-making process. Consider AAC language representation options, language output options, and, if using electronic options, available accents.

7.2 Awareness of AAC, skills, knowledge and clinical competencies

Communication disability is an under-recognized entity, with AAC users in particular being treated differently in general community contexts (see information from Beth Moulam). Communication Matters UK introduced the concept of the Communication Access UK project. This led to a UK-wide partnership, including RCSLT, aiming to improve the lives of people with communication difficulties by promoting communication accessible organisations and social contexts. This project offers freely available, on-line, training to enhance everyone's understanding of communication difference and how to support those individuals. Completion of the training leads to individual or organisational accreditation.

Guideline 4: Appraise yourself of the Communication Access UK (CAUK) training and encourage service providers to consider it as mandatory training content for all staff.

Skills, knowledge and clinical competencies in AAC can be appraised in several ways. Informing and Profiling AAC Knowledge and Skills (IPAACKs) is a resource that can be used

in a number of ways and for a range of purposes, by individual workers, service providers, organisations and AAC users (see *Table 2*). The key aim central to IPAACKS delivery is to improve the experiences, opportunities and quality of life of AAC users.

Table 2: Ways to use IPAACKS

Who?	What?	Why?
Individual workers	To consider the elements involved in delivering quality AAC services.	To help understanding of values, knowledge and skills base required to provide a quality service to AAC users.
Individual workers and their managers or supervisors	To explore the components involved in being a skilled and knowledgeable AAC worker.	To identify an individual worker's strengths and gaps in knowledge and skill.
Organisations	To explore what aspects of a comprehensive AAC service is in place, emerging or absent.	To identify staff development needs of teams supporting AAC users, as well as inform service planning.
Education and training providers	To explore aspects of an accredited curriculum that includes AAC; or bespoke training content.	To inform the content of vocational, undergraduate and postgraduate education and training in AAC.
AAC users, their families, personal assistants and carers	To explore the extent of an AAC service.	To ensure they understand the full extent of support that they can expect throughout their lives and to enable them to check that the team around them includes the range of expertise that they need.

In brief, the IPAACKS manual covers two broad areas

(i)   core values, and
(ii)   AAC specific skills and knowledge.

The core values and commitments outlined are required of any worker but essential when supporting AAC users, e.g., respecting diversity, challenging inequality and promoting opportunity, and promoting inclusion and participation. They mirror many professional or sector-based frameworks on quality service provision.

The AAC skills and knowledge strands describe the characteristics of workers who are involved in AAC in some way. The AAC specific strands are more role specific where some workers will require to be able to evidence knowledge and skills in all of the AAC strands, others will only require some AAC specific strands. There are eight AAC Specific Strands:

- Identification of need
- AAC Assessment
- Implementation
- Review
- Technology (preparation, adaptation and integration)
- Technology (management of resources)
- AAC Leadership
- Facilitating AAC Learning

This is summarised visually in *Figure 6*, which also demonstrates schematically four levels of knowledge and skill across the eight strands. These four levels support appraisal of SLTs at very different stages of their career, e.g., from newly qualified to highly specialist SLTs. This framework also acknowledges the multidisciplinary components of AAC-working. Some SLTs will score in every section, others will not have or never have that particular AAC remit.
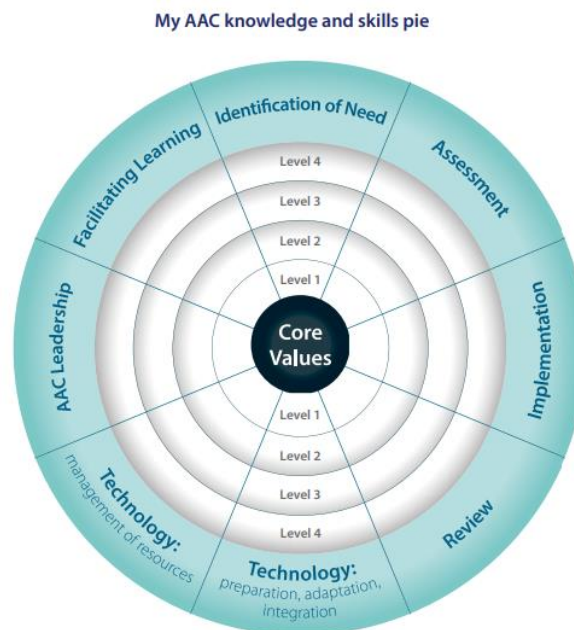

Figure 6: a schematic representation of the eight specific AAC strands (IPAACKS, pg 95; level 1 = introductory level, level 4 = highly specialist level)

This UK-devised resource specifically focussed on AAC competencies across stakeholder groups (link to resources webpage). Training on the use of IPAACKs may be provided as an aspect of specialised AAC service support. Derivations of competency frameworks may be available locally, e.g., Developing knowledge and skills in the field of augmentative and alternative communication (AAC), Kent & Medway Communication and Assistive Technology Service (personal communication, example provided).

Guideline 5: Individuals, service managers, service providers, commissioners, education and training providers should draw on the resource Informing and Profiling AAC Knowledge and Skills (IPAACKS and derivations of) as an evidence informed template to appraise and develop AAC skills, knowledge and provision.

7.3 AAC service structures and provision

(NOTE to the reader: a lot of this section repeats information from an earlier section. This is because the final guidance will be published as web content and people may read certain sections only, rather than reading it all through like a document).

Many aspects of AAC service delivery are dependent upon successful interdisciplinary working and co-production with AAC users, or potential AAC users, their family members and supporters, as well as service providers.

Key professional contributors in a practice context include teachers, teaching assistants, occupational therapists, physiotherapists, nurses, rehabilitation engineers, clinical scientists, healthcare scientists, psychologists, support workers/personal assistants, carers and product suppliers. Professionals can be employed through statutory providers and/or through independent practice. How statutory and independent providers collaborate is currently determined at a local level and at times on an individual AAC-user basis.

Collectively, these contributors support:
- understanding of the technology on offer,
- the means of accessing AAC,
- understanding how AAC supports communication, learning and employment,
- understanding how AAC is supported by additional AT tools and techniques,
- the means of accessing AAC to support independent or supported living,
- the means of integrating AAC with other technologies,
- the assessment, recommendation, implementation and review process related to AAC system availability, and
- understanding of the different funding procedures for AAC across the 4 nations of the UK.

7.3.1 Service structures across the UK

(Correct at the time of publication)

It is important to recognise that service structures and provision varies across the four countries of the UK. For example, in Scotland there is one national NHS service which covers adults & children for most health boards (12 out of 14). Another national service (Education) covers commissioned areas to support children in access to education with a cross over to AAC. The remainder (2 health boards) have local specialist services. They work collaboratively with the local providers. There are no specific referral criteria.

In contrast, England offer a hub and spoke structure, where the AAC specialised services (14 In total, 3 – North, 3 – Middle, 4 – South, 4 - London) act as the hubs covering 10% of the AAC population who meet strict referral criteria. The remaining 90% of AAC users in England are supported at a spoke (local) level through various funding routes including the NHS, education, private or charitable organisations. In Wales there is one National EAT Service which considers provision for electronic AAC. Local SLT services provide paper-based solutions. There are criteria for referral to both local and national services. All funding routes are via NHS-Wales.

In Northern Ireland there are 5 Health and Social Care Trusts and one Regional Specialist service. There are specific referral criteria for the specialist regional service; however, SLTs within the 5 Health and Social Care Trusts and the Regional Service work collaboratively to manage and support AAC users.

For relevant policy and legislation in each country see our resources page (*link to be added*):
- England
- Northern Ireland
- Scotland
- Wales

For more information on specialist AAC provision, interdisciplinary contributions to supporting AAC identification and use, see Communication Matters resources:

- assessment, funding & related charities
- AAC services and product suppliers

7.3.2 Collaborative working

There are various models of working (Glennen & DeCoste, 1998). Local SLTs may work autonomously within a multi-disciplinary team, where their role and contribution is clearly defined, and may involve reporting from a profession specific perspective. This type of working may result in a referral to specialised AAC teams but this will not always be necessary.

However, there may be opportunities for working in more integrated and collaborative ways and these may be described as:

An interdisciplinary approach involves team members from different professional disciplines working collaboratively, with a common purpose, to set goals, make decisions and share resources and responsibilities. This may be observed when local and specialised AAC provision collaborate.

Transdisciplinary work surpasses interdisciplinary work in that it seeks to develop holistic perspectives by integrating different disciplinary perspectives, thereby creating new

frameworks to understand problems for the purposes of developing solutions. Specialised AAC provision typically aspires to work in this way but this approach can also be observed in some local specialist AAC provision.

Guideline 6: Awareness of AAC service structures and provision locally, nationally and UK-wide will inform referral procedures, and intervention options that are inclusive of the service user perspective.

Guideline 7: Awareness of transdisciplinary contributions to the AAC management process will ensure AAC users, families and supporters access a holistic appraisal of their AAC needs.

7.4 AAC assessment, recommendation and provision

7.4.1 Generic Assessment

Whilst elements of an AAC assessment includes speech, language and communication appraisal, it differs in its methods from assessing an individual who can name, point to, or describe something using typical unaided methods of speaking and communicating. This does not mean it is impossible to comprehensively appraise the speech, language or communication skills of someone who might benefit greatly from an AAC system. Indeed, an effective appraisal of these skills or challenges are key to an effective AAC assessment and are the core contributions to be made by any SLT as specialists in this aspect of an AAC assessment.

Currently, there are no or limited speech, language or communication measures that have been standardised on children or young people who typically benefit from AAC (e.g., those with developmental language disorder (DLD) may consider Clinical Evaluation of Language Fundamentals (CELF), Semel et al, 2004). Of note, measures of ability in those post stroke, or with acquired dysarthria being some standardisation highlights that are useful in the SLTs' diagnostic toolbox (e.g., The Comprehensive Aphasia Test, Swinburn et al, 2005).

In the absence of such resources for all age groups, in an AAC context we can use standardised measures but use them descriptively. In appraising the literature, we find that use of such measures, where physically possible, or possible with minor adaptations, e.g., placing standardised picture material on a Perspex frame is acceptable and justified. This practical approach to assessment enables the consistent description of abilities or challenges at a given point in time, as well as describing changes over time (Broberg et al, 2012, Broomfield et al, 2019, Smith, 2023). Current evidence suggests a lack of consistent description of presenting language and communication abilities in AAC users (Murray et al, 2019, Lynch et al, 2019).

Whilst there may be an absence of standardised measurement, there is an abundance of

- developmental checklists,

- language comprehension checklists,
- communication checklists,
- pragmatic profiles (AAC),
- speech and communication scales,
- language of daily living checklists.

They are mostly developmentally oriented and based on our understanding of typical development (*link to be added to references section of resources webpage*). All can support detailed descriptions of an individual's current speech, language and communication abilities and challenges. These can provide summaries of an individual. They cannot be generalised to all people with the same characteristics, for example, dysarthria. This is not to imply they are not useful in the context of those who may benefit from AAC.

These assessment resources and the reports produced from them will inform the AAC recommendations. These recommendations will provide insights into

    (i)   the range of vocabulary that an AAC system should offer the user,

    (ii)   the way that vocabulary should be (visually) represented for the individual (e.g., written, graphic, photographic, or real object),

    (iii)   how the vocabulary can be organised, and

    (iv)   how the chosen vocabulary should be able to support the individual as they develop or as they regain further language abilities or lose language abilities.

This can be achieved by using

    (i)   existing speech, language and communication standardised measures (with the modifications suggested), and,

    (ii)   checklist summaries (as suggested), and

    (iii)   should be incorporated into anyone's AAC speech, language and communication AAC recommendation reports.

Guideline 8: AAC assessment referrals and final recommendations should be based on consistent reporting of speech, language and communication characteristics. Reporting should include consideration of vocabulary selection and organisation, graphic representation options and trajectory plans.

AAC-specific elements of assessment

The following are the AAC assessment tools with some evidence base or clinical traction in the UK.

7.4.2 Communication Competence

A key AAC assessment framework that is strongly embedded in the clinical process of assessment and recommendation is the Janice Light model of Communication Competence

(Light et al, 1987 – 2019). It has four key elements of competence defining the operational, linguistic, strategic and social competencies of an AAC user, latterly it has also considered the context of use. This has an extensive publication base and offers differing levels of evidence in its outputs but must be recognised for a bias towards electronic AAC systems, leaving less commentary related to the benefits of paper based AAC systems. It is also focussed on the AAC user's competencies and does not entirely consider the wider context or the competencies of the communication partners. One key element it emphasizes is linguistic competence. Appraisal of this element is a key contribution to be made by any SLT and should be supported by the use of techniques suggested in the preceding section about speech, language or communication assessment.

- See [AAC Goal Writing with Lauren Enders: 5 Common Challenges](#) for an example of how to use this model.

7.4.3 Identifying Appropriate Symbol Communication (I-ASC)

A more recent framework that is supporting assessment and clinical decision making is the I-ASC Explanatory Model of clinical decision making (Murray et al, 2019, Lynch et al, 2019). It is based on extensive UK research, with a good publication base, and offers a framework for exploring the holistic elements involved in an AAC assessment and recommendation process. Its findings are biased towards children and young people and electronic AAC. It offers a structure for assessment that looks beyond the AAC user to all potential influencers on a final recommendation and intervention plan, e.g., staffing support, attitudes and skills, periods of transition. Its structure may be of relevance beyond children and young people.

- See [I-ASC Explanatory Model of clinical decision making](#)

7.4.4 Means, Reasons and Opportunities

This is another model for exploring what an AAC system might offer someone to consider for their communication. Whilst this appears to have considerable clinical traction, there is a non-existent research evidence base for its influence within AAC recommendations.

- See [A Grain of SaLT: "What do you want to talk about?" - Therapist's goals vs Individual's goals](#)

7.4.5 The Participation Model

A framework for exploring the components of an AAC assessment (Beukelman & Mirenda, 2014). The participation model focuses on assessment as a *dynamic process* that needs revisiting as people learn new skills or as their situation progresses, in other words, whenever there are changes in *participation levels*.

Assessment is broken up into four stages:

1.   Identifying whether or not the person has complex communication challenges,

2. Assessment that considers both access and opportunity barriers that are impacting on their participation,
3. Plan the scope and sequence of intervention; and
4. Monitor progress in terms of how students are participating in their environments (Beukelman & Mirenda, 2014).

- See The Participation Model

There are two resources in common use in the UK that support decision making and AAC recommendations. They are included here for ease.

7.4.6 Talking Mats (TM)

An AAC user decision making tool (Murphy et al, 2013). TM is not an assessment framework or a communication system but is a key decision making tool to support AAC users and family members to identify what is important for them. With a good publication base, it may act as a useful tool during an assessment, recommendation or intervention process.

- See Talking Mats - Improving communication, improving lives

7.4.7 Communication Passports

Personal Communication Passports are a practical and person centered way of supporting children, young adults and people who cannot easily speak for themselves (Millar & Aitken, 2003).

A passport:

- presents the person positively as an individual, not as a set of 'problems' or disabilities.

- provides a place for the person's own views and preferences to be recorded and drawn to the attention of others

- reflects a 'flavour' of the person's unique character

- describes the person's most effective means of communication and how others can best communicate with and support the person

- draws together information from past and present, and from different contexts, to help staff and conversation partners understand the person, and have successful interactions.

- See Creating communication passports

Guideline 9: Familiarise yourself with key AAC assessment frameworks and support tools and apply them to your appraisal of individuals who may benefit from AAC.

7.4.8 AAC recommendations made by SLTs

Recommendations for AAC systems need to be evidence based. Evidence suggests that AAC recommendations are complex and require a balancing of potential trade-offs, e.g., best language representations system over local knowledge of language representations systems, or, cost over regular replacement, or, the best system for now over how it may suit as things progress or deteriorate. These trade-offs are real and impactful. For these reasons, we need to be mindful of how we record AAC-related assessment and recommendations so that they can inform later intervention evaluations. Outcome measurement tools exist to support accurate appraisal and reporting and include:

- Therapy Outcome Measurement – AAC (TOMs-AAC, Enderby, 2014). This has been identified specifically as the key tool to use for AAC related activity in the UK.
- The Family Impact of Assistive Technology Scale for Augmentative and Alternative Communication (FIATS-AAC, Ragnhild et al, 2023).

At present there is on-going work exploring the development of a patient reported outcome measure in AAC (PROM-AAC, Broomfield et al, 2019).

Guideline 10: AAC recommendations need to be recorded for future appraisal of outcomes. AAC recommendations should be shared amongst the team supporting the individual.

7.5 AAC intervention/management

Some implementation considerations for AAC use

AAC tools and techniques can promote social inclusion and facilitate participation so that individuals can develop or maintain communication in different settings. The AAC system can be used as a scaffold to communication between the AAC user and their conversational partner/s, where either party accesses elements of the AAC system in a co-constructed manner facilitating an agreed meaning (Smith & Murray, 2016). Whilst this is often a daily interaction approach for AAC users, this approach is often observed during therapeutic interventions with any communication disability. For example, people living with stroke, or people living with motor neuron disease (MND) or other acquired communication challenges benefit from this co-constructed scaffold for communication success (May et al, 2023, Smith, 2023).

Following a review of the literature (*link to be added to resources webpages for search strategy*), the following implementation approaches and strategies were coded according to level of evidence. The approaches considered apply to aided communication only.

The information presented may apply to all people and so it is not organised according to developmental, lifespan, acquired or progressive communication needs. Information is organised alphabetically and is not indicative of any prioritisation of approaches to consider.

Table 3 provides a summary, further detail of each approach is referenced in the resources webpages.

Table 3: Implementation approaches and strategies and their evidence base

(References provided in the resources section and outlines approaches in more detail – to be added)

Organisation of vocabulary (paper-based and electronic)			
Type	**Description**	**Level of evidence (due to types of studies)**	**Reference sources**
Encoded	Semantic compaction	Moderate	Empirical, practice and user accounts
Semantic/schematic	Core & Fringe	Limited	Practice and user accounts
	Visual scene display	Good	Empirical, practice and user accounts
	Phrase-based display (Gestalts)	Limited	Empirical, practice and user accounts
Taxonomic and/or semantic	Pragmatic (PODD)	Moderate	Empirical, practice and user accounts
Taxonomic and/or semantic	Grid displays	Moderate	Empirical, practice and user accounts
AAC-specific teaching and learning methods (paper-based and electronic)			
Type	**Description**	**Level of evidence (due to types of studies)**	**Reference sources**
Language interventions	Aided Language Stimulation	Good	Empirical, practice and user accounts
	Conversational scaffolds and ramps	Moderate	Empirical, practice and user accounts
	Narrative Therapy	Good	Empirical, practice and user accounts

	Semantic, conceptual and grammatical approaches	Moderate	Empirical, practice and user accounts
Motor Patterning	Language Acquisitions through Motor Planning (LAMP)	Moderate	Empirical, practice and user accounts
Switches	Cause and effect	Moderate	Empirical, practice and user accounts
Partner assisted communication strategies	Intensive Interaction	Good	Empirical, practice and user accounts
	Objects of reference	Moderate	Empirical, practice and user accounts
	Switches (pre-intentional communication assistance)	Limited	Practice and user accounts
	PECS	Accounts suggest: Open to question/Evidence debated	Empirical, practice and user accounts
	Rapid Prompting Method/Facilitated Communication	Accounts suggest: Open to question/Evidence debated	Empirical, practice and user accounts
Person centred design/participatory interventions	Communication Passports	Limited	Practice and user accounts
	Communication Dictionaries	Limited	Practice and user accounts
Lesson plans from specific supplier websites	Teaching and learning strategies for specific dedicated AAC systems	Limited	Practice accounts
Non-AAC-specific teaching and learning methods, that resonate with AAC intervention objectives			

Person centred design/participatory interventions	Language intervention and cultural awareness methods	Moderate	Empirical, practice and user accounts
	Parent-child interaction	Moderate	Empirical, practice and user accounts
Grammar	Interventions in DLD and dosage considerations	Good to moderate	Empirical, practice and user accounts
	Colourful Semantics	Moderate	Empirical, practice and user accounts

Table 3 demonstrates that there is more than one approach to support language and communication development in aided AAC users. It is important to remain appraised of differing approaches as this will influence your clinical decision making and management plans.

For a review of considerations of

- unaided AAC see Moorcroft, et al, 2019,
- semantic, conceptual and grammatical AAC interventions see Smith, 2015, Sutton, 2016,
- symbolic representation see Murray & Goldbart, 2009, Porter & Burkhart, 2010, Tönsing & Dada, 2023,

Guideline 11: SLTs should be appraised of the range of intervention strategies that are available to support the language and communication abilities of AAC users.

Guideline 12: Within AAC user intervention contexts, SLTs should apply language and communication interventions that are used in contexts where AAC is not typically needed, e.g., DLD.

7.6 Conversation partner training and support

If we consider the reach of AAC, we must also recognise the breadth of potential conversation (communication) partners for someone who may benefit from AAC. In this guidance, we attempt to cover considerations from infants through to older and elderly individuals who may have different challenges impacting on their communication and how this is accommodated (Giles et al, 1991).

In the context of the communication partner/s, we must consider their knowledge understanding and attitude (Ball & Lasker, 2013; Dooley et al, 2015; Kent-Walsh et al, 2015; Lynch et al, 2019; Ogletree et al, 2016; Shire et al, 2015); and at the same time understand what AAC users might want from a communication partner (Midtlin et al, 2015).

Those contexts for communication and conversation are so diverse that it is a challenge to capture in this summary. So, here, we try.

7.6.1 Types of communication partner

Communication partners vary but include the general public, family members, friends and peers, educational, health care and social services professionals and carers, as well as employers and employees. The type of communication partners and the settings in which communication occurs is important to consider in communication partner training. Communication partners are frequently unprepared for how to support effective AAC-mediated communication, partly due to limited training on how to use compensatory strategies to support interactions (e.g., Kent-Walsh et al, 2015; Murray et al, 2022).

7.6.2 Types of training approaches

These depend upon the AAC users' abilities and aspirations for communication success. In summary, approaches to enliven communication partners' understanding of what to do and how to do it, training may focus on:

- Seeking the AAC users' views on how best to communicate with them
- Conversational scaffolding
- Re-casting/re-voicing of AAC mediated communication messages
- Giving AAC users sufficient time
- Believing the messages offered and co-constructing an agreed understanding of them
- Recognising that clear message transmission is not always easy and how to navigate that
- Following the AAC users' reminiscences of what is important and meaningful to them

There are number of conversational partner training programmes, initiatives and suggestions (e.g., Douglas et al, 2022; Hayes & Traughber, 2021; Murray et al, 2022; Ogletree et al, 2016; Starble et al, 2005; Thiessen et al, 2013, Volkmer, 2020).

What is clear from a review of the literature is the need to be mindful of the specific AAC users' context and how communication partners need to be adaptable and flexible to enhance conversational success. The AAC user is already working hard enough!

Guideline 13: There are a variety of evidence-based communication partner training programmes and strategies that have been developed to support communication between AAC users, families, supporters and professionals. It is

important SLTs understand what is available to support the AAC users and their communication partners.

Guideline 14: Communication partner training programmes have been shown to enhance the interaction and engagement of AAC users and reduce their anxiety and stress when communicating. Ensure that partner training forms part of any AAC intervention plan.

7.7 Managing Transitions

Anticipating transitions in the life of an AAC user is paramount. Transitions will happen for all AAC users, whether that be:

- Leaving hospital
- Changing classroom or school, or college
- Changing educational, health or social services support teams
- Changes to family and home circumstances
- Changes to work patterns
- Changes to the AAC system
- Changes to AAC needs.

Finding a communication system that is…
………..right for today, tomorrow and the day after tomorrow
(Beukelman & Mirenda, 2013)

This statement sums up the long-term commitment required of AAC services and the SLT role within that. Needs change. These may happen on a micro-level, e.g., changing class, to a macro-level, e.g., changing AAC system due to system obsolescence. It is important to consider and predict, or anticipate, the consequences of change and transition. In doing this we will be better prepared to ensure that there is not a hiatus, or loss, for the AAC user. Key to this is:

(i)   choosing to use reliable and proven technologies,
(ii)   not being beguiled by mainstream technologies when a dedicated AAC device solution may better support the AAC user now and in the future,
(iii)   sharing information about individual circumstances,
(iv)   managing routes of discharge from a service to efficient re-referral.

Future planning includes expected change, how you intend the future AAC system to look and function, and how the person may be communicating. It also includes changes in the environment or setting such as changes in educational provision or staff providing services. Evidence suggests that predicted change in the person's future influences decision-making (e.g., Dada et al, 2021; Lynch et al, 2019; Webb et al, 2021, 2023). A recommendation from

this evidence is to ensure that information about communication needs and plans flows from existing to new settings (see information on [transitions](#)).

Regarding technology change, this is an inevitable aspect of aided AAC work, and it is often welcomed but for those long-term users of AAC it can pose some significant challenges. Be mindful of how to navigate differing expectations based on overall awareness and experience of technology. Engage in discussion to ensure a shared understanding and expectation of AAC. This should include how dedicated AAC technologies relate to off the shelf technologies.

Where decisions are delayed due to expected updated versions of the technology, ensure existing systems are adequate to support needs in terms of communication and language development.

Guideline 15: In every AAC decision making encounter, anticipate transitions and changing needs. Take considerable advice on potential changes to the AAC users' characteristics and needs, as well as technology change and development. In doing so this will lead to the best-informed SLT recommendations and choices for the AAC user.

Guideline 16: Keep detailed records of AAC decisions, so that at transition points the AAC user can continue to move forward, rather than repeat what may have happened in the past.

8. Glossary: Key terminology – and their descriptions

This glossary is not exhaustive but includes key terminology and their descriptions. In the resources sections we include links to various websites who provide their own AAC related terms, e.g., [Communication Matters](#); [ACE.](#)

Augmentative and alternative communication (AAC)

AAC is a set of tools and strategies that an individual uses to solve everyday communicative challenges. Communication can take many forms such as: speech, a shared glance, text, gestures, facial expressions, touch, sign language, symbols, pictures, speech-generating devices, etc. Everyone uses multiple forms of communication, based upon the context and our communication partner. Effective communication occurs when the intent and meaning of one individual is understood by another person. The form is less important than the successful understanding of the message. See [ISAAC definition](#).

"Augmentative and Alternative Communication (AAC) is a range of strategies and tools to help people who struggle with speech. These may be simple letter or picture boards or sophisticated computer-based systems. AAC helps someone to communicate as effectively as possible, in as many situations as possible. See [Communication Matters](#).

Access method

Refers to the method by which an individual accesses their communication system. Also known as the selection method.

Aided/unaided communication

- **Aided communication** involves the use of physical tools and techniques. These can include paper-based materials as well as electronic devices. Aided communication methods are rarely as quick as an unaided method but may offer more communication independence.

- **Unaided communication** refers to the use of methods involving the user's body, such as body movements, facial expressions, gestures, signing, eye-pointing, fixed gaze and vocalisations.

Communication device

A communication device may refer to any paper based or electronic AAC system. The 'device' could describe a communication book or folder or an electronic AAC system. It is more typically used to describe an electronic AAC system.

Communication system

A communication system describes the elements of type of graphic-symbol representation, the mode of organising and storing these representations and any related attributes of the system, e.g., is it a folder, a board, an electronic device, how the user accesses it.

Communication partner

A communication partner is anyone that a person using AAC communicates with.

Conversation training/Conversation partner training

This describes a range of documented approaches targeting communication partners of AAC users. All aim to support partners to understand why differing conversational strategies may be required and how to deliver supportive communication approaches to support the AAC user to demonstrate their abilities, wants and needs.

Eye gaze

"Eye gaze or eye tracking is a way of accessing your computer or communication aid using a mouse that you control with your eyes… eye gaze systems work by having lights and cameras that are constantly sending and receiving information. The camera picks up light reflections from your pupils and translates the movement of your eyes into mouse cursor movements. It takes only seconds to complete a one time calibration…" (See Eye gaze resources).

Eye pointing

"Eye-pointing serves the same function as finger pointing. For example, by looking between an object and their partner, a child might signal that they are interested in or want to play with that object. Eye-pointing is described as "The context-relevant, controlled and intentional use of gaze in order to direct one or more partner's visual attention to any item or object for a deliberate communicative purpose. Other communication modes (facial expression, vocalization, head movement and body position) may be employed, as available, to support the use of gaze" (Sargent et al., 2013)." (See further information on Eye pointing).

Language representation system

This refers to the way in which concepts, ideas and words are represented for the AAC user. This could include written words, photos, real objects and graphic symbols as well as a sign language system.

Message banking

You use your own voice to record stories, phrases, words and / or sounds which are saved and then played back to support your communication in time to come. When they are played back, the stories, phrases, words and / or sounds will sound exactly as they did when they were recorded.

Mounting system (for an AAC system)
This refers to specialised equipment enabling the AAC system (paper based or electronic) to be fixed to the AAC users' wheelchair, bed, table, etc. to support access to the AAC system.

Partner assisted scanning (PAS)
Partner assisted scanning involves the conversation partner scanning items e.g., letters on an alphabet chart or phrases and symbols, by pointing to and/or saying the names of the items. As the partner does the scanning this method does not require the individual to point to any of the items. Partner assisted scanning can be visual, whereby the partner scans the alphabet chart etc., by pointing to each item without saying the letters. Auditory scanning involves the partner reading out the letters. Alternatively, visual and auditory scanning can be used. The method used will depend on the individual's needs and abilities.

Paper/electronic solutions (may also be referred to as high-low-light-tech)

- **Paper-based solutions (formerly low-tech):** Communication charts or boards, and notebooks or folders with no electrical or battery power supporting their use. Vocabulary provided in these paper-based systems can be as extensive and as complex as many electronic systems. Also included in these non-powered solutions are the use of real objects as communication referents, and word or picture materials that act as conversational scaffolds.

- **Electronic solutions (formerly light and high-tech):** Technology that makes use of equipment that has a power system. The device usually allows the individual to electronically access speech, picture-graphic, and/or written output. There are a variety of electronic systems. Some are dedicated communication aids, others are PC platforms or tablet devices. Each with different attributes including voices, shapes, sizes and weights with capacity to store different amounts of vocabulary.

Sign language compared to sign vocabularies
Sign languages and sign-vocabularies should be clearly differentiated. British Sign Language (BSL) is a sign language.

Unaided systems like Makaton and Signalong can be used to describe 'sign vocabularies'. These are not languages, they are 'sign-vocabularies' and need everyone to support how they are presented, constructed and taught in the same way as software vocabulary systems may be organised and taught.

Sign vocabularies often support the conversational partner to use sign to converse with the AAC user (aiding comprehension) as much as these sign vocabularies support the AAC user to convey their key messages.

Supported/scaffolded/co-constructed conversation
This refers to a number of techniques and strategies that enable effective communication. This could include visual prompts/cues/ramps, or starter phrases, word prompts, or checking

that use of AAC tools have been understood by the communication partner/s. They all refer to a number of aided and unaided aspects of AAC.

Switch (access)
A switch is a button that can be pressed to enable someone with a physical disability to access a wide range of technology, from a simple light or fan through to a voice output communication aid or computer. They come in a wide variety of sizes and designs and can be accessed using different body parts. In order to control the technology, a switch interface of some sort is sometimes required.

Symbol
A symbol may take many forms and acts as a referent for a concept, a word or part of a word. A particular symbol may represent multiple concepts simultaneously, requiring creative interpretation of intended meaning.

Voice banking
A process by which you create a personalised synthesised voice that should sound more like your existing voice than an 'off-the-shelf' voice. This personalised voice can be used to speak out anything that is inputted into an electronic communication aid.

Voice Output Communication Aid (VOCA, also referred to as Speech Generating Devices/SDGs)
These devices store speech which can be used to create utterances using individual words or phrases. The speech output may use digitised (pre-recorded) speech, synthesised (artificial) speech or both. Digitised messages are created by recording spoken words directly into the communication aid. Synthesised speech is artificial, computer-generated speech …"

Definitions of speech and language diagnoses where AAC may be relevant:

All developmental, lifespan, acquired unless specifically stated (presented alphabetically):

Aphasia
Aphasia is a language disorder caused by damage in a specific area of the brain that controls language expression and comprehension.

Aphonia/dysphonia (including laryngectomy)
"Dysphonia refers to disordered sound production at the level of the larynx," i.e. difficulties with the voice including breath control, pitch and voice quality. See Palliative Treatment of Dysphonia and Dysarthria. Aphonia is total absence of voice.

Cognitive Communication Impairment

Cognitive communication impairment are problems with communication that have an underlying cause in a cognitive deficit rather than a primary language or speech deficit. It affects:

- **Attention** (selective concentration)
- **Memory** (recall of facts, procedures, and past & future events)
- **Perception** (interpretation of sensory information)
- **Insight & judgment** (understanding one's own limitations & what they mean)
- **Organization** (arranging ideas in a useful order)
- **Orientation** (knowing where, when, & who you are, as well as why you're there)
- **Language** (words for communication)
- **Processing speed** (quick thinking & understanding)
- **Problem-solving** (finding solutions to obstacles)
- **Reasoning** (logically thinking through situations)
- **Executive functioning** (making a plan, acting it out, evaluating success, & adjusting)
- **Metacognition** (thinking about how you think)

Developmental Language Disorder

Developmental Language Disorder is one of the most common developmental disorders, affecting approximately 1 in 14 children in preschool. Developmental language disorder (DLD) is a communication disorder that interferes with learning, understanding, and using language.

Dysarthria/anarthria

Dysarthria is where you have difficulty speaking because the muscles you use for speech are weak. It can be caused by conditions that damage your brain or nerves and some medicines. Anarthria is being without speech.

Dyspraxia

Dyspraxia is a common disorder that affects movement and co-ordination.

Learning Disability

A learning disability is a significantly reduced ability to understand new or complex information, to learn new skills, with a reduced ability to cope independently (impaired social functioning), which started before adulthood. A learning disability is different for everyone.

Speech Sound Disorder

A speech sound disorder is an umbrella term referring to any difficulty or combination of difficulties with perception, motor production, or phonological representation of speech sounds and speech segments.

Selective Mutism

Selective Mutism also called Situational Mutism, is an anxiety-based mental health disorder which usually commences in early childhood. Those with SM speak fluently in some situations but remain consistently silent in others.

Social Communication Difficulties

Social communication difficulties refer to the challenges of trying to use language in social situations to develop relationships using social interaction rules.

Stammer

Stammering is when someone repeats, prolongs or gets stuck when trying to say sounds or words. There might also be signs of visible tension as the person works to speak.

RCSLT

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References

To be added.