

15 November 2017

Dr Kiah Evans
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Dear Dr Evans

Re: 'The Diagnostic process for children, adolescent and adults referred for assessment of autism spectrum disorder in Australia: A national guideline'

Audiology Australia welcomes the opportunity to make a submission in response to the draft version of 'The diagnostic process for children, adolescents and adults referred for assessment of autism: spectrum disorder in Australia: A national guideline' (the Guideline). Audiology Australia is the peak professional body for audiologists with over 2,600 members and represents over 95% of all Australian audiologists.

We congratulate the Autism CRC on the development of the Guideline. Audiology Australia strongly supports the development and implementation of a consistent, national approach to streamline the diagnosis of Autism Spectrum Disorder (ASD). We also endorse the Guideline's principles, which focus on individual, family-centered, holistic and evidence based care.

However, as determining auditory function is a fundamental, necessary step in diagnosing and providing interventions for ASD, Audiology Australia suggests that the Guideline would benefit from greater emphasis on the significance of hearing impairment in the context of autism.

For example, we consider that the Guideline could provide more detail about the importance of a comprehensive audiological assessment as part of best practice for the development of an ASD diagnosis. While Table 8 refers to the need for a screening test or a full auditory evaluation, there is no reference or information elsewhere in the Guideline as to why such an assessment is important. For instance, some indices for ASD may include delayed or atypical language, which are also signs of possible hearing loss. Moreover, undiagnosed comorbid hearing impairment, if left untreated, may reduce the benefit that the child with ASD gains from the relevant early intervention therapies.

We also note that hearing loss and associated disorders are not specifically listed as one of the important elements to take into account when considering the prospect of ASD diagnosis for different age groups (0-5 years, 6-16 years, 17 years or older) in Tables 10, 11 or 12. Of particular relevance would be the elevated incidence of temporary middle ear related hearing loss in children of preschool age and its potential impact on a variety of

other behaviours and assessments; and auditory processing disorders that may impact classroom learning and behaviour.

Audiology Australia would also like to suggest that the Guideline highlights the role that audiologists have in diagnosing (or ruling out) hearing loss in children, particularly those difficult-to-test children suspected of having a diagnosis of ASD and, consequently, audiologists' important role as part of the interdisciplinary health team.

For instance, while the Guideline identifies audiologists as a Professional Informant in Table 7, Audiology Australia requests that audiologists be included in the list of Professional Informants at 6.6 of the Guideline. We also suggest adding 'audiologist' as a Professional Informant under the 'Functional' category of 'Communication and language difficulties such as potential speech delay or language delay / disorder and stuttering' as some of these issues may occur as a result of hearing difficulties. We also recommend adding Otolaryngologist (Ear Nose and Throat (ENT) specialist) to 6.6 of the Guideline as those children who are found to have middle ear pathology may be recommended to consult with an ENT for treatment of comorbid middle ear problems before having their hearing retested by an audiologist.

Another important factor is that - just as a speech pathologist can only diagnose ASD with sufficient training and experience - a child with suspected ASD should be assessed by an audiologist who specialises in assessing children. We believe that this should be referred to in the Guideline.

In consultation with our expert members who specialise in paediatric audiology, Audiology Australia would also like to make some best practice recommendations in regards to behavioural hearing assessments for children who do have or may be suspected of having an ASD diagnosis as set out below.

We particularly wish to emphasise the importance of testing the hearing of children suspected of ASD aged under 5 years and - in terms of best practice - if possible referring these children for behavioural hearing assessments before the age of 2½ years. This gives the paediatric audiologist the best chance of successfully assessing hearing using conventional behavioural techniques.

As a minimum test battery, we would recommend (in no particular order):

- Otoscopy
- Tympanometry
- Otoacoustic Emissions
- Auditory Processing Disorder assessments
- Behavioural hearing assessment - Visual Reinforcement Orientation Audiometry (VROA) is most likely to be most effective particularly if conducted before the child is 2 to 2½ years old. We recommend that this test is conducted by experienced paediatric audiologists in an appropriately sound treated environment. Ideally the procedure should involve two paediatric audiologists due to the built in checks for bias which are missing when one audiologist performs VROA.

The question being asked as part of this process is essentially: 'Is there a hearing loss sufficient to account for the child's communication delays?' Audiologists endeavour to answer that question first for VROA before doing any objective tests since these may frighten children with ASD, making further assessment difficult.

We also note that children being considered for an ASD diagnosis are often challenging to assess using conventional techniques. This may lead some medical practitioners to wait until the child is older before referring them for a hearing assessment in the belief that they will be able to cope better at that age.

However, Audiology Australia strongly recommends that the initial hearing test not be delayed. Situations may occur where there are 6 year old children with severe ASD who are too old for VROA and not ready to wear headphones or do play audiometry. In these circumstances, sedating the child for an objective assessment by a hospital audiologist undertaking an Auditory Brainstem Response test may be the only available option.

If clinicians are unable to obtain a result at the first hearing assessment, they will not test a child over and over as this is clearly counterproductive. Clinicians can evaluate the information that they have been able to gather and make appropriate decisions and recommendations. A recommendation may be that the doctor directs the child into 6 months of speech therapy and – following this time – that the child have another hearing assessment. Waiting for this period for another hearing assessment will generally not present a problem so long as the ASD diagnosis process for the relevant child is not delayed on the basis of the (currently) incomplete hearing assessment.

Audiology Australia further recommends that the Guideline specify the importance of evaluating children who may be suspected as having an ASD diagnosis for Auditory Processing Disorder (APD). It is important to distinguish between APD and ASD. APD is an auditory disorder that impacts how sounds are processed and understood. It is not the result of a global condition such as ASD; rather, APD and ASD are two separate conditions. That being said, some of the behaviours of children with ASD and APD may appear very similar, such as difficulty understanding speech in noisy environments, following directions and behaving as if a hearing loss is present. In some circumstances, APD may also co-exist with ASD or other disorders.

In these cases, careful assessment can assist in making an accurate diagnosis. A multidisciplinary team approach is crucial to fully assess and understand the problems exhibited by children who may have ASD and/or APD. The audiologist will play an important role in this process, determining the type of auditory condition a child may exhibit and recommending appropriate individual management and treatment activities.

Audiology Australia further recommends that headphones should only be introduced if a parent is completely confident that their child will accept the headphones and will tolerate sound coming through them. In a recent example, Audiology Australia members had a parent of a child indicate that their child 'wears headphones all the time at home' but the child became very distressed on the first presentation of a sound through the headphones.

Only subsequently did the parent advise that their child 'uses the headphones at home to block out all the sounds'.

Finally, we recommend that parents should be encouraged to inform the audiology clinic when booking the appointment that their child is suspected of or undergoing assessment for ASD to ensure that the child is booked into an appointment with appropriately skilled staff. We also recommend that parents be encouraged to book an appointment at a time most suited to the child and inform the clinic ahead of time of any special needs their child has - for instance, that their child is frightened of soft toys or has a strong interest in doors.

If you would like to discuss any of the above further, please contact Elissa Campbell, Research and Policy Manager, Audiology Australia at: elissa.campbell@audiology.asn.au or on (03) 9877 2727.

Yours sincerely



Jason Ridgway
President