



A National Guideline for the Assessment and Diagnosis of Autism Spectrum Disorders in Australia

Full National Guideline

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October 2018

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This document was updated in December 2020 to omit references to a number of web resources which have been superseded by information housed on the Autism CRC website: autismcrc.com.au/national-guideline

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Associated Documents

- [National Guideline: Summary and Recommendations](#)
- [National Guideline: Administrative and Technical Report](#)
- [National Guideline: Evidence Tables](#)
- [National Guideline: Responses to Public Consultation Submissions](#)

Publication Approval



Australian Government
National Health and Medical Research Council

The guideline recommendations on pages 3-60 of this document were approved by the Chief Executive Officer of the National Health and Medical Research Council (NHMRC) on 9 July 2018, under Section 14A of the National Health and Medical Research Council Act 1992. In approving the guideline recommendations, NHMRC considers that they meet the NHMRC standard for clinical practice guidelines. This approval is valid for a period of 5 years. NHMRC is satisfied that the guideline recommendations are systematically derived, based on the identification and synthesis of the best available scientific evidence, and developed for health professionals practising in an Australian health care setting. This publication reflects the views of the authors and not necessarily the views of the Australian Government.

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'Hidden under the layers of the ∞ of an infinity symbol are a normal distribution curve, a brain and branches seeking connection from a brain/person to an anchor. The ∞ infinity symbol also more explicitly shows the variety within the spectrum but the gaps in knowledge and connections.'

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Foreword

Diagnosis of Autism Spectrum Disorder (ASD) has long been a challenging issue. Because there is no established biological marker for ASD in all individuals, 'gold standard' diagnosis is presently a best estimate clinical judgement based on the behavioural presentation of the individual in the context of their developmental and medical history [1–3]. However, the variability in ASD signs and/or symptoms, along with the considerable behavioural overlap with other developmental conditions, means that ASD diagnosis is not a straightforward clinical task. While diagnostic manuals such as the Diagnostic and Statistical Manual for Mental Disorders (DSM) and the International Classification of Diseases (ICD) provide clear behavioural criteria for diagnoses, the appraisal of these behaviours is an inherently subjective task that relies heavily on clinician experience and skill.

This task of providing accurate ASD diagnoses in Australia is complicated further by significant variability between states and territories in the composition of the clinical diagnostic team. While some states require an ASD diagnosis to be made through consensus of an experienced multidisciplinary assessment team of a paediatrician/psychiatrist, psychologist and speech pathologist, other states have less stringent criteria [3–5]. The geographical location, in particular the urban, regional or remote context, has implications for attracting and maintaining a suitably trained expert workforce. Different diagnostic standards can also apply between the health, education and disability public services offered by each state/territory and federally, such that a diagnostic decision that is recognised by health or disability services early in life may not be recognised by the education system when the child reaches school age.

In 2014, a review of ASD diagnostic practices in Australia was jointly commissioned by the Cooperative Research Centre for Living with Autism (Autism CRC) and the Commonwealth Department of Social Services [3]. A key finding from this report was the considerable variability between states in diagnostic practices, including the quality and quantity of assessments administered, the professionals involved and the required experience of these professionals. The report concluded that this variability was highly likely to have contributed to uneven service provision across the states/territories and confusion among clients undergoing diagnostic assessment.

The main recommendation of the report was:

'Adopting a minimum national standard for ASD diagnosis across Australia would improve diagnostic practices and consistency across the country, and ensure that future diagnostic assessments are in keeping with best practice guidelines.'

The development and implementation of a consistent, national guideline for ASD diagnosis in Australia will provide the community with greater equity in access to a rigorous and comprehensive assessment, transparency in the diagnostic and decision-making processes, and confidence in the accuracy and reliability of diagnostic decisions.

In June 2016, under the terms of a Collaboration Agreement, the National Disability Insurance Agency commissioned Autism CRC to develop Australia's first national guideline for ASD diagnosis in Australia. Professor Andrew Whitehouse was requested to chair this process, in collaboration with a Research Executive comprising Dr Kiah Evans, Professor Valsamma Eapen, Professor Margot Prior and Clinical Associate Professor John Wray.

This Research Executive was set the task of developing a guideline that defines an assessment process that is comprehensive in scope, acceptable to clients, feasible for clinicians to administer, and effective and efficient in delivering accurate diagnostic outcomes. The 12-month development process conducted by the Research Executive comprised a thorough desktop review of existing research evidence and extensive consultation with key stakeholders.

This is Australia's first national guideline for the assessment of ASD concerns, which outlines processes for both diagnostic decision-making and the comprehensive assessment of individual support needs. The Guideline describes a step-by-step process for conducting an assessment of ASD concerns from the time of referral until the assessment results are shared in a written report. The

accompanying Administrative and Technical Report contains detailed information on the guideline development process and the evidence supporting the recommendations made in the Guideline.

The Guideline uses the term 'Autism Spectrum Disorder' or 'ASD', which reflects the terminology used in the international diagnostic manuals. However, the term 'autism spectrum conditions' or 'ASC' is also widely used internationally, and can be used interchangeably with ASD. The Guideline uses the terminology of children/adults/individuals 'on the autism spectrum' to refer to people with a diagnosis of ASD. It is recognised that clinicians and the broader community may have their own terminology preferences, which they may use according to their own judgement.

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1. Overview

This Guideline describes a process for the assessment and diagnosis of Autism Spectrum Disorder (ASD) in Australia, and contains information on the content, participants and settings of the assessments as well as important considerations for the assessment process.

1.1 Purpose

This Guideline was developed to support clinicians who undertake diagnostic assessments that may result in an ASD diagnosis. The Guideline does not seek to reform or replace the ASD behaviours outlined in the DSM or ICD diagnostic manuals, but rather provides a framework that enables an effective and efficient appraisal of these behaviours.

The clinical presentation of ASD is complex and varies between individuals. There is good clinical evidence that some individuals have a behavioural presentation that is so clearly characteristic of ASD that a diagnosis can be made with a relatively streamlined assessment process [6]. In other individuals, behavioural features can be subtler and/or combined with additional clinical difficulties, making an accurate evaluation of those behaviours more difficult. A diagnostic guideline should describe a process that is flexible enough to be tailored to an individual's behavioural presentation while ensuring that a comprehensive assessment is conducted with all individuals to guide their future service delivery.

This Guideline has been developed through an evaluation of the evidence base and through a series of comprehensive community consultation activities. A series of associated documents provide detailed information on how these activities guided the recommendations made in this Guideline:

- Administrative and Technical Report (PDF file)
- Evidence Tables (PDF file)
- Response to Public Consultation Submissions (PDF file).

See Table 3 for detail on how the recommendations have been labelled and graded.

1.2 Scope of the Guideline

It is critical that an assessment of ASD concerns takes place in the context of a broader neurodevelopmental and behavioural assessment. This Guideline is intended to operate within the assessment processes applicable for children, adolescents and adults presenting with signs or symptoms of a broad range of neurodevelopmental conditions. To meet the defined objectives of the project, this Guideline focuses on aspects of the neurodevelopmental and behavioural assessment that are relevant to individuals presenting with concerns about ASD signs or symptoms. It is essential that the assessment of concerns about ASD is not undertaken in isolation from the consideration of other conditions that may be associated with, or be the cause of, the concerns being raised. The objectives of the Research Executive were to develop a guideline that:

- (1) describes a rigorous framework for accurately determining whether an individual meets diagnostic criteria for ASD
- (2) outlines a comprehensive approach to identify related support needs
- (3) contains sufficient flexibility to apply to the assessment of a child, adolescent or adult of any age, gender, cultural or language background, communication or intellectual capacity, and medical complexity, living anywhere in Australia
- (4) describes a feasible process for clinical service providers to administer across the full breadth of community settings in Australia, including public and private healthcare settings
- (5) meets the needs and expectations of individuals being assessed and their caregivers.

In order to meet these objectives, the Research Executive devised a set of research questions to direct the literature review, community consultation and guideline structure (Chapter 1 of the Administrative and Technical Report):

- (1) What guiding principles should be followed when undertaking an assessment of ASD concerns?
- (2) What activities are within the scope of an assessment of ASD concerns?
- (3) What are the roles and responsibilities of members of the assessment team?
- (4) What settings are appropriate for an assessment of ASD concerns?
- (5) How should an assessment of ASD concerns be initiated?
- (6) What process is required to accurately determine if the diagnostic criteria for ASD have been met or not?
- (7) What process is required to holistically determine level of functioning and related support needs?
- (8) How should the findings of an assessment of ASD concerns be shared?
- (9) How should an assessment of ASD concerns be tailored to meet the requirements of individuals from specific populations where the assessment process is more complex?
- (10) What strategies can be put in place to ensure time and financial resources are utilised efficiently?

1.3 Target Users

The primary target users of this Guideline are Australian clinicians who conduct assessments that may result in an ASD diagnosis. This Guideline can be used by these clinicians to inform the process for completing an assessment of ASD concerns and making clinical decisions related to ASD diagnosis and support needs.

Secondary target users of this Guideline include the following groups:

- Australians who have behaviours that may be explained by an ASD diagnosis (and/or their caregivers) can use this Guideline to understand how to initiate, and what to expect from, an assessment of ASD concerns.
- Australian medical, allied health and education professionals and organisations who work with children or adults who are experiencing signs and symptoms that may be explained by an ASD diagnosis can use this Guideline to gain sufficient knowledge to initiate a referral for an assessment of ASD concerns.
- Australian medical, allied health and education professionals and organisations who work with individuals with an ASD diagnosis can use this Guideline to gain an understanding of what an assessment of ASD concerns involves to ensure recommendations are implemented and duplication of services is avoided.
- Australian training providers, including peak bodies and tertiary institutions, can use this Guideline to tailor educational and clinical resources, courses and qualifications to ensure participants achieve the learning outcomes required to conduct assessments of ASD concerns.
- Australian funding bodies can use this Guideline to align resource allocation with the recommended assessment of ASD concerns process.

1.4 Definition of ASD

ASD is the collective term for a group of neurodevelopmental disorders characterised by persistent deficits in social communication and social interaction, and by repetitive patterns of behaviour and restricted interests. The behavioural features that characterise ASD are often present before three years of age, but may not become apparent until the school years or later in life. The developmental challenges, signs and/or symptoms can vary widely in nature and severity between individuals, and in the same individual over time, and may be accompanied by mental and physical health problems.

1.5 Diagnostic Criteria for ASD

ASD is diagnosed when an individual displays a certain set of behaviours. There are two sets of diagnostic criteria commonly used throughout Australia and the world. The American Psychiatric Association publishes the Diagnostic and Statistical Manual of Mental Disorders (currently in its fifth edition – DSM-5), which uses the term ‘Autism Spectrum Disorder’ (Table 1). The DSM-5 requires clinicians to specify the severity of symptoms within the two domains and also if a range of conditions are co-occurring. This information can be helpful for clinical profiling to support both diagnostic decision making and identification of support needs. The World Health Organization publishes the International Classification of Diseases (currently in its 10th edition – ICD-10), which will adopt the term ‘Autism Spectrum Disorder’ in its 11th revision (ICD-11), due for release in 2018 (Table 1). It is expected that the ICD-11 will require clinicians to specify the presence and extent of intellectual and language impairment, along with the impact on numerous areas of functioning.

CBR-2

Recommendation 1

It is suggested that the Assessment Team use the current versions of either of the following international diagnostic manuals to make diagnostic decisions in relation to ASD:

- Diagnostic and Statistical Manual of Mental Disorders
- International Statistical Classification of Diseases and Related Health Problems. [Evidence Table 1]

Table 1. Diagnostic criteria for ASD

DSM-5 (American Psychiatric Association, 2013)	ICD-11 beta draft (World Health Organization, 2017)
1.1 Persistent deficits in social communication and social interaction across multiple contexts (currently or by history): <ul style="list-style-type: none"> • social-emotional reciprocity • non-verbal communicative behaviours • developing, maintaining and understanding relationships 	1. Persistent deficits in the ability to initiate and to sustain reciprocal social interaction and social communication
2. Restricted, repetitive patterns of behaviour, interests or activities in at least two of the following (currently or by history): <ul style="list-style-type: none"> • stereotyped or repetitive motor movements, use of objects, or speech • insistence on sameness, inflexible adherence to routines, or ritualised patterns of verbal or non-verbal behaviour • highly restricted, fixated interests that are abnormal in intensity or focus • hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of the environment 	2. Restricted, repetitive and inflexible patterns of behaviour and interests

DSM-5 (American Psychiatric Association, 2013)	ICD-11 beta draft (World Health Organization, 2017)
3. Symptoms must be present in the early developmental period (but may not become fully manifest until social demands exceed limited capacities, or may be masked by learned strategies in later life)	3. Onset during the developmental period, typically in early childhood, but symptoms may not become fully manifest until later, when social demands exceed limited capacities
4. Symptoms cause clinically significant impairment in social, occupational or other important areas of current functioning	4. Deficits are sufficiently severe to cause impairment in personal, family, social, educational, occupational or other important areas of functioning and are usually a pervasive feature of the individual's functioning observable in all settings, although they may vary according to social, educational or other context
5. Not better explained by another diagnosis	
Specify if: <ul style="list-style-type: none"> with or without accompanying intellectual impairment with or without accompanying language impairment associated with a known medical or genetic condition or environmental factor associated with another neurodevelopmental, mental or behavioural disorder with catatonia 	
Specify current severity based on social communication impairments and restricted, repetitive patterns of behaviour	

1.6 Provision of Services Based on an ASD Diagnosis

ASD is a syndrome that covers a wide range of domains of functioning and support needs [7, 8]. Some individuals who meet diagnostic criteria for ASD will have minimal support needs, while other individuals will have significant and urgent needs for support and treatment services but will not meet diagnostic criteria for ASD at the time of assessment. In the context of neurodevelopmental disorders such as ASD, it is critical that a client's needs, not the presence or absence of a diagnostic label, are used to determine eligibility and prioritisation of access to intervention and support services [9].

1.7 Guideline Development Process

A series of literature reviews and community consultation activities was subsequently conducted over a 12-month period (September 2016 to August 2017) to ensure this Guideline adhered to international best practice standards [10–14]. These activities are described in detail in the accompanying Administrative and Technical Report. In brief, these activities comprised the following:

Steering Committee. The national peak bodies of professions commonly involved in the diagnosis and management of individuals on the autism spectrum were invited to provide a representative to the Steering Committee. The Steering Committee also had representatives from client organisations, including adults with a diagnosis of ASD. A transparent process of declaration and management of conflicts of interest was established as part of the Steering Committee Terms of Reference. The Steering Committee members, and the national peak bodies they represented, are listed in Table 2 (with detailed information on their expertise and declared interests provided in Chapter 2 of the Administrative and Technical Report). The Research Executive met with the Steering Committee via teleconference on five occasions throughout the 12-month period in which the Guideline was

developed. During these meetings, the Steering Committee gave critical feedback on the work to date and each member shared their stakeholder group’s perspective on the process for assessing ASD concerns.

Table 2. Steering Committee members

Stakeholder group	National peak body	Representative
Individuals on the autism spectrum	Autistic Self Advocacy Network of Australia and New Zealand	Jac den Houting
Individuals with an Aboriginal or Torres Strait Islander background	First Peoples Disability Network Australia	Ms Dianne Brookes
Individuals and service providers living in a rural or remote area	National Rural Health Alliance	Dr Jo McCubbin
ASD-specific service providers	Australian Autism Alliance	Mr Jon Martin
Parents and caregivers	Autism Awareness	Ms Nicole Rogerson
General practitioners	Royal Australian College of General Practitioners	A/Prof Bob Davis
Occupational therapists	Occupational Therapy Australia	Ms Susanne Nelson (who replaced Ms Adele Suda)
Nurses	Australian Primary Health Care Nurses Association	Ms Jane Bollen
Paediatricians	The Royal Australasian College of Physicians – Paediatrics & Child Health Division	Dr Jacqueline Small
Psychiatrists	Royal Australian and New Zealand College of Psychiatrists	Prof Julian Trollor and Prof Valsamma Eapen
Psychologists	Australian Psychological Society	Dr Josephine Barbaro and Dr Janine Manjiviona
Speech pathologists	Speech Pathology Australia	Ms Robyn Stephen
Teachers	Australian Professional Teachers Association	Ms Helen Little

Literature Review. An initial scoping review was conducted to map the breadth and depth of the available evidence on the ASD diagnostic process within similar cultures (Chapter 3 of the Administrative and Technical Report). A series of systematic reviews was then conducted to determine the extent and quality of the existing published evidence (Chapter 3 of the Administrative and Technical Report). This included systematic reviews of ASD diagnostic guidelines published in the Anglosphere (Australia, New Zealand, North America and the British Isles), along with academic literature on the diagnostic accuracy of ASD diagnostic instruments, experiences of individuals, caregivers and practitioners of the ASD diagnostic process, and factors influencing temporal outcomes during the completion of an ASD diagnostic assessment.

Community Consultation. Two open consultation processes were conducted, in which any individual living in Australia who was interested in providing input on important considerations during an assessment of ASD concerns could participate. The first was a brief online submission portal completed by 238 individuals (Chapter 4 of the Administrative and Technical Report) and the second was a series of eight workshops held in capital cities across Australia (including one workshop conducted via videoconference to facilitate consultation with rural stakeholders) and attended by 273 individuals (Chapter 5 of the Administrative and Technical Report).

In addition, three sets of targeted consultations were undertaken, in which the perspectives of specific professional groups and clients were elicited. First, consensus recommendations for ASD diagnosis were sought from a group of 77 medical, health and educational experts through a survey that adopted the Delphi method (Chapter 6 of the Administrative and Technical Report). Second, the relative importance of different aspects of an assessment of ASD concerns was measured through a Viewpoint survey with 12 adolescents and adults on the autism spectrum, and 26 caregivers of adolescents and adults on the autism spectrum (Chapter 7 of the Administrative and Technical Report). Finally, the personal experience of individuals undergoing an ASD diagnostic assessment was explored through individual interviews with 14 adults on the autism spectrum (Chapter 8 of the Administrative and Technical Report).

Strong support was expressed at each of these consultations for Australia to have a consistent national guideline for ASD diagnosis.

Evidence Review. Evidence from the literature reviews and community consultations was summarised in an evidence table for each recommendation, with each of the sources of evidence assigned to a row. This allowed supporting evidence from community consultation activities and international guidelines to be reviewed alongside published research evidence. Due to a paucity of high-level published research evidence, it was not possible to develop evidence-based recommendations as defined by the National Health and Medical Research Council [15]. Consequently, this Guideline focused on developing and grading consensus-based recommendations, a process also defined and supported by the National Health and Medical Research Council [15].

The strength of the resulting recommendations was assessed according to the degree of consistency and breadth of evidence across multiple sources, along with the strength of support from experts. The Chair and Coordinator of the Research Executive each independently assigned a rating from 1 to 4 to each recommendation, according to a set of descriptors developed for this project (Table 3 and Chapter 9 of the Administrative and Technical Report, [15]). These ratings were compared and discussed, leading to agreement for all ratings. This process will be repeated for new or revised recommendations following feedback on the draft Guideline.

Feedback and Revision. The Research Executive Committee coordinated a comprehensive feedback process on the draft Guideline involving members of the community and methodological experts. Following the publication of the draft Guideline on 7 September 2017, there was a six-week consultation period during which all interested individuals and organisations were encouraged to make a submission on the draft Guideline. This period closed at midnight on Thursday 19 October 2017. One hundred and sixty-one submissions were received from a range of stakeholders, including state government departments, public and private clinical service organisations, consumer and advocacy groups, and individuals. In addition, the draft Guideline underwent an independent methodological review coordinated by the NHMRC. The Guideline was revised in response to the recommendations provided through these two feedback mechanisms.

Organisations represented on the Steering Committee and other key stakeholders were invited to provide feedback on this revised Guideline during a four-week period (10 February – 11 March 2018). The Guideline was further revised in response to the additional feedback provided by these organisations. The final draft Guideline underwent further methodological review by two professionals using the AGREE-II quality appraisal tool. These professionals were selected by the Research Executive based on their leading expertise in guideline review and/or development; however, they were not involved in the development of this Guideline. The NHMRC then arranged for content review of the Guideline by five international experts in ASD diagnosis. Minor changes were made to the Guideline based on the methodological and content reviews, and the final draft of the Guideline was submitted to the Council of NHMRC for consideration. Further information on this process is provided in the Administration and Technical Report.

Table 3. Evidence source descriptor and grades for consensus-based recommendations

Category	Evidence source	Grade	
Consensus-based recommendation (CBR)	Scholarly literature that was systematically identified and critically appraised. Expert* opinion obtained through community consultation and/or a systematic review of consensus guideline documents, where a systematic review of published research studies revealed an absence of quality evidence.	1	Body of evidence is consistent across numerous evidence sources, and there is excellent support from experts for recommendation(s). Recommendation(s) with this grade are labelled CBR-1 and are prefaced by 'It is recommended ...'.
		2	Body of evidence is mostly consistent across a number of evidence sources, and there is good support from experts for recommendation(s) with few caveats. Recommendation(s) with this grade are labelled CBR-2 and are prefaced by 'It is suggested ...'.
		3	Body of evidence is somewhat consistent but with some uncertainty or limited to a small number of evidence sources, and there is satisfactory support from experts for recommendation(s) with some caveats. Recommendation(s) with this grade are labelled CBR-3 and are prefaced by 'It may be appropriate ...'.
		4	Body of evidence is inconsistent or lacking and there is poor support from experts for recommendation(s). Recommendation(s) with this grade are labelled CBR-4 and are prefaced by 'It may or may not be appropriate ...'.
* An 'expert' is someone with expertise in the ASD diagnostic process gained through lived or professional experience.			

1.8 Instructions for Using this Guideline

This Guideline has been developed to address the critical need for a consistent and comprehensive clinical protocol for ASD diagnosis in Australia. The Guideline represents an agreed process for the assessment of children, adolescents and adults where a diagnosis of ASD is a possibility. Australia is a geographically large country with a culturally diverse and widely dispersed population. This Guideline has been developed with the aim of maintaining assessment rigour while optimising access to clinical services for all Australians, regardless of age, gender, cultural background, socioeconomic status or geographical location.

To make best use of the Guideline, it is essential that clinicians familiarise themselves with its entire content by reading all sections. This will ensure clinicians are familiar with the full range of recommendations and important considerations, and will facilitate clinicians reviewing necessary sections when appropriate for specific clients. Clinicians are responsible for ensuring they achieve

and maintain requisite professional training and expertise to competently deliver these clinical services.

While in developing this Guideline it was necessary to describe an overarching diagnostic framework that could apply to the range of individuals that undergo neurodevelopmental disorder assessments (including assessment of ASD concerns), it is critical that the assessment process is tailored to meet the needs of the individual client, including considering their broader neurodevelopmental features and environmental context.

The recommendations made throughout the Guideline are based on the evidence supporting clinical best practice collected during the guideline development process. The recommendations have been made in the context of the entire diagnostic process, outlined in this Guideline, and it is strongly advised that these recommendations are taken as a whole, rather than in isolation of each other. Furthermore, it is critical that each recommendation is considered in light of the factors known to influence the presentation of ASD signs and/or symptoms, discussed in Chapter 12, 'Important Considerations'.

Embedded within the explanatory text in each chapter is a series of recommendations formatted as in the example in Figure 1. The abbreviation 'CBR-1' on the left of the recommendation indicates that it was formulated based on consensus evidence with a grade of 1 (the best information currently available). The reference in square brackets following the recommendation indicates which evidence table contains the summary of literature review and/or community consultation evidence relating to this recommendation.

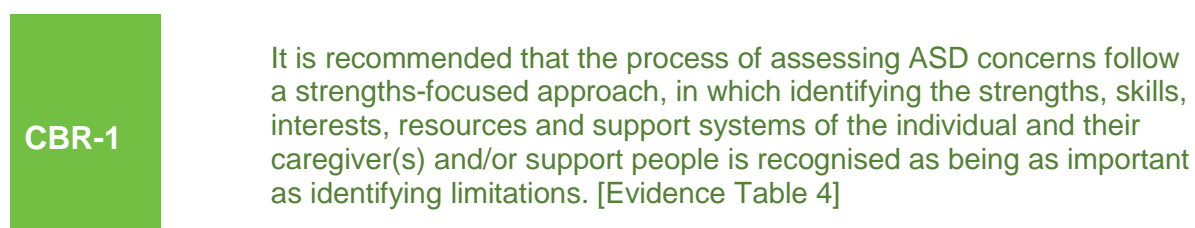


Figure 1. An example of how a recommendation is formatted within the Guideline

2. Guiding Principles

The recommendations in this Guideline were informed by six guiding principles for the overarching clinical context in which an assessment of ASD concerns should take place.

2.1 Evidence Based

This principle recognises that clinical diagnosis is most effective and safe when it is based on rigorous scientific evidence. Unlike medical conditions that are diagnosed based on clear biological observations, ASD diagnosis is currently based on an evaluation of behaviours. While judgement of behaviour is inherently subjective, this task can and should be framed by the available evidence base for clinically informed decision-making for ASD. This covers the skills and experience of the clinician(s), the information collected to inform clinical judgement, and how this evidence is evaluated to form a diagnostic decision. While it is recognised that high-quality evidence is not currently available in relation to every aspect of the assessment of ASD concerns, clinicians are encouraged to regularly update their awareness of emerging evidence and utilise available high-quality evidence. The importance of using this evidence base to inform the diagnostic process cannot be overemphasised and is at the heart of an accurate and ethical diagnostic guideline.

CBR-1

Recommendation 2

It is recommended that the process for assessing ASD concerns follow an evidence-based approach, where clinical decision-making is based on a review of the best available research evidence. [Evidence Table 2]

2.2 Individual and Family Centred

This principle reflects that the primary sources of information required during an assessment of ASD concerns are the individual undergoing assessment and their family members (most notably, caregivers and support people). The individual and/or family members are to be considered equal partners with clinicians in the process of assessing ASD, and their needs, priorities and resources remain critical considerations at each step. This principle acknowledges the diversity that exists within the community in terms of socioeconomic resources, education, cultural background, language spoken and social-emotional factors that influence how an individual and/or family manages the assessment process and the implications of the diagnostic decision. By placing the individual and family at the centre of the assessment of ASD concerns, the aim is to understand and build the capacity of each individual and family to meet their unique needs. This involves advocating around the rights for children, adolescents and individuals with intellectual and/or communication restrictions to have a voice and be an active participant in the assessment process to the extent of their capacity. This approach also encourages a degree of flexibility that enables the tailoring of the assessment process to the individual's presentation.

CBR-1

Recommendation 3

It is recommended that the process for assessing ASD concerns follow an individual- and family-centred approach, by which assessment professionals collaborate with individuals and their families to identify the unique needs, strengths and contexts of the person undergoing assessment and their broader family unit. [Evidence Table 3]

2.3 Holistic Framework

This principle recognises that an exclusive focus on the evaluation of ASD behaviours during the diagnostic process will fail to provide an adequate clinical appraisal of the individual. ASD is only one of a range of physical and mental health conditions that can affect an individual, and there are many instances in which atypical neurodevelopment may have significant impacts on an individual's functioning but not necessarily meet the diagnostic threshold for 'disorder'. Even when ASD is strongly suspected, diagnostic evaluations should appraise the full range of clinical signs and/or symptoms, along with how these have emerged within the environmental context in which the individual lives. It is only by focusing first on the unique challenges and strengths of the individual who presents for an assessment, rather than on the matching of an individual to a diagnostic category, that the most appropriate and effective service delivery can be determined. The World Health Organization's International Classification of Functioning, Disability and Health (ICF [16]) is used throughout this Guideline as a holistic framework to describe the individual in terms of their underlying personal factors, body functions and structures, activities and participation, and environmental factors. The triggering of referrals for support is best based on the level of functioning and support needs, as reflected by the sector-wide shift towards functioning and need defining eligibility criteria for disability services.

CBR-1

Recommendation 4

It is recommended that the process for assessing ASD concerns follow a holistic framework, where an individual is evaluated within their personal, activity and environmental contexts (as outlined, for example, by the World Health Organization's International Classification of Functioning, Disability and Health), and that referrals for further supports are based on an individual's functioning and needs, rather than their clinical diagnosis. [Evidence Table 4]

2.4 Strengths Focused

This principle reflects that understanding the strengths of an individual and their family is as important for service delivery as identifying their challenges. By its very nature, an assessment for ASD requires an appraisal of the behavioural challenges of an individual. However, every individual being assessed will have a range of personality, behavioural, communication and cognitive strengths as well as resources within the broader family and environmental context in which they live. These strengths and resources help facilitate resilience within the individual and their caregiver(s) or support people, both during the assessment of ASD concerns and at the service delivery phase. Assessment and identification of these strengths is critical to understanding the whole clinical profile of an individual, providing context to the limitations identified in the assessment, and determining the areas of functioning, need and potential.

CBR-1

Recommendation 5

It is recommended that the process for assessing ASD concerns follow a strengths-focused approach, in which identifying the strengths, skills, interests, resources and support systems of the individual and their caregiver(s) and/or support people is recognised as being as important as identifying limitations. [Evidence Table 5]

2.5 Equity

This principle acknowledges that all Australians, regardless of age, gender, cultural background, socioeconomic status or geographical location, must be able to access a timely and rigorous assessment. Australia is a geographically large country with a culturally diverse and widely dispersed population. A clinical guideline should aim to alleviate inequities in access that may arise in a population and not reinforce them. However, the pursuit of equity should not compromise the rigour of clinical practice. Solutions to inequities are likely to require partnerships between the community, clinicians and policymakers.

CBR-1

Recommendation 6

It is recommended that the process for assessing ASD concerns be accessible and rigorous for all Australians regardless of age, gender, cultural background, socioeconomic status or geographical location. [Evidence Table 6]

2.6 Lifespan Perspective

This principle recognises that ASD is most often a lifelong diagnosis, with long-term implications for the individual and their family. A lifespan perspective acknowledges that people continue to grow and change throughout their lives as they are faced with new tasks, challenges and opportunities. Consideration in clinical decision-making of the lifetime of a client is critical to providing optimal clinical care.

CBR-1

Recommendation 7

It is recommended that the process for assessing ASD concerns take a lifespan perspective, where consideration is given to the individual's present and future challenges and opportunities. [Evidence Table 7]

3. Assessment Process

An assessment of ASD concerns seeks to determine the level of functioning, support needs and diagnostic status of the individual being assessed. This coordinated process commences with a referral and concludes with the sharing of the assessment findings with the client and a referral for any required supports.

3.1 Content

In its most literal form, a diagnostic evaluation seeks to determine whether an individual meets defined criteria for a given health or medical condition. Yet it is critical for the future service delivery to the individual being assessed to not just understand the presence or absence of clinical diagnoses, but also to evaluate the functioning and support needs of the individual and their caregivers.

The Comprehensive Needs Assessment is a core component of all assessments of ASD concerns and aims to explore the question: *What are the key strengths, challenges and needs that inform future clinical management and service delivery?* The Comprehensive Needs Assessment consists of an Assessment of Functioning and a Medical Evaluation. Its purpose is to obtain information that can be used to guide the provision of supports and resources to assist the individual (and their caregivers, if appropriate) to reach their full potential in relation to activities and participation in society. In addition, the Comprehensive Needs Assessment allows consideration of the opportunities and experiences that have advantaged or disadvantaged the client and influenced their functioning and development prior to the assessment of ASD concerns. It is suggested that the Comprehensive Needs Assessment is conducted initially so that the information collected may be utilised immediately to: link the client to appropriate supports at the earliest opportunity; help determine if a Diagnostic Evaluation is required; and assist the clinician(s) conducting the Diagnostic Evaluation. The Comprehensive Needs Assessment may be integrated within the Diagnostic Evaluation if there is no compromise to the breadth, detail and quality of information collected.

The Diagnostic Evaluation seeks to answer the questions: *Does the individual meet criteria for a clinical diagnosis, such as ASD and other differential or co-occurring conditions?* and *If the individual does not meet criteria for a clinical diagnosis, are there other considerations that explain the presentation?* To ensure that the Diagnostic Evaluation is both accurate and efficient in evaluating for the range of ASD presentations, the Guideline incorporates a degree of flexibility that enables the process to be tailored to the complexity of the individual's clinical presentation.

While the Comprehensive Needs Assessment may occur at any time, the Guideline recommends two sequential 'stages' for Diagnostic Evaluation. The process will usually commence with a Single Clinician Diagnostic Evaluation, which is a simplified assessment to determine whether an ASD or another diagnosis can be confirmed or ruled out with high confidence. This will be followed by a Consensus Team Diagnostic Evaluation in cases where further assessment is required to reach a diagnostic decision with high confidence.

CBR-1

Recommendation 8

It is recommended that the process for assessing ASD concerns incorporate:

- (1) a Comprehensive Needs Assessment
- (2) a Diagnostic Evaluation. [Evidence Table 8]

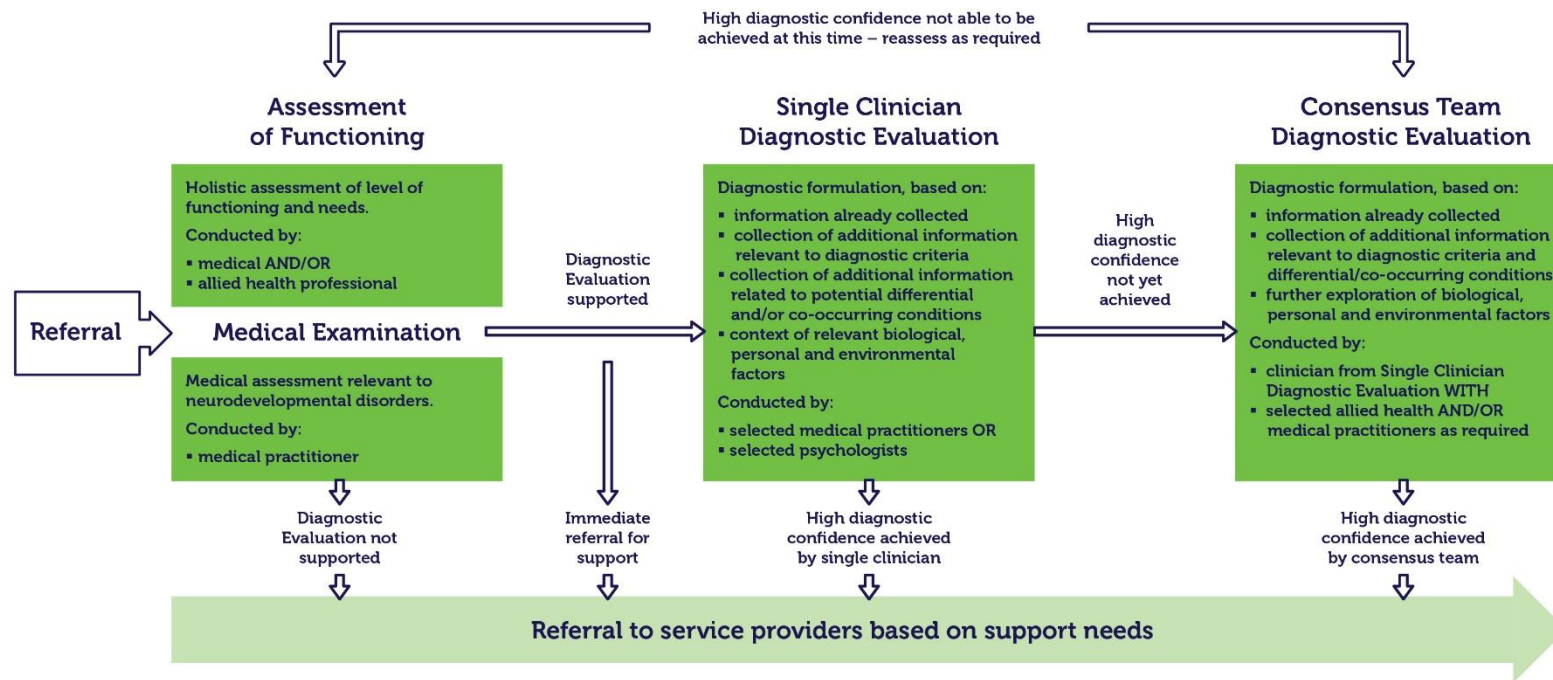


Figure 2. Schematic representation of process for assessing ASD concerns

The assessment components are presented sequentially in Figure 2 to emphasise three key elements of the assessment process:

- (1) the importance of a Comprehensive Needs Assessment providing the foundation of a Diagnostic Evaluation
- (2) the immediate referral of an individual for further supports once level of functioning and needs have been identified
- (3) a progressive approach to diagnostic formulation, whereby additional clinical investigations are based on the clinical complexity of the individual.

With these elements of the overall assessment model established, considerable flexibility can be incorporated. The stages described in the model are not necessarily intended to be conducted as consecutive and discrete steps, and their implementation can be adapted based on the clinical history of the individual to that point and the decision-making of the clinical team. If other stages or components of the assessment have recently been conducted with an individual at the point of referral for Diagnostic Evaluation, it is up to the discretion of the Assessment Team as to whether to repeat these assessments. See Figure 3 for examples of how this flexible assessment structure may work in practice.

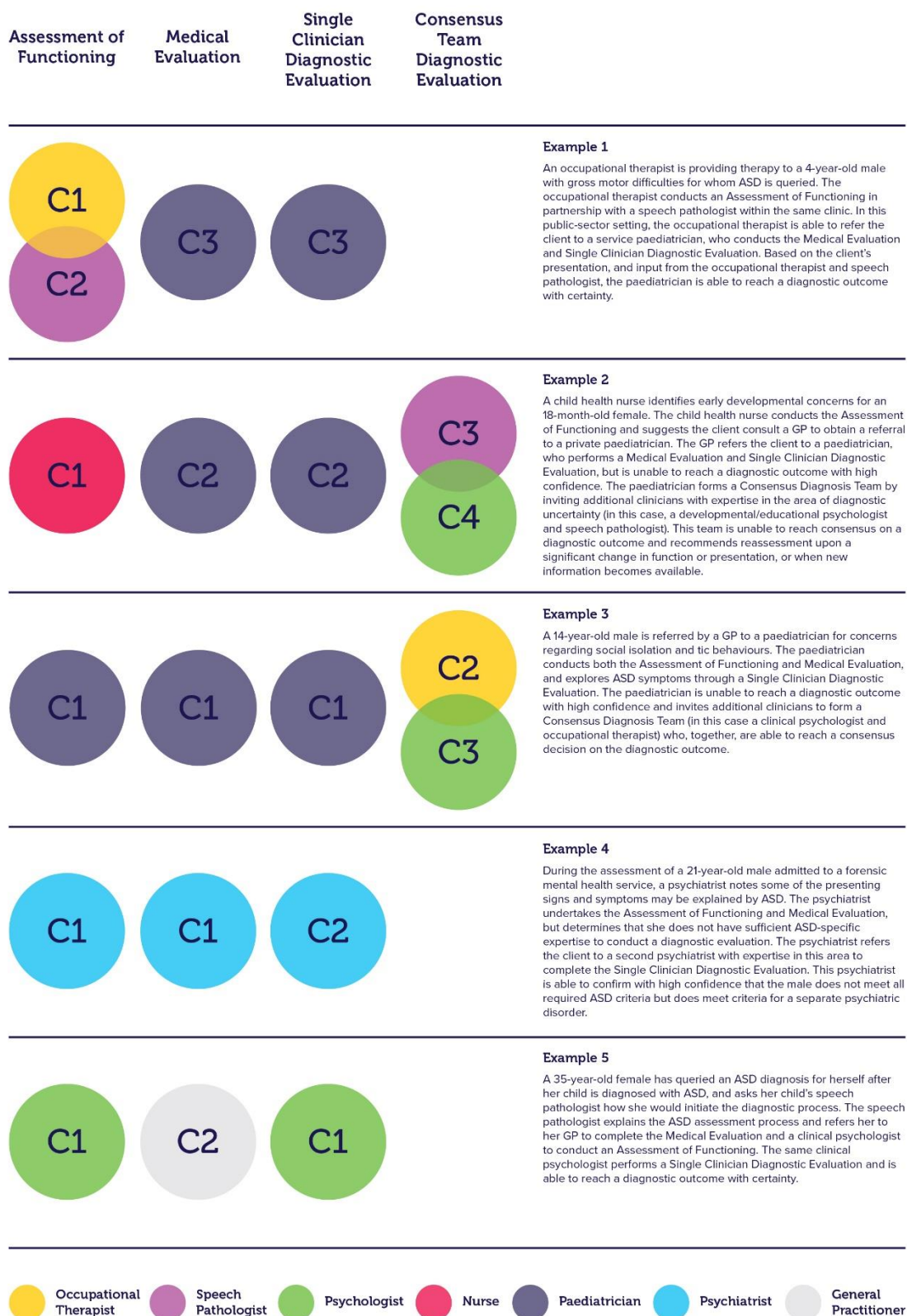


Figure 3. Examples of how the flexible assessment structure described in the Guideline may work in practice

Each clinician is referenced by a number (e.g. C1, C2) and is colour-coded by discipline. Refer to the recommendations in the Guideline for detail about the information collected at each assessment stage.

3.2 Coordination

To ensure optimal clinical care, it is critical that the process for assessing ASD concerns is well coordinated with good communication between all people involved. Centralised coordination helps to ensure the timely and efficient collection of information from multiple individuals across different settings, and assists the client in navigating the complex process of neurodevelopmental assessment.

CBR-2

Recommendation 9

It is suggested that the process for assessing ASD concerns be coordinated by a nominated clinician (or their delegate) from the initial referral for an assessment until findings have been communicated to the individual and/or their caregiver(s). [Evidence Table 9]

4. Assessment Participants

The assessment participants are those individuals involved in the process of assessing ASD concerns. Each assessment of ASD concerns will involve the participation of client(s), members of the Assessment Team and other professionals.

4.1 Clients

'Client' is an overarching term to describe an individual being assessed for ASD and any caregiver(s) or support people participating in the process. Some individuals will participate in the process independently, whereas others will require assistance from a caregiver due to factors such as their age or communication/intellectual abilities. A caregiver or support person may be a parent, guardian, spouse, sibling, child of the individual or friend. Clients are responsible for providing accurate and timely information to members of the Assessment Team where possible.

4.2 Assessment Team

The Assessment Team comprises the clinicians who conduct the Comprehensive Needs Assessment and/or Diagnostic Evaluation (Tables 4 and 5). In cases where the assessment of ASD concerns progresses to a Consensus Team Diagnostic Evaluation, the sub-group of clinicians making the consensus diagnostic decision is referred to as the Consensus Diagnosis Team. The Assessment Team is responsible for conducting the assessments with the client, collecting information from other professionals, making clinical decisions, developing recommendations and sharing assessment findings with clients. To ensure optimal clinical care of the client, it is critical that different professionals and disciplines work in a collaborative manner, including through the sharing of information (with the client's expressed permission) and collaborative decision-making. As well as holding qualifications in their professional discipline, it is critical that members of the Assessment Team obtain and maintain the required expertise in a range of areas relevant to assessments of ASD concerns.

CBR-1

Recommendation 10

It is recommended that all clinicians involved in assessment of ASD concerns obtain relevant training and expertise covering all the following areas:

- typical and atypical development across the age range assessed in their practice
- presentation of the signs and/or symptoms of ASD and other neurodevelopmental disorders across all developmental stages in which they practise, along with the manifestations of these symptoms during early development (which is relevant to diagnostic criteria)
- presentation of symptoms of ASD and other neurodevelopmental disorders among male, female and, where applicable, gender-diverse individuals
- the impact of other important considerations, such as intellectual and/or communication capacity, culturally, linguistically and/or socioeconomically diverse background, regional or remote location, or complex psychosocial factors, on the assessment of ASD concerns
- assessment of ASD and other neurodevelopmental disorders

- administration of standardised assessments (with all prerequisites for using the instrument in clinical practice met)
 - clinical reasoning in weighing evidence, integrating findings and reaching assessment conclusions
 - clinical report writing
 - communicating with individuals on the autism spectrum and their caregivers.
- [Evidence Table 10]

CBR-1

Recommendation 11

It is recommended that all clinicians involved in assessment of ASD concerns, in addition to the foundation qualification(s) relevant to their professional discipline, obtain and maintain relevant training and expertise through peer observation, peer supervision and peer mentoring. Formal training courses and/or further qualifications may supplement these peer learning approaches. [Evidence Table 11]

Table 4. Recommended professional disciplines eligible to conduct components of assessments of ASD concerns

	Comprehensive Needs Assessment		Diagnostic Evaluation	
	Assessment of Functioning	Medical Evaluation	Single Clinician	Consensus Team
Medical practitioner	✓	✓	Selected ^b	Selected ^b
Nurse	Selected ^a	Selected ^a (assist)		
Occupational therapist	✓			✓
Psychologist	✓		Selected ^c	✓
Social worker	✓			
Speech pathologist	✓			✓

^a For nurses conducting a Comprehensive Needs Assessment, it is recommended that they be a nurse practitioner (with appropriate credentials in neurodevelopmental disorder assessment) or a clinical nurse specialist/consultant (practising under appropriate medical supervision).

^b To conduct a Diagnostic Evaluation, medical practitioners are recommended to have specialist registration in the field of community child health, general paediatrics, psychiatry or neurology, or have general registration with at least six years of relevant experience in the assessment of neurodevelopmental disorders.

^c To conduct a Single Clinician Diagnostic Evaluation, psychologists are recommended to have a practice endorsement in clinical psychology, educational/developmental psychology or neuropsychology.

The dark green shading indicates those professions are not recommended to conduct that component of the assessment.

Table 5. Expertise, training and membership for clinicians commonly involved in the Assessment Team

Clinician	Skills and expertise	Training	Registration or membership
Paediatrician	Medical doctors who have skills and expertise in the health and medical assessment and medical treatment of neonates (birth to 4 weeks) and children (up to 25 years)	Successfully completed a medical degree accredited by the Australian Medical Council and at least 1 intern year. Successfully completed a further 3-year basic training in paediatrics and child health and 3-year Advanced Training program through the Royal Australian College of Physicians in at least one of the following paediatric specialties: Community Child Health, General Paediatrics or Paediatric Neurology	Specialist registration with the Medical Board of Australia in the field of general paediatrics (part of the Australian Health Practitioner Regulation Agency)
Psychiatrist	Medical doctors who have skills and expertise in the assessment and treatment of people with mental illness. Child psychiatrists have expertise in children (up to 25 years) and adult psychiatrists have expertise in adults (18 years and above)	Successfully completed a medical degree accredited by the Australian Medical Council and at least 1 year of basic medical training in an accredited hospital. This is followed by successfully completing basic psychiatric training (3 years of stage 1 and 2), followed by 2 years of advanced training in adult or child and adolescent psychiatry (stage 3) in an accredited training network of the Royal Australian and New Zealand College of Psychiatrists	Specialist registration with the Medical Board of Australia in the field of psychiatry (part of the Australian Health Practitioner Regulation Agency)
Neurologist	Medical doctors who have skills and expertise in the assessment and treatment of individuals with conditions that affect the brain, spinal cord, nerve and muscle	Successfully completed a medical degree accredited by the Australian Medical Council and at least 1 intern year. Successfully completed a further 3-year basic and 3-year advanced neurology training program (either adult or paediatric curriculum) through the Royal Australian College of Physicians	Specialist registration with the Medical Board of Australia in the field of neurology (part of the Australian Health Practitioner Regulation Agency)
Psychologist	Allied health practitioners who have skills and expertise in the assessment and treatment of mental health and behavioural problems	Successfully completed a 4-year Australian Psychology Accreditation Council (APAC) endorsed university degree, followed by 2 years of supervised professional training to become a registered psychologist. Specialisation through an area of practice endorsement (e.g. clinical psychologist, clinical neuropsychologist or	General registration, with or without a practice endorsement, with the Psychology Board of Australia (part of the Australian Health Practitioner Regulation Agency)

		educational/developmental psychologist) typically involves at least an additional 2–3 years of formal training through either a master or doctoral program as well as 1 intern year following completion of postgraduate qualifications	OR General registration and practice endorsement in clinical psychology, educational/developmental psychology or neuropsychology with the Psychology Board of Australia (part of the Australian Health Practitioner Regulation Agency)
Speech pathologist	Allied health practitioners who have skills and expertise in the assessment, diagnosis and treatment of speech, language and communication disorders, and the assessment of oral language, written language, swallowing, feeding and play	Successfully completed a university qualification endorsed by Speech Pathology Australia. This is either a 4-year undergraduate degree or a graduate-entry master's degree	Eligible to be a Certified Practising member of Speech Pathology Australia
Occupational therapist	Allied health practitioners who have skills and expertise in the assessment and treatment of personal, activity and environmental factors to assist with meaningful participation in activities and life roles across the lifespan, along with skills and expertise in sensory and motor systems	Successfully completed a university qualification compliant with the World Federation Occupational Therapy standards. This is either a 4-year undergraduate degree or a graduate-entry master's degree	Registration as an Occupational Therapist with the Occupational Therapy Board of Australia (part of the Australian Health Practitioner Regulation Agency)
Social worker	Allied health professionals who use a range of skills and activities to help individuals, families, groups and communities enhance their individual and collective well-being. Social work aims to help people develop their skills and ability to use their own resources and those of the community to resolve problems	Successfully completed a university qualification approved by the Australian Association of Social Workers (or qualifications from overseas that have been recognised as comparable). This is either a 4-year undergraduate degree or a graduate-entry master's degree	Eligible to be a member of the Australian Association of Social Workers

Nurse practitioner	Registered nurses with the experience and expertise to diagnose and treat people of all ages with a variety of acute or chronic health conditions	Successfully completed university qualifications (approved by Nursing and Midwifery Board of Australia) and have 5,000 hours experience at the clinical advanced nursing practice level	General registration and endorsed as a nurse practitioner with the Nursing and Midwifery Board of Australia (part of the Australian Health Practitioner Regulation Agency)
<i>Note that the Guideline recommends that medical practitioners with other selected qualifications and expertise can take part in assessments of ASD concerns (see Sections 7.1, 8.1, 9.1, and 10.1).</i>			

4.3 Other Professionals

The Assessment Team will liaise with other medical, allied health, disability and/or educational professionals to obtain further information about the individual being assessed, to support the Comprehensive Needs Assessment and Diagnostic Evaluation. These other professionals are not part of the Assessment Team; however, their input may be helpful to obtain a more complete clinical picture of the individual's presentation in their everyday environment or provide specialist guidance to explore alternative explanations for presenting signs and/or symptoms. Other professionals may contribute information over a broad range of topics or in relation to a very specific topic. A clinician may meet the qualification and expertise requirements to conduct a Comprehensive Needs Assessment and/or Diagnostic Evaluation, yet their role in an individual's assessment will be limited to providing information if they are not involved in the full range of tasks conducted by the Assessment Team. The individual being assessed may have an existing working relationship with these other professionals (e.g. a treating clinician or teacher) or require new referrals for specific testing. These professionals typically require registration with a professional board and/or accreditation from the peak organisational body relevant to their discipline. Suitable professional disciplines include (but are not limited to):

- accredited practising dietitian
- audiologist
- board-certified behaviour analyst
- childcare worker
- dentist
- disability employment support person
- early intervention service provider
- gastroenterologist
- general practitioner
- geneticist
- Indigenous community health worker
- neurologist
- nurse
- occupational therapist
- ophthalmologist
- optometrist
- paediatrician
- physiotherapist
- preschool or early childhood teacher
- primary or secondary school teacher
- physiotherapist
- psychiatrist
- psychologist
- sleep and respiratory physician
- social worker
- special education teacher
- speech pathologist.

5. Assessment Settings

Behaviours relevant to a clinical diagnosis are likely to vary according to different environmental contexts, so it is important that information is collected about an individual's behaviour in a variety of settings during an assessment of ASD concerns. It is likely not feasible for all clinicians involved in these assessments to conduct face-to-face visits in each relevant community setting. Flexibility is required to ensure that the individual's behaviours are assessed by suitable professionals in the most appropriate community settings, while achieving a balance between obtaining sufficient quality information and avoiding excessive use of resources.

5.1 Clinic Setting

A clinic setting refers to a medical or allied health practice that an individual being assessed for ASD attends specifically for assessment purposes. A clinic setting consists of all spaces within the practice, such as waiting, interview and/or clinical rooms. The advantages of a clinic setting include the ability to:

- standardise the physical, sensory and social environment
- observe the individual in new environments, where they may be unable to rely on their usual strategies or supports
- avoid peers becoming aware of the process of assessing ASD concerns
- potentially offer a convenient 'one stop' location where all aspects of the assessment of ASD concerns can be conducted consecutively
- improve cross-collaboration of differing professional disciplines when they are in the same setting
- potentially minimise costs and wait times for the assessment of ASD concerns by co-locating clinicians.

CBR-1

Recommendation 12

It is recommended that a clinic setting be considered an appropriate, but not essential, venue for an assessment of ASD concerns. [Evidence Table 12]

5.2 Community Setting

A community setting refers to familiar environments where the individual being assessed performs one or more of their usual activities. Examples of a community setting are (but are not restricted to) the individual's home, childcare centre, playground, friend or family member's home, leisure facility, social situation, school, tertiary institution, workplace, prison, youth justice centre or forensic mental health hospital. The advantages of a community setting include the ability to:

- observe the individual (and family) within a familiar environment where anxiety levels may be minimised
- observe typical behaviours and/or social interactions within their usual context, where the interaction between the individual, environment and activity demands can be evaluated
- minimise travel burden on the client.

CBR-1

Recommendation 13

It is recommended that information about an individual's presentation in all community settings relevant to their daily life be collected. [Evidence Table 13]

CBR-1

Recommendation 14

It is recommended that information about an individual's presentation in community settings be obtained by one or more members of the Assessment Team through a combination of:

- direct observation in the community setting
- asking the client(s) about behaviour in the community setting during an interview or through a questionnaire or survey
- observation of video recordings of the individual in the community setting that have been recorded and supplied by the client or other professional(s) with the client's permission
- verbal or written communication about the client's behaviour in the community setting from other professional(s).

[Evidence Table 14]

5.3 Telehealth Setting

A telehealth setting refers to interactions using telephone conversations or video conferencing, and/or reviewing video recordings. The advantages of a telehealth setting include the ability to:

- connect clients living in rural or remote regions with clinicians who have expertise that may not be available in the client's local community
- facilitate the assessment of individuals who may have personal factors (sensory or anxiety symptoms) that prevent or limit their ability to attend a clinical setting.

The use of telehealth also presents significant limitations, particularly in the breadth and detail of information that can be obtained from a client and the conclusions that can be drawn from an assessment through this restricted communication method.

CBR-2

Recommendation 15

It is suggested that telehealth may be used to complement face-to-face meetings, but is not to be used as the sole medium for conducting a Single Clinician Diagnostic Evaluation and/or Consensus Team Diagnostic Evaluation. It is important that at least one face-to-face assessment session is conducted with a Single Clinician and/or member of the Consensus Diagnosis Team. The use of telehealth as the predominant medium for conducting an assessment of ASD concerns should be restricted to exceptional circumstances, such as when conducting a face-to-face assessment in a clinic or community setting would be very difficult. Examples include when a client lives in a regional or remote location without access to assessment teams, or other significant travel restrictions prevent a face-to-face assessment occurring (such as challenges related to sensory or anxiety symptoms). If telehealth is used as the predominant medium for conducting part of an assessment of ASD concerns or sharing the findings, it is recommended that a local clinician (or other professional with relevant expertise) be physically present with the client during the telehealth meetings. [Evidence Table 15]

6. Initiating a Referral

Recognising the possible signs and/or symptoms of ASD, and promptly referring for an assessment of ASD concerns, are important to an individual receiving appropriate supports and a timely diagnosis.

For young children, their parents/caregivers are most likely to be the first to recognise developmental differences, though primary healthcare providers and childcare educators may also identify them. For school-aged children, their parents/caregivers, primary healthcare providers and school teachers are the most likely individuals to bring developmental concerns, signs and/or symptoms to attention. Adults displaying potential signs of ASD may identify these themselves or be prompted by a partner, family member, friend or treating clinician.

It is critical for professionals to recognise that parents know their own children very well and that the developmental concerns of the parent or caregiver should be taken seriously, even if these are not shared by others. While levels of parental concern are not reliable indicators of specific diagnoses (e.g. ASD), there is evidence that parents have moderate to high levels of accuracy in identifying clinically relevant developmental concerns that warrant further assessment [17]. If older children or adults have queries about themselves, these should also be taken seriously.

6.1 Professionals' Involvement

Primary healthcare providers are clinicians who provide the first point of contact within the health system for community members with health concerns. While most Australians will receive primary health care through their general practitioner, primary healthcare providers may also be nurses (including general practice nurses, community nurses and nurse practitioners), allied health professionals, midwives, pharmacists, dentists and Aboriginal health workers.

CBR-2

Recommendation 16

It is suggested that a referral for an assessment of ASD concerns be initiated by a primary healthcare provider. This individual's professional discipline may differ between private and public healthcare settings, but they may need to meet specific professional requirements (e.g. be a general practitioner) to meet certain funding conditions, such as for Medicare. [Evidence Table 16]

CBR-1

Recommendation 17

It is recommended that the primary healthcare provider has received formal professional training in typical child development and the signs and/or symptoms of common neurodevelopmental and behavioural conditions, including those associated with ASD, as well as common co-occurring and differential diagnosis conditions. If the primary healthcare professional administers clinical assessments as part of the process for initiating a referral for an assessment of ASD concerns, they should have training and expertise in administering these assessments (with all prerequisites for using the instrument in clinical practice met). [Evidence Table 17]

6.2 Information Collection

If possible signs and/or symptoms of ASD or other neurodevelopmental concerns have been identified and brought to the attention of a primary healthcare provider, these should be appraised within the context of an individual's overall development. The administration of standardised developmental screening measures can be helpful. If the findings from a developmental screening measure (or developmental history in the case of older individuals) suggest the need for further clinical investigation, it may be helpful to obtain information about ASD signs and/or symptoms using a screening tool that specifically targets ASD behaviours. Although such tools may be useful in gathering information about ASD signs and/or symptoms in a structured way, there is little published evidence to suggest that any one tool can be used in isolation to determine whether an individual should be referred for an assessment of ASD concerns [18].

The decision to refer an individual for this assessment cannot be simplified to an algorithm with a clear-cut behavioural threshold, and requires clinical judgement based on a range of factors. Early identification of, and intervention for, individuals with ASD is important in promoting positive longer term outcomes. If there is a persisting indication that ASD is a possible diagnosis, the primary healthcare professional is encouraged to refer for more specialised assessment of ASD concerns.

CBR-2

Recommendation 18

It is suggested that the primary healthcare provider obtain information about ASD signs and/or symptoms in a structured way through client report and/or observation, along with administering a standardised developmental screening measure when age appropriate. [Evidence Table 18]

6.3 Decision-making and Outcome

Having identified that an individual has sufficient signs and/or symptoms to prompt a referral for an assessment of ASD concerns, the next step for the primary healthcare provider is to discuss the rationale with the client and ask if the client would like to proceed with a referral. The primary healthcare provider should match the client to a clinician with the most appropriate qualification and expertise to conduct the assessment of ASD and related concerns for the specific individual. A referral for an assessment of ASD concerns is activated by completing a written request to the Assessment Team, for example filling in a Referral Form (see Web Resources). The following information is helpful to include:

- name of Assessment Team member to receive referral
- primary healthcare provider's name, job title and contact details
- basic demographic information of the individual being referred for assessment, including name, age, gender, caregiver (if appropriate) and contact details
- reason for referral, including a description of ASD signs and/or symptoms and other developmental concerns that have been reported by the client or observed by the primary healthcare provider (including the results of any standardised developmental or ASD screening tools administered)
- details of any existing diagnosis and results of any investigations conducted
- details of any barriers the client may have in attending an appointment at a clinic
- list of existing reports provided with the referral
- details of any support services that have been established to address urgent support needs identified during the referral process.

On receiving the referral, a nominated clinician (or their delegate) from the Assessment Team becomes the main point of contact with the client throughout the assessment of ASD concerns. It is helpful for this person to carry out the following activities to activate the referral:

- Explain the process for assessing ASD concerns to the client (from receipt of referral to communication of findings).
- Provide written information about the process for assessing ASD concerns for the client to keep and consider in their own time.
- Explain that the client can ask the contact person (the nominated clinician) questions during the assessment of ASD concerns (and these will be answered by the most appropriate clinician).
- Provide the contact person's contact details.
- Provide the client an opportunity to ask questions about the process for assessing ASD concerns.
- Facilitate the client completing any intake, consent and/or self-report forms requested by clinicians before their first meeting.
- Collect copies of existing reports from the client (or from other professionals with consent from the client).
- Schedule the first appointment within three months of the referral.
- Remind the client of appointment details and to bring completed forms and other requested documents to maximise attendance rates and the information available.

CBR-1

Recommendation 19

It is recommended that the primary healthcare provider initiate an assessment of ASD concerns by discussing and obtaining the client's consent for the referral and then providing a written referral to the Assessment Team, including the reasons for referral and necessary information to efficiently commence the process. [Evidence Table 19]

CBR-2

Recommendation 20

It is suggested that, on receiving the referral, a nominated clinician (or their delegate) from the Assessment Team explain the process for assessing ASD concerns to the client, book the initial appointment (ideally within three months of referral), collate existing documents that may assist with the assessment (e.g. previously administered client questionnaires, reports from treating clinicians and school records) and give the client details for how to contact the Assessment Team. [Evidence Table 20]

7. Assessment of Functioning

The purpose of a Comprehensive Needs Assessment is to obtain information that can be used to guide provision of supports and resources to assist the individual (and their caregiver(s), if appropriate) to reach their full potential in relation to activities and participation in society. In addition, the Comprehensive Needs Assessment allows consideration of the opportunities and experiences that have advantaged or disadvantaged the client and influenced their functioning and development prior to the assessment of ASD concerns. Although it is suggested that the Comprehensive Needs Assessment is completed first, it may also be integrated within the Diagnostic Evaluation.

The Comprehensive Needs Assessment comprises an Assessment of Functioning and a Medical Evaluation, with each component having different recommendations in terms of the professionals involved, information collection techniques and observation settings.

7.1 Professionals' Involvement

To enable flexibility within the assessment model, the choice of clinician(s) involved in the Assessment of Functioning remains a decision of the Assessment Team. It is recommended that the assessment cover a broad range of developmental areas and domains of health, and that professionals with expertise in these disciplines be consulted, e.g. cognitive and socio-emotional (e.g. psychologists), speech and language (e.g. speech pathologist) and adaptive behaviours (e.g. occupational therapists and psychologists).

CBR-1

Recommendation 21

It is recommended that an Assessment of Functioning be conducted by a clinician or clinicians meeting one of the following eligibility criteria:

- medical practitioner who holds general or specialist registration with the Medical Board of Australia
- nurse practitioner who holds general registration with the Nursing and Midwifery Board of Australia and is endorsed as a nurse practitioner or as a registered nurse with relevant experience as a clinical nurse specialist/consultant and is practising under appropriate medical supervision
- occupational therapist who holds registration with the Occupational Therapy Board of Australia
- psychologist who holds general registration, with or without a practice endorsement, with the Psychology Board of Australia
- social worker who is eligible to be a member of the Australian Association of Social Workers
- speech pathologist who is eligible to be a Certified Practising Member of Speech Pathology Australia.

[Evidence Table 21]

CBR-1

Recommendation 22

It is recommended that an Assessment of Functioning be conducted by a clinician who, in addition to the relevant training and expertise required by all members of the Assessment Team, has relevant training and expertise in:

- the impact of the signs and/or symptoms of ASD and other neurodevelopmental disorders on daily functioning and participation in age-appropriate activities
- the evaluation of the abilities, challenges, strengths, environmental context and support needs of individuals with ASD and other neurodevelopmental disorders (along with those of their caregivers and support people).

[Evidence Table 22]

7.2 Information Collection

The determination of individual functioning and support needs requires the collection of a range of information relevant to the client. The current version of the ICF is a useful resource for exploring levels of functioning and support needs, and includes the following domains [16]:

- learning and applying knowledge
- general tasks and demands
- communication
- mobility
- self-care
- domestic life
- interpersonal interactions and relationships
- major life areas
- community, social and civic life.

Standardised assessments of development, social, communication, behavioural and/or cognitive abilities may assist the Comprehensive Needs Assessment for children. These assessments are important in facilitating a comparison of an individual's ability in relation to age-appropriate developmental and/or cognitive skills. They also benchmark performance for follow-up assessments. The use of standardised assessments can also facilitate situations to explore an individual's strengths and difficulties with aspects such as social communication, reciprocal social interaction, imagination and behaviour.

An individual's activity-related and character strengths (Table 6) can be explored in a range of ways, for example by asking individual being assessed for ASD and/or their caregivers to identify where they feel they have the strongest skills, on reviewing lists of possible strengths; asking open-ended questions that seek to elicit the client's perspective of key strengths; and/or administering standardised assessments of strengths. In addition, open-ended questions and observations may be utilised to identify interests, resources and support systems.

Table 6. Types of activity-related and character strengths

Commonly reported ASD-specific strengths [19]	General strengths [20]
<p>Activity-related Strengths</p> <ul style="list-style-type: none"> – Attention to detail – Expertise in a specific area – Mathematical abilities – Creative talents – Look at the world differently – Artistic skills – Music – Drawing and visual arts – Visual perception – Intellectual functions – Technical abilities – Computer skills – Engineering <p>Character strengths</p> <ul style="list-style-type: none"> – Strong sense of morality – Honesty – Lack of judgemental attitude – Trustworthiness – Loyalty – Kindness 	<p>Character strengths</p> <p><i>Wisdom and knowledge</i></p> <ul style="list-style-type: none"> – Creativity – Curiosity – Love of learning – Judgement – Perspective <p><i>Courage</i></p> <ul style="list-style-type: none"> – Bravery – Perseverance – Honesty – Zest <p><i>Humanity</i></p> <ul style="list-style-type: none"> – Love – Kindness – Social intelligence <p><i>Justice</i></p> <ul style="list-style-type: none"> – Teamwork – Fairness – Leadership <p><i>Temperance</i></p> <ul style="list-style-type: none"> – Forgiveness – Humility – Prudence – Self-regulation <p><i>Transcendence</i></p> <ul style="list-style-type: none"> – Appreciation of beauty and excellence – Gratitude – Hope – Humour – Spirituality

The impact of the individual's physical, social and institutional environments on their functioning can be explored in a range of ways, for example by asking clients to identify their greatest environmental barriers and facilitators; asking open-ended questions to elicit the client's perspective of these barriers and facilitators through exploration of their experiences and background; and/or administering standardised assessments of environmental impacts.

Once the Assessment of Functioning has established an individual's level of functioning across a broad range of domains, and how this is affected by personal and environmental factors, the support needs of this individual (and their family, if appropriate) can then be identified. There are several types of support needs:

- observed needs to maintain current personal or environmental supports that allow the current level of functioning to be achieved
- observed needs to increase personal or environmental supports to improve level of functioning
- expressed needs for further personal or environmental supports, as identified during conversations with the client through active listening, direct questioning and/or during an assessment of goals
- observed or expressed opportunities to enhance or utilise strengths for learning and development.

These potential support needs can then be prioritised by the client, by choosing and/or ranking support needs. These support needs can be met through a combination of approaches, including:

- information booklets and other resources to review independently
- informal social networks (face to face or online)
- formal social or support groups
- self-directed intervention programs
- individual or group intervention programs with medical, allied health, disability or education professionals.

CBR-1

Recommendation 23

It is recommended that information be collected during an Assessment of Functioning on the following topics:

- medical and health history, including any existing diagnoses
- family history and family functioning
- language/s used at home and level of written/spoken proficiency in English and any other home language
- developmental and educational history
- ASD-specific signs and/or symptoms
- other relevant signs and/or symptoms
- developmental and functioning abilities/impairments across a broad range of domains (e.g. cognitive, language, social-emotional, motor and adaptive behaviour)
- activity-related and character strengths
- environmental facilitators and barriers
- observed and expressed support needs.

[Evidence Table 23]

CBR-1

Recommendation 24

It is recommended that information be collected during an Assessment of Functioning through a variety of means, including:

- file review of existing assessment reports
- interview with the client
- observation of the individual undergoing assessment
- administration of standardised and non-standardised assessments as required

- communication with other professional(s) as required.

[Evidence Table 24]

CBR-1

Recommendation 25

It is recommended that the use of standardised assessments that cover a broad range of developmental domains (e.g. cognitive, language, social-emotional, motor and adaptive behaviour) be strongly considered for the Comprehensive Needs Assessment. [Evidence Table 25]

7.3 Settings

The Assessment of Functioning seeks to understand an individual's level of functioning and needs in order to support their full participation in society. While the Assessment of Functioning may take place in a single setting where the client feels comfortable, it is critical that information is collected about all settings relevant to the client.

CBR-1

Recommendation 26

It is recommended that the Assessment of Functioning take place in a setting where the client feels comfortable and confident to discuss their level of functioning and support needs. This may be in a clinic, community or telehealth setting. Information is to be collected about the individual's level of functioning in all relevant community settings, though it is not essential for the clinician to make direct observations at these locations [Evidence Table 26]

7.4 Decision-making and Outcome

It is the responsibility of the clinician(s) performing the Assessment of Functioning to provide information to the client about the clinical and other services available (including funding options) that may meet their support needs. It is critical that the professionals involved minimise and/or disclose financial or other conflicts of interest in the provision of this information. It is beyond the scope of an Assessment of Functioning to determine specific intervention goals. This is the responsibility of the clinician(s) who will provide ongoing service delivery to the client and will develop intervention goals in partnership with the client.

CBR-1

Recommendation 27

It is recommended that the Assessment of Functioning involve the following steps:

- (1) the identification and prioritisation of observed and expressed support needs

(2) connection to appropriate services based on the client's support needs where impaired functioning is identified, without the requirement for a clinical diagnosis of ASD.

[Evidence Table 27]

CBR-2

Recommendation 28

It is suggested that when providing information to clients regarding services that may meet their support needs, clinician(s):

- disclose to the client any financial or other conflicts of interest in service recommendations
- provide information on a range of services available, where possible.

[Evidence Table 28]

7.5 Repeated Assessment

An individual's level of functioning and support needs are a product of the interaction between their clinical signs and/or symptoms, activity demands, and personal and environmental factors at a particular time, and therefore the level of functioning and support needs will fluctuate over an individual's lifetime. Repeated administration of the Assessment of Functioning will facilitate clients receiving the most appropriate supports over their lifetime, particularly in the preparation for, and progress through, major transitional periods (e.g. commencing school or entering the workforce). The information obtained through this repeated administration of the Assessment of Functioning will assist in revising the severity level if required (in cases where DSM-5 criteria are utilised), without the need to repeat a Diagnostic Evaluation. Please note that the DSM-5 states that 'severity' levels may vary by context and also fluctuate over time, and so severity levels should not be used to determine eligibility for, and provision of, services.

CBR-1

Recommendation 29

It is recommended that the Assessment of Functioning be repeated throughout the individual's life to ensure that changes to level of functioning and support needs are identified and acted on in a timely manner. Further assessment can be conducted as required by clinicians engaging with the client at the particular time.

[Evidence Table 29]

8. Medical Evaluation

While ASD is diagnosed based on appraisal of behavioural symptoms, it often co-occurs with a range of medical conditions. A Medical Evaluation is a critical component of the assessment process to understand whether there are medical causes and/or comorbidities that may help explain the behavioural presentation of the client and to inform future clinical care.

8.1 Professionals' Involvement

Flexibility has been incorporated in the assessment model to allow several options in the choice of clinician(s) involved in the Medical Evaluation. Factors that may influence the choice of clinician include the training and expertise of clinician(s) already involved in the assessment of ASD concerns, and the availability of medical practitioners experienced in the assessment of neurodevelopmental disorders in the local area.

CBR-1

Recommendation 30

It is recommended that a Medical Evaluation and investigations relevant to neurodevelopmental and behavioural disorders be conducted by a medical practitioner who holds general or specialist registration with the Medical Board of Australia. [Evidence Table 30]

CBR-2

Recommendation 31

It is suggested that a medical practitioner may receive assistance in collecting information for the Medical Evaluation from a nurse practitioner who holds general registration with the Nursing and Midwifery Board of Australia and is endorsed as a nurse practitioner or as a registered nurse with relevant experience as a clinical nurse specialist/consultant, practising under appropriate medical supervision. [Evidence Table 31]

CBR-1

Recommendation 32

It is recommended that a Medical Evaluation be conducted by a clinician who, in addition to the relevant training and expertise required by all members of the Assessment Team, has relevant training and expertise in medical evaluation relevant to neurodevelopmental disorders. [Evidence Table 32]

8.2 Information Collection

The aim of the Medical Evaluation is to assess whether there are medical causes and/or associations with the behavioural presentation of the individual and to contribute to the identification of support needs. A template example of a Medical Evaluation Form is provided as a Web Resource.

CBR-1

Recommendation 33

It is recommended that information be collected and synthesised during a Medical Evaluation on the following:

- overview of topics covered in the Assessment of Functioning
- neurodevelopmental and behavioural symptoms
- relevant biological investigations for aetiology and comorbid conditions (further testing may be indicated after Diagnostic Evaluation, e.g. chromosomal microarray)
- developmental and growth status
- congenital abnormalities and dysmorphic features
- neurological, general systems, skin, injury, vision and hearing status.

[Evidence Table 33]

CBR-1

Recommendation 34

It is recommended that the information be collected during a Medical Evaluation through a variety of means, including:

- file review of any relevant assessment reports
- interview with the client
- observation of the individual undergoing assessment
- physical examination
- standardised assessments
- communication with other professional(s) as required.

[Evidence Table 34]

8.3 Settings

While the Medical Evaluation may take place in a variety of settings, it is anticipated that it will typically occur within the medical practitioner's clinical rooms.

CBR-1

Recommendation 35

It is recommended that the Medical Evaluation take place in a private location within a clinic or community setting. [Evidence Table 35]

8.4 Decision-making and Outcome

The Medical Evaluation may be helpful in identifying the need for specialist referrals, assessments and interventions as part of ongoing clinical care. It is the responsibility of the clinician(s) performing the Medical Evaluation to provide information to the client about the outcomes of the Medical Evaluation and any investigations conducted, including the implications of these findings on an assessment of ASD concerns. The clinicians who conducted the Assessment of Functioning and Medical Evaluation are expected to discuss their findings and recommendations, and if ASD remains a queried diagnosis, one of these clinicians is responsible for liaising with the client regarding the commencement of a Single Clinician Diagnostic Evaluation.

CBR-2

Recommendation 36

It is suggested that if the Assessment of Functioning and Medical Evaluation indicate ASD is a queried diagnosis, the clinician in consultation with the client will make a referral for a Single Clinician Diagnostic Evaluation. If the client declines this referral, it is recommended this be documented by the clinician.
[Evidence Table 36]

9. Single Clinician Diagnostic Evaluation

A Single Clinician Diagnostic Evaluation recognises that for clients whose clinical presentation is sufficiently clear, a diagnostic decision can be reliably made with high confidence by one suitably qualified and experienced clinician, when information is available from other experienced members of the Assessment Team and/or other professionals.

9.1 Professionals' Involvement

An appropriate medical practitioner or psychologist with the described registration, training and expertise to conduct the Single Clinician Diagnostic Evaluation should be selected. Ideally the choice of clinician will take into consideration the costs, waiting times and other resource availability factors. It is possible that having a single clinician conduct the evaluation may increase the risk of misdiagnosis, though it is acknowledged that there is little empirical evidence to support this suggestion. It is therefore recommended that this assessment incorporate input from at least one other professional from a different discipline or specialty.

CBR-2

Recommendation 37

It is suggested that a Single Clinician Diagnostic Evaluation be conducted by one clinician meeting at least one of the following eligibility criteria:

- medical practitioner who holds specialist registration with the Medical Board of Australia in the field of community child health, general paediatrics, psychiatry or neurology
- medical practitioner who holds general or specialist registration with the Medical Board of Australia *and* has at least six years of relevant experience, training or supervision in the assessment of neurodevelopmental and behavioural disorders
- psychologist who holds general registration with the Psychology Board of Australia *and* practice endorsement in clinical psychology, educational/developmental psychology or neuropsychology.

[Evidence Table 37]

CBR-1

Recommendation 38

It is recommended that a Single Clinician Diagnostic Evaluation be conducted by a clinician who, in addition to the expertise required by all members of the Assessment Team, has relevant training and expertise in the following areas:

- clinical reasoning in weighing evidence, and performing diagnostic formulations and decisions
- signs and symptoms associated with common co-occurring or differential diagnosis conditions

	<ul style="list-style-type: none">– the criteria for ASD and co-occurring or differential diagnosis conditions described by the current version of international diagnostic manuals (e.g. DSM and/or ICD). <p>[Evidence Table 38]</p>
CBR-1	<p>Recommendation 39</p> <p>It is recommended that the Single Clinician obtain and maintain the additional skills and expertise listed in Recommendation 38 through peer observation, peer supervision and peer mentoring. Formal training courses and/or further qualifications may supplement these peer learning approaches. [Evidence Table 39]</p>
CBR-2	<p>Recommendation 40</p> <p>It is suggested that a Single Clinician Diagnostic Evaluation involve the collection of information from at least one other clinician from a different discipline or specialty to the Single Clinician, if information from at least one clinician from a different discipline has not yet been obtained (for example, from the Comprehensive Needs Assessment). [Evidence Table 40]</p>

9.2 Information Collection

To obtain a comprehensive understanding of the individual being assessed, a Single Clinician Diagnostic Evaluation should involve the collection of information on all (but not limited to) the following topics:

- **Medical and health history:** information from the antenatal, perinatal, neonatal, past and current periods in relation to hearing, visual, physical and mental health conditions
- **Family history and family function:** presence of medical, psychiatric and neurodevelopmental disorders (including ASD) among immediate and extended family members as well as relevant social and environment factors (e.g. family violence, substance abuse, neglect and trauma)
- **Developmental and educational history:** how the individual has presented during their lifetime in terms of early developmental milestones for intellectual, communication, social, and gross/fine motor and personal care skills as well as the presence of any developmental regression
- **ASD-specific signs and/or symptoms:** behaviours relating to social communication/interaction and restricted, repetitive patterns of behaviour outlined in either the current DSM or ICD diagnostic criteria
- **Other relevant behaviours, signs and/or symptoms** that may indicate the presence of a co-occurring condition and/or differential diagnosis.

Information collected from a variety of evidence sources can greatly assist the development of a comprehensive clinical picture of an individual. Sources include:

- file review of existing assessment reports, early intervention / medical records, parent records of early development (e.g. baby books, home video footage), school records and evidence of any childhood traumatic experiences

- interview with the individual being assessed (if appropriate based on age and communication abilities), where information is obtained by asking semi-structured, open-ended questions and may be supplemented by standardised questionnaires completed before the interview
- interview with a caregiver (if appropriate based on age and communication abilities, or with consent) or a support person who knows the individual well (e.g. parent, sibling, partner, friend, teacher), where information is obtained by asking semi-structured, open-ended questions and may be supplemented by standardised questionnaires completed before the interview
- observation of the individual being assessed, where the clinician purposefully interacts with the individual in a manner that is likely to elicit behaviours consistent with ASD. A standardised observational tool may be used for this purpose, but is not required
- discussion with other professional(s) to obtain further information on the individual's behaviours, signs and/or symptoms in other settings.

The administration of ASD-specific assessments (e.g. Autism Diagnostic Observation Schedule) has been demonstrated to provide considerable assistance in making diagnostic formulations. These instruments provide the benefit of a structured and consistent way of collecting information about the presence and extent of behaviours frequently associated with ASD. These instruments have been criticised, however, for not displaying adequate levels of sensitivity (how well a measure correctly identifies children with delay/disability) and specificity (how well a measure correctly identifies children without delay/disability) [21].

CBR-1

Recommendation 41

It is recommended that information be collected during a Single Clinician Diagnostic Evaluation on the following:

- overview of topics covered in the Comprehensive Needs Assessment
- signs and/or symptoms specified in diagnostic criteria for ASD and potential co-occurring and/or differential conditions
- biological, personal and environmental factors relevant to the individual. [Evidence Table 41]

CBR-1

Recommendation 42

It is recommended that information be collected during a Single Clinician Diagnostic Evaluation through a variety of means, including:

- review of documentation from the Comprehensive Needs Assessment
- communication with clinicians who conducted the Comprehensive Needs Assessment
- file review of any additional assessment reports
- interview with the client
- observation of the individual undergoing assessment

- communication with other professional(s) as required.

[Evidence Table 42]

CBR-2

Recommendation 43

It is suggested that ASD-specific assessments not be used as a substitute for clinical judgement in diagnostic decision-making, nor as the sole investigation on which an ASD diagnosis is based, though they may provide considerable assistance in the direct observation of ASD symptoms. Their use in an assessment of ASD concerns is at the discretion of the Single Clinician. [Evidence Table 43]

9.3 Settings

While the Single Clinician Diagnostic Evaluation may take place in a single setting where the client feels comfortable, it is critical that information is collected about all settings relevant to the client. The setting(s) for a Single Clinician Diagnostic Evaluation will typically be chosen to reduce costs and waiting times for the client, while maintaining assessment rigour.

CBR-1

Recommendation 44

It is recommended that the Single Clinician Diagnostic Evaluation take place in a setting that allows the clinician to make direct observation of symptoms. This may be in a clinic or community setting, and may be supplemented by telehealth. Information is to be collected about the client's level of functioning in all relevant community settings, though it is not essential for the clinician to make direct observations within these locations. [Evidence Table 44]

9.4 Decision-making and Outcome

A Single Clinician Diagnostic Evaluation will result in one of the following three outcomes:

- (1) high confidence that the individual does not meet diagnostic criteria for ASD or another clinical diagnosis
- (2) high confidence that the individual does meet diagnostic criteria for ASD or another clinical diagnosis, with noting of current specifiers and severity level if DSM-5 criteria are utilised
- (3) high confidence not yet being achieved as to whether the individual meets diagnostic criteria for ASD or another clinical diagnosis, and a Consensus Team Diagnostic Evaluation is required.

A number of factors may contribute to the perception that a Consensus Team Diagnostic Evaluation is required, including:

- uncertainty about whether behavioural symptoms meet diagnostic criteria for ASD
- current or previous exposure of the individual to personal or familial trauma and/or psychosocial risk
- a history or indication of complex medical conditions
- a history or indication of differential or co-occurring diagnoses.

Along with the outcomes described above, a Single Clinician Diagnostic Evaluation may result in confirmation of a differential or co-occurring diagnosis and may contribute further information on strengths and support needs. Where a client disagrees with the diagnostic decision, they retain the right to seek a second opinion through another Single Clinician Diagnostic Evaluation or a Consensus Team Diagnostic Evaluation.

CBR-1

Recommendation 45

It is recommended that the clinician conducting the Single Clinician Diagnostic Evaluation use their clinical judgement to reach their diagnostic decision by:

- taking into account all information collected in the Comprehensive Needs Assessment and Single Clinician Diagnostic Evaluation, in the context of a biopsychosocial framework
- integrating and weighing the available evidence against each diagnostic criterion (according to the current version of the DSM or ICD)
- testing alternative explanations for symptoms that may warrant co-occurring or differential diagnosis or alternative clinical pathways
- considering whether sufficient information is available to make a diagnostic decision with high confidence without progressing to a Consensus Team Diagnostic Evaluation.

[Evidence Table 45]

CBR-1

Recommendation 46

It is recommended that any new support needs identified at the Single Clinician Diagnostic Evaluation be documented, communicated to the client and, if appropriate, communicated to the client's current support services (with the client's permission). If the client is not receiving any support services, it is recommended that they be connected to appropriate services based on support needs, without the requirement for a clinical diagnosis of ASD. [Evidence Table 46]

10. Consensus Team Diagnostic Evaluation

A Consensus Team Diagnostic Evaluation recognises that there are individuals whose presentation is more complex or subtle, and that an accurate diagnostic determination of these individuals requires assessment from a broader multidisciplinary team.

10.1 Professionals' Involvement

The choice of clinicians involved in the Consensus Team Diagnostic Evaluation will be tailored to meet the specific assessment needs of the client. It is the decision of the clinician who completed the Single Clinician Diagnostic Evaluation as to which professionals are invited to join the Consensus Diagnosis Team; however, they should aim to ensure a broad range of expertise. In some Australian states and territories, tertiary services are available for the assessment of individuals with complex neurodevelopmental disorders. These services, where available, can also fulfil the role of the Consensus Diagnosis Team.

CBR-2

Recommendation 47

It is suggested that the clinician who conducted the Single Clinician Diagnostic Evaluation invite additional clinician(s) as required to participate in the Consensus Team Diagnostic Evaluation, based on the match between professional expertise and the area(s) of diagnostic uncertainty identified during the Single Clinician Diagnostic Evaluation. This should involve at least one other professional from a different discipline or specialty to the clinician who conducted the Single Clinician Diagnostic Evaluation. [Evidence Table 47]

CBR-1

Recommendation 48

It is recommended that a Consensus Team Diagnostic Evaluation include at least one additional clinician who meets at least one of the following eligibility criteria:

- medical practitioner who holds specialist registration with the Medical Board of Australia in the field of community child health, general paediatrics, psychiatry or neurology
- medical practitioner who holds general or specialist registration with the Medical Board of Australia *and* has at least six years of relevant experience, training or supervision in the assessment of neurodevelopmental disorders
- occupational therapist who holds registration with the Occupational Therapy Board of Australia
- psychologist who holds general registration, with or without a practice endorsement, with the Psychology Board of Australia
- speech pathologist who is eligible to be a Certified Practising Member of Speech Pathology Australia.

[Evidence Table 48]

CBR-1

Recommendation 49

It is recommended that a Consensus Team Diagnostic Evaluation be conducted by clinicians who, in addition to the relevant training and expertise required by all members of the Assessment Team, have relevant training and expertise in all the following areas:

- clinical reasoning in weighing evidence, performing diagnostic formulations and making diagnostic decisions
- signs and symptoms associated with common co-occurring or differential diagnosis conditions
- the criteria for ASD and co-occurring or differential diagnosis conditions described by the current version of international diagnostic manuals (e.g. DSM and/or ICD).

[Evidence Table 49]

CBR-1

Recommendation 50

It is recommended that members of the Consensus Diagnosis Team obtain the additional skills and expertise listed in Recommendation 49 through peer observation, peer supervision and peer mentoring. Formal training courses and/or further qualifications may supplement these peer learning approaches. [Evidence Table 50]

10.2 Information Collection

During a Consensus Team Diagnostic Evaluation, information should be collected through an individually tailored selection of assessments, including standardised instruments and non-standardised data collection tools, to further investigate aspects where diagnostic clarity is lacking for the individual undergoing assessment. If findings from a previously administered ASD-specific assessment (e.g. Autism Diagnostic Observation Schedule) are not available and current, then the administration of such a test at this stage may provide important information for the Consensus Diagnosis Team to consider. A variety of other assessments may also be appropriate. These additional assessments may be administered by one of the Consensus Diagnosis Team members or another professional. It is important for the clinician to explain the relevance of any standardised assessments to the client.

Examples of possible assessments that may be selected for a Consensus Team Diagnostic Evaluation are described in Table 7.

Table 7. Possible assessments for a Consensus Team Diagnostic Evaluation to address areas of uncertainty in the diagnostic decision

Domain being assessed	Type of assessment
Social interaction and/or communication domain(s)	Receptive language (e.g. comprehension of the verbal and non-verbal communication of others)
	Expressive language (e.g. sound and word production, and the frequency and function of verbal and non-verbal communication)
	Social communication (e.g. initiation of communication, social reciprocity and conversational skills)
Repetitive patterns of behaviour, interests or activities domain	Sensory motor assessment (e.g. presence of hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of the environment)
	Behavioural assessment (e.g. challenging behaviour which falls outside the range of expected age-appropriate behaviour)
	Mental health assessment (e.g. rituals, obsessive compulsive behaviours, tics, anxiety)
	Neurological assessment (e.g. epilepsy, tics)
Possible differential or co-occurring diagnosis	Cognitive and/or neurodevelopmental assessment (e.g. intelligence, learning capability, visual perception, memory, executive functioning)
	Developmental assessment (e.g. ability to meet expected developmental milestones related to motor and social-emotional domains)
	Hearing assessment (e.g. screening test or full auditory evaluation)
	Mental health assessment (e.g. psychiatric screening or diagnostic tool to identify the presence of a range of mental health signs, symptoms or conditions)
	Selective metabolic and/or genetic screen (e.g. chromosomal microarray, amino acid chromatography, thyroid function)
	Neurological testing (e.g. electroencephalogram, computed tomography scan, magnetic resonance imaging)
	Vision assessment (e.g. screening test, sight test or full ophthalmologist evaluation)

CBR-1

Recommendation 51

It is recommended that information be collected during a Consensus Team Diagnostic Evaluation on the following:

- overview of topics covered in the Comprehensive Needs Assessment and Single Clinician Diagnostic Evaluation
- additional information to further appraise behavioural symptoms specified in diagnostic criteria for ASD and potential co-occurring and/or differential diagnosis conditions
- further exploration of biological, personal and environmental factors relevant to the individual.

	[Evidence Table 51]
CBR-1	<p>Recommendation 52</p> <p>It is recommended that information be collected during a Consensus Team Diagnostic Evaluation through a variety of means, including:</p> <ul style="list-style-type: none">– review of documentation from the Comprehensive Needs Assessment and Single Clinician Diagnostic Evaluation– communication with clinicians who conducted the Comprehensive Needs Assessment and Single Clinician Diagnostic Evaluation– file review of any additional assessment reports– interview with the client as required– observation of the individual undergoing assessment– administration of standardised and non-standardised assessments as required– communication with other professional(s) as required. <p>[Evidence Table 52]</p>
CBR-2	<p>Recommendation 53</p> <p>It is suggested that ASD-specific assessments not be used as a substitute for clinical judgement in diagnostic decision-making, though they may provide considerable assistance in the direct observation of ASD symptoms, and their use in an assessment of ASD concerns be at the discretion of the Consensus Diagnosis Team. [Evidence Table 53]</p>

10.3 Settings

The Consensus Team Diagnostic Evaluation is focused on investigating aspects where diagnostic clarity is lacking, so will often involve observations in natural environments within the community.

CBR-1	<p>Recommendation 54</p> <p>It is recommended that the Consensus Team Diagnostic Evaluation take place in a setting that allows the clinician to assess how symptoms manifest in a variety of contexts relevant to the client. This may be in a combination of clinic and community settings, which may be supplemented by information collected in a telehealth setting. This information may be obtained through communication with the client and/or other professionals, but direct observations by member(s) of the Consensus Diagnosis Team within some of these community settings is suggested where possible. [Evidence Table 54]</p>
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10.4 Decision-making and Outcome

A Consensus Team Diagnostic Evaluation will result in one of the following three outcomes:

- (1) consensus reached that the individual does not meet criteria for ASD or another clinical diagnosis
- (2) consensus reached that the individual does meet criteria for ASD or another clinical diagnosis, with noting of specifiers and current severity level if DSM-5 criteria are utilised
- (3) consensus not being reached as to whether the individual meets criteria for ASD or another clinical diagnosis, and the individual being recommended for reassessment at a later time. In this case, it is suggested that all relevant information is provided to the Assessment Team conducting the reassessment (where possible) to avoid unnecessary duplication of services.

Where a client disagrees with the diagnostic decision, they retain the right to seek a second opinion.

CBR-1

Recommendation 55

It is recommended that clinicians conducting the Consensus Team Diagnostic Evaluation use their clinical judgement to reach a consensus diagnostic decision by:

- taking into account all information collected during all stages of assessments, in the context of a biopsychosocial framework
- integrating and weighing the available evidence against each diagnostic criterion (according to the current version of the DSM or ICD)
- testing alternative explanations for signs and/or symptoms that may warrant co-occurring or differential diagnosis or alternative clinical pathways
- considering if sufficient information is available to make a diagnostic decision with high confidence
- discussing the evidence until each member of the Consensus Diagnosis Team agrees on the same diagnostic outcome.

[Evidence Table 55]

CBR-1

Recommendation 56

It is recommended that any new support needs identified at the Consensus Team Diagnostic Evaluation be documented, communicated to the client and, if appropriate, communicated to the client's current support services (with the client's permission). If the client is not receiving any support services, it is recommended that they be connected to appropriate services based on support needs, without the requirement for a clinical diagnosis of ASD. [Evidence Table 56]

11. Sharing Findings

A critical step in the assessment process is the sharing of assessment findings with the client and/or their caregiver in a way that is informative and understandable. Findings are communicated through a face-to-face meeting with the client and/or their caregiver as well as in a written report.

11.1 Communication Style

Findings from the assessment of ASD concerns need to be disclosed to the individual who has been assessed and/or their caregiver (as appropriate based on age and communication abilities) in a way they comprehend and is meaningful, facilitated by a tone that encourages understanding and acceptance. How information is conveyed must be appropriate for the client's verbal and written language proficiency, and may involve visual strategies to support the explanation. Frequent checking in with the client to see if information has been understood is an important strategy.

The Single Clinician and/or at least one member of the Consensus Diagnosis Team shares the Comprehensive Needs Assessment and Diagnostic Evaluation findings during a face-to-face meeting (or meetings). It may be that findings are shared with the client at several points during the assessment period and then summarised at the conclusion of all assessment activities. If geographical location or travel restrictions prevent a face-to-face meeting, and telehealth is utilised, it is critical that another professional from the local community is physically present with the client during the meeting to provide support if required.

The findings of the assessment are to be described in a written report, which may be either one document that combines information from the Comprehensive Needs Assessment and Diagnostic Evaluation, or multiple separate documents (example templates are provided in the Web Resources). This report will ideally be given to the client within three months of the first appointment of the process of assessing ASD concerns. Clinicians may provide additional written summaries or reports to share with other professionals, service providers or funding agencies (only with expressed consent from the client), and these may be written using technical language.

CBR-1

Recommendation 57

It is recommended that the findings of the assessment of ASD concerns be communicated to the client by the Single Clinician and/or at least one member of the Consensus Diagnosis Team in a comprehensive and understandable way through a face-to-face meeting (or via a telehealth setting) *and* a written report. This will ideally occur within three months of the first assessment appointment, or earlier in line with the clinician's existing professional standards. Findings of the assessment of ASD concerns should be shared only with relevant stakeholders, such as the referrer, caregivers / support people, service providers or funding agencies, with the expressed consent of the client. [Evidence Table 57]

11.2 Content of Communication

The meeting when findings are communicated is an additional opportunity to assist the client to understand and consider the implications of the diagnostic outcome. Along with sharing information with the client, the Assessment Team can encourage the client to ask questions and facilitate discussion regarding how the diagnostic outcome may affect relationships, roles and eligibility for services/funding. This may involve developing plans for using the diagnostic information and preparing for whether, when and how to disclose the diagnosis to others.

CBR-1

Recommendation 58

It is recommended that the findings of the assessment conveyed to a client at a meeting (or meetings) and in a written report (or reports) include the following information:

- clear confirmation of the diagnostic outcome and a rationale for the diagnostic decision
- the diagnostic criteria utilised (e.g. DSM-5 or ICD-11)
- evidence that supports the presence or absence of each ASD diagnostic criterion
- evidence that supports the current severity level and specifiers (if DSM-5 criteria are utilised)
- the assessments conducted, including the name of the instrument, what it measures, the administering professional, the findings and their implications
- co-occurring conditions identified, diagnosed or requiring further investigation
- alternative conditions identified, diagnosed or requiring further investigation
- current developmental status / level of functioning across multiple domains and potential level of functioning with supports
- activity-related and character strengths
- environmental facilitators and barriers
- highest priority support needs of the client and related goals
- suggested timeframe for the Comprehensive Needs Assessment to be repeated
- recommendations with sufficient details for the client to action:
 - further assessments if required
 - informal and formal supports required
 - available funding and services. [Evidence Table 58]

12. Important Considerations

ASD is a syndrome with a highly variable presentation, which can make the accurate assessment of symptoms and comorbidities challenging. A range of factors are known to influence the presentation and evaluation of ASD signs and/or symptoms and should be taken into account during an assessment of ASD concerns.

12.1 Age

The behaviours that characterise ASD are known to vary according to age and to fluctuate within the same individual over time. An important principle is to base an assessment of ASD concerns within a developmental framework, in which an individual is evaluated against what would be expected by typically developing peers of the same age as well as children of the same developmental age. The following three tables list key behaviours that may be observed in individuals of different ages diagnosed with ASD: preschool-aged children (Table 9), school-aged children (Table 10) and older adolescents / adults (Table 11). Please note that not every individual presenting with these behaviours will receive a diagnosis of ASD, and not every individual on the autism spectrum will present with these behaviours.

Table 8. Additional considerations for preschool-aged children (0–5 years)

Aspect	Considerations
Signs and/or symptoms	<p>There is robust empirical evidence that, for a small proportion of children diagnosed with ASD, a reliable and valid diagnosis can be made at 2 years of age by an experienced clinician, and that this diagnosis is relatively stable over time [22, 23]. The most common age of ASD diagnosis in Australia is between 3 and 5 years [24].</p> <p>Some of the key signs and/or symptoms of ASD in early childhood are listed here [1]. This is intended to provide guidance about commonly reported signs and/or symptoms of ASD in the pre-school years and is not an exhaustive list. An assessment of whether there is a reduction in the frequency or variety of a particular behaviour should be made in comparison with peers of the same age, gender and cognitive ability.</p> <p>Spoken language</p> <ul style="list-style-type: none"> – Language delay in babble or words – Reduced use of language for communication – Regression in speech and language skills – Repetition of the speech of others which may be immediate, delayed or mitigated ('echolalia') <p>Responding to others</p> <ul style="list-style-type: none"> – Absent or delayed response to name being called (assuming adequate hearing) – Reduced responsiveness to social smiling <p>Interacting with others</p> <ul style="list-style-type: none"> – Reduced social interest in others – Reduced imitation of others' actions – Reduced initiation of social play with others – Reduced enjoyment of situations that most children like (e.g. birthday parties) – Reduced sharing of enjoyment with others <p>Eye contact, pointing and other gestures</p> <ul style="list-style-type: none"> – Reduced use of gestures and facial expressions to communicate with others – Reduced social use of eye contact (assuming adequate vision) – Reduced pointing or showing objects to share interest

	<p>Play</p> <ul style="list-style-type: none"> – Reduced use of pretend play <p>Restricted interests and/or rigid and repetitive behaviours</p> <ul style="list-style-type: none"> – Repetitive movements, such as hand flapping, spinning and finger flicking – Repetitive play – Over-focused or unusual interests – Excessive insistence on following own agenda – Over- or under-reaction to sensory stimuli (e.g. textures, sounds, smells, taste) <p>Pathological (or Extreme) Demand Avoidance refers to a set of symptoms that can co-occur with ASD, and is recognised as a behavioural profile within ASD in the United Kingdom. It is typified by an avoidance of everyday demands and expectations to an extreme extent, and is driven by an anxiety-based need to be in control. Typical signs and/or symptoms include the resistance or avoidance of ordinary demands of life and the use of social strategies as part of the avoidance (e.g. distracting or giving excuses) [1, 25, 26].</p>
<p>Information collection</p>	<p>Both DSM and ICD diagnostic criteria state that ASD symptoms must be present in early childhood. An assessment during this age period provides an opportunity for direct observation of these behaviours during this critical age period.</p> <p>Typically, the primary environment in which young children interact with others is the family home, with the immediate family. Collection of additional information from individuals who may regularly observe the child in this setting (e.g. primary caregivers, siblings, grandparents) will be critical to guide the assessment. Additional information from professionals who may observe the child in the home or outside settings, such as child health nurses, childcare educators, general practitioners and out-of-home care providers, may also be valuable.</p>
<p>Sharing findings</p>	<p>Discuss with parents or caregivers how they would like the diagnostic decision communicated, including if this will be shared with their child, taking into account the child’s ability to understand this information. Use clinical judgement in guiding parents through these decisions.</p> <p>The receipt of an ASD diagnosis may elicit a range of reactions. Negative reactions include shock, disappointment, loss and anger as well as concerns about stigma and other negative reactions from others. Positive reactions include relief and validation that a diagnosis explains and provides understanding of the behaviours and previous experiences of the individual. Reactions to the diagnosis may influence service delivery to the individual, so it is critical that all professionals involved in the assessment of ASD concerns understand the potential personal effects of the assessment outcomes.</p>

Table 9. Additional considerations for school-aged children (6–16 years)

Aspect	Considerations
Signs and/or symptoms	<p>A significant number of children are not recognised as having ASD until the school years [27], when the social and communication demands placed on them are substantially increased.</p> <p>Some of the key signs and/or symptoms of ASD in middle childhood are listed here [1]. This is intended to provide guidance about commonly reported signs and/or symptoms of ASD in the school years and is not an exhaustive list. An assessment of whether there is a reduction in the frequency or variety of a particular behaviour should be made in comparison with peers of the same age, gender and cognitive ability.</p> <p>Spoken language</p> <p>Spoken language may be unusual in several ways:</p> <ul style="list-style-type: none"> – very limited use – excessive use – monotonous in tone – repetitive language, with frequent use of certain phrases or with content dominated by excessive information on topics of interest – talking ‘at’ others rather than a two-way conversation <p>Responding to others</p> <ul style="list-style-type: none"> – Reduced response to others’ facial expressions – Reduced response to name being called (assuming adequate hearing) – Reduced repertoire of social responses – Reduced ability to interpret non-verbal cues – Difficulty with ‘small talk’ <p>Interacting with others</p> <ul style="list-style-type: none"> – Reduced social interest in others – Reduced awareness of socially expected behaviour – Reduced ability to share in the social play of others – Reduced enjoyment of situations that most children like <p>Eye contact, pointing and other gestures</p> <ul style="list-style-type: none"> – Reduced or poorly integrated use of gestures, facial expressions and eye contact during social communication with others (assuming adequate vision) – Reduced pointing or showing objects to share interest <p>Play</p> <ul style="list-style-type: none"> – Reduced variety and flexibility in imaginative play <p>Restricted interests and/or rigid and repetitive behaviours</p> <ul style="list-style-type: none"> – Repetitive movements, such as hand flapping, spinning and finger flicking – Repetitive play and focused on objects rather than people – Over-focused or unusual interests – Excessive insistence on following own agenda – Strong preference for familiar routines – Over- or under-reaction to sensory stimuli (e.g. textures, sounds, smells, taste)
Information collection	<p>The older a child is at the time of a diagnostic evaluation, the more information there will be for a clinician to review. Sources of information may include previous clinical assessments or intervention reports, school and medical records, and any other observations collected by the caregivers across early childhood (including out-of-home care providers).</p>

	<p>Children of this age will have had more interaction with individuals and the environment outside of the family and the home, which provides an opportunity to obtain further information about child behaviour in other settings [28].</p> <p>As older children and adolescents mature, their capacity and motivation to make health-related choices develops. It is suggested that the level of information provided and involvement in decision-making processes increase alongside this maturation. This may involve obtaining consent from both the child and parent for adolescents aged 12–16 years, and in some circumstances an adolescent aged at least 14 years may be considered capable of participating in an assessment of ASD concerns without parental consent. Guidance is available from the principle of ‘Gillick competence’, legislative requirements and the United Nations Convention on the Rights of the Child [29, 30].</p>
<p>Sharing findings</p>	<p>Discuss with parents or caregivers how they would like the diagnostic decision communicated, including to their child, taking into account the child’s ability to understand this information. Use clinical judgement in guiding parents through these decisions.</p> <p>The receipt of an ASD diagnosis may elicit a range of reactions. Negative reactions include shock, disappointment, loss and anger as well as concerns about stigma and other negative reactions from others. Positive reactions include the feeling that a diagnosis explains and provides understanding of the behaviours and previous experiences of the individual. Reactions to the diagnosis may influence on service delivery to the individual, so it is critical that all professionals involved in the assessment of ASD concerns understand the potential personal effects of the assessment outcome.</p>

Table 10. Additional considerations for older adolescents and adults (17 years and older)

Aspect	Considerations
<p>Signs and/or symptoms</p>	<p>While ASD is most commonly diagnosed in childhood, the signs and/or symptoms of the condition can sometimes go unrecognised until adolescence and adulthood due to a subtler presentation, masking strategies or the presence of an intellectual disability.</p> <p>Some of the key signs and/or symptoms of ASD in older adolescents and adults [1, 2] are listed here. This is intended to provide guidance about commonly reported signs and/or symptoms of ASD for this age group and is not an exhaustive list. An assessment of whether there is a reduction in the frequency or variety of particular behaviours should be made in comparison with peers of the same age, gender and cognitive ability.</p> <p>Spoken language</p> <p>Spoken language may be unusual in several ways:</p> <ul style="list-style-type: none"> – very limited use – monotonous in tone – repetitive language, with frequent use of certain phrases or with content dominated by excessive information on topics of interest – talking ‘at’ others rather than a two-way conversation – difficulty with ‘small talk’ – bluntness <p>Interacting with others</p> <ul style="list-style-type: none"> – Longstanding difficulties in reciprocal social communication and interaction – Reduced understanding of friendship – Reduced awareness of socially expected behaviour, including personal space – Social isolation and apparent preference for aloneness – Reduced ability to interpret non-verbal cues – Reduced repertoire of social responses

	<p>Eye contact, pointing and other gestures</p> <ul style="list-style-type: none"> – Reduced, atypical or poorly integrated use of gestures, facial expressions and eye contact during social communication with others (assuming adequate vision) <p>Play</p> <ul style="list-style-type: none"> – History of a lack of flexible social imaginative play <p>Restricted interests and/or rigid and repetitive behaviours</p> <ul style="list-style-type: none"> – Repetitive movements, such as hand flapping, spinning and finger flicking – Preference for highly specific interests or hobbies – Strong preference for familiar routines that, if disrupted, may lead to emotional distress – Difficulty multitasking – Over- or under-reaction to sensory stimuli (e.g. textures, sounds, smells, taste) <p>Common manifestations of any of the above signs and/or symptoms include:</p> <ul style="list-style-type: none"> – problems in obtaining, regularly attending or sustaining employment or education – difficulties in initiating or sustaining social relationships – previous or current contact with mental health or learning disability services – a history of a neurodevelopmental condition (including learning disabilities and attention deficit hyperactivity disorder) or psychiatric difficulties.
<p>Information collection</p>	<p>Although paediatricians or child and adolescent psychiatrists are often qualified to assess for ASD concerns in adolescents and younger adults, there are fewer clinicians treating adults above the age of 25 years who can conduct an assessment of ASD concerns. A wide range of clinicians may be available to conduct a Comprehensive Needs Assessment and Consensus Team Diagnostic Evaluation; however, an adult psychiatrist, psychologist (with practice endorsement in clinical psychology) or a medical practitioner meeting the specified requirements may be more appropriate for a Single Clinician Diagnostic Evaluation.</p> <p>The older an individual is, the more challenging an appraisal of their early medical and developmental history can be. While all efforts should be made to obtain this information, either through self/informant report and/or the evaluation of archived records, it is possible the information may not be available. This magnifies the importance of the appraisal of current signs and/or symptoms, and it is critical to collect information from a range of settings and sources that are relevant to the chronological age of the individual. This will involve using psychometric tests that have been designed for the assessment of ASD signs, symptoms, cognitive abilities and support needs for adolescents and adults.</p> <p>As adolescents mature, their capacity and motivation to make health-related choices develops. It is suggested that the level of information provided to the individual and their involvement in decision-making processes increase alongside this maturation. This may involve obtaining consent from both the child and parent for older adolescents aged 17 years, and in some circumstances an older adolescent may be considered capable of participating in an assessment of ASD concerns without parental consent. Guidance is available from the principle of ‘Gillick competence’, legislative requirements and the United Nations Convention on the Rights of the Child.</p> <p>If an individual presents for an assessment of ASD concerns during adulthood (18 years or older), they may be legally responsible for their own health care (see Section 12.2, ‘Intellectual and/or Communication Capacity’ for further guidance). In these circumstances, it is important to ask the individual if they would like their families, partners or carers to be involved in their assessment and care. If they</p>

	<p>would like their family, parent(s) or carer(s) involved, then discuss with the individual confidentiality and sharing of clinical information into the future [2].</p> <p>Clinicians should ensure procedures are modified to the setting in which the assessment is delivered, and the cognitive capacity and emotional resilience of the individual being assessed.</p> <p>A range of mental health conditions are common among adolescents and adults on the autism spectrum, including major depressive disorder, anxiety disorders (such as social anxiety disorder and obsessive compulsive disorder) and suicidality. It is critical that mental health symptomatology is evaluated by a clinician with expertise in diagnosing mental health conditions, such as a psychiatrist or clinical psychologist. A suicide risk assessment should be completed if indicated, by an appropriately skilled clinician, with consideration given to the potential impact that diagnostic features of ASD may have on detecting a risk of suicide in this population.</p>
<p>Sharing findings</p>	<p>If the individual being assessed is able to understand verbal language, then discuss with this person how they would like the diagnostic decision communicated, including with any family members or carers.</p> <p>The receipt of an ASD diagnosis may elicit a range of reactions. Positive reactions include the feeling that a diagnosis explains and provides understanding of the behaviours and previous experiences of the individual. Negative reactions include shock, disappointment, loss and anger as well as concerns about stigma and other negative reactions from others. Reactions to the diagnosis may influence service delivery to the individual, so it is critical for the clinician to understand the personal effect of the diagnostic evaluation decision.</p> <p>The type of services required for appropriate service delivery to adolescents and adults on the autism spectrum, as well as accessibility to clinical and support services, is likely to be different to those for children on the autism spectrum. Before undertaking any diagnostic evaluation of adolescents or adults, a professional within the Assessment Team should have a good understanding of the clinical pathway for these individuals, and the clinical and support services they may be eligible to access. It is important to recognise that some adolescents or adults may be interested in seeking an ASD diagnosis, but may not be interested in being referred to service providers to meet support needs.</p>

CBR-1

Recommendation 59

It is recommended that all members of the Assessment Team consider the individual’s behavioural presentation and needs in comparison to other individuals of the same chronological and developmental age. [Evidence Table 59]

12.2 Intellectual and/or Communication Capacity

‘Intellectual disability’ refers to individuals who have a significant impairment in cognitive and adaptive abilities, usually confirmed with a score on a standardised IQ test of 70 or less. ‘Minimal verbal language’ refers to individuals who have little to no spoken language that is used spontaneously for communication. Approximately 30 per cent of children 8 years and under who receive a diagnosis of ASD have intellectual disability [31, 32] and 30 per cent have minimal verbal language [33]. It is incorrect to assume that these figures indicate complete overlap in individuals: the absence of verbal language should not be interpreted as reflecting intellectual disability, and the presence of verbal language should not be used to rule out intellectual disability. Recent research has indicated that commonly used IQ tests, such as the

Wechsler Intelligence Scale for Children, may underestimate the cognitive ability of children on the autism spectrum who have minimal verbal language [34].

It is critical for clinicians and other professionals to have a good understanding of the limitations of many standardised cognitive and communication assessments in the accurate appraisal of the ability of individuals with minimal verbal ability. Clinicians and other professionals must be able to identify the most appropriate assessments based on the behavioural presentation of the individual [35].

The presence of intellectual disability, minimal verbal language and/or difficulties with understanding language gives rise to the additional concern of whether an individual can consent to their own health and medical care. Consent is considered valid if it is provided freely and without duress by an individual who is legally capable of providing consent and who is fully informed about what they are providing consent for. In general, Australian law recognises that an individual aged 18 years or over has full legal capacity and is capable of making decisions regarding their own health care. However, even if an individual is at least 18 years of age, the presence of intellectual disability, minimal verbal language and/or difficulties with understanding language raises the concern that this individual may not be sufficiently capable of making informed choices about a healthcare procedure, such as an assessment of ASD concerns. A general framework for assessing capability is to appraise whether an individual:

- has an ability to comprehend and retain information
- can weigh that information in the balance to arrive at a choice [36].

In instances when an adult is not deemed to have the capacity to consent to the assessment of ASD concerns, the guardianship legislation of each Australian state and territory enables consent to be provided from a substitute decision-maker (Table 11). Please note that this information is intended as a guide only and should not be taken as legal advice. For more complete guidance, contact your professional body, indemnity provider or a legal representative.

Individuals with cognitive/intellectual impairment and/or limited or absent verbal language may benefit from the provision of aided and unaided augmentative and alternative communication (AAC) strategies. Speech pathologists with experience in AAC may be consulted to identify resources and supports that will facilitate the ability of individuals to participate communicatively, including to reflect their thoughts and feelings, indicate their preferences and choices, and make decisions.

Table 11. Guardianship legislation in each state and territory of Australia

State/territory	Legislation
Australian Capital Territory	Guardianship and Management of Property Act 1991
New South Wales	Guardianship Act 1987
Northern Territory	Guardianship and Administration Act 1988
Queensland	Guardianship and Administration Act 2000
South Australia	Guardianship and Administration Act 1993
Tasmania	Guardianship and Administration Act 1995
Victoria	Guardianship and Administration Act 1986
Western Australia	Guardianship and Administration Act 1990

CBR-2

Recommendation 60

It is suggested that all members of the Assessment Team consider the individual’s cognitive/intellectual abilities and verbal language level when choosing standardised assessments and determining the individual’s ability to provide valid consent. [Evidence Table 60]

12.3 Gender

ASD is diagnosed more commonly in males than females [37, 38], with an often reported male-to-female ratio of 4:1 [38, 39]. However, there is accumulating evidence that this male preponderance may not reflect the true gender ratio of ASD, but represent a bias towards males in the diagnostic process. Several studies have found that boys are more likely to be identified with ASD than girls, even when symptoms are equally severe [40]. There is also evidence that females are better able to ‘camouflage’ their symptoms by using compensatory strategies to mitigate communication and social difficulties [41, 42], particularly when IQ is in the average or high range. Furthermore, the diagnostic criteria for ASD and the instruments used to assess these behaviours reflect a presentation that is more common in males than females [39], and may not have adequate sensitivity and specificity to identify ASD characteristics in females without intellectual disability [43]. Symptom differences between genders has been raised as one factor that may contribute to a later age of diagnosis among females on the autism spectrum [44, 45].

Given the importance of early diagnosis and intervention in promoting positive longer term outcomes in children on the autism spectrum, an understanding of how ASD may manifest differently between genders is critical. It is essential that the assessment of females incorporates an evaluation of whether the core symptoms of ASD are masked by learned behaviours [42, 43]. This is particularly important for females who have an IQ in the average or high range (see Table 12).

Table 12. Characteristics that may be more common in females with ASD who have an average or high IQ compared to males with ASD with average or high IQ

Domain	Characteristic
Social and communication	An awareness of the need for social interaction
	A desire to interact with others
	Passivity (a ‘loner’), often perceived as ‘just being shy’
	A tendency to imitate others (copy, mimic or mask) in social interactions, which may be exhausting
	A tendency to ‘camouflage’ difficulties by masking and/or developing compensatory strategies
	One or few close friendships
	Intense and possessive within friendships
	A tendency to be ‘mothered’ in a peer group in primary school but often bullied in secondary school
	Developmentally appropriate language skills
	A good range and frequency of non-verbal (gestural) communication
	Clear demonstrations of good imagination (e.g. fantasises and escapes into fiction and pretend play) but prone to being non-reciprocal, scripted and overly controlled

Restrictive and repetitive behaviours and interests (RRBIs)	<p>Less severe and frequent RRBIs</p> <p>Restricted interests may be less focused on objects or things and more focused on movement, people or animals (e.g. hair twirling, soap operas, celebrities, pop music, fashion, horses, pets, and literature)</p>
Other	<p>There is evidence that females with ASD are at increased risk of sexual victimisation [46], and this may require a focus during the Comprehensive Needs Assessment</p>

People who are transgender or gender diverse identify with a gender identity that does not match their sex assigned at birth. Gender dysphoria refers to a person’s distress over the incongruence of their gender identity and sex assigned at birth. While not all trans people are gender dysphoric, it is common for these individuals to be diagnosed with gender dysphoria within a clinical setting. There is accumulating evidence that being trans or gender diverse is more common in children, adolescents and adults on the autism spectrum compared to the broader population [47].

While the current evidence base does not warrant the recommendation for universal screening of gender diversity in ASD diagnostic evaluations, the identification of this co-occurrence should trigger a referral to appropriate services with expertise in gender diversity [48]. Sensitivity to gender-related language should be exercised during the assessment of ASD concerns. This may be achieved in part by allowing individuals to self-describe their gender on initial intake forms and referring to the individual by their preferred gender pronoun.

CBR-1	<p style="color: #5cb85c;">Recommendation 61</p> <p style="color: #5cb85c;">It is recommended that all members of the Assessment Team consider the individual’s behavioural presentation and needs in comparison to other individuals of the same gender, and be aware of how ASD may manifest differently in males and females. [Evidence Table 61]</p>
CBR-2	<p style="color: #5cb85c;">Recommendation 62</p> <p style="color: #5cb85c;">It is suggested that all members of the Assessment Team have a good understanding of gender diversity and its potential impact on the individual’s behavioural presentation and needs. [Evidence Table 62]</p>

12.4 Culturally and Linguistically Diverse Backgrounds

Individuals from racial and/or ethnic minorities are, on average, diagnosed with ASD later than in the broader population [49–52]. It remains unclear whether this disparity is due to differences in access to diagnostic services, clinicians’ and/or families’ interpretation of signs, or other institutional factors [51]. The vast majority of published research has concentrated on families with European heritage and little is understood about whether symptom expression varies by cultural background, and whether there are support services that may be more acceptable, feasible and effective for individuals and families of particular racial or ethnic backgrounds.

It is important that professionals maintain self-awareness about any lack of knowledge or sensitivity they may have about a particular culture, such as:

- child-rearing practices, interpretation of how children play with adults and each other, and the expectations of families and caregivers about child development [1]
- acceptance or stigma attached to disability

- the appropriateness of the information collection strategies (including psychometric tests), including the language the assessment is conducted in.

Clear and nuanced communication is a critical part of any clinical interaction, facilitating the adequate communication of: the requirements of the interaction; sufficient and accurate information collected; and the outcome of the assessments.

A particularly important consideration in Australia is the provision of clinical services to Aboriginal and/or Torres Strait Islander people by clinicians who are not Aboriginal and/or Torres Strait Islander. Very little research has investigated ASD in Aboriginal people, though there is preliminary evidence that ASD may be underdiagnosed in Aboriginal population groups [53]. Good practice in working with Aboriginal people involves the following [54]:

- Acknowledge and empower the role of the family, extended family and community in the provision of services. Practitioners and other workers may need to identify attitudes and beliefs that the individual and family have with regards to ASD before undertaking any clinical activities. Provide the necessary and appropriate education for Aboriginal people so as to avoid misunderstandings about the purpose of the assessment of ASD concerns. Some Aboriginal people may not speak English as their first language and some may have a strong preference for oral over written forms, meaning that information provided in written English may not always be understood or appropriate. Written material should be produced in the relevant language and language interpreters should be offered, regardless of perceived proficiency in English.
- Use standardised tests with significant caution, given that Aboriginal people have often not been well represented in the study samples on which standardised norms are generated. It is critical that an appraisal of any clinical signs and/or symptoms is based in an understanding of cultural values and traditions, and the environmental context in which the individual lives.
- Involve Aboriginal health workers, carers, teacher aides, cultural workers and/or clinicians from the time the referral is received through to the assessment findings being communicated and the individual and/or family being connected to support services. While the involvement of these professionals in the process of assessing ASD concerns is ideal, there may be times when this is not feasible. The successful completion of cultural competency training by the clinician is a minimum prerequisite for conducting assessments of ASD concerns in Aboriginal people, which is particularly important when an Aboriginal professional is not available to be involved.

Given the lack of research in the area of ASD and Aboriginal people, these considerations are only a starting point for the sector.

CBR-1

Recommendation 63

It is recommended that all members of the Assessment Team consider the racial or ethnic background of the individual, including Aboriginal people, and how cultural factors relevant to the individual and their caregiver(s) may guide or influence the process of assessing ASD concerns. For Aboriginal people in particular, it is recommended that the role of the family, extended family and community be acknowledged and empowered by identifying attitudes and beliefs that the individual and family have surrounding ASD. [Evidence Table 63]

CBR-1

Recommendation 64

It is recommended that a client receive cultural support from a community member or appropriate professional (e.g. Aboriginal health worker) if this is requested or identified as potentially beneficial during the assessment of ASD concerns. It is suggested that this support be available from the receipt of referral through to the communication of assessment findings and connection to support services. [Evidence Table 64]

CBR-1

Recommendation 65

It is recommended that interpreter services and translated educational materials be made available for all clients from a non-English speaking background (including those who speak an Aboriginal language). [Evidence Table 65]

12.5 Regional or Remote Location

On average, children living in rural communities receive a diagnosis of ASD later than those living in urban communities [3, 49], which has been attributed to a relative lack of identification and diagnostic services in regional and remote settings [3]. In these settings, there may not be any medical or allied health professionals with clinical expertise in ASD. In some remote settings, a relevant clinician may visit the community only a limited number of times each year.

CBR-1

Recommendation 66

It is recommended that in circumstances where a clinician with the professional background and assessment expertise prerequisites to being a member of a Consensus Diagnosis Team is not present in the local community, a partnership between local clinicians and an assessment team in another location be facilitated through telehealth or other methods. [Evidence Table 66]

CBR-1

Recommendation 67

It is recommended that before conducting an assessment of ASD concerns, professionals within the Assessment Team have a good understanding of the support services available for individuals in the local regional or remote community. [Evidence Table 67]

12.6 Complex Psychosocial Factors

An assessment of ASD concerns in the presence of complex psychosocial factors requires a more intricate exploration to determine whether signs and symptoms may be best explained by ASD and/or other personal or environmental factors. Examples of complex psychosocial factors include a history of trauma, neglect, maltreatment, abuse, domestic violence, family breakdown, attachment disruption, refugee status, out-of-home care or incarceration. Along with potentially overlapping signs and

symptoms, complex psychosocial factors may present additional challenges to obtaining complete and accurate information to support the assessment of ASD concerns. Adopting trauma-informed principles [55] and utilising tools such as the Coventry Grid [56] may assist clinicians to understand and address complex psychosocial factors.

CBR-1

Recommendation 68

It is recommended that all members of the Assessment Team have a good understanding of complex psychosocial factors and their potential impact on the individual's behavioural presentation and needs. [Evidence Table 68]

12.7 Differential Diagnosis and Co-occurring Conditions

The behavioural signs and/or symptoms that define ASD are often observed in individuals with other clinical conditions, and individuals on the autism spectrum often present with signs and/or symptoms that are characteristic of other clinical conditions. Further, a range of genetic, psychiatric and neurodevelopmental conditions have one or more signs and/or symptoms that are similar to ASD but which are not ASD. Differential diagnosis is the distinguishing of a particular disorder from other disorders that may present with similar clinical signs and/or symptoms. Comorbidity is the presence of two or more distinct disorders in the same individual.

It is critical to recognise that the presence of ASD does not preclude an individual having a range of other conditions. A number of psychiatric, neurodevelopmental, neurological, medical and genetic conditions are known to co-occur with ASD at higher than expected rates [57, 58]. These co-occurring conditions can either be secondary to the experience of having ASD (e.g. mood or anxiety disorders arising in response to the effects of social interaction difficulties) or co-exist as part of ASD (e.g. intellectual disability) [59].

CBR-1

Recommendation 69

It is recommended that, at each stage of the Diagnostic Evaluation, the clinicians collect and evaluate information to consider the full range of clinical explanations for the presentation of signs and/or symptoms, and test these possible explanations against the evidence for an ASD diagnosis in the context of other differential and co-occurring diagnoses. [Evidence Table 69]

CBR-1

Recommendation 70

It is recommended that members of the Assessment Team be highly familiar with the range of differential diagnoses for ASD. Clinicians without the clinical qualifications or expertise to adequately evaluate potential differential diagnoses for a given individual should not undertake the assessment of ASD concerns. [Evidence Table 70]

13. Practice Points for Clinical, Research and Policy Settings

This Guideline provides a set of consensus-based recommendations for the process of conducting an assessment of ASD concerns. Throughout the consultation process, a number of suggestions were made by experts for future activities within clinical, research and policy settings. These are articulated here as practice points as they are beyond the scope of this Guideline.

13.1 For Clinical Practice

Local Clinical Training. It is important that clinicians and other professionals undertake appropriate training to ensure they have the appropriate knowledge and skills to implement the Guideline within their service. This may involve tailoring the available resources to meet the needs of their local community and type of service (see the Dissemination and Implementation of Guideline section below for available resources). This will help ensure ongoing capacity within all communities (including regional and remote communities).

Clinical Networks. It is important to develop in-person or online clinical networks to facilitate the training of new members of an assessment team and maintain required expertise and mentoring systems. This is in recognition that peer-to-peer learning is critical to developing and maintaining high levels of clinical skills, in particular through peer observation, peer supervision and peer mentoring. One model of such a clinical network is the Western Australian Autism Diagnosticians' Forum (<http://www.waadf.org.au>).

13.2 For Policymakers

Dissemination and Implementation of Guideline. It is important to prioritise a nationwide plan for the dissemination and implementation of the Guideline recommendations. This should occur both nationally and within state-based systems (e.g. education, disability and health) that may currently have different requirements for diagnostic evaluations. Implementation should include use of resources and templates that employ visual representations and simple English (and other common languages) suitable for clients and other professionals with limited knowledge of the process for the assessment of ASD concerns. Chapter 11 of the Administrative and Technical Report outlines the Guideline documents and Web Resources that will be available on the dedicated project webpage (<https://autismcrc.com.au/national-guideline>), along with future dissemination and implementation activities. Relevant national peak bodies, including those engaged in the key stakeholder feedback process, will be invited to support future dissemination and implementation projects. It will be important that an implementation process incorporates sufficient time for clinicians, professional bodies and health, education and disability systems to make adequate adjustments to accommodate the recommendations made in the Guideline.

Endorsement of Guideline. It is important that national and state-based government departments (e.g. education, disability and health), along with service providers, consider endorsing the Guideline as a minimum clinical standard for ASD assessment and diagnosis. In addition, it is important for national peak bodies to consider endorsement of the Guideline. This will help ensure the universal uptake of this Guideline.

Funding for Neurodevelopmental Assessments. It is important that there is a review of the public funding mechanisms for neurodevelopmental assessments (e.g. through Medicare and other mechanisms) and whether this is adequate to meet the assessment process described in the Guideline. Such funding may be used to support the services provided by the assessment team (including coordination), interpreter services and other professionals/services supplying additional information. The Guideline and accompanying documents will be submitted to the Medicare Benefits Schedule Review Taskforce and it may be beneficial for relevant national peak bodies to make reference to this Guideline in their feedback submissions on funding items for assessments of ASD concerns. It is anticipated that aligning funding mechanisms with the Guideline will minimise leaving clients with substantial out-of-pocket expenses and help ensure the universal uptake of this Guideline.

Accreditation and Regulation Programs. It is important that relevant professional bodies prioritise the development of accreditation programs that teach and evaluate competencies for clinicians involved in the assessment and diagnosis of neurodevelopmental disorders, such as ASD. Key stakeholders strongly support collaboration in the development of competency frameworks for clinicians. Relevant national peak bodies, including those engaged in the key stakeholder feedback process, may be invited to explore the benefits and barriers to developing accreditation and regulation programs, and, if appropriate, collaborative partnerships may be formed for this purpose.

13.3 For Researchers

Evaluation of Guideline. It is important that an ongoing evaluation process monitor whether the Guideline is meeting the objectives described under Section 1.2, 'Scope of the Guideline'. Chapter 11 of the Administrative and Technical Report outlines a plan for a preliminary evaluation of the acceptability and feasibility of the Guideline. In addition, this chapter suggests future evaluation projects to explore the extent to which Guideline recommendations are adopted into routine practice and the subsequent impact on service provision and assessment outcomes. Relevant national peak bodies, including those engaged in the key stakeholder feedback process, may be invited to assist with these evaluation projects.

Guideline Updates. It is important that Guideline recommendations be reviewed and updated on a regular basis to respond to new clinical and/or research evidence, and it is encouraged that the first review takes place three years after the publication of this original version. A suitable approach to updating the Guideline would involve reforming a Research Executive and Steering Committee to update the systematic reviews (restricted to evidence published since the previous systematic reviews) and consider whether any of the recommendations require amending or updating. Relevant national peak bodies should be consulted during this process.

Instrument Development and Validation. It is important that a psychometric tool be identified that provides a reliable and valid assessment of functioning in an Australian context. This will involve investigating the psychometric properties of existing tools that assess functioning, and may require the development and validation of a fit-for-purpose tool based on the ICF 'ASD core sets' [60]. The development and validation of assessment of functioning tools will promote funding decisions made on the basis of functioning, and will hopefully discourage the use of diagnostic severity-level labels for funding decisions.

Withdrawing a Diagnosis of ASD. It is important that longitudinal research into individuals who no longer meet ASD behavioural criteria is conducted within an Australian context, with clinical pathways to be developed to accommodate these circumstances. Accumulating international evidence points to a small proportion of individuals diagnosed with ASD who may no longer meet behavioural criteria when assessed at a later time.

National Register of ASD Diagnoses. It is important that researchers have access to accurate and rich data to help inform government policy. A national register of new ASD diagnoses would facilitate population-level monitoring of ASD prevalence and provide a baseline for longitudinal research. One example of an ASD register is the Autism Register collated by Telethon Kids Institute (<https://autism.telethonkids.org.au/autismregister/>).

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