IV. Intellectual Disability, Specific Learning Disorder, Autism Spectrum Disorder

21.1 Neuro -developmental Disorders

Neuro-developmental disorders are diverse group of chronic disorders. They begin at any time during the development process (including conception, birth, and growth) up to 22 years of age and last throughout an individual's lifetime. Children with neuro-developmental disorders have difficulty in any of the domains: Language and speech, Motor skills, Behaviour, Memory, Learning including **Intellectual Disability (ID), Specific Learning Disorder (SLD) and Autism Spectrum Disorder (ASD).**

Section A: Intellectual Disability

21.2. Definition

Intellectual disability is defined as a condition characterized by significant limitations both in intellectual functioning (reasoning, learning, problem-solving) and in adaptive behavior, with onset in the developmental period, and which covers a range of daily social skills and skills required for activities of daily living. The term intellectual disability will be reserved for children with age 5 years and above (≥5 years). The children with a similar disability and an age less than 5 years will be designated as having Global Developmental Delay.

21.3. Screening

All children on follow-up in a healthcare facility should be screened for developmental delay/ intellectual disability.

The identified children/ adolescent should be referred for a detailed assessment to a pediatrician/ psychiatrist. They should also be screened for associated co-morbidities, viz., hearing impairment, visual impairment, locomotor impairment, epilepsy and other co-morbid conditions **(Figure 1).**

21.4. Diagnosis

The screened children should be referred to clinical/ rehabilitative psychologists for assessment.

Age less than 5 years

Children less than 5 years of age should be assessed for VSMS ((**Appendix-VI**) and the VSMS profile should be used to decide for the domains involved. These children, if having impairment on VSMS will be diagnosed as Global Developmental Delay.

Age ≥5 years

Children ≥5 years should be assessed for adaptive functioning and IQ. The tools which have to be used for adaptive functioning and IQ may be VSMS/BKT/WISC-IV/MISIC/WISC/NIEPID Indian Test of Intelligence (**Appendix VII & Appendix –VIIIa, b, c**).

21.5. Disability Calculation

Irrespective of age, the disability calculation will be done based on the VSMS score. The disability levels will be as under:

Serial Number	VSMS Score	Disability Percentage

a.	0-20: Profound	100% disability
b.	21 to 35: Severe	90% disability
c.	36 to 54: Moderate	75% disability
d.	55-69: Mild	50% disability
e.	70-84: Borderline	25% disability

21.6. Age for certification

The minimum age for certification will be one (01) completed year. Children above one year and up to the age of 5 years shall be given a diagnosis of Global Developmental Delay. Children above the age of 5 years shall be given a diagnosis and certificate of Intellectual Disability.

21.7. Medical Authority*

The Medical Superintendent or Chief Medical Officer or Civil Surgeon or any other equivalent authority as notified by the State Government shall be the head of the Medical Board. The Authority shall comprise of:

a. Medical Superintendent or Chief Medical Officer or Civil Surgeon or any other equivalent authority as notified by the State Government
b. Pediatrician or Pediatric Neurologist (where available) or Developmental Pediatrician (where available) or physician (if age >18 years)
c. Psychiatrist or Child and Adolescent Psychiatrist (wherever available)
d. Clinical or Rehabilitation Psychologist

Note* - In view of shortage of the specialist doctors resulting in huge pendency in disability assessment, the chairperson (Who compulsorily has to be a Government Doctor e.g. Chief Medical Officer or Civil Surgeon or as specified) of the disability assessment board may, if required, include private medical practitioner(s) (duly qualified in the respective medical domain) as a board member.

21.8. Validity of Certificate:

Temporary certificate for children less than 5 years:

Below the age of five years, a temporary certificate will be issued with a diagnosis of Global Developmental Delay. This certificate will be valid till the age of 05 years.

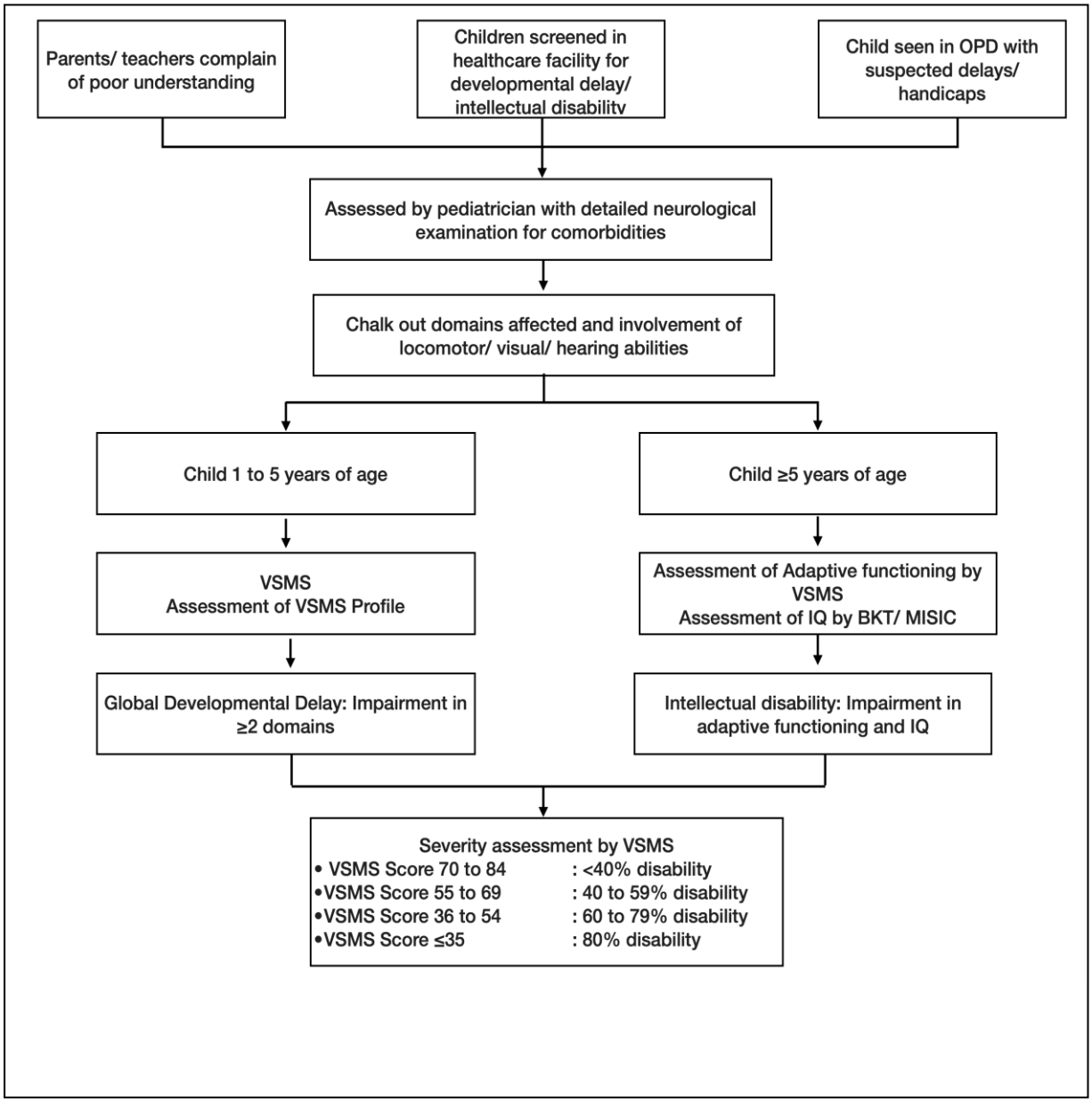
For children more than 5 years:

The certificates issued at ≥5 years of age will have the following validity

(a) **Children with 80% or more disability:** After initial certification after the age of 5 years, re-assessment and re-certification will be done at an age of 18 years. The certificate issued at 18 years or more of age will be valid lifelong.

(b) **Children with disability <80%:** The certificate will mention a renewal age. The certificate issued after the age of 5 years will have to be renewed at the age of 10 years and 18 years. The certificate issued at 18 years or more of age will be valid lifelong.

Figure 1. Details of assessment and disability calculation for a child with global developmental delay/ intellectual disability



Section B: Specific Learning Disability

22.1. Definition

Specific learning disabilities refers to a heterogeneous group of developmental learning disorders wherein there is a deficit in processing language, spoken or written, that may manifest itself as a difficulty to comprehend, speak, read, write, spell, or to do mathematical calculations and includes such conditions as perceptual disabilities, dyslexia, dysgraphia, dyscalculia, dyspraxia, and developmental aphasia.

22.2. Screening

The screening shall be performed by teachers of the public and private school at eight years of age or in Class III, whichever is earlier. The screening test is illustrated in Form A. The child should be referred for further assessment if the reply to screening shows three or more answers in "frequently" column.

Every school (public and private) shall have a screening committee headed by the principal of the school. After applying the screening test, if an anomaly is detected, the teacher should bring it to the notice of principal and screening committee of the school. The teachers shall interview the parents to assess their involvement and motivation regarding their child's education. If the parents are motivated and screening questionnaire suggests specific learning disability, then child should be referred for further assessment.

The child should be referred to pediatrician/ pediatric Neurologist/ developmental pediatrician/ psychiatrist for specific learning disability assessment by the principal of the school with the recommendations of the screening committee endorsed.

22.3. Diagnosis

The diagnosis will require a team approach involving a pediatrician (or pediatric neurologist or developmental pediatrician), psychiatrist (or child and adolescent psychiatrist) and clinical or rehabilitation psychologist **(Figure 2).** This would involve three steps:

Step 1: Clinical Assessment

1(a). **Assessment by a pediatrician:** The pediatrician (or pediatric Neurologist or developmental pediatrician, where available) will do the initial assessment. This will involve a detailed clinical examination including neurological examination, and vision and hearing assessment. It has to be ensured that the child has normal visual acuity and hearing before proceeding to next step. Formal age-appropriate testing tools should be used to assess vision and hearing.

1(b). **Assessment by Psychiatrist**: The assessment by Psychiatrist should be done to rule out associated comorbidities and mimics including emotional and behavioral disorders.

Step 2: IQ Assessment

After the clinical assessments, IQ testing should be performed by child/ clinical psychologists using MISIC/ WISC-IV/NIEPID Indian Test of Intelligence/BKT/VSMS **(Appendix- VII&VIII).** If the IQ is determined to be more than 85, then step 3 will be applied.

Step 3: Specific Learning Disability Assessment

This would involve application of specific psychometric tests for diagnosing specific learning disability. National Institute for Mental Health and Neurosciences (NIMHANS) battery **(Appendix-IX).** or Grade Level Assessment Device (GLAD) **(Appendix- X)** shall be applied for diagnostic test for SLD. These tools will be used across all ages till such time until new scales are developed and validated for older children and adults. A diagnosis of specific learning disability will be given if all of the following criteria are fulfilled

- IQ 85 or more
- No vision and /or hearing impairment which are likely to affect learning.
- No emotional and behavioral disorders mimicking SLD
- Presence of adequate opportunity for learning with proper motivation
- The child is functioning at 3 standard deviations below the current class on NIMHANS battery or his/ her GLAD score is below 40%, for the child's current class level.

22.4. Medical Authority*

The Medical Superintendent or Chief Medical Officer or Civil Surgeon or any other equivalent authority as notified by the State Government shall be the head of the Medical Board. The Authority shall comprise of:

I. Medical Superintendent or Chief Medical Officer or Civil Surgeon or any other equivalent authority as notified by the State Government

II. Pediatrician or Pediatric Neurologist (where available) or Developmental Pediatrician (where available)

III. Psychiatrist or Child and Adolescent Psychiatrist (wherever available)

IV. Clinical or Rehabilitation Psychologist (line)

Note* - In view of shortage of the specialist doctors resulting in huge pendency in disability assessment, the chairperson (Who compulsorily has to be a Government Doctor e.g. Chief Medical Officer or Civil Surgeon or as specified) of the disability assessment board may, if required, include private medical practitioner(s) (duly qualified in the respective medical domain) as a board member.

22.5. Validity of Certificate:

The certification will be done for children aged eight years and above only. The child will have to undergo repeat certification during the academic year of Class X and academic year of Class XII, if required. The certificate issued at 18 years or more will be valid life-long.

FORM A

Screening for Learning Disability

_____

Name of student: _____ _____

Date of birth: _____

Class: _____

Name of School: _____ _____

How long has the teacher been familiar with the student: _____

_____

Dear Teacher,

Have you observed in your day-to-day teaching that the student has some of the following difficulties?

Answer with 'X' in appropriate column

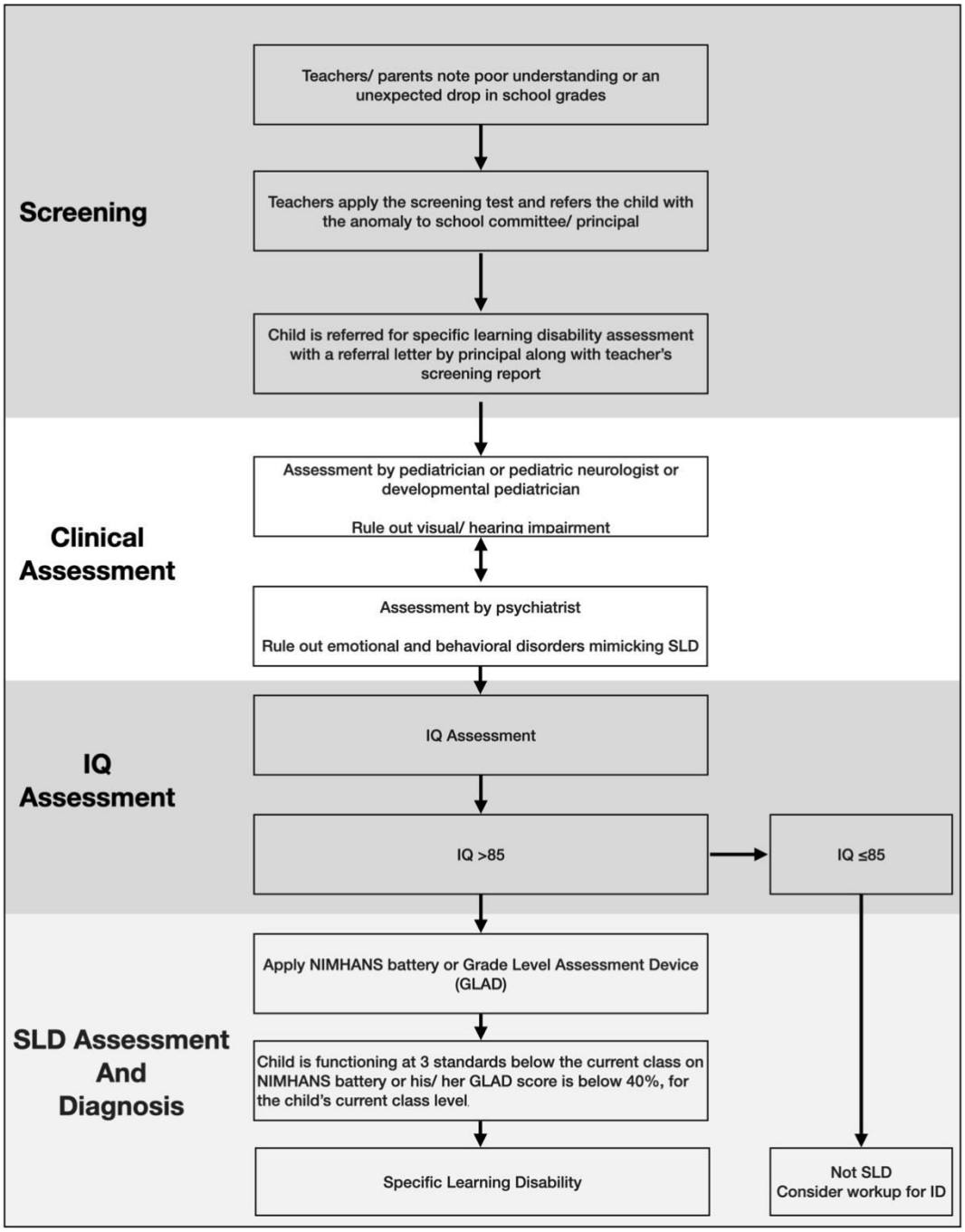
S. No.	Statement	Never	Some times	Frequently
1.	Makes mistakes in reading like - Omits words - Substitutes words - Adds words - Skips lines - Reads sentences repeatedly			
2.	Can answer questions orally but has difficulty in writing answers Or			

	Oral work is better than written work			
3.	Writes or reads figures or letters in wrong way, for example, 15 for 51, 6 for 9, b for d			
4.	Difficulty in differentiating letter sounds for vowels and blends, example “E” for “I’; “ch” for “sh”;			
5.	Difficulty in rhyming words and repeating them			
6.	Reads in past tense, while the text is written in present tense or vice-versa; example replaces “is” with “was”			
7.	Changes the sequence of alphabets while reading; example says “neerg” instead of “green”			
8.	Replaces long words with compact one; example “musim” for “museum”			
9.	Difficulty in taking notes or copying them from blackboard and books			
10.	Confusion with mathematics symbols (+, -, X, divide) while solving word problems and mathematics computation			
11.	Difficulty in spellings			
12.	Difficulties with spatial orientation, and direction; example confusion between left and right, east and west, up and down etc			
13.	Misplaces upper and lower case letters, example BeTTer, n for N, i for I			
14.	Writes in mirror images; example “ram”- “mar”			

**Sometimes: upto 6-7 times in 2-3 months*

*** Frequently: More than 7 times in 2-3 months*

Figure 2. Details of assessment for a child with specific learning disability



SECTION C: Autism Spectrum Disorder

23.1. Definition

Autism Spectrum Disorder is a lifelong neurological condition typically appearing in the first three years of life that is marked by pervasive impairments in the areas of social skills and communication, often associated with hyper-or-hypo-reactivity to sensory input; unusual interest in stereotypical rituals or behaviors; and may or may not be accompanied by intellectual impairment.

23.2. Diagnosis

The diagnosis of autism spectrum disorder will be established by the DSM-5-based AIIMS-modified INCLEN diagnostic tool for ASD **(Appendix- XI).** The Indian Scale of Assessment of Autism will be utilized for the calculation of disability among children ≥6 years.

23.3. Disability Calculation

Children <6years

All children with an autism spectrum disorder in the age group <6 years will be assessed and given the disability of 60 to 79% (Moderate Autism). They will be re-assessed at the age of ≥6 years for severity-based disability calculation as per Indian Scale of Assessment of Autism**(Appendix- XII).**

Children/ adolescents ≥6 years

The severity-based disability calculation for autism spectrum disorder will be based on the Indian Scale of Assessment of Autism. The disability levels will be as per Table 1.

Table 1. Disability percentage for children with autism spectrum disorder

Serial Number	Indian Scale of Assessment of Autism Score	Disability Percentage
a)	Mild Autism (ISAA Score 70 to 106)	40 to 59% disability
b)	Moderate Autism (ISAA Score (107 to 153)	60 to 79% disability
c)	Severe Autism (ISAA Score >153)	≥80% disability

23.4. Medical Authority*:

The Medical Superintendent, Chief Medical Officer, Civil Surgeon, or any other equivalent authority, as notified by the State Government, shall be the head of the Medical Board. The Board shall comprise of:

I. Medical Superintendent, or Chief Medical Officer, or Civil Surgeon or any other equivalent authority as notified by the State Government

II. Pediatrician or Pediatric Neurologist (where available) or Developmental Pediatrician (where available) or physician if age >18 years (MD Internal Medicine or Family Medicine)

III. Psychiatrist or Child and Adolescent Psychiatrist (where available)

IV. Psychologist (Clinical/ rehabilitation)

Note* - In view of shortage of the specialist doctors resulting in huge pendency in disability assessment, the chairperson (Who compulsorily has to be a Government Doctor e.g. Chief Medical Officer or Civil Surgeon or as specified) of the disability assessment board may, if required, include private medical practitioner(s) (duly qualified in the respective medical domain) as a board member.

23.5. Validity of Certificate:

Children <6 years:

For children certified below the age of six years, the certificate will be temporary. These children will need reassessment between the age of 6 and 7 years for re-certification and calculation of disability.

Children ≥6 years and <18 years:

For children who are more than 6 years and less than 18 years, the validity will be as below:

After initial certification where a disability of ≥ 40% has been certified, reassessment and re-certification will be done at the age of 18 years. The certificate issued at 18 years of age will be valid lifelong.

Adolescents ≥18 years:

For patients >18 years, the disability certificate issued after the age of 18 years will be permanent.

V. Mental Illness

24.1. Definition: "Mental Illness" means a substantial disorder of thinking, mood, perception, orientation, or memory that grossly impairs judgment, behaviour, capacity to recognise reality or ability to meet the ordinary demands of life but does not include mental retardation which is a condition of arrested or incomplete development of mind of a person, specially characterised by sub-normality of intelligence.

24.2. Diagnosis:

A. The examination process will consist of components as required namely, clinical assessment, IDEAS scale and/or IQ assessment.