

Additional file 2: Table of correspondence used for neurodevelopmental disorders: neurodevelopmental measurement tools or diagnostic scales used in the included studies and their corresponding classification in the meta-analyses

Adverse outcome	Definitions of the criteria and measurement tools that can be used for this dimension
NEURODEVELOPMENTAL DISORDERS	
Neurodevelopmental disorders (as a whole)	- Neurodevelopmental disorders as a whole, without specific diagnosis: several cognitive disorders (e.g. Cognitive delay, speech therapy, ...) <u>and</u> at least one behavioral disorder (ADHD, ASD, ...) - Medical records (ICD-10 F70-F90.9) - Additional/special educational needs...
Cognitive developmental delay – infants (< 3 years old)	- Diagnostic of Developmental delay in medical record: confirmed diagnosis of <u>moderate</u> cognitive developmental delay by developmental paediatrician or paediatric neurologist - Global Developmental quotient (DQ) < 85 or < 1 SD assessed with: - Griffiths mental development scales (Griffiths) - Bayley Scales of Infant Development (Bayley) (corrected for number of weeks born prematurely) - Denver Developmental Screening Test (DDST) - Wechsler Preschool and Primary Scale of Intelligence (WPPSI) - Non-verbal intelligence test of Snijders-Oomen (SON-R) (ok for deaf children or those with hearing difficulties as well as for valid children) - the Revision of the Amsterdam Children's Intelligence Test (RAKIT) - Early childhood development scale of Brunet-Lézine - Mullen Scales of Early Learning - Performance IQ or Mental Development Index in global scales - Low overall score on an Adaptive Behavior scale (with homogeneity in the scale's domains): - VINELAND-II - Vineland adaptive behavior scale (or Vineland Social Maturity Scale – old name) - ABAS II (Adaptive behavior assessment system) (parents and/or teachers)

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Cognitive developmental delay – children (3-6 years old)	1. Diagnostic of Developmental delay in Medical record: confirmed diagnosis of <u>moderate</u> cognitive developmental delay by developmental paediatrician or paediatric neurologist 2. Global Intellectual quotient (IQ) < 85 or < 1 SD assessed with: • Wechsler Intelligence Scale for Children (WISC) • Wechsler Preschool and Primary Scale of Intelligence (WPPSI) • Differential ability scales (DAS) • Non-verbal intelligence test of Snijders-Oomen (SON-R) (ok for deaf children or those with hearing difficulties as well as for valid children)
Cognitive developmental delay – children (> 6 years old)	• the Revision of the Amsterdam Children's Intelligence Test (RAKIT) • Color Progressive Matrices (CPM or PM47) • Color Progressive Matrices (CPM-BF) • Standard Progressive Matrices (SPM or PM38) • Stanford-Binet intelligence scales • McCarthy Scales of Children's Abilities 3. Performance IQ or Mental Development Index in global scales 4. Low overall score on an Adaptive Behavior scale (with homogeneity in the scale's domains): • VINELAND-II - Vineland adaptive behavior scale (or Vineland Social Maturity Scale – old name) • ABAS II (Adaptive behavior assessment system) (parents and/or teachers)
Severe cognitive developmental delay (Mental retardation) – infants (< 3 years old)	1. Medical records (ICD-10: F70-F79) (ICD-9: 317-319) 2. Medical record: confirmed diagnosis of <u>severe</u> cognitive developmental delay by developmental paediatrician or paediatric neurologist 3. Global DQ < 70 or < 2 SD (higher degree of severity) assessed with: • Griffiths mental development scales (Griffiths) • Bayley Scales of Infant Development (Bayley) (corrected for number of weeks born prematurely) • Denver Developmental Screening Test (DDST) • Wechsler Preschool and Primary Scale of Intelligence (WPPSI)

Adverse outcome	Definitions of the criteria and measurement tools that can be used for this dimension
	• Non-verbal intelligence test of Snijders-Oomen (SON-R) (ok for deaf children or those with hearing difficulties as well as for valid children) • the Revision of the Amsterdam Children's Intelligence Test (RAKIT) • Differential ability scales (DAS) • Early childhood development scale of Brunet-Lézine 4. Low overall score on an Adaptive Behavior scale (with homogeneity in the scale's domains): • VINELAND-II - Vineland adaptive behavior scale (or Vineland Social Maturity Scale – old name) • ABAS II (Adaptive behavior assessment system) (parents and/or teachers)) 5. Severe learning disorders (school results...), with indication of global cognitive delay
Severe cognitive developmental delay (Mental retardation) – children (3-6 years old) Severe cognitive developmental delay (Mental retardation) – children (> 6 years old)	1. Medical records (ICD-10: F70-F79) (ICD-9: 317-319) 2. Medical record: confirmed diagnosis of <u>severe</u> cognitive developmental delay by developmental paediatrician or paediatric neurologist 3. Global IQ < 70 or < 2 SD environ (higher degree of severity) assessed with: • Griffiths mental development scales (Griffiths) • Bayley Scales of Infant Development (Bayley) • Denver Developmental Screening Test (DDST) • Wechsler Preschool and Primary Scale of Intelligence (WPPSI) before 5 years old • Wechsler Intelligence Scale for Children (WISC) after 5 years old • Wechsler Adult Intelligence Scale (WAIS) after 16 years old • Non-verbal intelligence test of Snijders-Oomen (SON-R) (ok for deaf children or those with hearing difficulties as well as for valid children) • the Revision of the Amsterdam Children's Intelligence Test (RAKIT) • Differential ability scales (DAS) 4. Low overall score on an Adaptive Behavior scale (with homogeneity in the scale's domains) : • VINELAND-II - Vineland adaptive behavior scale (or Vineland Social Maturity Scale – old name) • ABAS II (Adaptive behavior assessment system) (parents and/or teachers) 5. Severe learning disorders (school results...), with indication of global cognitive delay

Adverse outcome	Definitions of the criteria and measurement tools that can be used for this dimension
Language disorders or delay (whatever age)	1. Medical record (ICD-10: F80): Confirmed diagnosis of language delay by developmental paediatrician or paediatric neurologist 2. Dysphasia 3. Verbal IQ < 85 or < 1 SD environ, or language delay assessed with: • the Reynell Developmental Language Scale • Clinical evaluation of language fundamentals (CELF) • Learning Accomplishment Profile • Subset "Hearing and Language" in Griffiths scales • Subset verbal of IQ or DQ • Subset Communication VINELAND • Communication and Symbolic Behavior Scales Developmental Profile (CSBS-DP) • Comprehensive Language Assessment • the Phelps Kindergarten Readiness Scale II (<i>if no other test assesses language</i>) (Peabody Picture Vocabulary Test; Receptive Expressive Emergent Language Scale; Expressive One Word Picture Vocabulary Test or Sequenced Inventory of Communication Development) => ???? 4. Medical record: Need for speech therapy
Learning disorders (whatever age)	1. Medical record (ICD-10: F81; DSM:315 except 315.4): Confirmed diagnosis of learning disorder by developmental paediatrician or paediatric neurologist 2. Dyslexia, dysorthographia, ... (<i>except dysphasia and dyspraxia</i>) 3. Academic performances (spelling, reading, math, ...)
Psychomotor developmental disorders or delay (whatever age)	1. Medical record: Diagnosis of psychomotor delay recorded in medical records, diagnosis of neuromotor deficit confirmed by a trained nurse practitioner; infant failing to sit by 10 months old or walk by 18 months old ... 2. Dyspraxia (ICD-10: F82; DSM:315.4) 3. Psychomotor IQ < 85 or < 1 SD environ assessed with: • Miller function and participation scales (M-FUN) • Psychomotor subsets:

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	● Griffiths scales ● BSID II (Bayley Scales of Infant Development, motor scale) ● Schedule of Growing Skills II (SGS II) (Locomotion = gross motor ; Handling = Fine motor) ● Motor VINELAND ● Touwen's test ● The Alberta Infant Motor Scale (AIMS)
Risk of ASD (Autism spectrum disorder) (whatever age)	1. Risk of ASD (< 18 months old), assessed with: ● Checklist for Autism in Toddlers (CHAT) ● Modified Checklist Autism for Toddlers (M-CHAT) ● Modified Checklist Autism for Toddlers Révisé/Follow- up (M-CHAT-R/F) ● Quantitative Checklist for Autism (Q-CHAT) 2. Risk of ASD (>18 months old), assessed with: ● The 40-item Social Communication Questionnaire (SCQ) ● Modified Autism Spectrum Screening Questionnaire (ASSQ) ● Autism Screening Questionnaire (ASQ ; ASQ-II) ● Autism- spectrum Quotient (AQ) ● Childhood Autism Rating Scale (CARS) when score between 27-29 ● Social Responsiveness Scale (SRS) ● Social Emotional Questionnaire
Diagnostic of ASD (Autism spectrum disorder) (whatever age)	1. ASD or subtype of ASD (Childhood autism, Atypical autism, Rett syndrome, Other childhood disintegrative disorder, Overactive disorder associated with mental retardation and stereotyped movements, Asperger syndrome, Other pervasive developmental disorders or unspecified): 2. Medical records (ICD-9: 299) (ICD-10: F84.0-F84.9) 3. Medical records (DSM-IV or DSM-V) 4. Diagnosis of ASD (global) assessed with: ● Childhood Autism Rating Scale (CARS) when score >30 ● Autism Diagnostic Observation Schedule (ADOS) ● Revised Behavior Summarized Evaluation scale (BSE-R)

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	• Autism Diagnostic Interview (ADI) • Autism Diagnostic Interview – revised (ADI-R)
Risk of ADHD (Attention deficit with or without hyperactivity disorder) (whatever age)	1. Risk of ADHD, whatever age but assessed by <u>one</u> investigator with: • Conners' rating scales (parents or teachers) • Attention Problems and Hyperactivity Scales ex: Strengths and Difficulties Questionnaire (SDQ); Behavior assessment system for children (BASC) (parents or teachers) • Child Behavior Checklist (CBCL) • Social Emotional Questionnaire
Diagnostic of ADHD (Attention deficit with or without hyperactivity disorder) (whatever age)	1. Diagnosis of ADHD reported in a Medical record: DSM-IV or DSM-V or ICD (ICD10: F90) or confirmed diagnosis in hospital/medical records made by a paediatrician or child psychiatrist 2. Treatment for ADHD (methylphenidate, ...) 3. ADHD, assessed by <u>several investigators (≥2)</u> • Conners' rating scales (parents and teachers) • Behavior assessment system for children (BASC) (parents and teachers) • Attention Problems and Hyperactivity Scales • Child Behavior Checklist
PSYCHIATRIC AND PSYCHOLOGICAL DISORDERS OF THE CHILD	
Behavioral disorders	1. Diagnosis (ICD10: F91;92) reported in a Medical record: DSM-IV or DSM-V or ICD or confirmed diagnosis in hospital/medical records made by a paediatrician or child psychiatrist: 2. Child Behavior Checklist (CBCL) - Externalized disorders (oppositional disorders, « aggressive symptoms », ...) (Subclinic: t-scores > 60-65 %) 3. Behavior assessment system for children (BASC) (aggression, ...)
Emotional disorders	1. Diagnosis of depression, anxiety (etc.) reported in a medical record: DSM-IV or DSM-V or ICD (ICD-10 codes F40-F48 (anxiety); F30-F39; F93 (anxiety of child) confirmed diagnosis in hospital/medical records made by a paediatrician or child psychiatrist. 2. Child Behavior Checklist (CBCL) - Internalized disorders (Child affective problems, anxiety problems, ...)

Adverse outcome	Definitions of the criteria and measurement tools that can be used for this dimension
	3. Behavior assessment system for children (BASC) (depression ou anxiety)

DQ: Developmental quotient; IQ: Intellectual quotient; ICD: International Classification of Diseases; DSM: Diagnostic and Statistical Manual of Mental Disorders; ADHD: Attention deficit with or without hyperactivity disorder; ASD: Autism spectrum disorder