

DIAGNOSIS of AUTISM SPECTRUM DISORDER

Autism is a **clinical** diagnosis. Must meet DSM V-TR criteria A-E below:

A – Social (Meet all 3)

Developing & maintaining relationships

Social-emotional reciprocity

Non-verbal communication cues

B – Behavioral (Meet 2 of 4)

Repetitive Speech or behavior

Need for sameness

Restricted interests

Atypical Sensory Responses

C, D, & E

C - Symptoms present in early development

D - Symptoms impair social, occupational functioning

E - Not explained by IDD

SEVERITY

Level 1. Requiring support. Low interest/ success socially, inflexibility

Level 2. Requiring substantial support. Marked social delays. Distress with change

Level 3. Requiring very substantial support. Severe social deficits, extreme inflexibility

SPECIFIERS

Language issue | IDD
Medical/ genetic condition
Catatonia | Other psych

STATS

Prevalence 1 / 36
50% have avg or higher IQ
4M:1F

25% minimally verbal

RISK FACTORS

Advanced parental age
Premature birth
Perinatal complications
Maternal immune dx
Metabolic dx
Maternal infections
Family history & genetics

Tools can help with clinical diagnosis but are not required.

CLINICIAN

ADOS (1y+)
ADI-R (1.5y+)
STAT (2-6)
CSBS (.5-2y)

PARENT

ASQ
MCHAT (1-3y)
CARS-2 (2y+)
GARS-2 (3-22y)
SCQ (4y+)

Neurodevelopmental Clinical Pearls



Created by the AACAP Autism and Intellectual Disability Committee's Training and Education Workgroup. See website for sources and more details!

DIAGNOSIS of INTELLECTUAL DEVELOPMENTAL DISORDER (IDD)

Must meet DSM-5-TR criteria A, B, & C:

A - Deficit in intellectual function: reasoning, problem solving, planning, abstract thinking, executive function – assessed via standardized evaluation.

B - Deficit in 3 domains of adaptive function

Academic	Memory, language, reading, writing, math; use of knowledge in novel situations; problem solving
Social	Awareness of other's thoughts and feelings; communication skills; social judgment
Practical	Self-management with ADLs, money, behavior, job responsibilities

C - Onset during developmental period

Severity: Mild, Moderate, Severe, or Profound based on level of adaptive functioning



Risk Factors

Prenatal	Genetic, chromosomal, malformations, growth errors; maternal infections, illness, malnutrition; teratogens, toxins
Perinatal	Delivery complications; infections
Postnatal	Trauma, infections, toxins, medical conditions, environment, abuse/neglect
Unknown	Most common cause of IDD

Prevalence 1-3% worldwide

Most common inherited cause is Fragile X

#1 chromosomal cause is trisomy 21

NEURODEVELOPMENTAL WORK-UP

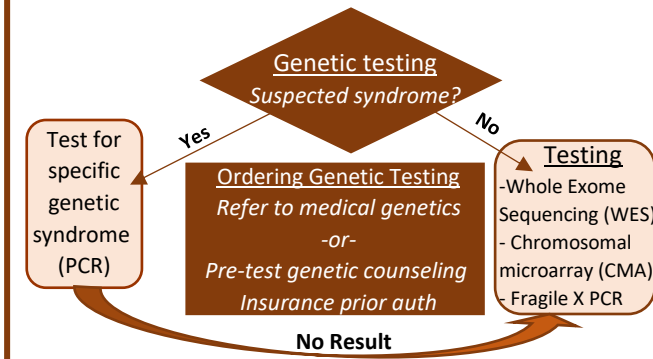
As part of initial evaluation...

History	Evaluate	Review Labs
Family History	Hearing/Vision Tests	Newborn Screen
Prenatal/Birth	Physical exam: include neuro & congenital exams	BMP, CBC, LFT, TSH
Developmental	Psychiatric eval	Lead, Metabolic
Medical	Behavioral eval	Genetic testing

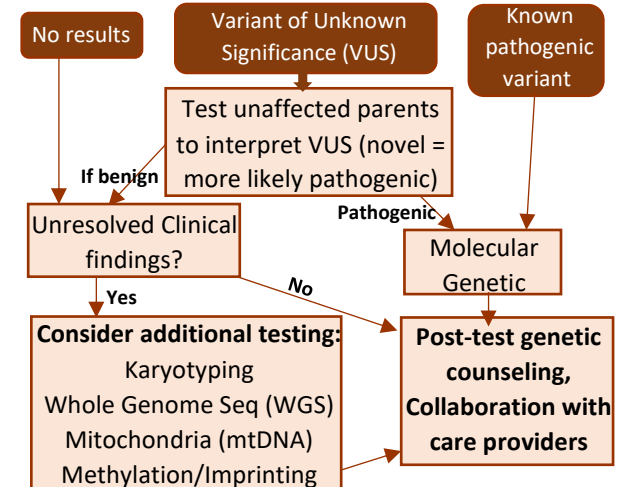
Further workup:

Evaluate baseline vs current and expected developmental age

Consider Neuro or Genetics Consult



Interpreting Genetic Testing Results



BEHAVIORAL INTERVENTIONS

Effective Use of Therapy

- Establish and prioritize target of therapy
- Therapy first, then medication (if feasible)
- Clarify function & motivation for behavior

INTERVENTIONS

APPLIED BEHAVIORAL ANALYSIS (ABA)

Most evidence-based approach
Review antecedents, behaviors, consequences
Apply reinforcers

EARLY INTERVENTIONS

Early Intensive Behavioral Intervention (EIBI)
Early Start Denver Model (ESDM)

PLAY-BASED THERAPIES

Pivotal Response Training (PRT)
Joint Attention Symbolic Play Engagement
Regulation (JASPER)

SKILL-BASED PROGRAMS

Treatment & Education of Autistic and Related
Communication Handicapped Children
(TEACCH)
Social Skills Training (SST)
Modified Cognitive Behavioral Therapy (CBT)

PARENT TRAINING PROGRAM

Research Units in Behavioral Interventions
(RUBI)
Stepping Stones Triple P

*Other options
to promote
adaptive
function
include:
OT, PT, &
school
supports via
IEP (IDEA) or
504 plan.*

TRANSITION PLANNING PROCESS

Child Programming

Adult Services
& Roles

Start
early!

Self-determination
Self-management
Independence | Advocacy

INDIVIDUAL

- Core symptoms
- Adaptive Function
- Psychiatric & medical comorbidity
- Special needs
- Interests & strengths

TEAM

- Family
- Case Manager
- School Team
- Medical providers
- Therapy providers
- Community agencies

SUPPORTS

- School
- Vocational Training
- Supported employment
- Medical care
- Guardianship
- Housing assistance



PHARMACOLOGIC TREATMENTS

The Basics

- No medication can treat core autism symptoms
- Medications are used to treat psychiatric and behavioral comorbidity but could also worsen behavior
- Rule out medical/environmental/psychosocial causes of behavior first
- Assess for DSM-5-TR disorders (e.g. ADHD, anxiety)

- FDA approved medications in autism – risperidone and aripiprazole for the treatment of irritability
- Some data on other medications (e.g. stimulants, alpha agonists). Less data on SSRIs and other meds.
- Medication choices are often guided by data in typically developing children.
- To minimize side effects → **start low and go slow**
- Increased sensitivity to side effects. Monitor closely, e.g. vitals bloodwork, EKG, weight, movements, etc.

Hyperactivity, Impulsivity, Inattention, Irritability

Stimulants	-Methylphenidate immediate release – initial small trial dose (2.5mg), titrate as tolerated. Can try other stimulants. -Higher risk of side effects, e.g., mood lability, anxiety, movements
Non-Stimulants	-Guanfacine /clonidine- for those with co-occurring tics, anxiety, aggression -consider atomoxetine

Irritability, Aggression, Self-Injury (SIB)

Dopamine blockers	-Risperidone/aripiprazole if severe -Less data on other dopamine blockers; try carefully
-------------------	---

Anxiety, OCD, Depression

SSRI SNRI	-Titrate slowly. High risk of activation (i.e., worsening behaviors)
--------------	--

Irritability, Aggression, SIB, Mood Dysregulation

Other Meds	-Lamotrigine and VPA – if atypical EEG and epilepsy. Collaborate with neurology. -Lithium or propranolol for aggression
------------	--

Sleep

- Primary sleep problems are common
- Consider sleep hygiene, melatonin, trazodone, clonidine

AGITATION/BEHAVIORAL ESCALATION

Etiology

- +Environmental and schedule changes
- +Caregiver changes
- +Overstimulation
- +Sleep problems
- +Iatrogenic, Med side effects
- +Trauma

- +Medical (HA, seizure, GI/constipation, infection)
- +Hormonal changes
- +Pain
- +Dental issue
- +Catatonia
- +Allergies

Interventions

Step 1: NON-PHARMACOLOGY

- Assess pain, hunger, physical needs
- Establish routines via verbal and visual communication tools (e.g., schedule boards, social stories)
- Offer preferred items & sensory stimuli
- Reduce demands

- Identify calming spaces
- Maintain sleep hygiene
- Contact mental health providers including behavioral specialist
- Know about local ED, inpatient psych units, resources
- Support parents

Step 2: PHARMACOLOGY

- Ask about prior medication responses, such as to benzodiazepines/diphenhydramine, which can cause disinhibition.
- Consider extra dose/early dose of pt's regular meds
- Assess for drug interactions and side effects
- Advise parents to take prn medications to appointments and when in the community.

Tips

- Parents bring PRN medication to visit
- See patients more often if necessary
- Work with ED/Inpt/Outpt teams to share history/ offer guidance
- Know if local crisis teams/police are trained to work with individuals with developmental disabilities