



UnitedHealth Group

Autism Spectrum Disorders

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Autism Spectrum Disorders Clinical Overview



- Prevalence
- Etiology
- Clinical Presentation
- Screening and Surveillance
- Management
- Interventions
- Passion

Prevalence of Autism Spectrum Disorders - AD, AS and PDD NOS



- 6.6 per 1000 – CDC Autism & DD Monitoring Network – 2007
- Change in terminology
- Broadened diagnostic criteria - AD
- New diagnosis in DSM – PDD NOS, AS
- Studies varied in case ascertainment strategies
- More reliable screening tools
- More proficient recognition and diagnosis
- Diagnosis tied to funding – IDEA, ADA
- Inclusion of other disorders

Etiology of Autism Spectrum Disorders



- Biologically based
- Neuro-developmental
- Heritable
- Cause: Unknown due to genetic complexity and phenotypic variation – environmental factors (“second-hit” during development – prenatal, perinatal, postnatal)
- ASD genes – X, 2, 3, 7, 15 and 22 – The International Molecular Genetic Study of Autism Consortium
- Idiopathic vs. Secondary to disorder known to associate
- Cerebellum; Forebrain Limbic System; Frontal & Temporal Lobes; Inferior Olive and Brainstem
- Increased brain volume, regional grey/white matter volumetric differences, neurotrophin differences
- Neuropathologic findings suggest pathology arises in utero

Clinical Signs of Autism Spectrum Disorders



- Social skill deficits
- Restricted, repetitive, stereotypic – behavior, interests, activities
- Significant language delays – AD and PDD-NOS
- GDD/MR – splinter skills
- Sensory Motor – hypo/hyper sensitivities
- Heterogeneous phenotype with indistinct end points – especially at mild end of spectrum
- Speech delays at 15-18 months prompt queries to PCP's
- Public awareness prompting earlier queries to PCP's due to social skill deficits

Surveillance and Screening of Autism Spectrum Disorders - Early identification



- ASD – specific surveillance and screening
- Developmental surveillance at every preventive visit:
 - Parent concerns
 - Developmental history
 - Observations of Child
 - Risk and Protective Factors
 - Documenting findings
- Use of standard screening tool at 9, 18, 24, 30 months
 - PCP/Parent - Not yet validated
- Comprehensive Evaluation – Assessing Functioning; Categorical Diagnosis; Etiology (hx, exam, parent, lab)
- Prognosis pressing parental concern – not curable/chronic illness (independent living, employment, relationships, mental health)

Management of Autism Spectrum Disorders



- Maximizing functional independence and quality of life
- Facilitating development and learning
- Promoting socialization
- Reducing maladaptive behaviors
- Educating and supporting families
- Guiding toward empirically supported interventions
 - Therapies
 - Educational Strategies – behavior strategies and habilitative therapies
 - adaptive skills
- Management of coexisting conditions

Interventions to Autism Spectrum Disorders



- Early Childhood Programs – behavioral, analytic, developmental and structured teaching
 - 25 hours/week, 12 months/year
 - low student teacher ratio
 - parent training
 - measurement and documentation
 - highly structured/predictable
 - generalization of skills – functional, communication, social (OT, ST)
 - reduction of maladaptive behavior
 - readiness/academic skills
- Medical Management – Sz, GI, Sleep, Comorbid conditions
- Family Support

Unproven Therapies for Autism Spectrum Disorders



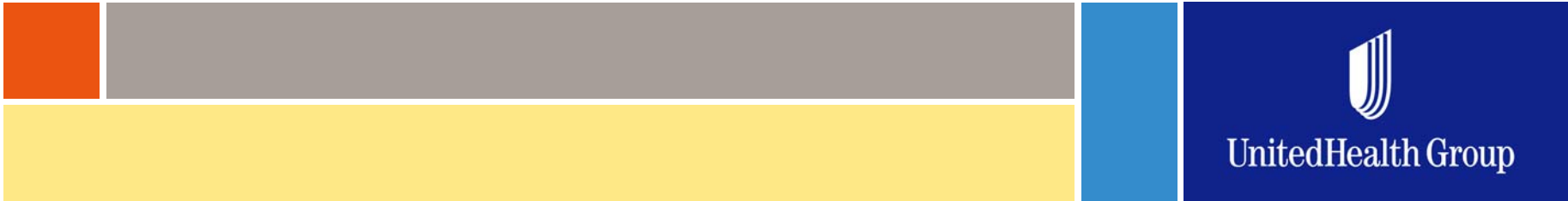
- Applied Behavioral Analysis
- Sensory Integration Therapy
- Touch Therapy
- Music Therapy
- Auditory Integration Therapy
- Hormone Therapies
- Immunologic Therapies
- Anti-Yeast Therapies
- Vitamin Therapies
- Diet Therapies
- Hippotherapy
- Chelation Therapy

AAP: PEDIATRICS Volume 120, Number 5, November 2007; AACAP: Practice Parameters for Autism and other PDDs, 1999

Passion in Autism Spectrum Disorders



- Life long disability in a child
- More common than Pediatric: Cancer, Diabetes and AIDS – combined
- Indiscriminate of Race, Ethnicity, Social Group
- Fastest growing DD in the USA
- Est. costs \$35 billion per year - growing
- Receives less funding than less prevalent childhood illnesses
- No cure
- Public awareness
- Advocacy



Autism Spectrum Disorders

Expanded Considerations

