Diagnostic Criteria for PANDAS

- Sudden (often explosive) Onset (can be missed in very young)
- Obsessive Compulsive Disorder (OCD) and/or Severely Restrictive Eating and/or Tics
- Prepubertal initial onset
- Relapsing/ remitting course (episodic)
- · Association with other neuropsychiatric findings

Pediatric Acute-Onset Neuropsychiatric Syndrome

PANS

Pediatric Acute Neuropsychiatric Syndromes

PITANDS

Infection Triggered

Non-Infectious Triggers Group A Streptococci (PANDAS)

Other Microbes

Lyme, Bart, Bab, Mycoplasma, Viruses, Fungus

Environmental

Mold, Toxins, Exposures, Metals

> Metabolic Disorders

Adapted from Swedo SE, Leckman JF, Rose NR (2012) From Research Subgroup to Clinical Syndrome: Modifying the PANDAS Criteria to Describe PANS (Pediatric Acute-onset Neuropsychiatric Syndrome).

1. Treat Infections

- This means all infections you can find bacterial, viral, fungal, nasal (MARCons, fungal), skin, gut etc
- · Test and treat family members to reduce the reservoir
- Antibiotics* for the strep treatment and prophylaxis per rheumatic fever protocol
- Antivirals, antifungals, probiotics
- Plant-based therapies herbs, oils
- Silver

2. Reduce Inflammation

- Steroids oral "burst", taper or intravenous
 - Most powerful anti-inflammatory agent
 - Problems: immune suppression, side effects, older children may not respond as well as children <12 yrs of age
- Ibuprofen, NSAIDS
- Herbs
- Omega 3 Oils and Phospholipids
- Reduce allergens
- Food clean, low sugar, consider autoimmune diets
- Low Dose Naltrexone

3. Clean up the Terrain

- Digestive issues infections, dysbiosis, toxicity, food-based issues, SIBO
 - Gluten Testing Cyrex test panel #3 (especially with ataxia)
 - Consider food sensitivities (IgA, IgG)
 - Healing diets (GAPS...)
- Detox pathways, organs, matrix, cells; methylation
- Nutrient Deficiencies
- · Mitochondrial impact from antibiotic use
- · Cell membrane stabilization with phospholipids
- Test for exposures and imbalances metals, oxalates, etc

4. Immune Modulation

- Plasma Exchange / Plasmapheresis (PEX)
 - harmful auto-antibodies are removed from the blood system
 - Used in extreme, severe or life threatening situations
 - May not be long term if body continues to recreate abnormal antibodies
- Intravenous Immunoglobulin Therapy (IVIg)
 - blood product (the immunoglobulin element of donors blood)
 - used for immune deficiencies, to clear infection, for encephalitis, numerous autoimmune and other medical conditions
 - Gradual improvement over several months
 - Most children with PANDAS do not need frequent repeated IVIg
- LDI/LDA Herbs?
- Consider Tonsillectomy

It batho

5. Reduce the Symptoms

Brain on Fire - Calm it Down

- SSRI and psych meds used for OCD, anxiety, dopamine
 - Start low, go slow these kids are ultra sensitive to med side effects
- Neurotransmitter modulating supplements
 - NT testing often shows immune activated inflammatory pattern (high glutamate, dopamine, histamine and norepinephrine) (Pharmesan)
 - Support gaba, serotonin (ie Calm G, Theanine, Norlox, Travacor)
 - Reduce cortisol herbs , phos serine, minerals, B vits, homeopathics
- Support Sleep
- · Body centered therapies cranial, structural, lymphatic
- Cognitive Behavioral Therapy; PT, OT (motor and sensory or spatial issues)
- Family Support