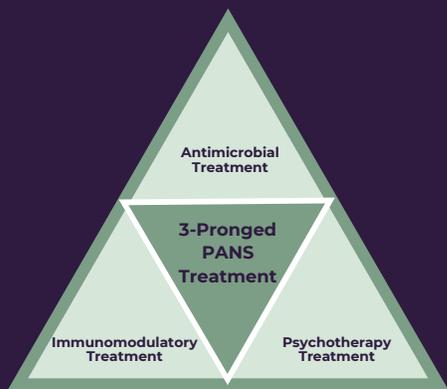




**ASPIRE**  
Alliance to Solve PANS & Immune-Related Encephalopathies

## PANS Criteria

1. Abrupt, acute onset or worsening
  - Obsessive-compulsive disorder or severe restricted food intake
2. Concurrent presence of additional neuropsychiatric symptoms from at least 2 of the 7 categories:
  1. Anxiety, separation anxiety
  2. Emotional lability or depression
  3. Irritability, aggression, and/or oppositional behaviors
  4. Behavioral regression
  5. Deterioration in school performance (loss of math skills, handwriting changes, ADHD,)
  6. Sensory or motor issues, tics
  7. Somatic signs: enuresis, or urinary frequency, sleep disturbances
3. Symptoms are not better explained by a known neurologic or medical disorder
4. Age requirement – None



Overview of Treatment of PANS-JCAP Vol27, 2017  
Swedo, MD, Frankovich, MD, MS, Murphy, MD, MS

## Treatment Overview

“Treatment of PANS involves a three-pronged approach that utilizes psychiatric medications when appropriate to provide symptomatic relief, antibiotics to eliminate the source of neuroinflammation, and anti-inflammatory and immune modulating therapies to treat disturbances of the immune system.”

- Remove the inflammatory source with antimicrobial treatments
- Treat the disrupted immune system with immune modulating and/or anti-inflammatory interventions
- Alleviate symptoms with psychotherapeutic treatments, including psychotherapies

[www.aspire.care](http://www.aspire.care)

# PANS PANDAS

## SCHOOL NURSE INFORMATION

### PANS Pediatric Acute-onset Neuropsychiatric Syndrome

PANS is a clinical diagnosis based on history and physical examination. PANS diagnostic criteria require an acute onset or sudden worsening of OCD and/or restrictive eating, with concurrent symptoms in at least two of seven neuropsychiatric and somatic categories. Infections, metabolic disturbances, other inflammatory reactions, and stress can trigger PANS. Infectious triggers include upper respiratory infections, influenza, strep, mycoplasma pneumoniae, and Lyme borreliosis, among others. The average age of onset is between 3 and 13, but post-pubertal cases do occur. There is no requisite age of symptom onset for a PANS diagnosis.

### PANDAS Pediatric Autoimmune Neuropsychiatric Disorder Associated with Streptococcal Infections

PANDAS, a subset of PANS, in which symptom onset is triggered by Group A Streptococcus (GAS) infections.

PANS/PANDAS symptoms typically follow a relapsing/remitting course but can become chronic. Initial triggers may differ from secondary triggers. Triggers are not always identified; a patient may not exhibit typical signs of illness like sore throat or fever. During each recurrence, symptoms can worsen, and new symptoms may manifest. Symptoms can range from mild to severe. In mild cases, children might function well enough to continue to attend school. In severe cases, symptoms can become life-threatening due to extreme food restriction and/or suicidality.

Many children with PANS/PANDAS are misdiagnosed with a psychiatric illness and prescribed only psychotropic medications rather than being evaluated and treated for an underlying infection and immune dysregulation. According to a consortium of experts convened by the National Institute of Mental Health, appropriate treatment is a three-pronged approach incorporating psychotherapeutic interventions, antimicrobial treatment, and immunomodulation and/or anti-inflammatories.

## SCHOOL NURSE ROLE

The school nurse might be the first to establish a link between a recent or recurring strep infection or illness with a sudden onset or worsening of atypical behavior. Additionally, school health personnel may be the person who knows the student the best over time. They can help coordinate communication between the student, family, school staff, and outside providers.

- Report abrupt changes in behaviors, school performance, eating habits
- Bridge communication between staff, parents, and outside providers
  - Refer to pediatrician or specialist if PANS PANDAS is suspected
  - Refer to pediatrician for strep or additional testing if infection is suspected
- Provide emotional support to students and families during this new and stressful situation
- Provide infection control support - Symptoms can worsen with reinfection and exposure to strep and other diseases
  - Inform the family of infectious illness in classrooms
  - Request the school community informs the School Nurse office of strep or other diseases
  - Provide guidance on reducing exposure to infections in classrooms
- Provide guidance to the team developing 504 and IEP plans to ensure a supportive environment - *more information available at ASPIRE*
- Develop and monitor Individual Health Care Plans (IHCP) - *examples are available at ASPIRE*
- Increase education on PANS PANDAS
  - Register for ASPIRE's in-service lectures for school staff and school nurses
  - Download ASPIRE's toolkits for schools staff, school nurses, and providers