IS-2019-44 September 23, 2019

### **Definitions**

**Cunningham Panel** - The purpose of the Cunningham Panel is to provide laboratory results that assist physicians in diagnosing infection-induced autoimmune neuropsychiatric disorders.

Immunoglobulin is part of your blood's plasma. It has antibodies in it to fight germs or disease.

**Intravenous Immunoglobulin or IVIG** is a human blood product consisting of antibodies which is used to treat immunodeficiency disorders. This therapy can help people with weakened immune systems or other diseases fight off infections.

**Neuropsychiatric Disorders** are those illnesses that have both neurological and psychiatric features.

PANDAS is an acronym for Pediatric Autoimmune Neuropsychiatric Disorder Associated with Streptococcal infection. It is an autoimmune condition initially triggered by strep infections, which disrupts a child's normal neurologic activity. PANDAS occurs when the immune system produces antibodies, intended to fight an infection, and instead mistakenly attacks healthy tissue in the child's brain, resulting in inflammation of the brain (basal ganglia section) and inducing a sudden onset of movement disorders, neuropsychiatric symptoms and abnormal neurologic behaviors.

**PANS** is the acronym for **Pediatric Acute-onset Neuropsychiatric Syndrome**. This occurs when exposure to any number of infectious agent(s) triggers a misdirected immune reaction, where antibodies attack a portion of the brain, causing inflammation which disrupts a child's normal neurologic activity causing an abrupt onset of neuropsychiatric symptoms.

**Plasmapheresis** - A process in which the liquid part of the blood, or plasma, is separated from the blood cells. Typically, the plasma is replaced with another solution such as saline or albumin, or the plasma is treated and then returned to your body. During a plasma exchange, unhealthy plasma is swapped for healthy plasma or a plasma substitute, before the blood is returned to the body.

## Moleculera Parent Survey 2018

# Selected Findings for the PANDAS/PANS Interim Study

## September 23, 2019

## N= 1098 Respondents

1. Costs related to provider visits	33% paid from \$5K-\$20K 15% paid from \$20K to >\$50K
2. Costs of travel to provider visits	32% paid from \$1K-\$5K; 20% paid from \$5K- >\$50K
3. Hospitalizations	29% of patients have been hospitalized at least 1 time 63% admitted in psychiatric hospitals 24% have been hospitalized 5-6 times Mean length of stay = 46 days
4. Medication costs	68% paid from \$1K-\$10K 3% paid from \$10K- >\$50K
5. Immunotherapy	40% received immune modulating therapies 91% of those received immunoglobulins 16% paid >\$100K on IVIg
6. Adjunctive therapies	89% received these services, 55% paid from \$5K-\$25K 16% paid from \$25K->\$50K
7. Laboratory tests	47% paid from %5K- >\$50K
8. Loss of income	45% of families, one parent had to stop working 8% fired due to absenteeism
9. Insurance coverage	96% of responders had medical insurance Less than 3% had insurance coverage for the Cunningham Panel
10. Was the Cunningham Panel useful?	82% - helpful with obtaining diagnosis