The background features a gradient from dark purple at the top to dark blue at the bottom. On the left side, there are several technical diagrams, including a large circular scale with numerical markings from 150 to 260 and various concentric circles and arrows. On the right side, there are smaller circular diagrams with arrows, and a starry space pattern is visible in the background.

DIAGNOSIS AND TREATMENT: PSYCHIATRIC PERSPECTIVE

MARGO THIENEMANN MD
STANFORD PANS PROGRAM

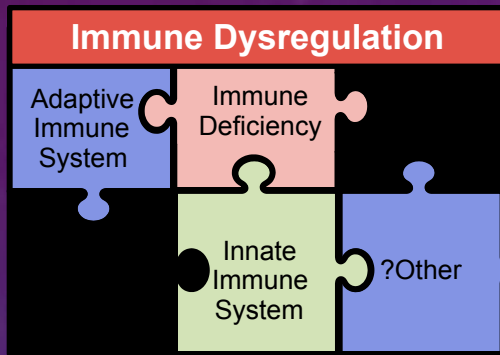
SIGNS: PANS

IT MIGHT BE



- Sudden onset
- Multiple symptom domains
- Severe symptoms
- Relapsing-remitting course





- Infections**
- Group A Strep
 - Mycoplasma
 - Other



Disruption of Blood Brain Barrier

Antibodies +/- Cytokines +/- other immune mediators

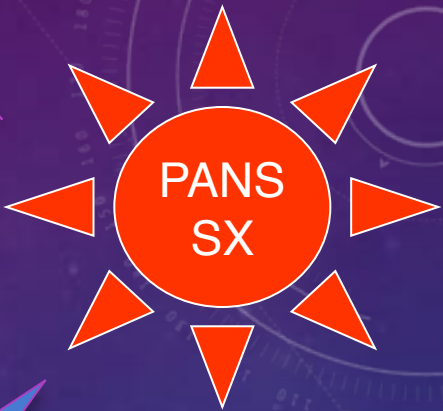


PANS
(Pediatric Acute-onset Neuropsychiatric Syndromes)

PANS TREATMENT

Infection, Inflammation, Predisposition

Psychotropics



Safety
Case management
Psychoeducation
Support
CBT, DBT, HRT...

Fall out

Antibiotics
Immune Modulation
Specialty Consultation

School accommodations
Rehab
OT
PT



THE PSYCHIATRIST'S ROLE

- **FUNCTION:**
 - Educate families
 - Ensure safety
 - Facilitate child receiving medical treatments
 - Inform treatment team re sx
 - Address symptoms
 - Help coordinate care

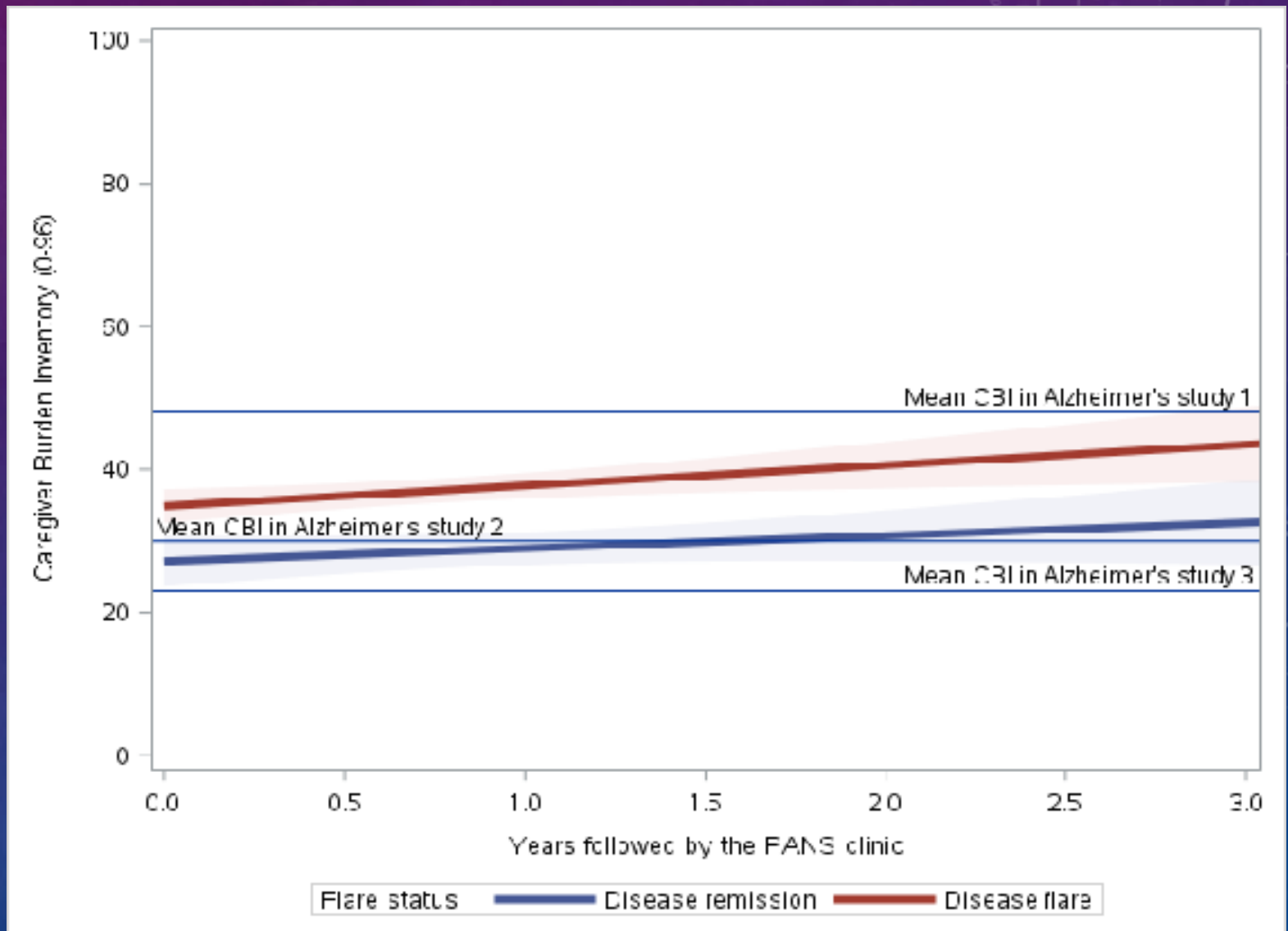
PSYCHIATRIC AND BEHAVIORAL INTERVENTIONS

- Require individualization
- Many variables change at once
- Psychotropic medication responses are atypical
- Require adjustment over illness course
- Require multidisciplinary approach
- Derive from evidence-based treatments

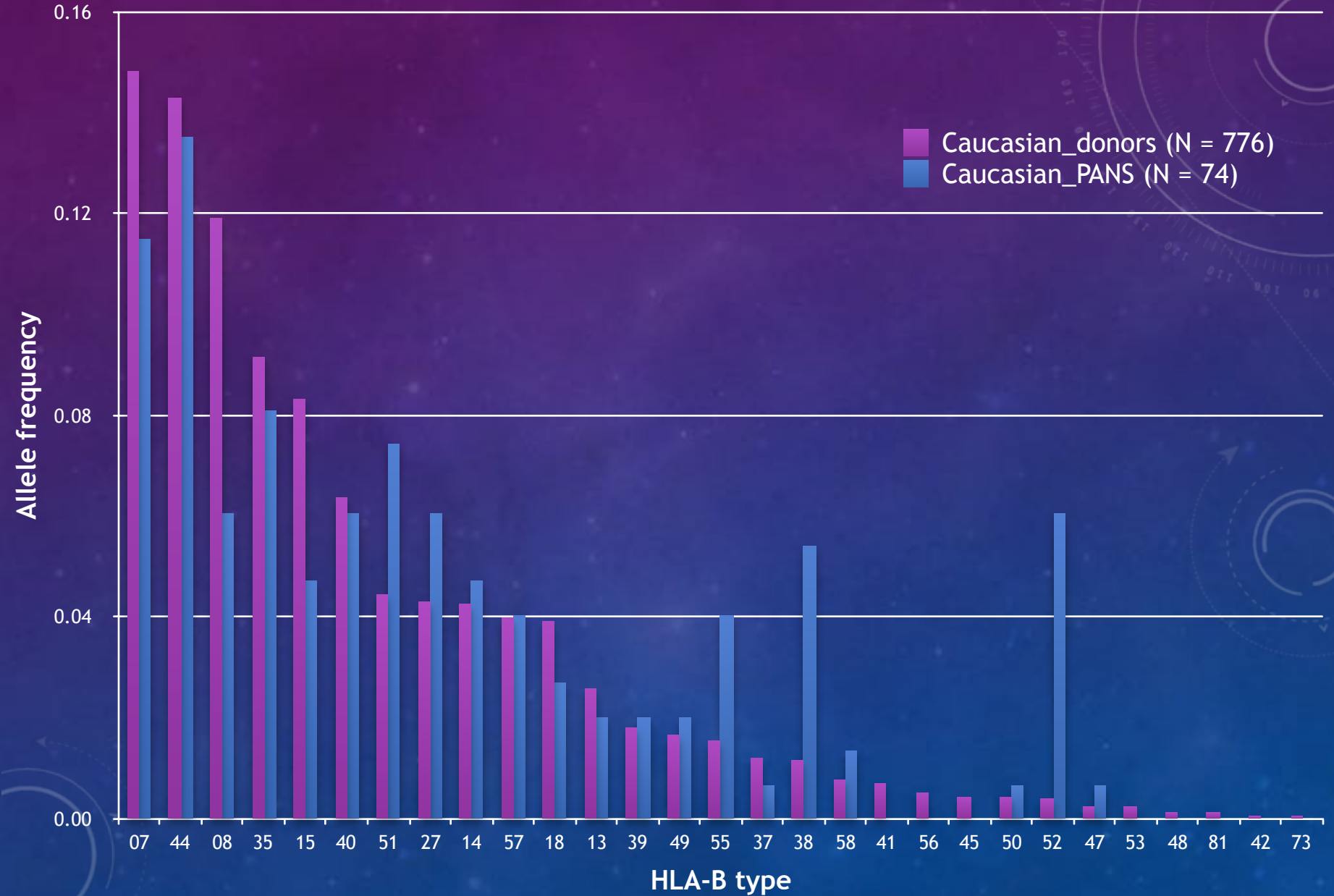
STANFORD PANS PROGRAM FINDINGS AND WORKS IN PROGRESS

- Immunology
 - HLA
 - Monocytes
 - GAS toxin causing TH17 skew
 - Vasculitis markers
-
- Treatment Responses
 - NSAIDs
 - IVIG
 - Corticosteroids
 - Rituximab/Mycophenylate/
Methotrexate
 - Immune deficiencies
 - Sinus infections
- Symptoms
 - Hallucinations
 - Pain, fatigue, exercise intolerance
 - Caregiver Burden
 - Caregiver Skills Group
 - Cognitive changes

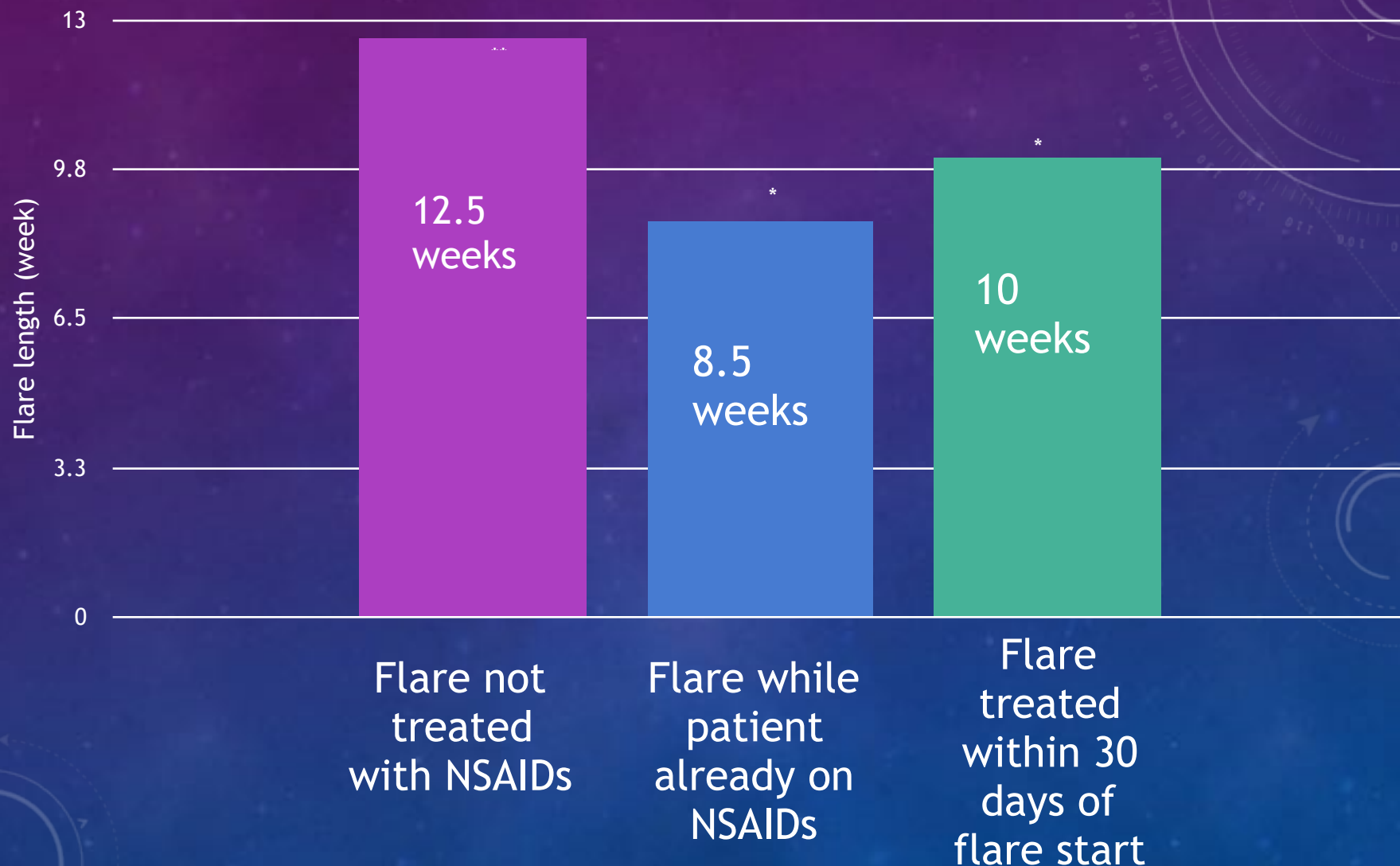
CAREGIVER BURDEN LIKE ALZHEIMERS' FAMILIES



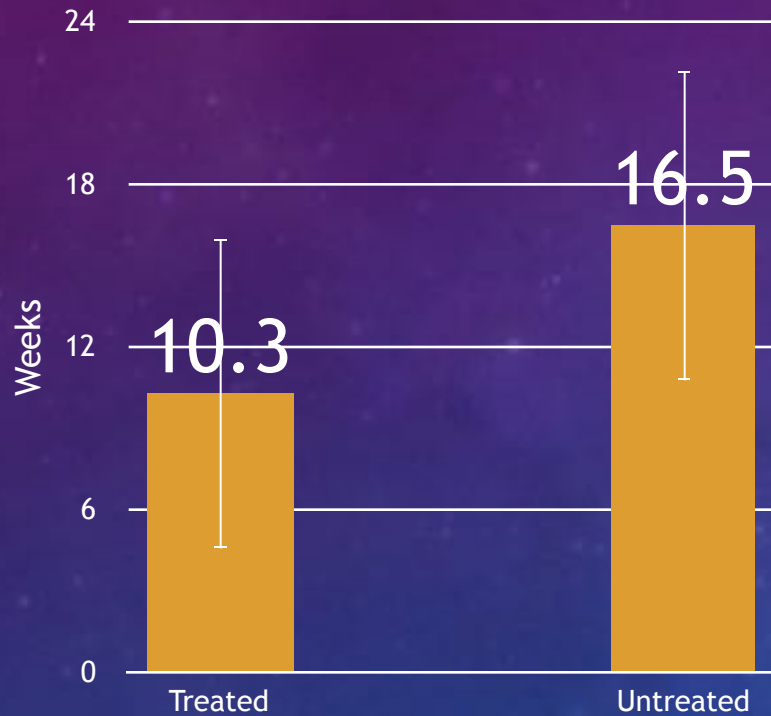
HLA-B frequencies in caucasian controls and caucasian PANS cases



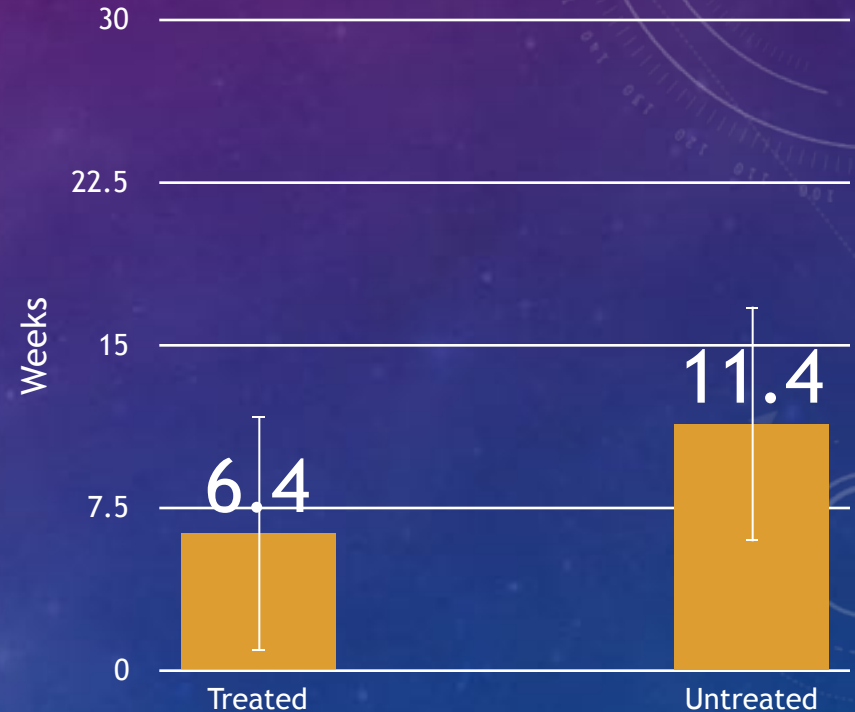
Effect of early and prophylactic NSAIDs on flare duration



EFFECT OF CORTICOSTEROIDS ON WEEKS IN FLARE



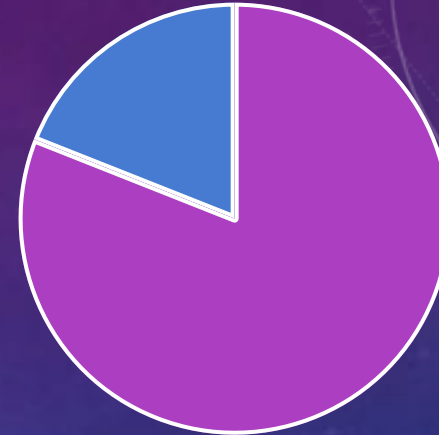
Single episode of PANS or
relapsing/remitting PANS



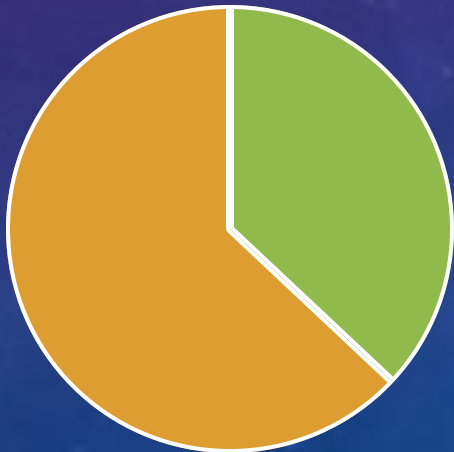
Duration of the initial
presentation (i.e., first PANS
flare) of PANS

SYMPTOM PREVALENCE FINDINGS

PAIN, FATIGUE OR EXERCISE INTOLERANCE:
81%



SENSORY
DISTURBANCE/
HALLUCINATIONS 37%



HALLUCINATIONS
n= 153

