Clinical Outcome Assessments (COA) Qualification Program
DDT COA #000119: Pediatric Sleep Disturbance in Chronic Kidney Disease
Short Form 8
Letter of Intent

Administrative Structure:

Description of the submitter including, but not limited to, principal investigator(s), working group member(s), institutions, and contact information not contained within the cover letter.

PEPR – FDA Workgroup Lead:
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PEPR Principal Investigator
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The Children's Hospital of Philadelphia

The PEPR consortium workgroup members currently involved in the FDA approval process are: Carole A Tucker PhD, PEPR – FDA Workgroup Lead, Temple University - College of Public Health & Christopher B Forrest MD, PhD, PEPR Principal Investigator, Children's Hospital of Philadelphia.

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Concept(s) of Interest (COI) for Meaningful Treatment Benefit:

A description of the meaningful aspect of patient experience that will represent the intended benefit of treatment (e.g., presence/severity of symptoms, limitations in performance of daily activities).

The **Pediatric Sleep Disturbance in Chronic Kidney Disease Short Form 8 - English version** evaluates a range of self-reported symptoms and thoughts of one's sleep quality, depth and rejuvenation associated with sleep. The Sleep Disturbance conceptual framework includes sub-constructs of ease/difficulty with sleep onset, sleep quality, and sleep continuity.

Provide a conceptual framework for the COA(s)

The conceptual framework for sleep disturbance is based on the PROMIS work in which a mixed methods approach was used to define the COI. Sleep disturbance is a sub-domain of physical health domain of the PROMIS conceptual framework. The results of semi-structured interviews with children with CKD (see below) support the relevance of this conceptual framework for the target population.

Context of Use for COA Qualification:

Targeted study population including a definition of the disease and selection criteria for clinical trials (e.g., baseline symptom severity, patient demographics, comorbidities, language/culture groups).

In 2002, the National Kidney Foundation's Kidney Disease Outcomes Quality Initiative (NKF-K/DOQI) published a guideline on CKD, the NKF-K/DOQI Classification of the Stages of CKD. This classification provides stages of CKD severity, independent of cause, and applicable to children. The Work Group defined CKD as the presence of kidney damage or estimated glomerular filtration rate (eGFR) <60 mL/min/1.73 m^2 for 3 months or more, irrespective of diagnosis. Kidney damage is usually identified by the presence of markers of disease that are present in blood, urine, or imaging studies, rather than by kidney biopsy. The CKD guidelines emphasize persistent proteinuria as a particularly important marker of kidney damage. Our PEPR validation study includes children in stages 2 – 4 with two eGFR readings in the range of 15-89 mL/min/1.73 m2 at least 3 months apart.

Patient demographics – Children between 8 – 17 years of age, with no restrictions on gender, race and ethnicity
Language/culture group – General US population, English speaking
Baseline symptom severity – All levels of severity and disease activity
Comorbidities – No restrictions

***Targeted study design and statistical analysis plan (includes the role of the planned COA in future drug development clinical trials, including the planned set of primary and secondary endpoints with hierarchy, if appropriate*).**

The **PROMIS® Pediatric Chronic Kidney Disease Short Form - Sleep Disturbance** can be used in future drug development trials as a primary or co-primary endpoint in studies that use pharmacological interventions to improve the Sleep Disturbance associated with CKD and as a secondary endpoint in drug trials that reduce the overall symptom burden of CKD as Sleep Disturbance is a common clinical marker of symptom burden in this population.

Applicable study settings for future clinical trials

- ***Geographic location with language/culture groups***
    - United States & Canada, all genders, races and ethnicities, English speaking
    - The **PROMIS® Pediatric Chronic Kidney Disease Short Form - Sleep Disturbance** is a fixed-length short form for child-report developed using mixed methods that consists of 8 Likert response items that can be administered using electronic data capture methods or by paper/pencil. We propose its intended initial use to be in outpatient settings in the United States and Canada across all racial and ethnic groups. The submitted **PROMIS® Pediatric Chronic Kidney Disease Short Form** is intended for English speaking respondents. As noted in the translation section below, the measure has been culturally harmonized and translated into Dutch, English, French, German, Italian, Simplified Chinese (Mandarin), and Spanish.

- ***Other study setting specifics (e.g., inpatient versus outpatient)***
  Outpatient setting only in our initial efforts.

COA Type: PRO