The Importance of Knowing Normal: FDA Perspective

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Disclosure statement

• I have no financial relationships to disclose relating to this presentation
• The views expressed in this talk represent my opinions and do not necessarily represent the views of FDA
Pediatric Drug Development

General Principles

- Pediatric patients should have access to products that have been appropriately evaluated
- Product development programs should include pediatric studies when pediatric use is anticipated

From FDA guidance to industry titled *E11 - Clinical Investigation of Medicinal Products in the Pediatric Population*, December 2000
Evidentiary Standard for Approval

• For approval, Pediatric products held to the same evidentiary standard as products used for adult conditions

• Drugs must:
  – Demonstrate substantial evidence of effectiveness/clinical benefit (21CFR 314.50)
  – Clinical benefit:
    • The impact of treatment on how patient feels, functions or survives
    • Improvement or delay in progression of clinically meaningful aspects of the disease
Standards Development

• Applies to many aspects of pre-market product development:
  – Permits a valid comparison with a control by appropriately identifying a disease or control group
  – Method of selection of subjects
  – Method of assigning patients to treatment/control groups
  – Adequate measures to minimize bias
  – Methods of assessment of response are well-defined and reliable
Postmarketing Safety

• At time of approval, safety information is sufficient to assess risk/benefit of a drug

• However, longer-term adverse event profile may not be completely known

• FDA may require or request sponsors to conduct postmarketing studies under certain circumstances
The Case for a Registry?

- An organized system that uses observational study methods to collect uniform data (clinical and other) to evaluate specified outcomes for a population defined by a particular disease, condition or exposure, and that serves one or more predetermined scientific, clinical, or policy purposes*
  - Can provide data on populations not typically studied in clinical trials
  - Pediatric registries can be used to collect longer-term safety and efficacy information, or to “serve a predetermined scientific or clinical purpose
  - Develop a formal protocol with purpose and research questions clearly defined
  - Many other standards have been described

*Richard Gliklich, MD Nancy A. Dreyer, PhD, MPH, Report to PCORI: Standards in the Conduct of Registry Studies for Patient-Centered Outcomes Research, 2012
Summary

• Development of standards in the collection and review of data in a large population can:
  – Potentially provide data to inform the appropriate methods of selection of patient populations, endpoints, and study design
  – Potentially provide data on the safety of a drug or biological product in the postmarketing setting

• Rigorously and consistently collected data will maximize the potential for use in drug development, safety, and outcomes