Natural history studies - from HIGR to MaxHIGR



*B:R Profile

Clinical Evidence of Product Safety and Effectiveness

Science-and-Evidence-Based Choice of Clinical Trial Design

Pharmacology Toxicology Data to Support Clinical Program

Assurance of Consistent Product Quality and Manufacturing

Understanding of Disease Pathways and Product Mechanism of Action

Knowledge of Disease Natural History

*B:R - Benefit : Risk

UK: Registry + Rare Disease BioResource



Protecting and improving the nation's health

The National Congenital Anomaly and Rare Disease Registration Service (NCARDRS)



Rare Diseases BioResource

Around 1 in 17 people will develop a rare disease at some point in their lives. Today 400 million people in the world – and 3 million in the UK – have a rare disease. We support research into more than 60 disease areas, including immunology, neuroscience, haematology, rheumatology, cardiovascular disease, and many more.



HI Global Registry (HIGR)

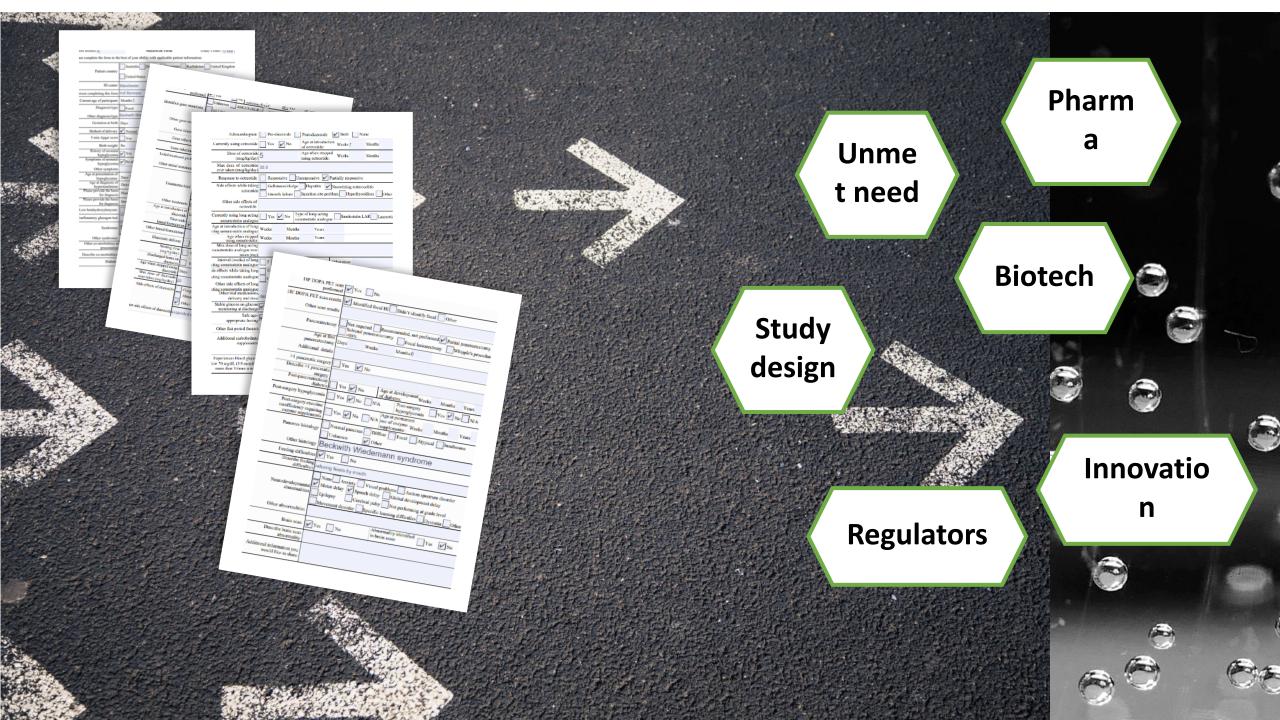
Comprehensive patient reported data

Clinician collected information Electronic patient record Local database National Registry

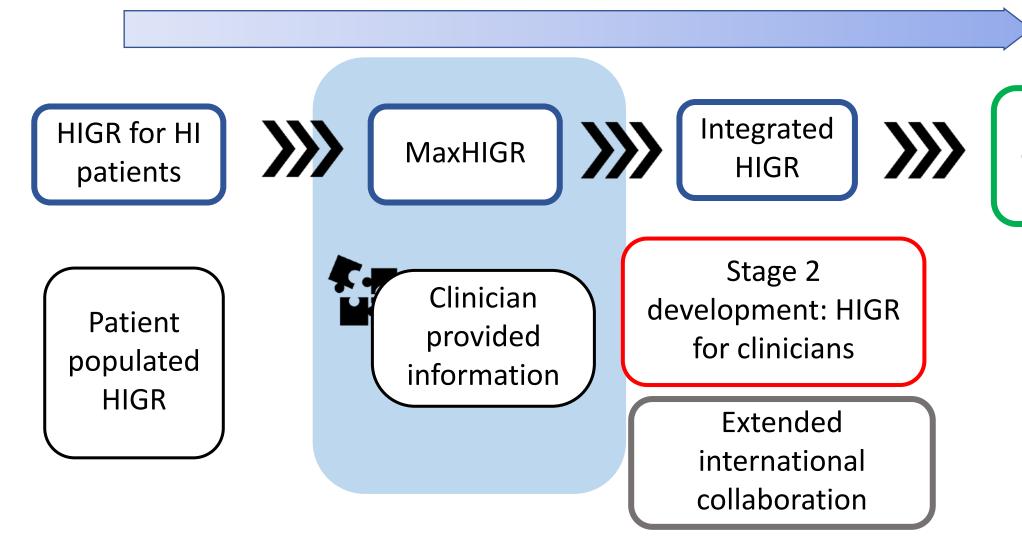


Combined Medical + Parent reported Registry

Patient Initials: |E Today's Date: 13 Mar 23 MaxHIGR Form Please complete the form to the best of your ability with applicable patient information: Australia Denmark Germany Kazhakstan United Kingdom Patient country United States Other (please list): |reland HI center Manchester Indi Banerjee Person completing this form Months 3 Years 2 Current age of participant Diagnosis/type ✓ Other Atypical Diffuse Focal Beckwith Wiedemann syndrome Other diagnosis/type Gestation at birth Days Weeks 39 ✓ Normal Method of delivery C-section Forceps 5 min Apgar score Apgar score 1-10: ? ✓ No Yes Birth weight lbs or gm 4500 oz History of neonatal No ✓ Yes hypoglycemia Symptoms of neonatal hypoglycemia Other symptoms Age at presentation of Days 1 Weeks Months hypoglycemia Age at diagnosis of Days 11 Weeks Months hyperinsulinism Please provide the basis Plasma glucose: mg/dL or mmol/L 1.8 for diagnosis Please provide the basis Insulin levels: pmol/L 23.6 or mU/L for diagnosis Betahydroxybutyrate, Low betahydroxybutyrate No Yes levels (mmol/L): ✓ No Confirmatory glucagon test Yes Rubinstein Taybi Kabuki Turner Beckwith-Wiedemann Syndromes Other Costello Fanconi Sotos Other syndromes Other co-morbidities at ✓ No Yes presentation Describe co-morbidities Yes ✓ No Diabetes Describe diabetes



Development of a comprehensive HI Global Registry



Fully validated, comprehensive HI registry