### **AOI:** Hereditary Angioedema (HAE)



#### Lanadelumab

- Real-world clinical effectiveness of lanadelumab, for patients newly initiated on lanadelumab or for patients who have previous experience with alternative therapies for HAE
- Novel efficacy outcomes (e.g. remission) or composite efficacy end-points (e.g., patient-reported outcomes and biomarkers) in patients with HAE treated with lanadelumab
- Investigate potential for lanadelumab to modify the contact system (e.g. changes in trigger sensitivity, sustained control or suppression)
- Efficacy of lanadelumab in other conditions where bradykinin or the kallikrein–kinin system may form the pathological basis of disease

#### **Icatibant**

- Real-world effectiveness and safety of icatibant including pediatrics
- Efficacy of icatibant in other conditions where bradykinin may form the pathological basis of disease

#### HAE

- Approaches to facilitating diagnosis and decreasing diagnostic delay
- Characterization of non-histaminergic angioedema, including pathophysiology, prodrome, diagnosis and biomarkers
- Explore the burden of illness and the burden of treatment, including paediatrics
- Appropriate management with on-demand and LTP, and those patient profile



### Hemophilia A

- Studies examining the cost efficiency of recombinant Antihemophilic Factor (ADVATE) and PEGylated –recombinant Antihemophilic Factor (ADYNOVATE/ADYNOVI) with or without myPKFiT
- Studies examining the relationship between FVIII levels and the occurrence of bleeds at varying physical activity levels with or without the use of the myPKFiT mobile app
- Studies to investigate changes in adherence and quality of life (QoL) in patients using recombinant Antihemophilic Factor (ADVATE)
  and the myPKFiT patient app
- Real World Evidence on use of PEGylated -recombinant Antihemophilic Factor (ADYNOVATE/ADYNOVI), an extended half-life rFVIII (EHL rFVIII), in clinical practice with or without myPKFiT (including safety, efficacy, utilization, QoL, adherence, patient satisfaction etc.)
- Studies on other non-coagulation effects of Factor VIII
- Studies looking at the GOAL-HEM (Goal Attainment Scaling for Life Hemophilia) as a patient-centered reported outcome measure to monitor clinical progress
- Non-clinical studies on Polyethylenglycol (PEG) safety
- Role of PEGylated -recombinant Antihemophilic Factor (ADYNOVATE/ADYNOVI) for tolerization or in previously tolerized/partially tolerized patients
- Studies to investigate appropriate assessment of joint health and prevention/management of all bleeds including subclinical
- Studies to investigate benefit of FVIII replacement therapy vs. non-factor therapy in optimising bleed outcomes



### Recombinant-porcine Antihemophilic Factor and Acquired Hemophilia (AHA)

- Prospective or retrospective studies that provide insights on first-line use, loading dose, dosing over time, FVIII:c and anti-drug antibodies
- Explore efficacy and safety of recombinant-porcine Antihemophilic Factor in patient subpopulations (i.e., post-partum or patients with specific comorbidities) with AHA
- Relationship between treatment effectiveness, FVIII level and anti-pFVIII inhibitor titer in subjects with AHA receiving recombinant-porcine Antihemophilic factor
- Development/validation of dosing algorithms for recombinant-porcine Antihemophilic factor, initial and follow-on, when the anti-porcine FVIII titers are unknown.
- Relationship between treatment effectiveness and recombinant-porcine Antihemophilic factor dosing in subjects with AHA
- Explore the potential use of recombinant-porcine Antihemophilic factor as treatment for breakthrough bleeds in patients treated with non-factor therapies [i.e. Emicizumab]
- Studies intended to develop flexible and tailored dosing regimens for recombinant-porcine Antihemophilic Factor
- Investigate effectiveness, safety and treatment outcomes of the continuous infusion of recombinant-porcine Antihemophilic Factor
- Collect long term data on treatment for patients with AHA
- Clinical outcomes of Anti-Inhibitor Coagulant Complex for treatment of AHA patients
- Assessment of clinical efficacy/coagulation potential of recombinant-porcine Antihemophilic Factor vs bypassing agents



### **Hemophilia Gene Therapy**

Investigate novel technology (novel FVIII mutant, delivery system etc.)

### **Congenital Thrombotic Thrombocytopenic Purpura (cTTP)**

- Description of patient characteristics that guide treatment decisions and management of cTTP, including identification of clinically relevant biomarkers, acute/subacute events, isolated manifestations/non-overt symptoms and silent organ damage
- Assess quality of life, healthcare resource utilization and disease and treatment burden of patients with cTTP and their caregivers
- Explore the epidemiology of cTTP, e.g. prevalence of pathogenic mutations
- Long-term outcomes and disease progression in cTTP
- Mechanistic investigations into rADAMTS13 and cTTP

### Immune-mediated Thrombotic Thrombocytopenic Purpura (iTTP)

- Identify clinical signs, biomarkers, and laboratory values to stratify iTTP by severity, relapse risk, and treatment response
- Assess quality of life, healthcare resource utilization and disease and treatment burden of patients with iTTP (including those with neurological conditions, renal failure, or severe organ damage) and their caregivers
- Understand the role of ADAMTS13 activity on disease outcomes



#### von Willebrand Disease (VWD)

- Studies analyzing real-world use of rVWF (including by bleed location, bleed prediction, PK-guided dosing etc.) and its impact on effectiveness and safety
- Comparative studies of pdVWF versus rVWF in the treatment or prevention of mucosal bleeds (epistaxis, HMB, GI) and joint bleeds
- Studies exploring the relationship between rVWF unique characteristics (half-life, multimeric profile, absence of FVIII) and its clinical efficacy and safety or impact on disease progression (ex. Angiodysplasia)
- Studies assessing the need for long-term management and prophylaxis with rVWF and its impact on quality of life (QoL), healthcare resource utilization (HCRU), and/or patient-reported outcomes (PROs)
- Personalization of VWD therapy (genetic, bleed prediction, bleeding assessment tools, multidisciplinary approach, etc.)
- Assessment of the efficacy of VWF (pdVWF or rVWF) in acquired VWS left ventricular assist device (LVAD), extracorporeal membrane oxygenation (ECMO)

### **Severe Congenital Protein C Deficiency**

- Research related to pathology of SCPCD.
- Research to investigate biomarker to monitor efficacy of SCPCD treatment.
- Preclinical and clinical (ex vivo) investigations examining efficacy of concomitant usage of PC concentrate and VKA or DOAC.

### **AOI: Rare Metabolic Disease**



### **Fabry Disease**

- Assess the clinical impact of the immunogenic profile of agalsidase alfa in the management of Fabry disease
- Explore clinical outcomes of agalsidase alfa in specific patient subpopulations like late-onset disease (e.g., cardiac and neurological phenotypes), pediatrics and females
- Generate data to assess optimal time for treatment initiation and provide evidence of long-term clinical outcomes with agalsidase alfa
- Evaluate the impact of agalsidase alfa on Lyso-Gb3 levels in patients with Fabry disease, and its association with clinical outcomes
- Identify the most relevant factors associated with patients' changes in treatment plan from chaperone to agalsidase alfa, and analyse
  the impact that these factors have on clinical outcomes of patients with Fabry disease
- Understand the impact of self-infusion with agalsidase alfa on patient health-related quality of life (HRQoL)

#### **Gaucher Disease**

- Establish the clinical impact of velaglucerase alfa on bone manifestations (e.g., osteonecrosis) in Gaucher disease and the optimal way to assess clinical outcomes on bone health (e.g., bone mineral density, bone marrow burden, bone biomarkers)
- Assess safety and efficacy/effectiveness of velaglucerase alfa in specific patient subpopulations with Gaucher disease (e.g., early paediatric [below 4 years of age], female patients, use during pregnancy)
- Assess safety and effectiveness of velaglucerase alfa in addressing somatic manifestations in patients with Gaucher disease type 3
- Understand the impact of higher dosing and frequency of administration of velaglucerase alfa in severe phenotypes of Gaucher disease
- Generate local epidemiology data for patients with Gaucher disease type 3

## **AOI**: Transplant complication



### Cytomegalovirus

- Real-world studies further exploring the role of maribavir in CMV management:
  - a) In post-transplant sub-populations with high unmet needs (e.g., those with myelosuppression/ immuno-dysfunction/ renal dysfunction, and those intolerant or at risk of intolerance to other anti-CMV antivirals)
  - b) Patterns of use (e.g., treatment duration, earlier treatment initiation) and impact on patient responses (e.g., informed by immunologic recovery) and outcomes.