

# “Rapid” COS Development for Emerging Therapies

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COMET VII, Amsterdam, Netherlands



Sean Tunis, MD, MSc | 16 November 2018

CENTER FOR MEDICAL TECHNOLOGY POLICY

# Green Park Collaborative

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- Multi-stakeholder forum to develop guidance for clinical studies intended to inform clinical and market access decisions
  - All projects jointly led with patient groups
  - Active involvement of public and private payers and HTA groups
  - Includes clinicians, regulators, industry, researchers, etc.



**Green Park Collaborative**

*A partnership for innovation and effectiveness*

# coreHEM: Objectives

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- Establish a “core set” of outcomes to measure the effectiveness and value of gene therapy in hemophilia
- Seek consensus across all stakeholders
- Process gives preference to patient input
- Project timeline driven by upcoming pivotal trials



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# coreHEM: The Journey

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From the HAAB, Amsterdam, Jan 16, 2017



To Baltimore, Maryland, Nov 15, 2017

# coreHEM Sponsors / Partners

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**NATIONAL HEMOPHILIA FOUNDATION**  
*for all bleeding disorders*



**B:OMARIN<sup>®</sup>**



**Shire**



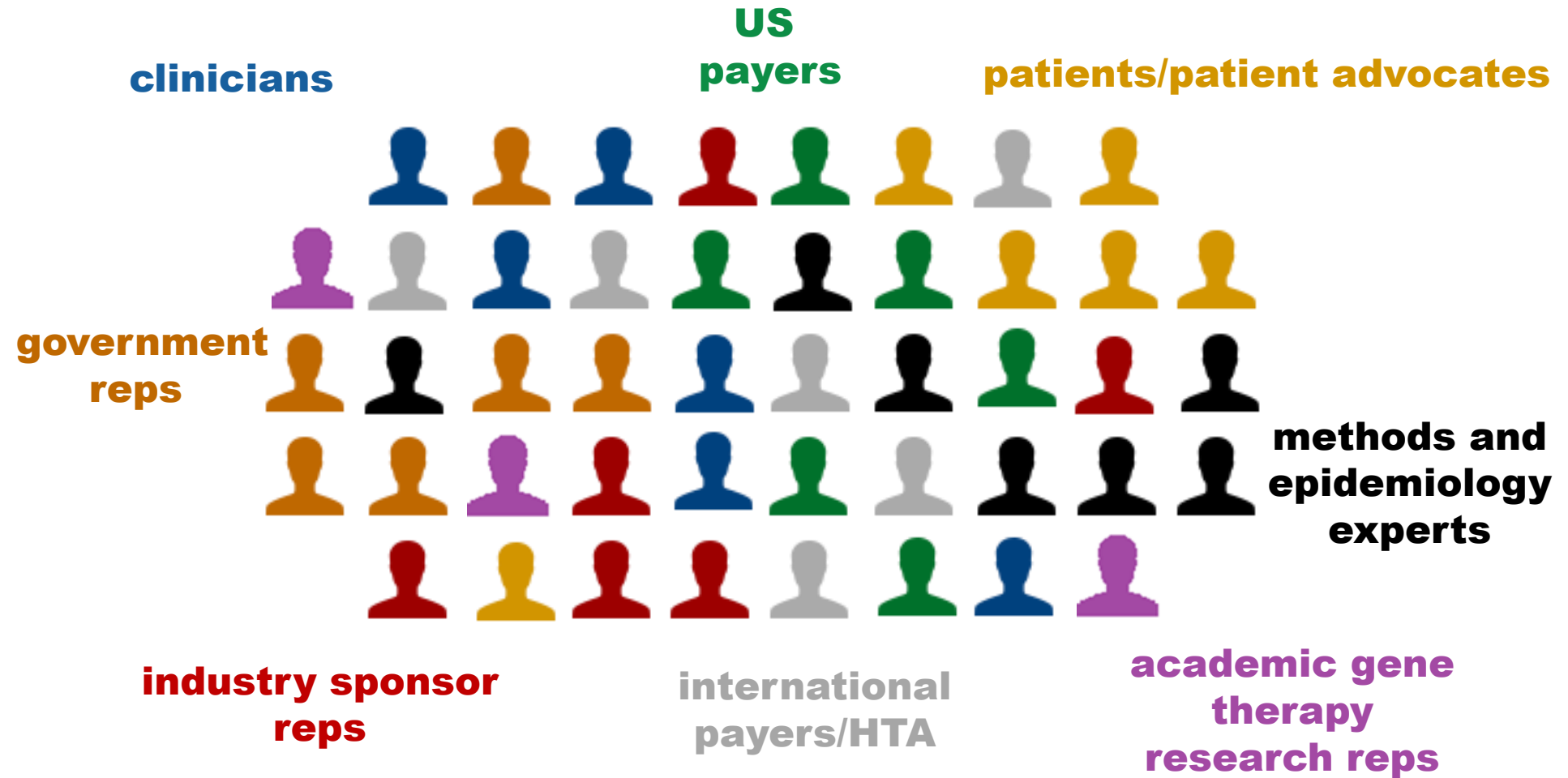
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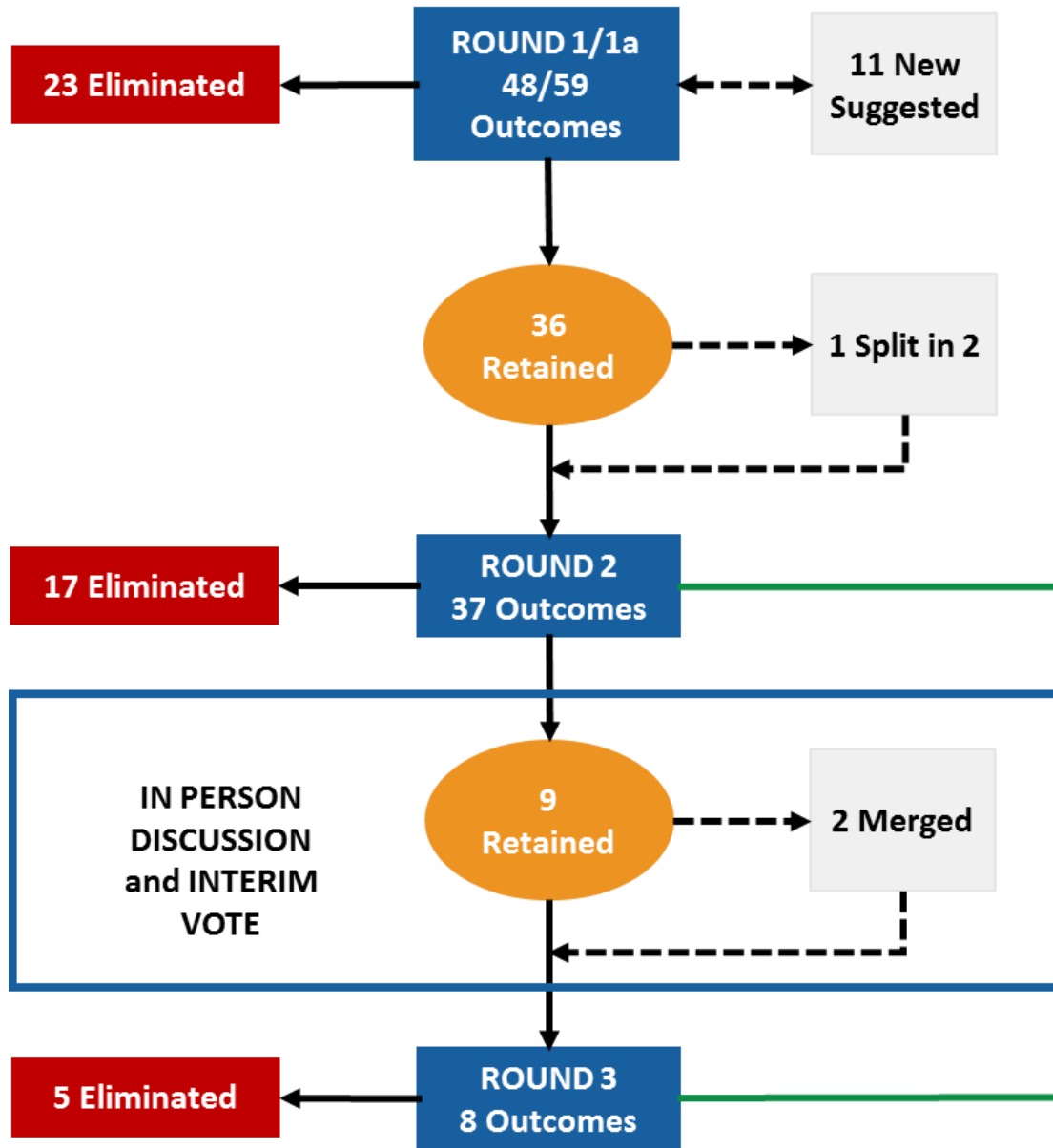
## OBSERVERS



# coreHEM Stakeholders

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## coreHEM FINAL CORE SET

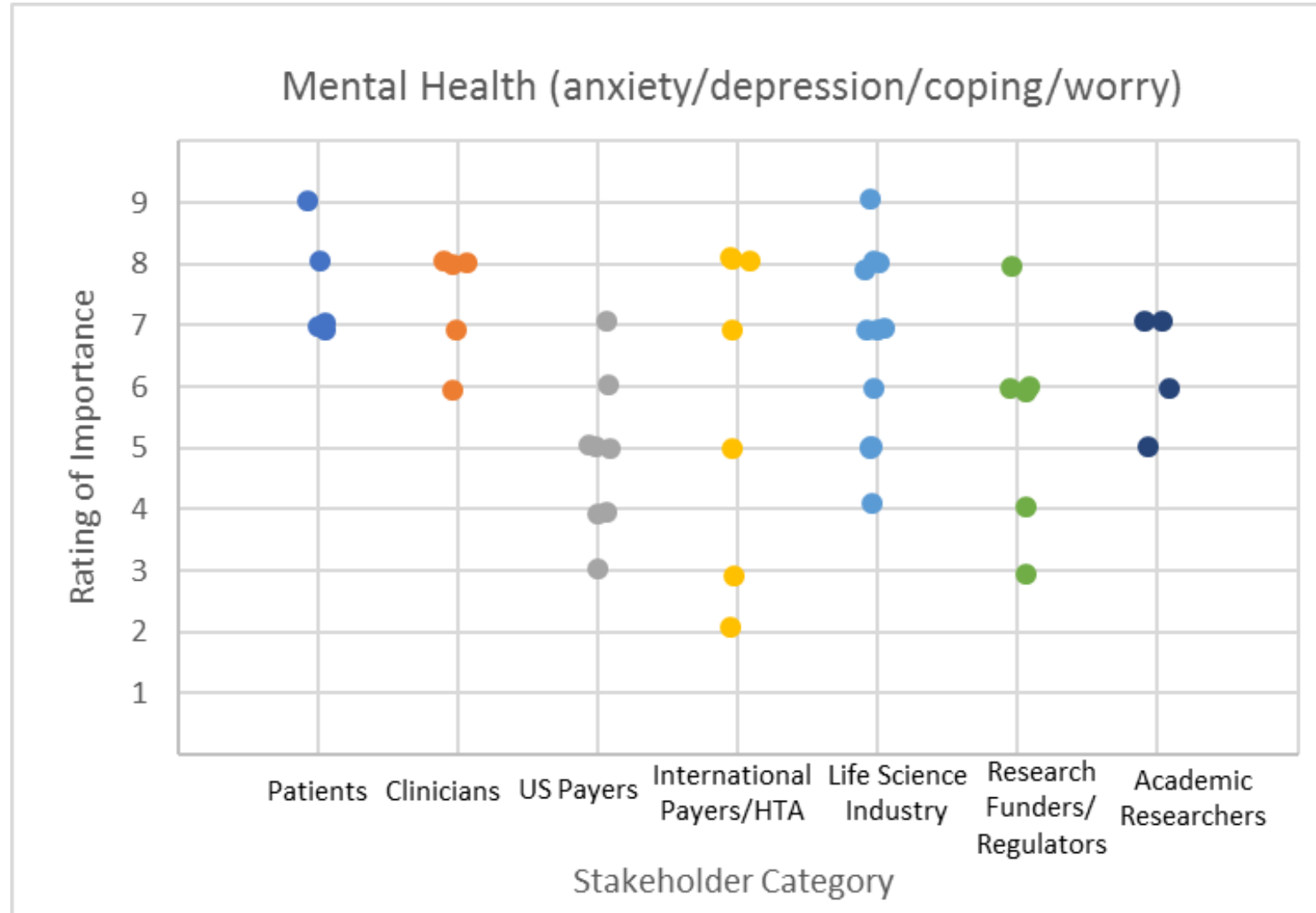
Consensus to Select	≥70% of all voters rated the outcome with a score of 7-9 (critical importance).
Consensus to Select (Patient-Important)	<70% of all voters rated 7-9, but the stakeholders in the patient group gave the outcome an average rating of ≥7.

**3 SELECTED**

**8 ADVERSE  
EVENTS  
SELECTED**

**3 SELECTED**

# EXAMPLE OF OUTCOME RETAINED DUE TO PATIENT IMPORTANCE



## Core Outcome Set

- Frequency of bleeds
- Factor activity level
- Duration of expression
- Chronic pain
- Mental health status
- Utilization of healthcare system (direct costs)

## Additional Outcomes

- Duration/frequency/type of physical activity/sport/play
- Physical health/general health perception

## Adverse Events

### Short-Term

- Liver toxicity
- Short-term immune response to FVIII/FIX
- Immune response to gene therapy (cytotoxic)
- Thrombosis


### Long-Term

- Development of other disorders
- Vector integration into host genome
- Duration of vector-neutralizing response

### Mortality

- Cause of death

# Core outcome set for gene therapy in haemophilia: Results of the coreHEM multistakeholder project

A. Iorio<sup>1</sup>  | M. W. Skinner<sup>2,3</sup> | E. Clearfield<sup>4</sup> | D. Messner<sup>4</sup> | G. F. Pierce<sup>5</sup>  |  
W. Michelle<sup>2</sup> | S. Tunis<sup>4</sup> | for the coreHEM panel\*

# Payer / HTA Recognition

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- Statement below appeared in final report:
  - “We will consider this recommended core outcomes set...in future assessments of gene therapies for hemophilia”
  - We would encourage....researchers to consider this recommended core outcomes set when developing study protocols...