ABS-134

### INSIGHT INTO THE PERSISTENT CLINICAL BURDEN UNDERLYING PROBLEM JOINTS, PAIN, AND BLEEDING, IN ADULTS FROM ACROSS EUROPE WITH HAEMOPHILIA A AND B: THE CHESS II STUDY

Tom Burke<sup>1,3</sup>, Sohaib Asghar<sup>1</sup>, George Morgan<sup>1</sup>, Sharmila Kar<sup>2</sup>, Harpal Dhillon<sup>1</sup>, Jamie O'Hara<sup>1,3</sup>

<sup>1</sup> HCD Economics, Daresbury, UK <sup>2</sup> Freeline Therapeutics, London, UK; <sup>3</sup>Faculty of Health and Social Care, University of Chester, Chester, UK.

Presenting author	Disclosure					
Sharmila Kar	Employee of Freeline Ltd.					

#### Acknowledgements

The wider CHESS II study was supported by unrestricted research grants from BioMarin, Sanofi, and Takeda. CHESS II was approved by the University of Chester Ethics Committee and was conducted in collaboration with the UK Haemophilia Society and governed by a steering committee chaired by Prof. Brian O'Mahony, Chief Executive of the Irish Haemophilia Society.

# Persistent clinical burden in people with haemophilia A and B in Europe in the CHESS II study

#### Background

 Chronic joint damage continues to occur in people with haemophilia, despite improved access to prophylactic factor (F)VIII/IX replacement therapy. To inform the long-term evaluation of haemophilia treatment, further research into the relationship between pain, bleeding frequency, and existing joint morbidity is important.

**Objective:** To describe and compare the prevalence of pain and bleeding frequency in people with haemophilia of differing levels of joint morbidity using data drawn from CHESS II, a real-world burden-of-illness study conducted across Europe.

#### **Methods**

- We report 12-months' retrospective data, stratified by number of problem joints (*PJ:* no *PJ*, 1 *PJ*, 2+ *PJ*), on chronic pain level (none, mild, moderate, severe) and annualized bleed rate (ABR)
- Of 726 people with haemophilia A and B in CHESS II eligible for the analysis, approximately 61% (n=445) had 0
  PJ, 23% (n=168) had 1 PJ, and 16% (n=113) had 2+ PJ

Definition: a problem joint (*PJ*) is one that has been permanently damaged as a result of a bleeding disorder. Has chronic pain and/ or limited ROM due to compromised joint integrity, from chronic synovitis or haemophilic arthropathy

## The prevalence of pain and number of problem joints (PJ) in people with haemophilia A and B



Figure 1. Mean ABR across level of chronic pain and number of problem joints

#### Results

Severe pain was reported by 1% of people with 0 PJ, 9% with 1 PJ, and 13% with 2+ PJ. Across all PJ groups, the level of chronic pain was associated with higher ABR.

Chronic pain was more prevalent in people with 1 PJ or 2+ PJ, compared to 0 PJ. 'No pain' was higher with 0 PJ (47%) compared to 1 PJ (13%) and 2+ PJ (4%).

Table 1. level of chronic pain experienced by number of problem joints

PJ category	<b>No PJs</b> (n=445)			<b>1 PJ</b> (n=168)				<b>2+ PJ</b> (n=113)				
Level of chronic pain	None	Mild	Moderate	Severe	None	Mild	Moderate	Severe	None	Mild	Moderate	Severe
Proportion of PJ cat. (%)	47%	41%	11%	1%	13%	40%	38%	9%	4%	33%	50%	13%

### Conclusions

This analysis of CHESS II was undertaken to evaluate the extent of the clinical burden underlying problem joints, namely pain and bleeding, in people with haemophilia A and B

These data suggest that, despite widespread availability of prophylactic factor replacement therapy in Europe, clinical unmet need persists in people with haemophilia A and B, related to poor underlying joint health

This analysis found that the number of problem joints was associated with both chronic pain severity and with more frequent bleeding

Limitations inherent within cross-sectional data capture limit the scope of this analysis, further research is warranted to better understand these findings