

Emicizumab Prophylaxis in Paediatric Persons with Haemophilia A (PwHA) with Inhibitors: Impact on Health-Related Outcomes and Caregiver Burden in the HAVEN 2 Study

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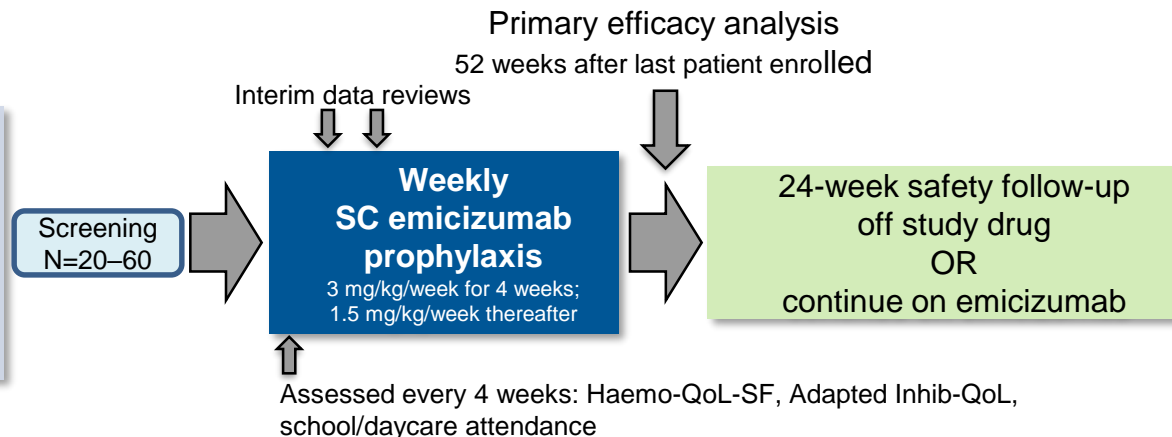
Disclosures for Maria Elisa Mancuso

Consultant	Bayer HealthCare, CSL Behring, Kedrion, Novo Nordisk, Pfizer, Roche, Sobi/Biogen
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HAVEN 2

Phase 3, Single-Arm, Multicentre, International, Open-label Study

- Paediatric PwHA with inhibitors aged ≥ 2 to < 12 years (or 12–17 years if < 40 kg) on episodic or prophylactic treatment with BPAs*
- Enrolment at age < 2 years permitted after interim analysis



- Emicizumab: humanised bispecific antibody restores missing activated factor VIII (FVIIIa) function by bridging FIXa and FXa
 - Approved in the United States (HEMLIBRA®) for prophylaxis in adult/paediatric PwHA with FVIII inhibitors
 - Committee for Medicinal Products for Human Use recommends EU approval for prophylactic treatment of PwHA with FVIII inhibitors
 - Ongoing clinical studies in PwHA with/without inhibitors
- At data cut-off of 8 May 2017:
 - 60 patients were enrolled†
 - In 23 patients aged < 12 years on emicizumab prophylaxis for ≥ 12 weeks‡:
 - Annualised treated bleed rate: 0.2
 - Proportion with zero treated bleeds: 87%

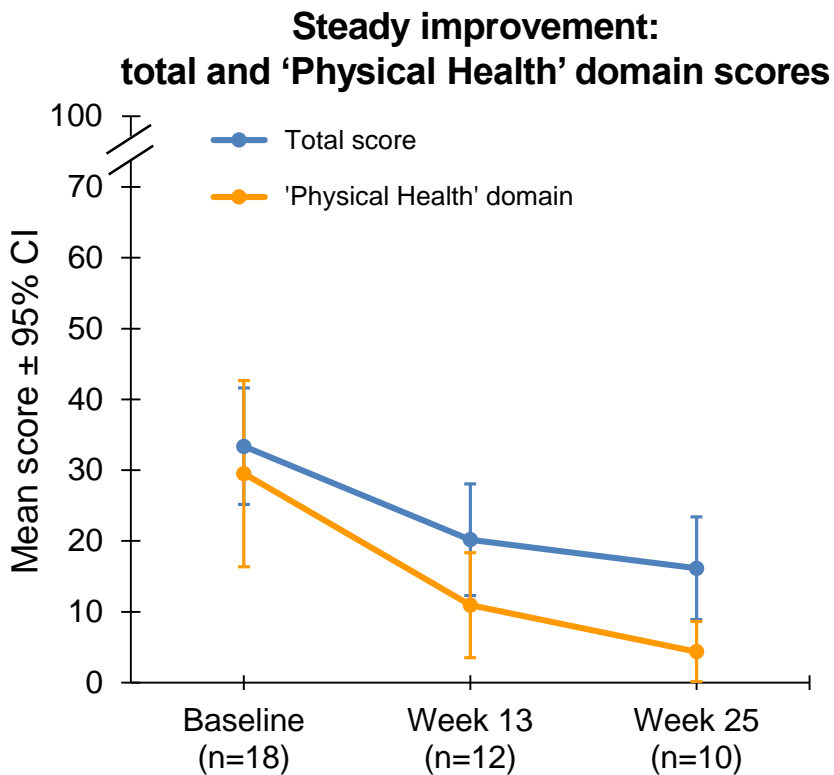
HAVEN 2

Demographics and Baseline Characteristics

	Emicizumab 1.5 mg/kg/week N=60
Age	
Median (min–max), years	7 (1–15)
Distribution, n (%)	
<2 years	2 (3.3)
2 to <8 years	33 (55.0)
8 to <12 years	22 (36.7)
≥12 years	3 (5.0)
Haemophilia severity, n (%)	
Mild*	2 (3.3)
Moderate	1 (1.7)
Severe	57 (95.0)
Previous ITI, n (%)	
Yes	43 (71.7)
No	17 (28.3)

	Emicizumab 1.5 mg/kg/week N=60
Treatment, n (%)	
Episodic	16 (26.7)
Prophylactic	44 (73.3)
Weight (kg)	
Median (min–max)	22.9 (9.5–63.0)
Bleeds during prior 24 weeks	
Median (min–max)	6.0 (0–155)
Target joints, n (%)	
Yes	23 (38.3)
1	8/23 (34.8)
>1	15/23 (65.2)

Marked Improvements in Haemo-QoL-SF Completed by Children (Aged 8–11 Years)



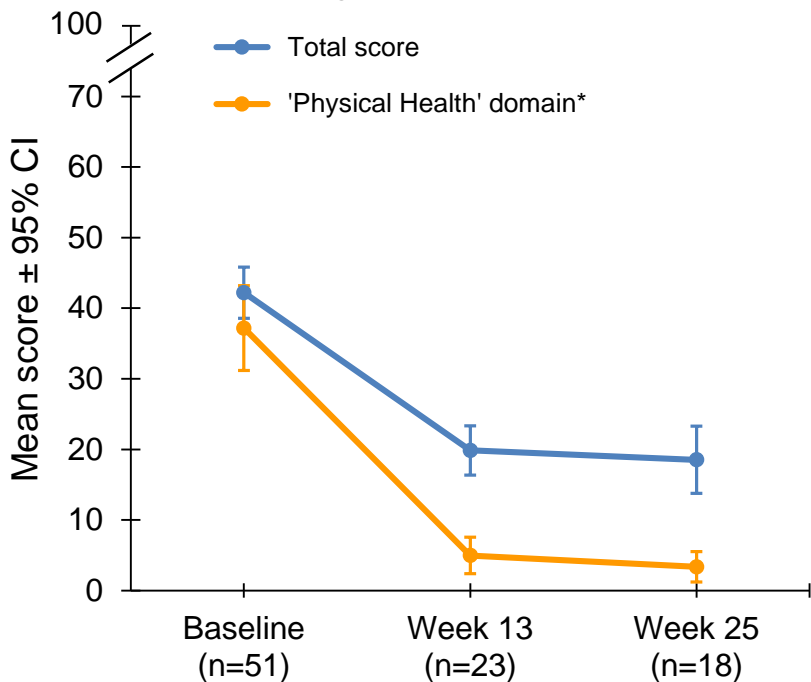
Improvements from baseline to Week 25

Haemo-QoL-SF* domain	Mean (95% CI) change n=7 [†]
Physical Health	-19.6 (-42.9; 3.6)
Feelings	-14.3 (-30.9; 2.3)
View of Self	-11.6 (-36.5; 13.2)
Family	-5.4 (-15.6; 4.9)
Friends	-3.6 (-35.3; 28.2)
Other Persons	-8.0 (-19.5; 3.4)
Sports/School	-9.8 (-32.4; 12.8)
Dealing with Haemophilia	0.0 (-12.9; 12.9) [‡]
Treatment	-14.3 (-36.1; 7.5)
Total Score	-9.8 (-20.0; 0.4)

Domains with greatest improvements in bold

Marked Improvements in Adapted Inhib-QoL Caregiver Perception of Child's Health and Caregiver Burden

Rapid, sustained improvement: total and 'Physical Health' domain scores



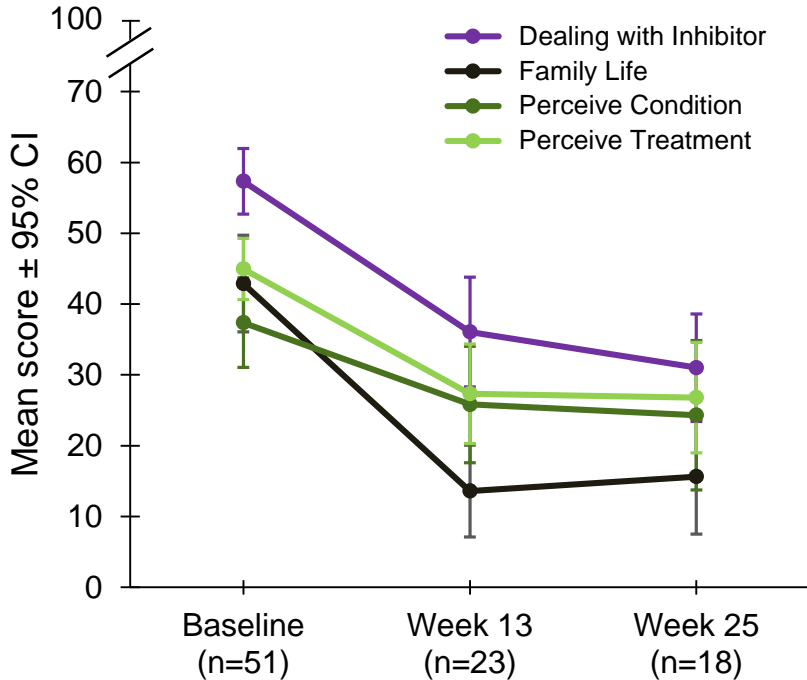
Improvements from baseline to Week 25

Adapted Inhib-QoL [†] domains	Mean (95% CI) change n=16 [‡]
Physical Health	-31.7 (-43.4; -20.0)
Treatment	-8.6 (-25.4; 8.2)
Perceive Condition	-12.5 (-21.0; -4.0)
Dealing with Inhibitor	-26.8 (-34.9; -18.8)
Perceive Treatment	-17.4 (-28.0; -6.9)
Family Life	-25.8 (-38.3; -13.3)
Siblings	-9.6 (-25.4; 6.2)
Contact with Others	-17.2 (-27.8; -6.6)
Total Score	-21.8 (-28.3; -15.4)

Domains with greatest improvements in bold

Marked Improvements in Adapted Inhib-QoL Domains Particularly Indicative of Caregiver Burden

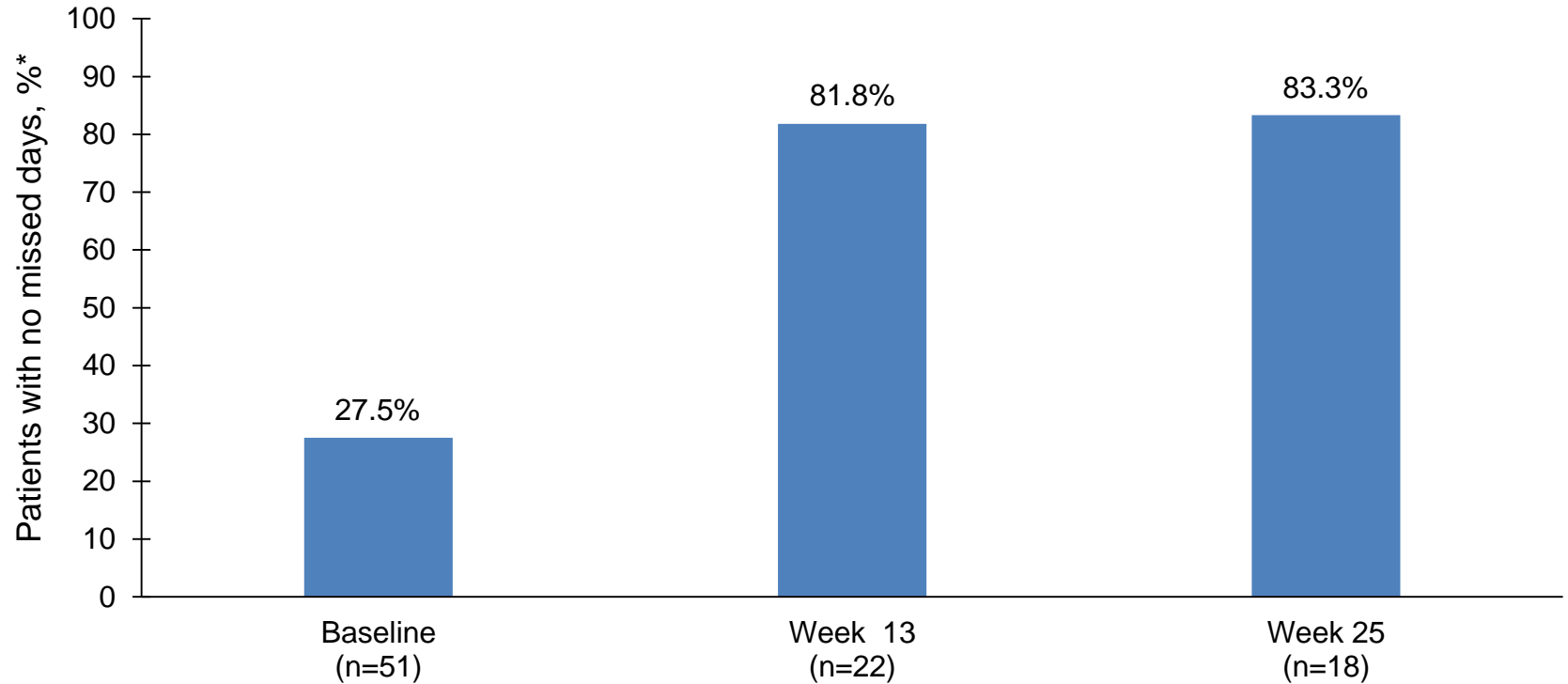
Rapid, sustained improvement



Types of questions covered by these Adapted Inhib-QoL* domains

- Dealing with Inhibitor: how worried/afraid caregiver is as a result of child's haemophilia
- Family Life: impact of child's haemophilia on family life
- Perceive Condition: how concerned caregiver is about child's haemophilia and impact on family
- Perceive Treatment: how satisfied caregiver is with child's treatment

Rapid and Maintained Increase in School/Daycare Attendance



*Calculated at each time point for previous 4 weeks; n indicates patients at each time point who answered the question.

Conclusions

- In paediatric PwHA with FVIII inhibitors, emicizumab prophylaxis resulted in marked improvements in:
 - Self- and caregiver-reported haemophilia-specific quality of life (especially in the ‘Physical Health’ domain)
 - School/daycare attendance
 - Aspects of caregiver burden (especially in the ‘Family Life’ and ‘Dealing With Inhibitors’ domains)
- Improvements were seen as early as the first study assessment
- Several factors may contribute to these improvements:
 - Substantial reductions in bleeding with emicizumab prophylaxis
 - Convenient, once-weekly, SC emicizumab administration
 - Favourable safety profile of emicizumab

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Thank You