Updated interim safety analysis of the real-world HEM-POWR study evaluating damoctocog alfa pegol in previously treated patients with haemophilia A

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CONCLUSIONS

- **These updated interim data continue to support the favourable safety and tolerability profile of damoctocog alfa pegol in PTPs with mild, moderate or severe haemophilia A in a real-world setting.**

OBJECTIVE

- **The aim of these analyses is to report the safety data of damoctocog alfa pegol from the third interim analysis of the ongoing HEM-POWR study (data cut-off 17 August 2022).**

INTRODUCTION

- Damoctocog alfa pegol (BAY 94-9027, Jivi®) is an extended half-life PEGylated recombinant FVIII product approved for treatment of previously treated patients (PTPs) aged ≥12 years with haemophilia A.[1,2]
- The HEM-POWR study (NCT03932201) is an observational, multicentre, open-label, prospective Phase 4 trial assessing the use of damoctocog alfa pegol in PTPs with haemophilia A in clinical practice.[3]
- Real-world effectiveness and safety of damoctocog alfa pegol has previously been reported in earlier interim analyses of the HEM-POWR study.[4,5]

METHODS

- PTPs starting or currently receiving damoctocog alfa pegol with any kind of treatment modality (i.e. on-demand, prophylaxis or intermittent prophylaxis) are eligible for enrolment to the study.
- First patient first visit was 21 October 2019; study duration is 36 months, with follow-up visits as per routine clinical practice.
- Primary endpoint is annualised bleeding rate (ABR), and secondary endpoints include joint health and treatment-emergent adverse events (TEAEs). Data are collected using patient e-diaries and physicians' records.
- Patients included in the safety analysis population were PTPs with ≥1 study dose in the observation period who provided informed consent.
- Statistical analyses are descriptive and exploratory, with no formal hypothesis testing performed. Ethical approval was obtained for all study sites.

RESULTS

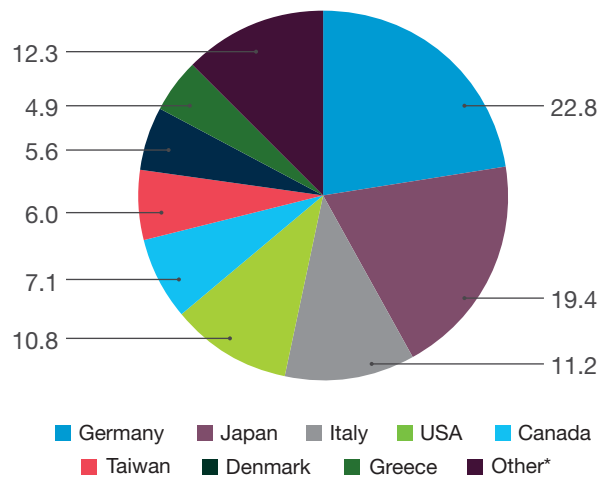
- At data cut-off (17 August 2022), 270 PTPs were enrolled; 2/270 (0.7%) patients were excluded from this analysis as they did not receive ≥1 dose of damoctocog alfa pegol.
- Of the 268 PTPs included in the analysis, almost half were from Germany (61/268, 22.8%) and Japan (52/268, 19.4%) (**Figure 1**). Baseline demographics are shown in **Table 1**.
  - Mean (SD) observation period was 264.7 (237.9) days.
  - Most patients presented with severe disease (221/268, 82.5%) and were aged ≥18 to <65 years (224/268, 83.6%).
  - Of note, enrolment spanned a broad age range with 28 (10.5%) adolescent PTPs aged ≥12 to <18, and 15 (5.6%) PTPs ≥65 years old.
  - The most common concomitant disease was hepatitis C virus (n=50; 18.7%).

Table 1: DEMOGRAPHICS, BASELINE CHARACTERISTICS AND EXPOSURE IN THE SAF

Characteristic	SAF, n (%) (n=268)
Observation period, days, median (Q1, Q3), mean (SD)	233.5 (6.0, 420.0), 264.7 (237.9)
Sex, male, n (%)	266 (99.3)
Age at enrolment, years, median (Q1, Q3)	35.0 (23.0, 48.0)
Age at enrolment, years, n (%)	
<12	1 (0.4)
≥12 to <18	28 (10.5)
≥18 to <65	224 (83.6)
≥65	15 (5.6)
Weight, kg, median (min, max)*	80.0 (44.0, 185.0)
Severity of haemophilia, n (%)†	
Mild	8 (3.0)
Moderate	35 (13.1)
Severe	221 (82.5)
Patients with ≥1 concomitant disease, n (%)	143 (53.4)
Patient history of inhibitors, yes, n (%)‡	35 (13.1)
Immune tolerance induction history, n (%)‖	
Yes	16 (6.0)
No	20 (7.5)
Prophylactic treatment prior to enrolment, yes, n (%)†	247 (92.2)
Prescribed dose per infusion per kg of damoctocog alfa pegol at baseline, IU/kg, median (Q1, Q3)§	37.5 (29.4, 48.4)
Patients pre-treated with damoctocog alfa pegol	**SAF, n (%) (n=225)**
Most recent prescribed dosing modality of damoctocog alfa pegol prior to initial visit, n (%)†	
Prophylaxis	210 (93.3)
Intermittent prophylaxis	2 (0.9)
On demand	10 (4.4)

*Data missing for 106 (39.6%) patients; †data missing for <5 patients; ‡data missing for 1 (0.4%) patient; ‖data missing for 232 (86.6%) patients; §data missing for 65 (24.3%) patients.
IU, international unit; Q1, first quartile; Q3, third quartile; SAF, safety analysis set; SD, standad deviation.

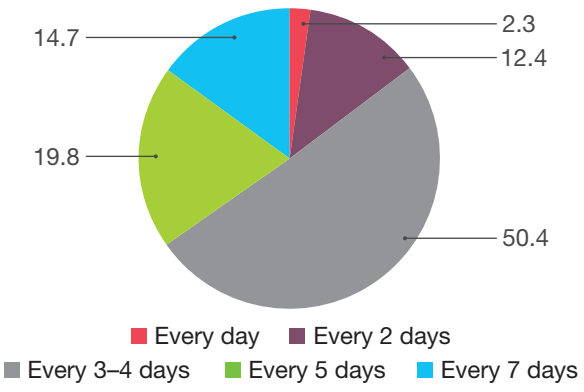
Figure 1: COUNTRIES OF RECRUITMENT IN THE SAF (%)



*Other included Sweden, Spain, Belgium, Colombia, Slovenia and Netherlands (<10 patients each). SAF, safety analysis set; USA, United States of America.

- The most common prophylaxis dosing regimen was every 3–4 days, both prior to enrolment (111/210, 52.9%) and during the observation period (130/268, 50.4%) (**Figure 2**).

Figure 2: PROPORTION (%) OF PRESCRIBED PROPHYLAXIS REGIMENS OF DAMOCTOCOG ALFA PEGOL AT INITIAL VISIT IN THE SAF*



*Missing data for <5 patients. SAF, safety analysis set.

- Overall, 59/268 patients (22.0%) reported any TEAEs, with 19/268 (7.1%) reporting serious TEAEs (**Table 2**).
  - The most common type of TEAE, reported in 20/268 patients (7.5%), were injuries and procedural complications.
  - Four adverse events of special interest (AESI) were reported in 2/268 patients (0.8%); all were hypersensitivity reactions.
    - One patient experienced 3 non-serious hypersensitivity reactions, including erythema and muscle strain (recovered) and chest discomfort (not yet recovered).
    - The other patient was hospitalised with a serious abdominal infection, which resolved, and the patient recovered.
  - No drug-related TEAEs, inhibitor development or deaths were reported.

Table 2: SUMMARY OF TEAES IN THE SAF

Characteristic	SAF, n (%) (n=268)
Any TEAE, n (%)	59 (22.0)
Blood and lymphatic system disorders	3 (1.1)
Gastrointestinal disorders	11 (4.1)
General disorders and administration site conditions	6 (2.2)
Hepatobiliary disorders	1 (0.4)
Infections and infestations	12 (4.5)
Injury, poisoning and procedural complications	20 (7.5)
Metabolism and nutrition disorders	2 (0.8)
Musculoskeletal and connective tissue disorders	10 (3.7)
Nervous system disorders	5 (1.9)
Product issues	2 (0.8)
Psychiatric disorders	2 (0.8)
Renal and urinary disorders	2 (0.8)
Respiratory, thoracic and mediastinal disorders	1 (0.4)
Skin and subcutaneous tissue disorders	4 (1.5)
Vascular disorders	3 (1.1)
Any study drug–related TEAE	0 (0.0)
Any TEAE leading to change of treatment regimen	19 (7.1)
Any TEAE leading to discontinuation of treatment regimen	0 (0.0)
Any TEAE leading to inhibitor development	0 (0.0)
TEAE–related death	0 (0.0)
Any TEAE of special interest	2 (0.8)
Any serious TEAE, n (%)	19 (7.1)
Any study drug–related serious TEAE	0 (0.0)
Any serious TEAE leading to change of treatment regimen*	8 (3.0)
Rotator cuff syndrome	1 (0.4)
Foot fracture	1 (0.4)
Abscess limb	1 (0.4)
Injury (not specified)	1 (0.4)
Gastrointestinal haemorrhage	1 (0.4)
Haematochezia	1 (0.4)
Splenic haemorrhage	1 (0.4)
Cholecystitis	1 (0.4)
Any serious TEAE leading to discontinuation of treatment regimen	0 (0.0)
Any serious TEAE leading to inhibitor development	0 (0.0)
Serious TEAE–related death	0 (0.0)
Any serious TEAE of special interest	1 (0.4)

*Dose increased or interrupted. SAF, safety analysis set; TEAE, treatment-emergent adverse event.

References

1. Bayer. Damoctocog alfa pegol (Jivi®): Summary of Product Characteristics. Last updated August 2018. Available at: https://www.ema.europa.eu/en [Accessed: October 2022].
2. Bayer. Damoctocog alfa pegol (Jivi®). Prescribing information. Last updated August 2018. Available at: https://www.fda.gov [Accessed: October 2022].
3. Sanabria M, et al. *BMJ Open*. 2021;2;11(9):e044997.
4. Reding M (2022). ISTH 2022 Congress. PB1123.
5. Reding M, et al. PO124 poster presentation. Haemophilia. 28:25-126. Available at: https://doi.org/10.1111/hae.14479.

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