Subgroup analysis evaluating the real-world effectiveness and safety of damoctocog alfa pegol in previously treated patients with haemophilia A in Germany

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Johannes Oldenburg,[1] **Swee Wenning**,[2*] Katharina Holstein,[3] Mario von Depka Prondzinski,[4] Joanna Filip,[5] Wolfgang Miesbach,[6] Kai Severin,[7] Hermann Eichler,[8] Susan Halimeh[9]

[1]University Clinic Bonn, Bonn, Germany; [2]SRH-Kurpfalzkrankenhaus Heidelberg, Heidelberg, Germany; [3]Universitätsklinikum Hamburg-Eppendorf (UKE), Hamburg, Germany; [4]Werlhof-Institut, Hannover, Germany; [5]Bayer, Leverkusen, Germany; [6]Universitätsklinikum Frankfurt a.M., Frankfurt am Main, Germany; [7]MV-Zentrum für Onkologie und Hämatologie, Cologne, Germany; [8]Universität und Universitätsklinikum des Saarlandes, Homburg/Saar, Germany; [9]Universitätsklinikum Essen, Essen, Germany

***Presenting author. Author contact details:** Dr Swee Wenning (Swee.Wenning@srh.de)

CONCLUSIONS

- **These results from the updated interim analysis of the HEM-POWR study provide valuable insights into real-world clinical practice in Germany, inform German stakeholders, and further reinforce the favourable real-world effectiveness and safety of damoctocog alfa pegol in previously treated patients (PTPs) with mild, moderate, or severe haemophilia A.**

AIM

- **In this interim analyses of the HEM-POWR study we report the effectiveness and safety of damoctocog alfa pegol in a subgroup of PTPs from German study sites.**

INTRODUCTION

- Damoctocog alfa pegol (BAY 94-9027, Jivi®), an extended half-life PEGylated recombinant FVIII product, is approved for treatment of PTPs aged ≥12 years with haemophilia A.[1,2]
- Real-world effectiveness and safety of damoctocog alfa pegol has previously been reported in earlier interim analyses of the HEM-POWR study.[3,4]
- 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.[5]

METHODS

- PTPs with mild, moderate or severe haemophilia A 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.
- Primary endpoint is annualised bleeding rate (ABR), and secondary endpoints include joint health and safety. Data are collected in patients' e-diaries and physicians' records.
- In this subgroup analysis, patients treated in Germany fulfilling all inclusion criteria with informed consent were analysed.
- For the safety analysis set (SAF), PTPs with ≥1 study dose in the observation period were included. PTPs who fulfilled all inclusion criteria with a documented first dose of damoctocog alfa pegol in the study and ≥1 documented infusion during the observation period (90–270 days after baseline) were included in the full analysis set (FAS).
- 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), 161 PTPs were enrolled in the FAS, of which 30/161 (18.6%) were included in the effectiveness analysis from German study sites; 268 PTPs were enrolled in the SAF with 61/268 (22.8%) patients included from German study sites.
- In the FAS, the median (Q1, Q3) observation period was 336.0 days (154.0, 453.0), and the median age of PTPs at enrolment was 35.5 years (**Table 1**).
- Most patients were diagnosed with severe (27/30; 90.0%) haemophilia A, followed by moderate disease (3/30; 10.0%).

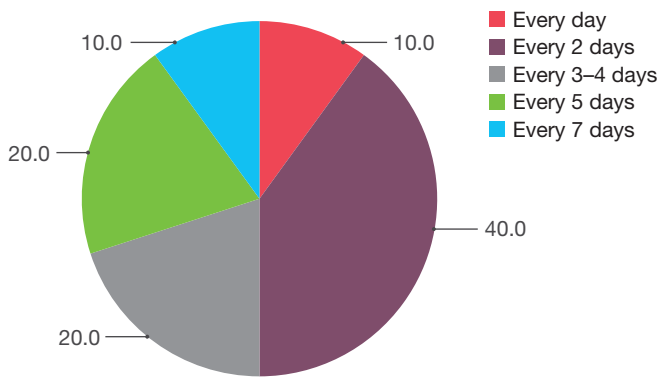
Table 1: PATIENT DEMOGRAPHICS, BASELINE CHARACTERISTICS AND TREATMENT EXPOSURE IN THE FAS AND SAF

Total number of patients in the HEM-POWR study, n	FAS, n (n=161)	SAF, n (n=268)
Characteristics for subgroup of patients from German study sites	**FAS, n (%) (n=30)**	**SAF, n (%) (n=61)**
Observation period, days, median (Q1, Q3)	336.0 (154.0, 453.0)	262.0 (6.0, 406.0)
Sex, male, n (%)	30 (100.0)	61 (100.0)
Age at enrolment, years, median (Q1, Q3)	35.5 (24.0, 51.0)	35.0 (24.0, 51.0)
Age at enrolment, years, n (%)		
<12	0	0
≥12 to <18	4 (13.3)	6 (9.8)
≥18 to <65	23 (76.7)	50 (82.0)
≥65	3 (10.0)	5 (8.2)
Weight, kg, median (min, max)	80.0 (44.0, 185.0)†	80.0 (44.0, 185.0)*
Severity of haemophilia at initial diagnosis, n (%)		
Mild	0	1 (1.6)
Moderate	3 (10.0)	10 (16.4)
Severe	27 (90.0)	50 (82.0)
Patient history of inhibitors, yes, n (%)	8 (26.7)	14 (23.0)
Prophylactic treatment prior to enrolment, yes, n (%)	30 (100.0)	57 (93.4)
Prescribed dose per infusion per kg of damoctocog alfa pegol at baseline, IU/kg, median (Q1, Q3)	32.3 (27.0, 37.5)§	34.9 (26.3, 44.0)‡
Patients pre-treated with damoctocog alfa pegol	**FAS, n (%) (n=28)**	**SAF, n (%) (n=58)‖**
Most recent prescribed dosing modality of damoctocog alfa pegol prior to initial visit, n (%)		
Prophylaxis	28 (100.0)	52 (91.2)
Intermittent prophylaxis	0	0
On demand	0	5 (8.8)

*Data missing for 22 patients; †data missing for 11 patients; ‡data missing for 12 patients; §data missing for 5 patients; ‖data missing for 1 patient. FAS, full analysis set; Q1, 1st quartile; Q3, 3rd quartile; SAF, safety analysis set.

- At initial visit, the most commonly prescribed prophylactic dosing regimen in this subgroup was every 2 days (12/30; 40.0%) (**Figure 1**).

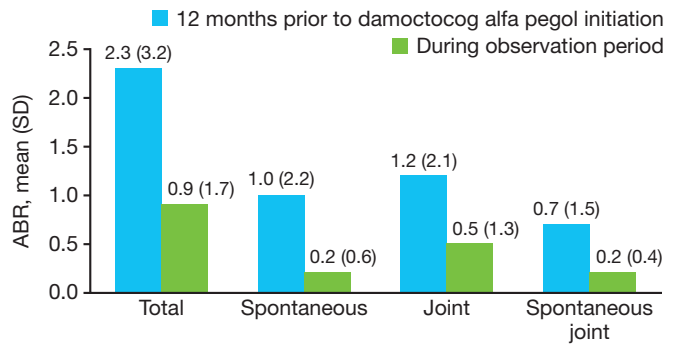
Figure 1: PROPORTION (%) OF PRESCRIBED PROPHYLAXIS REGIMENS OF DAMOCTOCOG ALFA PEGOL AT INITIAL VISIT (FAS, n=30)



FAS, full analysis set.

- The mean (SD) total ABR 12 months prior to damoctocog alfa pegol initiation was 2.3 (3.2) and during the observation period was 0.9 (1.7) (**Figure 2**). The mean (SD) difference in total ABR between the observation period and prior to initiation of damoctocog alfa pegol was –1.7 (2.7).
- During the observation period, 22/30 (73.3%) patients reported no bleeds of any type, 26/30 (86.7%) reported no spontaneous bleeds, 24/30 (80.0%) reported no joint bleeds, and 26/30 (86.7%) reported no spontaneous joint bleeds.

Figure 2: ABR WITHIN 12 MONTHS PRIOR TO DAMOCTOCOG ALFA PEGOL INITIATION AND DURING THE OBSERVATION PERIOD (FAS, n=30)

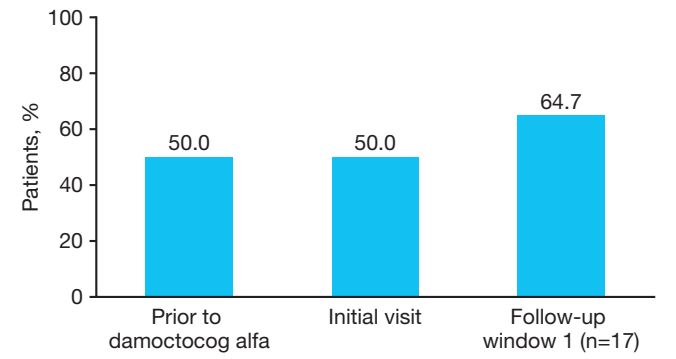


Difference of ABR during observation period and prior to damoctocog alfa pegol initiation, median (Q1, Q3); mean (SD)			
Total	**Spontaneous**	**Joint**	**Spontaneous joint**
1.0 (–2.0, 0.0); –1.7 (2.7)	0.0 (0.0, 0.0); –0.8 (1.9)	0.0 (–1.0, 0.0); –1.0 (1.9)	0.0 (0.0, 0.0); –0.5 (1.4)

ABR, annualised bleeding rate; FAS, full analysis set; Q1, 1st quartile; Q3, 3rd quartile; SD, standard deviation. Data during the observation period were calculated based on an annualised rate; data prior to initiation were the average number of bleeds over 12 months.

- The percentage of patients with no joints affected increased from 50.0% prior to damoctocog alfa pegol to 64.7% at first follow-up (**Figure 3**).
- In the SAF, TEAEs were reported by 14/61 (23.0%) PTPs; 4/61 (6.6%) patients reported serious TEAEs. Serious TEAE MedDRA classifications included 1 infection and infestation (abscess limb), 2 injury, poisoning and procedural complications (foot fracture, injury), and 1 musculoskeletal and connective tissue disorder (rotator cuff syndrome).

Figure 3: PROPORTION OF PATIENTS WITH NO JOINTS AFFECTED (FAS, n=30)



FAS, full analysis set. Follow-up windows are defined as 180-day intervals (±90 days). Baseline is initial visit. Follow-up window 1 (Days 90 to <270).

- No study drug–related TEAEs, discontinuations or deaths were reported (**Table 2**).

Table 2: SUMMARY OF TEAES IN THE SAF

Characteristic	SAF, n (%) (n=61)
Any TEAE, n (%)	14 (23.0)
Any study drug–related TEAE	0 (0.0)
Any TEAE leading to change of treatment regimen	7 (11.5)
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	1 (1.6)
Any serious TEAE, n (%)	4 (6.6)
Any study drug–related serious TEAE	0 (0.0)
Any serious TEAE leading to change of treatment regimen*	4 (6.6)
Any serious TEAE leading to discontinuation of treatment regimen	0 (0.0)
Any serious TEAE leading to inhibitor development	0 (0.0)
Any serious TEAE of special interest	0 (0.0)

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

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