

New data reinforce the benefit of early preventative treatment with Roche's Hemlibra for babies with severe haemophilia A

- **Phase III HAVEN 7 primary data presented at ASH 2023 provide additional confidence in the favourable efficacy and safety profile of subcutaneous Hemlibra given soon after birth ¹**
- **At nearly two years median follow-up in the descriptive, single-arm study, no babies experienced spontaneous bleeds requiring treatment, and all treated bleeds were as a result of trauma ¹**
- **Safety results were consistent with previous studies of Hemlibra, with no new safety signals observed ¹**
- **The HAVEN 7 study was developed in collaboration with the haemophilia A community, to generate additional evidence for the prophylactic treatment of infants with haemophilia A**

Basel, 09 December 2023 - Roche (SIX: RO, ROG; OTCQX: RHHBY) announced today that the primary analysis of the Phase III HAVEN 7 study reinforced the efficacy and safety of Hemlibra® (emicizumab) in previously untreated or minimally treated infants with severe haemophilia A without factor VIII inhibitors. Results showed that Hemlibra achieved meaningful bleed control in babies up to 12 months of age, and was well tolerated.¹ The new data were presented at the 65th American Society of Hematology (ASH) Annual Meeting and Exposition taking place 9-12 December 2023, in San Diego, California, and included in the press programme.

“Haemophilia A can have a devastating impact on any patient, but this is especially true for infants, where the emotional and physical stress due to frequent hospital visits, treatment administration and other worries can be distressing for babies and their parents and caregivers,” said Steven Pipe, MD, professor of paediatrics and pathology at the University of Michigan. “These results reinforce the benefit of starting prophylaxis as soon as possible after birth, as well as for the use of subcutaneous treatments, which are especially valuable in young babies where access to veins can be very difficult.”

The [burden of severe haemophilia A in babies](#) and on their parents and caregivers is significant. The World Federation of Haemophilia treatment guidelines consider the standard of care in haemophilia to be regular prophylaxis initiated at a young age, as studies have shown this improves long-term outcomes, while reducing the risk of intracranial haemorrhage.[2-4] However, for many babies with haemophilia A, prophylaxis is not started until after the first year of life because of the high treatment burden.[5-8] Hemlibra, which is already approved and being used to treat babies with haemophilia A, provides a flexible

treatment option that can be administered subcutaneously from birth at different dosing frequencies.⁹

“The results of HAVEN 7 provide additional confidence in the efficacy and safety profile of Hemlibra for babies with severe haemophilia A, and add to its extensive clinical and real-world evidence across all ages,” said Levi Garraway, M.D., Ph.D., Roche’s Chief Medical Officer and Head of Global Product Development. “Conducted in collaboration with the haemophilia A community, this trial reflects our ongoing commitment to listen and respond to the needs of those impacted by this condition, in hopes of advancing treatment standards even further.”

The HAVEN 7 study is a Phase III, descriptive, single-arm study, set up in collaboration with the haemophilia A community to evaluate the efficacy, safety, pharmacokinetics and pharmacodynamics of subcutaneous Hemlibra in infants with severe haemophilia A without factor VIII inhibitors. These results, which included data from 55 participants, showed that at 101.9 weeks median follow-up, 54.5% of participants (n=30) did not have any bleeds that required treatment, while 16.4% (n=9) did not have any treated or untreated bleeds at all. There were no spontaneous bleeds requiring treatment in any participant, and all treated bleeds were as a result of trauma. A total of 207 bleeds occurred in 46 participants (83.6%); 87.9% of these were as a result of trauma. Model-based annualised bleeding rate (95% CI) was 0.4 (0.30–0.63) for treated bleeds. No new safety signals were observed and there were no treatment-related serious adverse events, intracranial haemorrhages or deaths reported. Just 3.6% of participants (n=2) tested positive for factor VIII inhibitors, which may be a consequence of reduced factor VIII usage in participants treated with Hemlibra, and no participant tested positive for anti-drug antibodies.[1] Results were consistent with positive results from the interim analysis and from previous Phase III HAVEN studies.¹⁰⁻¹⁴

The results of additional research on biomarkers in the HAVEN 7 study were also presented at ASH, and were supportive of the study’s primary efficacy analysis. This additional research showed that the pharmacodynamic profiles of Hemlibra in babies were consistent with those previously observed in older children and adults with haemophilia A. The data showed that Hemlibra exhibits the expected pharmacodynamic response, despite the reduced presence of the clotting factors that Hemlibra binds to in this age group.¹⁵

The Phase III HAVEN 7 study results complement data from the broader, pivotal HAVEN clinical programme, providing insights into the evolution of haemophilia A in babies, and the impact of initiating preventative treatment from birth. The primary analysis is being followed by a seven year extension period.¹ Hemlibra continues to redefine standards of care in haemophilia A, as a flexible treatment option approved across all ages and stages of life, regardless of inhibitor status and at different dosing frequencies. It is approved for the routine prophylaxis of people with haemophilia A in more than 115 countries worldwide. It has been studied in one of the largest clinical trial programmes in people with haemophilia A with and without factor VIII inhibitors, including eight Phase III studies.

About Hemlibra® (emicizumab)

Hemlibra is a bispecific factor IXa- and factor X-directed antibody. It is designed to bring together factor IXa and factor X, proteins involved in the natural coagulation cascade, and restore the blood clotting process for people with haemophilia A. Hemlibra is a prophylactic (preventative) treatment that can be administered by an injection of a ready-to-use solution under the skin (subcutaneously) once-weekly, every two weeks, or every four weeks (after an initial once-weekly dose for the first four weeks).⁹ Hemlibra was created by Chugai Pharmaceutical Co., Ltd. and is being co-developed globally by Chugai, Roche and Genentech. It is marketed in the United States by Genentech as Hemlibra (emicizumab-kxwh), with kxwh as the suffix designated in accordance with Nonproprietary Naming of Biological Products Guidance for Industry issued by the U.S. Food and Drug Administration.

About haemophilia A

Haemophilia A is an inherited, serious disorder in which a person's blood does not clot properly, leading to uncontrolled and often spontaneous bleeding. Haemophilia A affects around 900,000 people worldwide.^{2,16} The burden of severe haemophilia A in infants and on their parents and caregivers is significant. People with haemophilia A either lack or do not have enough of a clotting protein called factor VIII. In a healthy person, when a bleed occurs, factor VIII brings together the clotting factors IXa- and X, which is a critical step in the formation of a blood clot to help stop bleeding. Depending on the severity of their symptoms, people with haemophilia A can bleed frequently, especially into their joints or muscles.¹⁷ These bleeds can present a significant health concern as they often cause pain and can lead to chronic swelling, deformity, reduced mobility and long-term joint damage.¹⁸ A serious complication of treatment is the development of inhibitors to factor VIII replacement therapies. Inhibitors are antibodies developed by the body's immune system that bind to and block the efficacy of replacement factor VIII, making it difficult, if not impossible, to obtain a level of factor VIII sufficient to control bleeding.²

About Roche in haematology

Roche has been developing medicines for people with malignant and non-malignant blood diseases for more than 20 years; our experience and knowledge in this therapeutic area runs deep. Today, we are investing more than ever in our effort to bring innovative treatment options to patients across a wide range of haematologic diseases. Our approved medicines include MabThera®/Rituxan® (rituximab), Gazyva®/Gazyvaro® (obinutuzumab), Polivy® (polatuzumab vedotin), Venclexta®/Venclyxto® (venetoclax) in collaboration with AbbVie, Hemlibra® (emicizumab), Lunsumio® (mosunetuzumab) and Columvi® (glofitamab). Our pipeline of investigational haematology medicines includes T-cell engaging bispecific antibody cevostamab, targeting both FcRH5 and CD3, Tecentriq® (atezolizumab), a monoclonal antibody designed to bind with PD-L1, and crovalimab, an anti-C5 antibody engineered to optimise complement inhibition. Our scientific expertise, combined with the breadth of our

portfolio and pipeline, also provides a unique opportunity to develop combination regimens that aim to improve the lives of patients even further.

About Roche

Founded in 1896 in Basel, Switzerland, as one of the first industrial manufacturers of branded medicines, Roche has grown into the world's largest biotechnology company and the global leader in in-vitro diagnostics. The company pursues scientific excellence to discover and develop medicines and diagnostics for improving and saving the lives of people around the world. We are a pioneer in personalised healthcare and want to further transform how healthcare is delivered to have an even greater impact. To provide the best care for each person we partner with many stakeholders and combine our strengths in Diagnostics and Pharma with data insights from the clinical practice.

In recognising our endeavour to pursue a long-term perspective in all we do, Roche has been named one of the most sustainable companies in the pharmaceuticals industry by the Dow Jones Sustainability Indices for the thirteenth consecutive year. This distinction also reflects our efforts to improve access to healthcare together with local partners in every country we work.

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