

New data from phase IIIb study reinforces safety profile of Roche's Hemlibra in people with haemophilia A

- **Second interim analysis of the STASEY study, including data from 193 patients, consistent with results from phase III HAVEN studies, with no new safety signals identified^{1,2,3}**
- **STASEY is the largest open-label study primarily assessing safety and tolerability of a medicine for haemophilia A with factor VIII inhibitors**
- **A separate analysis also suggests people on Hemlibra may be able to undergo certain minor surgeries without additional preventative coagulation treatment and major surgeries could be managed with additional prophylactic coagulation factor⁴**

Basel, 13 July 2020 - Roche (SIX: RO, ROG; OTCQX: RHHBY) today announced results from the second interim analysis of the phase IIIb STASEY study, which reinforce the safety profile of Hemlibra® (emicizumab) characterised in the phase III HAVEN clinical programme.^{1,2,3} In the STASEY study, Hemlibra was effective with no new safety signals identified in adults and adolescents with haemophilia A with factor VIII inhibitors, which was consistent with previous safety observations.¹ Further new interim data suggest that people on Hemlibra may be able to undergo certain minor surgeries without additional preventative (prophylactic) coagulation factor.⁴ These data were presented at the International Society on Thrombosis and Hemostasis (ISTH) 2020 Virtual Congress, 12-14 July 2020.

“These important safety data continue to add to the extensive clinical evidence reinforcing Hemlibra’s potential to redefine the standard of care for people with haemophilia A,” said Levi Garraway, M.D., Ph.D., Chief Medical Officer and Head of Global Product Development. “The STASEY study reflects our continued focus on providing valuable insights that meet the needs of the haemophilia community and enhance our understanding of Hemlibra in clinical practice.”

The second interim analysis of the STASEY study included data from 193 patients with haemophilia A with factor VIII inhibitors, who received Hemlibra prophylaxis once-weekly.¹ No cases of thrombotic microangiopathy or serious thrombotic events (TEs) related to Hemlibra were reported, and no new safety signals were observed.¹ Thirty-three (17.1%) people reported a Hemlibra-related adverse event (AE).¹ The most common AEs, occurring in 10% or more of people in the STASEY study, were common cold symptom nasopharyngitis (12.4%), headache (11.9%) and injection-site reaction (ISR) (11.4%).¹ The ISRs reported were either mild or moderate in severity and no patients discontinued due to ISR.¹ Annualised bleed rates (ABR) were also consistent with previously reported observations from the phase III HAVEN studies.^{1,2,3}

A separate analysis described management and outcomes of minor and unplanned major surgeries in patients receiving Hemlibra, although not a formal surgery endpoint in STASEY. Results suggest people with haemophilia A with factor VIII inhibitors who undergo certain minor surgeries whilst receiving Hemlibra may not need additional preventative coagulation factor.⁴ The majority of minor surgeries (n=20/31) were performed without the use of preventative coagulation factor (64.5%) and, of these, 85% (n=17/20) did not

result in treated post-operative bleeds.⁴ Of the unplanned major surgeries (n=9), eight were managed with prophylactic coagulation factor, four of which resulted in bleeds managed successfully with recombinant factor VIIa.⁴ These findings are consistent with results observed in a previous analysis of surgeries in the pivotal HAVEN studies.⁵

STASEY is a single-arm, multicentre, open-label, phase IIIb clinical study where patients received Hemlibra for an average of 50.9 weeks. The ABR of all bleeds, including treated bleeds, treated spontaneous bleeds, treated joint bleeds and treated target joint bleeds were low, with 167 patients (85.6%) experiencing zero treated bleeds.¹ In the STASEY study there were two TEs unrelated to Hemlibra reported. One was a ST-elevation myocardial infarction in a person with pre-existing risk factors, which the treating physician assessed as unrelated to Hemlibra.¹ The second was a hypertrophic clot at the site of a tooth extraction, a known complication of the procedure.¹

Hemlibra is approved to treat people with haemophilia A with factor VIII inhibitors in more than 90 countries worldwide and for people without factor VIII inhibitors in more than 70 countries worldwide, including the US, EU and Japan. Hemlibra has been studied in one of the largest clinical trial programmes in people with haemophilia A with and without factor VIII inhibitors, including five completed phase III studies. The STASEY study is the largest open-label study primarily assessing the safety and tolerability of a medicine for people with haemophilia A with factor VIII inhibitors.

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). 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 US 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 320,000 people worldwide,^{6,7} approximately 50-60% of whom have a severe form of the disorder.⁸ 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 disorder, people with haemophilia A can bleed frequently, especially into their joints or muscles.⁶ 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.⁹ A serious complication of treatment is the development of inhibitors to factor VIII replacement therapies.¹⁰ Inhibitors are antibodies developed by the body's immune system that bind to and block the efficacy of replacement factor VIII,¹¹ making it difficult, if not impossible, to obtain a level of factor VIII

sufficient to control bleeding.

About Roche in haematology

Roche has been developing medicines for people with malignant and non-malignant blood diseases for over 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, and Hemlibra® (emicizumab). Our pipeline of investigational haematology medicines includes idasanutlin, a small molecule which inhibits the interaction of MDM2 with p53; T-cell engaging bispecific antibodies, glofitamab and mosunetuzumab, targeting both CD20 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

Roche is a global pioneer in pharmaceuticals and diagnostics focused on advancing science to improve people's lives. The combined strengths of pharmaceuticals and diagnostics under one roof have made Roche the leader in personalised healthcare – a strategy that aims to fit the right treatment to each patient in the best way possible.

Roche is the world's largest biotech company, with truly differentiated medicines in oncology, immunology, infectious diseases, ophthalmology and diseases of the central nervous system. Roche is also the world leader in in vitro diagnostics and tissue-based cancer diagnostics, and a frontrunner in diabetes management.

Founded in 1896, Roche continues to search for better ways to prevent, diagnose and treat diseases and make a sustainable contribution to society. The company also aims to improve patient access to medical innovations by working with all relevant stakeholders. More than thirty medicines developed by Roche are included in the World Health Organization Model Lists of Essential Medicines, among them life-saving antibiotics, antimalarials and cancer medicines. Moreover, for the eleventh consecutive year, Roche has been recognised as one of the most sustainable companies in the Pharmaceuticals Industry by the Dow Jones Sustainability Indices (DJSI).

The Roche Group, headquartered in Basel, Switzerland, is active in over 100 countries and in 2019 employed about 98,000 people worldwide. In 2019, Roche invested CHF 11.7 billion in R&D and posted sales of CHF 61.5 billion. Genentech, in the United States, is a wholly owned member of the Roche Group. Roche is the majority shareholder in Chugai Pharmaceutical, Japan. For more information, please visit www.roche.com.

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