

## Background

The HEMLIBRA clinical development program is investigating the safety and efficacy of emicizumab-kxwh in people living with hemophilia A with and without factor VIII inhibitors.

Patients who could not enroll in one of the sponsored clinical trials and met other criteria were permitted to gain access to emicizumab-kxwh through [expanded access program](#) or [compassionate use](#). All fatalities are evaluated through Genentech and Roche drug safety and reported to regulatory authorities in strict accordance with guidelines and requirements.<sup>1</sup>

## Fatalities in emicizumab-kxwh clinical trials, expanded access, compassionate use, and the postmarketing setting<sup>1-3</sup>

### Fatalities at data cutoff of October 22, 2018<sup>1,3</sup>

|                                     | Fatalities     | Clinical Trial Where Event Occurred |
|-------------------------------------|----------------|-------------------------------------|
| <a href="#">Clinical Trials</a> *   | 2 <sup>†</sup> | HAVEN 1, STASEY                     |
| <a href="#">Expanded Access</a> *   | 1              | Not applicable <sup>§</sup>         |
| <a href="#">Compassionate Use</a> * | 3              | Not applicable <sup>§</sup>         |
| <a href="#">Postmarketing</a>       | 1 <sup>‡</sup> | Not applicable <sup>§</sup>         |

\*Fatalities recorded for any patient accessing emicizumab-kxwh under an investigational new drug (IND), whether company sponsored or not, or for any ex-US pre-approval use. <sup>†</sup>Of the 2 events occurring in clinical trials, one death occurred in the HAVEN 1 trial, and 1 death occurred in the STASEY trial. HAVEN 1 was a Phase 3 trial conducted to evaluate the safety, efficacy, and pharmacokinetics of emicizumab-kxwh prophylaxis in adult and adolescent patients ≥12 years with hemophilia A with factor VIII inhibitors. STASEY is an ongoing Phase 3b, Ex-US study being conducted to evaluate the safety and tolerability of emicizumab in adult and adolescent patients ≥12 years with hemophilia A with factor VIII inhibitors. <sup>‡</sup>An elderly patient who received Hemlibra for acquired hemophilia A. The cause of death was assessed by the treating physician to be sudden cardiac death, unrelated to emicizumab-kxwh. <sup>§</sup>Not from clinical development plan.

- Among the 7 fatalities, 1 occurred in the US and 6 occurred outside of the US (Ex-US).<sup>1</sup>
- 6 patients were taking emicizumab-kxwh for treatment of hemophilia A with inhibitors, and 1 patient for acquired hemophilia A.<sup>1,3</sup>
- In each case, the cause of death was assessed by the investigator or treating physician as unrelated to emicizumab-kxwh.<sup>1,3</sup>
- Causes of death were assessed as rectal hemorrhage, sepsis, intracranial hemorrhage, pre-existing pseudotumor associated with severe hemophilia A, cecal perforation, sudden cardiac death, and traumatic head injury.<sup>1,3</sup>

### References

1. Data on file. Genentech, Inc. October 2018; 2. Shima M et al. *N Engl J Med.* 2016;374:2044-2053;
3. Oldenburg J et al. *N Engl J Med.* 2017;377:809-818.