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Evaluation of Afstyla™ (rFVIII) – Type A hemophilia

English summary

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Québec

SUMMARY

Evaluation of Afstyla™ (rFVIII) – Type A hemophilia

Mandate

At the request of the manufacturer, CSL Behring Canada Inc., INESSS evaluated the blood system product Afstyla™ (lonoctocog alfa), a recombinant human coagulation factor VIII (FVIII) that is administered intravenously. In Canada, lonoctocog alfa is indicated for for control and prevention of bleeding episodes, routine prophylaxis to prevent or reduce the frequency of bleeding episodes and for perioperative management of bleeding (surgical prophylaxis) in adults and children with hemophila A (congenital factor VIII deficiency). The indications for this re-evaluation are identical to those recognized by Health Canada.

The following nine FVIII products are currently on the *Liste des produits du système du sang du Québec* and were used as comparators. They include six standard-acting products (Advate™, Helixate™, Kovaltry™, Nuwiq™, Xyntha™ (including Xyntha Solofuse™) and Zonovate™ (standard-acting), and three long-acting products (Adynovate™, Eloctate™ and Esperoct™).

Evaluation process

Literature data and data provided by the manufacturer were reviewed to document the efficacy, safety, and cost-effectiveness of lonoctocog alfa. Contextual and experiential data from expert and patient consultations are presented as well. Lastly, INESSS performed a cost-effectiveness and budget impact analysis.

Health need

Hemophilia A, which is caused by FVIII deficiency, manifests as longer-than-normal clotting times. In severe cases, FVIII deficiency leads to frequent bleeding episodes in the joints, called hemarthrosis, and soft tissues in the absence of trauma. Prophylaxis with recombinant FVIII is the preferred treatment. It consists of several weekly intravenous injections to replace the missing FVIII.

Despite good management of hemophilia A in Québec, there are still certain limitations with the current treatments. In addition to the desire for a permanent curative treatment, the following needs were recognized by the experts with whom we met: better prevention of the development of inhibitors (neutralizing antibodies against FVIII), the prevention of hemophilic arthropathies and chronic pain, treatments offering longer-lasting, superior hemostatic protection, and alleviating the burden of repeated intravenous injections.

Results

Efficacy

- Lonoctocog alfa is considered a standard-acting FVIII.
- Lonoctocog alfa appears to be at least as effective as its comparators in preventing bleeding when used prophylactically.
- Lonoctocog alfa appears to be as effective as its comparators in treating breakthrough bleeding.
- In the studies identified, lonoctocog alfa exhibited good or excellent hemostatic efficacy during surgery.

Safety

- The safety profile of lonoctocog alfa is considered acceptable.

Quality of life

- No data on the impact of lonoctocog alfa on quality of life were presented.

Expert's perspective

Based on the available data, the expert consulted is of the opinion that the efficacy of prophylaxis with lonoctocog alfa is comparable to that provided by the comparators, that is, all the FVIII products on the *Liste*. In the expert's opinion, the safety profile of lonoctocog alfa is comparable to that of the other options available for the target population.

Economic analyses

At the price submitted, lonoctocog alfa is the least cost-effective treatment option compared to the other standard-acting FVIIIs but is more cost-effective than long-acting FVIII for prophylactic therapy.

Adding lonoctocog alfa to the *Liste des produits du système du sang du Québec* at the submitted price would result in a cost increase of approximately $9.8 million over three years.

Deliberation regarding therapeutic value
INESSS recognizes the therapeutic value of lonoctocog alfa for control and prevention of bleeding episodes, routine prophylaxis to prevent or reduce the frequency of bleeding episodes and for perioperative management of bleeding (surgical prophylaxis) in adults and children with hemophila A (congenital factor VIII deficiency). The reasons for this recognition are as follows: ▪ Lonoctocog alfa is considered a standard-acting recombinant FVIII. ▪ Prophylaxis with lonoctocog alfa appears to be as effective as that with standard or long-acting FVIII. ▪ The administration of lonoctocog alfa carries a low risk of adverse effects in the target population.

Deliberation regarding all the criteria

INESSS considers that it is fair and reasonable to include lonoctocog alfa on the *Liste des produits du système du sang du Québec* for control and prevention of bleeding episodes, routine prophylaxis to prevent or reduce the frequency of bleeding episodes and for perioperative management of bleeding (surgical prophylaxis) in adults and children with hemophila A (congenital factor VIII deficiency) if certain conditions are met. The reasons for this position are as follows:

- The therapeutic value of lonoctocog alfa is recognized.
- In the context of a call for tenders, the inclusion of lonoctocog alfa on the *Liste des produits du système du sang du Québec* constitutes a therapeutic alternative, for the population targeted by the indication, to other products.
- The cost of lonoctocog alfa is higher than that of the standard-acting FVIIIs for prophylactic treatment in adults and children. The cost of lonoctocog alfa should be $ [redacted] and $ [redacted] per international unit for adults and children, respectively, or a reduction of [redacted] % and [redacted] %, to be equivalent to the least expensive standard-acting FVIII. The cost of lonoctocog alfa is still lower than that of the long-acting FVIIIs.
- Including lonoctocog alfa on the *Liste des produits du système du sang du Québec* would result in an increase in treatment costs of approximately $9.8 million over three years.

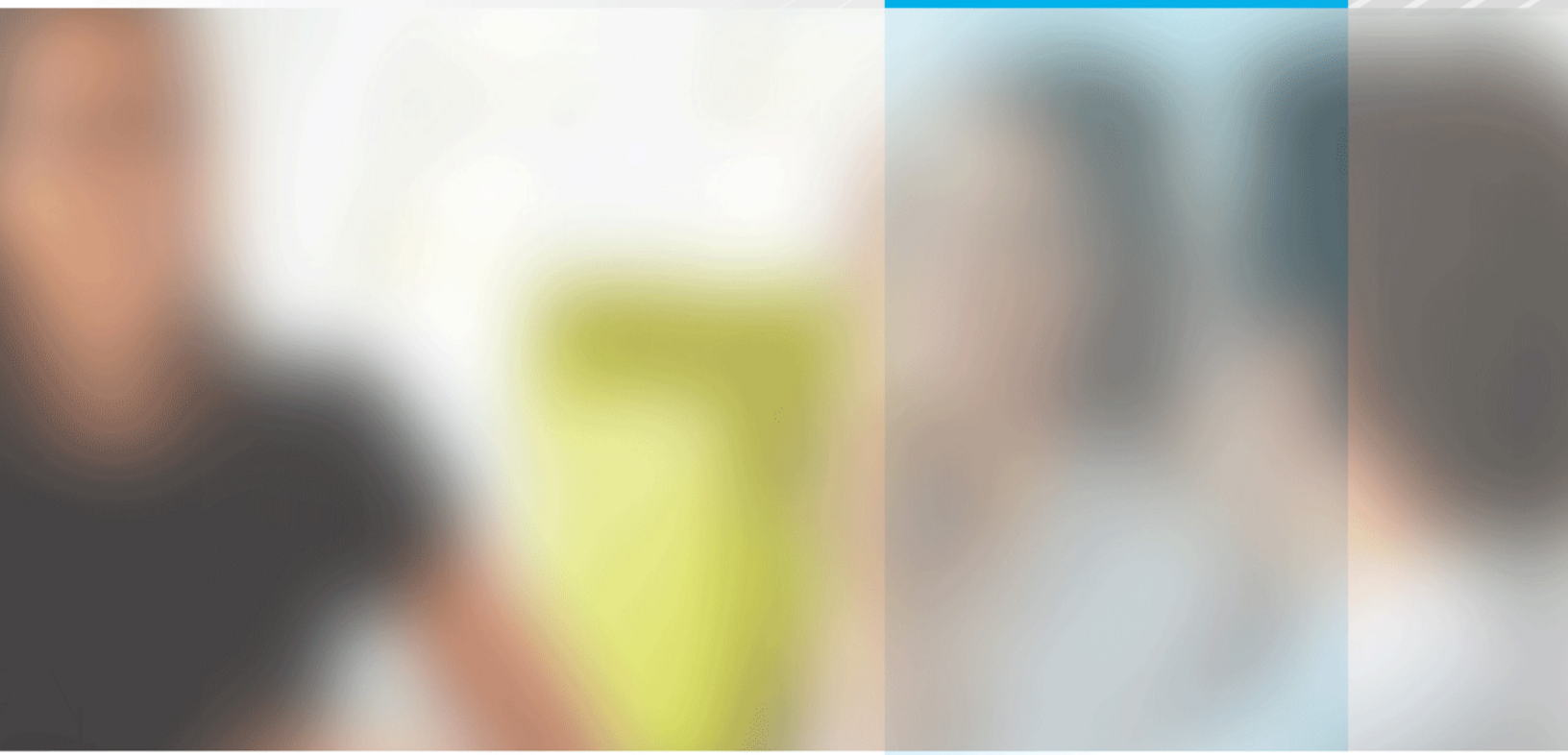
INESSS's recommendations

INESSS recommends including Afstyla™ (lonoctocog alfa) on the *Liste des produits du système du sang du Québec* for adults and children with hemophilia A (congenital FVIII deficiency) for:

- control and prevention of bleeding episodes;
- routine prophylaxis to prevent or reduce the frequency of bleeding episodes;
- perioperative management of bleeding (surgical prophylaxis).

Clarification of the recommendation

From a distributive justice perspective, coverage of lonoctocog alfa for the requested indication would be a responsible, fair and equitable decision, provided the cost of using lonoctocog alfa does not exceed that of the least expensive standard-acting FVIII in the next call for tenders.



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