INESSS
LE SAVOIR PREND FORME

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Evaluation of HyQvia™ (human normal immunoglobulin 10% and hyaluronidase) – Primary and secondary immunodeficiency

English summary

Une production de l'Institut national d'excellence en santé et en services sociaux (INESSS)

Québec

SUMMARY

Evaluation of HyQvia™ (human normal immunoglobulin 10% and hyaluronidase) – Primary and secondary immunodeficiency

Mandate

At the request of the manufacturer, Takeda Canada Inc., the Institut national d'excellence en santé et en services sociaux (INESSS) evaluated HyQvia™, a combination of human normal immunoglobulin 10% and hyaluronidase for subcutaneous (SC) administration. This product is indicated as a replacement therapy for primary humoral immunodeficiency (PI) and secondary humoral immunodeficiency (SI) in adults. This is the first evaluation of this immunoglobulin preparation.

Evaluation process

Published trials and manufacturer data were reviewed to assess the efficacy, safety and cost-effectiveness of HyQvia™. Contextual and experiential data from expert consultations are presented as well.

Health need

Ideally, PI and SI therapies should provide comparable-to-normal protection against infections. Also desirable are treatments that are better at preventing the risk of infection than the current prophylactic therapies and that help mitigate the burden of repeated intravenous (IV) or SC immunoglobulin infusions.

The supply and availability of replacement immunoglobulins is precarious. In addition, as demand continues to increase in Québec, it seems important to secure several sources of immunoglobulin. Currently, there are 8 products on the *Liste des produits du système du sang du Québec*, 3 of which are administered subcutaneously.

Results

<u>Efficacy</u>

- Pivotal, extension, and real-world studies show that the annual rate of severe acute bacterial infections was below the cut-off value of 1 in patients with PI and SI treated with HyQvia™.
- The overall annual infection rate ranged from 0.88 to 2.99 across studies.
- These results are comparable to those for other immunoglobulin preparations currently available in Québec.
- The quality of the studies considered ranges from low to moderate, and the strength of the evidence is low.

Safety

- Mild to severe adverse events were observed in the pivotal and extension studies, including cases of thrombosis that were considered to be unrelated to the treatment.
- The absence of clinical consequences associated with anti-hyaluronidase antibodies, and the past use of HyQvia™ in Europe and the United States suggest that monitoring anti-hyaluronidase antibody levels in patients treated with HyQvia™ would not be necessary.
- The methodological quality of the studies considered ranges from low to moderate, and the strength of the evidence is very low.

Quality of life

- The route of administration of immunoglobulin, whether IV or SC, did not appear to have a significant impact on health-related quality of life.
- The methodological quality of the study considered is moderate, and the strength of the evidence is moderate.

Expert perspective

- Despite the low quality of the studies, the experts consulted consider the efficacy of HyQvia™ in preventing infections and its safety profile to be comparable to those of the currently available immunoglobulin preparations.
- According to the experts, the impact of HyQvia™ on patient quality of life is comparable to that of the other immunoglobulin preparations.

Patient perspective

- Immunoglobulin replacement therapy by IV infusion (IVIg) or SC injection (SCIg) is experienced as a burden by many patients.
- Some patients would like to receive a therapy like HyQvia™, which can be administered at home and which has the same frequency of administration as IVIg.

Organizational dimension

- The administration of HyQvia™ requires that patients be properly trained. The experts noted that the use of HyQvia™ requires a higher level of skill than that required for the administration of conventional SCIg.
- The manufacturer offers a patient support program. Nevertheless, the experts feel that it would be useful to develop a home care protocol for use by local community service centres (CLSCs).

Economic analyses

Cost-effectiveness analysis

- At the price submitted by the manufacturer, HyQvia™ is a less cost-effective treatment option than the other immunoglobulin preparations currently distributed in Québec.

Budget impact

- Including HyQvia™ on the *Liste des produits du système du sang du Québec* could result in an estimated increase in expenditures of $11 million over the next three years.

Deliberation regarding therapeutic value
The members of the Comité scientifique de l'évaluation des médicaments aux fins d'inscription (CSEMI) unanimously agree that HyQvia™ should be recognized as a replacement therapy for primary humoral immunodeficiency and secondary humoral immunodeficiency in adults. **Reasons for the unanimous position** • The members recognize that HyQvia™ addresses a health need in the target population, including some patients who have difficulty with the frequency of administration of the currently distributed SCIg preparations. The product could also help address supply issues. • The members consider that HyQvia™ appears to be as effective as other immunoglobulin preparations in preventing infections. They also feel that its safety profile is acceptable and comparable to that of the other available options. • In the context of a call for tenders, the members believe that including HyQvia™ on the *Liste des produits du système du sang du Québec* would provide, for the population targeted by the indication, an additional therapeutic option to the other immunoglobulin preparations. • However, the members deplore the absence, in the pivotal study, of a relevant comparator treatment for the Québec context, which, in their opinion, makes it difficult to assess the risks versus the potential benefits. • With regards to the evaluation of blood system products, the members pointed out that, in order to offer the best available treatment to the target population, they consider it essential that the decision be based on robust evidence in order to guarantee, should this product be distributed, that Québec patients have access to a therapy that is at least as effective and safe as those currently available.

Deliberation regarding all the criteria

The members of the Comité scientifique de l'évaluation des médicaments aux fins d'inscription (CSEMI) unanimously agree that HyQvia™ should be included on the *Liste des produits du système du sang du Québec* as a replacement therapy for primary humoral immunodeficiency and secondary humoral immunodeficiency in adults.

Reasons for the unanimous position

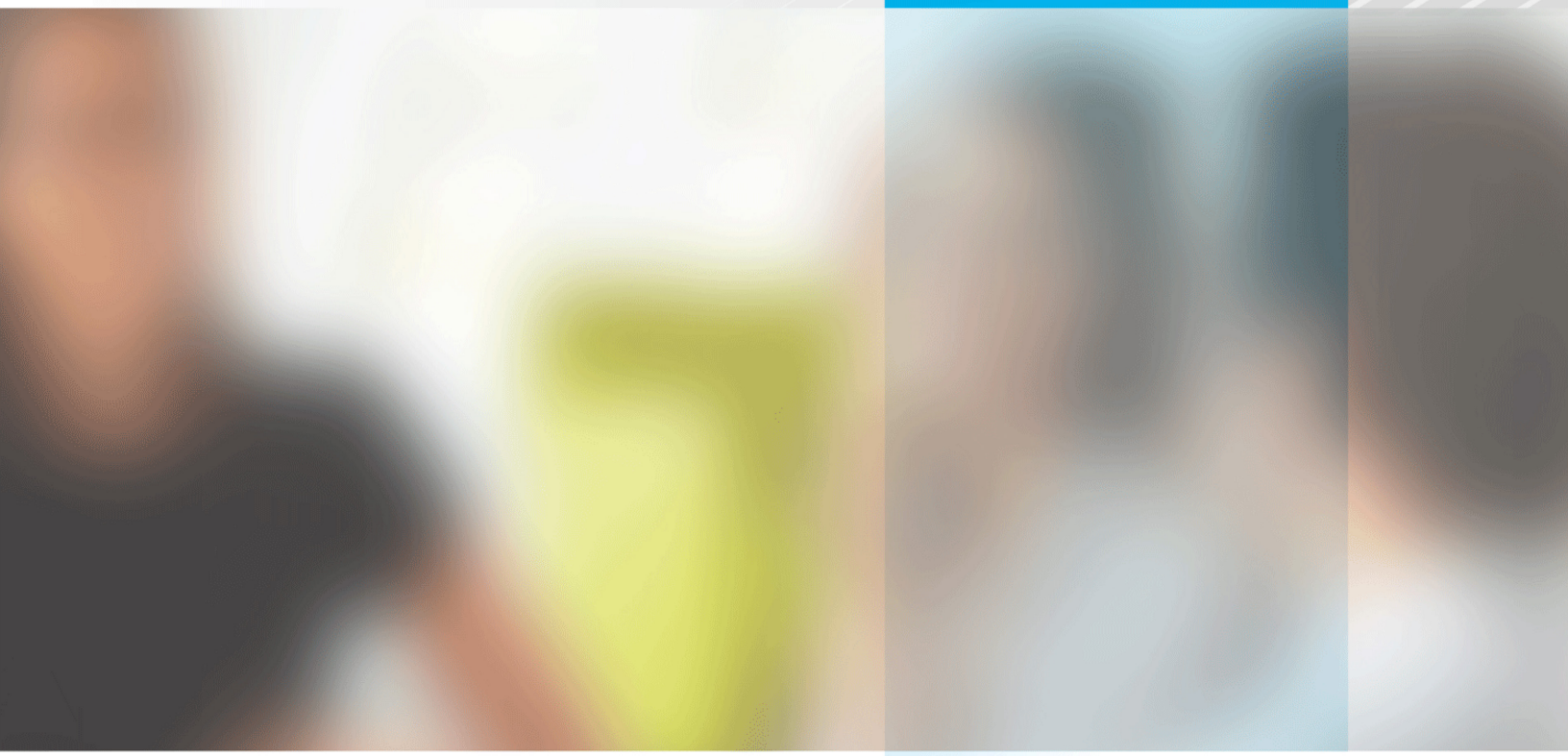
- HyQvia™ appears to be as effective as the other immunoglobulin preparations in preventing infections.
- HyQvia™ has a low potential for adverse effects in the target population, which potential is comparable to that of the other immunoglobulin preparations.
- In the context of a call for tenders, the members believe that including HyQvia™ on the *Liste des produits du système du sang du Québec* would provide, for the population targeted by the indication, an additional therapeutic option to the other immunoglobulin preparations.
- The price of HyQvia™ is higher than that of any of the other immunoglobulin preparations on the *Liste des produits du système du sang du Québec* that are distributed by Héma-Québec.
- Compared to the other immunoglobulin preparations currently distributed in Québec, HyQvia™ is not cost-effective at the price submitted by the manufacturer.
- To have a cost equivalent to that of the current intravenous and subcutaneous immunoglobulin preparations in Québec, the price of HyQvia™ would have to be reduced by more than [redacted] %.
- Including HyQvia™ on the *Liste des produits du système du sang du Québec* and distributing it at the price submitted by the manufacturer would result in an increase in treatment costs of approximately $11 million over three years.

INESSS's recommendation concerning HyQvia™

In light of the available information, INESSS recommends that HyQvia™ be included on the *Liste des produits du système du sang du Québec* as a replacement therapy for primary humoral immunodeficiency and secondary humoral immunodeficiency in adults.

Note concerning the recommendation

From a distributive justice perspective, coverage of HyQvia™ for the requested indication would be a responsible, fair and equitable decision, provided the cost of using it does not exceed the cost of using the other immunoglobulin preparations currently distributed in Québec, in the next call for tenders.



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