



IWK Health

Maritime Medical Genetics Service
Phone: (902) 470-8754 Fax: (902) 470-8709

The Maritime Medical Genetics Service is no longer accepting referrals for genetic counselling for individuals who are carriers for beta globin variants such as HbE, HbO, HbC, HbD, etc. Please see dedicated document for HbS/sickle cell carriers. We will only accept a referral if BOTH reproductive partners are carriers (for the same or different beta globin variants) AND are planning a pregnancy/currently pregnant.

We would like to direct your attention to the following resources about sickle cell trait and hemoglobinopathy carrier screening in Canada:

<https://www.uptodate.com/contents/hemoglobin-variants-including-hb-c-hb-d-and-hb-e#H3665024570>

https://geneticseducation.ca/uploads/POC/POC_carrier_screening_Canada_hemoglobinopathies.pdf

Being a carrier of a beta globin variant does not cause symptoms/a hematologic disorder. People who are carriers of a beta globin variant do not need to be seen by a hematologist. Screening can be ordered by any healthcare provider.

We suggest consideration of testing in all interested reproductive age first-degree relatives of your patient with a complete blood count (CBC), ferritin level, and hemoglobin electrophoresis. Hemoglobinopathy carrier screening is not indicated in healthy children.

A person with sickle cell trait is at risk of having children with sickle cell disease **if their reproductive partner also has sickle cell trait or is a carrier of another beta-globin disorder**. Sickle cell disease is inherited in an autosomal recessive manner. If both partners have sickle cell trait, there is a 25% chance of having a child with sickle cell disease with each pregnancy. Reproductive counselling should be provided to any individual with sickle cell trait by their primary care provider. Hemoglobinopathy screening should be offered to their reproductive partner and be completed prior to pregnancy, when possible.

If two adults have sickle cell trait or are carriers of another beta-globin disorder *and* are planning to have children or are currently pregnant, they can be referred to Maritime Medical Genetics Service for genetic counselling. **A referral with BOTH individuals' hemoglobinopathy screening reports should be included.**

Children who are carriers of a beta globin variant or adult couples where both individuals have been tested and only one partner is a carrier do not need to be seen by Medical Genetics.

Provider questions can be directed to the Medical Genetics Service at 902-470-8754.