

Thalassemia Pregnancy Management Preconception Guidelines

Hematology

- Female patients and their partners should discuss with their hematologist their desire to start a family, including an assessment of the degree of risk, from the standpoint of endocrine complications (specifically diabetes and cardiac complications), iron balance, and the possibility and consequences of chelation during the entirety of pregnancy.
- Pregnancy is not contraindicated in patients who are well chelated, have normal or near normal cardiac T2* (>20 milliseconds) and cardiac function (LVEF), and liver iron concentration (LIC) in the desired range (three – seven mg/g dry weight, the lower the better in this instance). MRIs are performed before pregnancy to determine these values.
- If iron measurements are outside of the desired ranges, an intensification of chelation will be prescribed, and follow-up MRIs will be performed until desired levels are achieved.
- Partner testing includes CBC, hemoglobin electrophoresis, as well as alpha and beta gene testing. If a partner is a carrier for thalassemia, a referral will be made to the Genetics and IVF Program as appropriate.

Patients Undergoing IVF or Egg Harvesting for Surrogacy

- Patients and partners should discuss a plan with their hematologist, as above.
- Patients will be referred to REI (Reproductive Endocrinology and Infertility).
- Patients will be referred to Cardiology for cardiac clearance, due to the risk of ovarian hyperstimulation syndrome.

Obstetrics

- Pregnancy in patients with thalassemia is considered high-risk. Those considering pregnancy will be referred to a high-risk obstetrician for pre-conception counseling - to discuss potential risks of pregnancy including gestational diabetes, pre-eclampsia, eclampsia and cardiac complications.

Cardiology

- Patients need cardiology clearance, including a stress echocardiogram.
- Women who have a history of heart failure, or a cardiac T2* that is considered moderate or severe, will require additional assessment from a cardiologist who specializes in heart failure CPET (Cardiopulmonary Exercise Testing) and cardiac catheterization. Results of this assessment will determine if pregnancy is advised.