

Sickle Cell Anemia

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About Myself



What is Sickle Cell Disease

Sickle cell disease is when the red blood cells are shaped as a sickle shaped crescent moons when normally red blood cells look like round discs.



Normal Red Blood Cell



Sickle Cell

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When the sickle cells are shaped they are stiff and block blood vessels, which leads to pain and organ damage.

Most Common Symptoms

- Joint Pain (Arms, Back, Chest, etc.)
- Tiredness
- Shortness of Breath
- Fatigue
- Jaundice
- Swelling

Most Common Triggers

- Stress
- Dehydration
- Infection
- Weather

What Causes Sickle Cell Disease

Sickle cell is a genetic disease passed down between a mother and a father.

For Example- When a mother has the sickle cell SS gene and the father has the sickle cell SS gene the child is most likely to have sickle cell disease SS

A = normal Hb

Parent
with sickle
cell trait



A S

S = sickle hemoglobin

Parent
with sickle cell trait



A S

Children:

A

A

S

A

A

S

S

S

How is Sickle Cell Diagnosed

Sickle cell is usually diagnosed at birth with newborn screening testing along with a secondary test called hemoglobin electrophoresis.

Sickle cell can also be diagnosed before a baby is born by testing the amniotic fluid or samples of the placenta.

Sickle Cell Treatment

1. Folic acid
 - a. Helps create new blood cells
2. Hydroxyurea
 - a. Daily medication that helps that makes the cells less sticky.
 - b. Strengthens fetal haemoglobin
 - c. Helps decrease the frequency and intensity of painful episodes
3. Blood Transfusions
 - a. Helps severe anemia and prevents low hemoglobin
4. Bone Marrow Transplant
 - a. The **ONLY** proven cure for sickle cell anemia disease.
This option is only for some patients.
5. Extra fluids
6. Pain medication
7. Warm blankets or heating pad
8. Oxygen

Persons Living in Ontario with Sickle Cell Disease

May not have access to comprehensive care including knowledgeable care providers

May be stigmatized, not infrequently labeled as “drug seeking”

May be denied access to effective pain medications when presenting for medical treatment for severe pain crises (vaso-occlusive)

May be left for hours in ED hallway in agonizing pain without appropriate analgesia

May, depending on the hospital of admission, receive sub-optimal care and treatment resulting in preventable complications and even premature death.

Expected Quality of Care in Ontario

Triage within 30 min. and receive IV opioid analgesia within 60 min. of presenting in ED

- Triage as CTAS 1 or 2 (depending on specifics of clinical presentation)
- Receive respectful, patient-centred, empathetic, compassionate care

Receive non-pharmacological pain management as necessary

- Receive active hydration (oral or IV) and oxygen support
- Receive proper discharge, formal outpatient follow-up with medical team specializing in SCD and a prescription for adequate supply of effective analgesia until next medical appointment.

Questions?