



**Providence
Health Care**

How you want to be treated.

Exploring Niche Roles in Hospital Pharmacy

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Providence Health Care

How you want to be treated.

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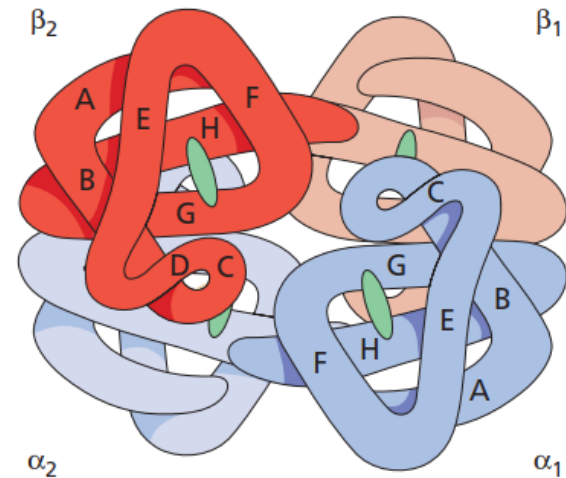


Adult Red Cell Disorders Program of BC/Yukon

- Provincial program which cares for ~400 patients with inherited disorders of their red blood cells (hemoglobinopathies)
- Ambulatory clinic setting based at St Paul's Hospital
- Fast growing population primarily driven by immigration
- Two most common conditions include thalassemia and sickle cell disease

Thalassemias

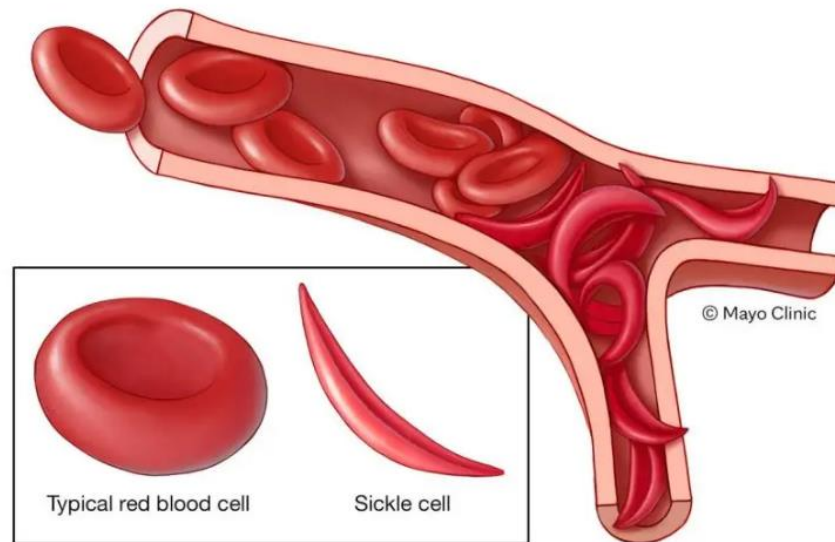
- Group of genetic disorders affecting the alpha or beta globin subunits of hemoglobin
- Leads to ineffective erythropoiesis and hemolysis
- May require chronic life-sustaining RBC transfusions
- Patients are at risk of iron overload due to transfusions or increased absorption
- Iron overload impacts multiple organs including liver, heart, endocrine glands
- Treatment for iron overload involves use of chelation agents



Quaternary structure
of haemoglobin A molecule

Sickle Cell Disease

- Genetic disorder caused by a point mutation in the beta globin gene resulting in sickle hemoglobin
- Causes widespread organ complications, but most notably painful veno-occlusive crises
- Managed with disease modifying therapies and/or transfusions
- Standard of care disease is hydroxyurea, up-titrated to maximum tolerated doses



Key Pharmacist Roles

Medication Management:

Independently optimizing iron chelation therapy & disease modifying therapy for SCD based on blood work, MRI results, transfusion burden, toxicities, adherence
Prescribing for minor ailments as appropriate / feasible

Seamless Care

Navigating medication coverage
Patient education on BC health systems

Health Promotion

Patient education
Immunization reviews
Reproductive health counselling

Research & Teaching

Precepting
Research Projects
Quality Improvement

What is Anticoagulation Stewardship?

Defined as:

“coordinated, efficient, and sustainable system-level initiatives designed to **achieve optimal anticoagulant-related health outcomes and minimize avoidable adverse drug events**”.¹

Locally, the program involves a multidisciplinary team focusing on **optimizing venous thromboembolism (VTE) prophylaxis** prescribing practices by promoting **VTE risk stratification** using the IMPROVE risk assessment model.

Why is this important?



PATIENTS

- Reduce the risk of **preventable VTEs**
- Reduce risk of **adverse drug events** including heparin-induced thrombocytopenia



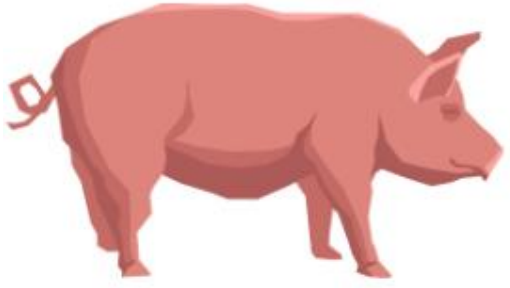
SYSTEM

- Reduce the **cost** associated with unnecessary VTE prophylaxis in low risk patients
- Reduce **nursing workload**



PLANET

- Reduce the **carbon footprint** associated with heparin production



1 adult pig



~160-260 mg
crude heparin



6.1 kg CO₂
equivalent per
kg pig carcass
weight



~1 kg intestine



enoxaparin 40mg
syringe(s)

Our Interventions



AUDIT-AND-FEEDBACK



EDUCATION &
OUTREACH



RESEARCH & PROGRAM
DEVELOPMENT



Providence Health Care

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Thank you!

Questions?

