# The Program of Nova Scotia

## Celebrating 60 years of excellence in Rh Related Disease Management

1964

#### Rh Program Founded by Dr Bruce Morton & **Dr James Corston**

- Perinatal Mortality due to Rh Disease in Nova Scotia among highest in Canada.
- Second intrauterine transfusion in Canada at the Grace Maternity Hospital.

1970-1974

#### "Five years' experience with intrauterine transfusion". CMA medical journal, Sept 1970. 94 transfusions on 50 fetuses / 24 survived

- 1st trimester blood group/screen for all pregnancies
- Postpartum Kleihauer-Betke testing began for Rh-negative women.
- RhIg indications expanded to ectopic, abortion, amniocentesis

1980-1984

#### **Education and in-services** to nurses and staff throughout the province

- Expansion of indications for Rhlg to antepartum bleeding, platelet transfusion, special procedures, trauma & stillbirth
- "The Antenatal Management of the Rh-Sensitized Woman". Clinics in Perinatology, Dr Leo Peddle, June 1984

1990-1994

#### First Intravascular Fetal Transfusion performed by Dr M Van den Hof in Halifax

 "Prevention of Rh(D) alloimmunization: a costbenefit analysis" TF Baskett, ML Parsons, CMAJ, 1990

#### 2000-2004

#### Began non-invasive Doppler measurements of the middle cerebral artery to determine fetal anemia. Phasing out of invasive amniocentesis:2004

- The DIAMOND study. Diagnostic Amniocentesis or Noninvasive Doppler multicentred prospective trial
- "The Rh Program of Nova Scotia, 1964 – 2000" Journal SOGC, Nov 2000
- Mt Sinai collaboration on fetal blood group genotyping

2010-2013

#### Non-invasive Fetal Antigen typing using cffDNA>16wks from maternal blood to Bristol, UK: 2013

- "Peripartum Factors Predicting Need for Increased Doses of Postpartum Rhesus Immune Globulin" JOGC 2010
- "Lifeblood" article in Izaak Magazine: Rh Program featuring fetal transfusion patient.
- "Rhesus Alloimmunization: Death of Disease?" T F Baskett. L J Peddle Memorial Lecture: 2012

2020-2023

#### **UNITY Screening** for fetal antigen typing

- UNITY test USA for fetal antigen typing with NIPT>10 wks began 2023
- Guideline to safely omit Rhlg <8wks gestation for pregnancy loss / events.
- Rh Nurses invited to present at Perinatal Advisory Council of CBS









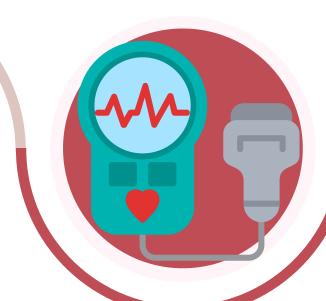


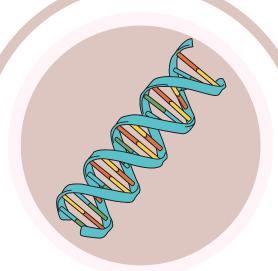


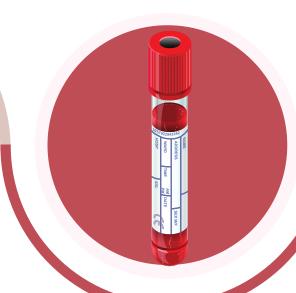
Rh & RCP Programs

















#### Introduction of Rh Immune Globulin (Rhlg)

- "Hemolytic Disease of the Newborn. Management in pregnancy." By Bruce Morton
- Secretary hired to coordinate patient charts
- Introduction of postpartum Rh immune globulin (RhIg)

1965-1969

#### First Antepartum (28 week) Injection of Rhlg given

- Blood group and antibody reports for all Rh-negative women and women with antibodies sent to the Rh Program by Red Cross
- Reminder letters for 28-week RhIg sent to physicians
- Monthly testing of Rh-negative pregnant women is recommended

1975-1979

**Amalgamate** "The experience and

- effectiveness of the Nova Scotia Rh program, 1964 -1984". TF Baskett, ML Parsons, LJ Peddle CMAJ, 1986
- Intrauterine (intraperitoneal) transfusions discontinued at the Grace Maternity Hospital, patients referred to Winnipeg

#### **30th Anniversary of the** Rh Program. Presentation at ASOG meeting, Halifax, **Sept 1995**

- Consensus Conference on Anti-D Prophylaxis. Edinburgh, Scotland. Poster presentations by M Parsons, Rh Program; V. Allen, Dept OBS/GYN: 1997
- 2nd Rh nurse 0.5 FTE hired 1999

### **Amniotic fluid samples for** fetal antigen typing to Mt Sinai, Toronto began: 2009

- Rh Oracle Database "expanded version"
- Amniotic fluid samples for cffDNA (fetal antigen typing) by Mt Sinai,. Eventually service moved to Blood Centre of Wisconsin

#### **50th Anniversary of** the Rh Program: 2014

 Presentation on the role of the Rh Nurse at the Transfusion Medicine Symposium, Regina, SK, 2017

#### **60th Anniversary** of the Rh Program: 2024

• Future goals include expanding fetal antigen typing to include fetal RhD typing for all RhD negative pregnant individuals. Eliminating the use of unnecessary Rhlg injections!

2024+

1985-1989 1995-1999 2005-2009

2014-2019

# Meet the Rh Program Team:



Marg Parsons, RN, BN

Rh Program Nurse Coordinator



Erin Dowe, RN, BScN, PNC (c)

Rh Program Nurse Coordinator



Mike Van den Hof, MD, FRCS (c)

Clinical Advisor



**Recorded Webinar Series:** https://rcp.nshealth.ca/educatio n/webinar-series/recordedsessions/rcp-anniversarycelebration-webinar-series