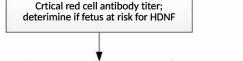


## Alloimmunization II: Determination of fetal risk for **HDNF**





FOP not available for testing

Paternal antigen phenotype

Heterozygous or Paternal homozygous prior delivery of Rh genotype negative child

> Cell free fetal DNA testing for fetal D antigen status (RHD only) PCR testing of amniotic fluid for antigen typing CVS not recommended, avoid transplacental amniocentesis 1,2,5

Fetal antigen

negative

positive or declines fetal testing

Critical titers/at risk fetus: see 'Management of alloimmunized pregnancy with at risk fetus'

> Free fetal DNA typing (currently for D antigen only) Sensitivity: 99.3-99.69% 1st trimester; 99.9-100% 2nd trimester Specificity: 96.8-98.5% 1st trimester; 98.5% 2nd trimester

False positive or inconclusive for D antigen (D negative fetus): 1.54-1.7% 1st trimester: 1.53% 2nd trimester False negative (D positive fetus): 0.087-0.32% 1st trimester

· · · · · consider · · · · · · · · ·

Lab: www.sequenom.com

Fetal antigen

Cost ~\$1300

Fetal DNA typing by amniocentesis:

Sensitivity: 98.7% Specificity: 100% PPV: 100% NPV: 96.9%

To order paternal and/or fetal genotype testing send out lab at UNC via testing using one of the labs below

· Blood Center of Wisconsin:

https://www.bcw.edu/bcw/Diagnostics/Clinical-Areas-of-Expertise/Transfusion-Medicine/Red-Cell-Genotyping/index.htm

ARUP

https://arupconsult.com/content/hemolytic-disease-newborn

To order cell free fetal DNA for RHD fetal genotype - SensiGene (send only Monday-Thursday)

- Complete Sequenom form (www.sequenom.com), patient signs consent, please include maternal and paternal blood types https://www.mombaby.org/wp-content/uploads/2020/01/Sequenom-Form-Updated.pdf
- Blood draw kit (obtain from referral testing/in genetic counselor offices)
- Draw: contact UNC referral testing: 984-974-1414
- Send to UNC referral testing complete Epic order: 'miscellaneous DNA testing' type in 'maternal serum for cell free fetal DNA for D typing/Rh D typing send out to Sequenom.'
- Place Sequenom form and copy of maternal insurance card with sample
- Sequenom bills the insurance

Repeat Ab titer in 4

weeks.

4 fold increase in titer1

MFM consult -

individualize

No further

evaluation needed;

routine prenatal

care

These algorithms are designed to assist the primary care provider in the clinical management of a variety of problems that occur during pregnancy. They should not be interpreted as a standard of care, but instead represent guidelines for management. Variation in practices should take into account such factors as characteristics of the individual patient, health resources, and regional experience with diagnostic and therapeutic modalities. The algorithms remain the intellectual property of the University of North Carolina at Chapel Hill School of Medicine. They cannot be reproduced in whole or in part without the expressed written permission of the school.

www.mombaby.org