



## **Positive Antibody Screen/Red Cell Sensitization 2 References**

### **1) ACOG Educational Bulletin #227, August 1996. Management of Isoimmunization in Pregnancy.**

*The genotype of the fetus's father should be determined. If the father of the fetus does not possess the antigen, the fetus is not at risk. If the father is heterozygous, there is a 50% chance that the fetus has inherited the blood group antigen, and the pregnancy is affected.*

### **2) Bennet PR, LeVan Kim C, Colin Y, et al. Prenatal determination of fetal RhD type by DNA amplification. N eng J Med 1993; 329:607-10. Determining the fetal RhD type in amniotic cells without invading the fetomaternal circulation is a reliable method that will be valuable in the management of Rh alloimmunization.**

Amniotic fluid DNA fetal genotype testing:

#### **The Blood Center**

638 N. 18<sup>th</sup> St.

Milwaukee, WI 53233-2121 Ph: 1 800 245-3117

### **3) Finning KM, Martin PG, Soothill PW, Avent ND. Prediction of fetal D status from maternal plasma: introduction of a new noninvasive fetal RhD genotyping service. Transfusion 2002;42:1079-85. Fetal D status was predicted with a 100-percent accuracy from maternal plasma.**

Fetal free DNA in maternal serum

Contact the care coordinators of the CM&I Center

International Blood Group Reference Lab

Request form on

([www.bloodnet.nhs.uk/ibgrl/](http://www.bloodnet.nhs.uk/ibgrl/))

Southmead Rd

Bristol, England

[Pete.martin@NBS.NHS.UK](mailto:Pete.martin@NBS.NHS.UK)

### **4) Detti L, Mari G, Akiyama M, et al. Longitudinal assessment of the middle cerebral artery peak velocity in healthy fetuses and fetuses at risk for anemia. Am J Obstet Gynecol 2002;18:937-9. ...we assess the MCA-PSV at weekly intervals, when possible for three weeks. If the MCA-PSV remains below 1.50 MoMs and the slope of the curve given by these three measurements is below 1.99, we repeat the study in 10 – 14 days. If the slope of the line is above 1.99, we repeat the study weekly.**

### **5) Hopkins DF. Maternal anti-RhD and the D-negative fetus. Am J Obstet Gynecol 1970; 108: 268-71. In a series of 239 pregnancies in which the fetus was D negative and the mother**

*had previously been immunized to the RhD antigen, the maternal titer of anti-D was found to vary considerably. A titer may also rise due to an increase in the binding capacity of their antibody. Thus an apparent rise or fall of one or two tubes [2-4 fold dilution] need have no clinical significance.*

### **6) Mari G, Deter RL, Carpenter RL, Rahman, et al. Noninvasive diagnosis by Doppler ultrasonography of fetal anemia due to maternal red-cell alloimmunization. N Eng J Med 2000; 342: 9-14**

*The risk of anemia was high in fetuses with a peak systolic velocity of 1.50 times the median or higher. Fetuses with values below 1.50 either did not have anemia or only mild anemia.*

### **7) Detti L, Mari G, Akiyama M, et al. Longitudinal assessment of the middle cerebral artery peak velocity in healthy fetuses and fetuses at risk for anemia. Am J Obstet Gynecol 2002;18:937-9. Currently we are not using the MCA-PSV for clinical decisions after 35 weeks' gestation because of the high number of false-positive results after this gestational age.**

### **8) Trevett TN, Dorman K, Lamvu G, Moise KJ. Antenatal maternal administration of phenobarbital for the prevention of exchange transfusion in neonates with hemolytic disease of the fetus and newborn. Am J Obstet Gynecol 2005;192:478-82. The use of antenatal phenobarbital was associated with a decreased incidence of exchange transfusion, 9% vs. 52 % (p < 0.01). After controlling for confounding variables, the relative risk for exchange after antenatal phenobarbital was 0.23 (95% CI: 0.06 – 0.76).**

## **NOTIFICATION TO USERS**

These algorithms are designed to assist the primary care provider in the clinical management of a variety of problems that occur in pregnancy. They should not be interpreted as *standard of care* but instead represent *guidelines* for the management of these patients. Variation in practice should be taken 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 School of Medicine at Chapel Hill. They cannot be reproduced in whole or part without the *expressed* permission of the school.

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