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## Parvovirus References:

1) American College of Obstetricians and Gynecologists. **Perinatal viral and parasitic infections. ACOG Practice Bulletin #20. Washington, DC: ACOG; September 2000.**  
*Transmission of parvovirus B19 most commonly occurs through respiratory secretions and hand-to-mouth contact. The infected person generally is infectious 5-10 days after exposure prior to the onset of the rash, and other flu-like symptoms, and is no longer infectious with the onset of the rash.*

2) Murphy J and Jones D. **Managing the gravida with parvovirus. OBG Management. 2000; 12:2-7.**

*Pregnant women who have symptoms of parvovirus infection or who are asymptomatic but who know they have been exposed to the infection should undergo diagnostic serology. The ELISA and Western blot analysis appear to be the most reliable for detecting IgG and IgM in maternal serum. The sensitivity and specificity of IgM for confirming the presence of acute infection are 100% and 89% respectively. Approximately 50% of immunocompetent adults have IgG antibodies indicating previous exposure and infection. Therefore, 50% of immunocompetent adults are at risk.*

3) Schild RL, Bald R, Plath H, et al. **Intrauterine management of fetal parvovirus B19 infection. Ultrasound Obstet Gynecol 1999; 13:161-6.**

*In an IgG and IgM negative pregnant women, it is important to exclude seroconversion through a repeat test within 2-4 weeks after exposure. In all patients with strong suspicion of an acute infection in pregnancy (IgG and IgM positive), weekly ultrasound examinations for up to 12 weeks after maternal exposure should be performed.*

4) Rodis J, Borgida A, Wilson M, et al. **Management of parvovirus infection in pregnancy and outcomes of hydrops: A survey of members of the Society of Perinatal Obstetricians. Am J Obstet Gynecol. 1998; 179: 985-8.**

*Almost all cases of parvovirus-associated hydrops have occurred within 8 weeks of maternal infection, with 1 notable exception that developed after 12 weeks.*

5) American College of Obstetricians and Gynecologists. **Perinatal viral and parasitic infections. ACOG Practice Bulletin #20. Washington, DC: ACOG; September 2000.**

*Pregnant women who have acute parvovirus B19 infection during pregnancy should be monitored with serial ultrasound examinations for at least 10 weeks following infection for the presence of hydrops fetalis.*

6) Delle Chiaie L, Buck G, Grab D and Terinde R. **Prediction of fetal anemia with Doppler measurement of the middle cerebral artery peak systolic velocity in pregnancies complicated by maternal blood group alloimmunization or parvovirus B19 infection. Ultrasound Obstet Gynecol 2001; 18:232-6.**

*The MCA PSV is a reliable method for the prediction of anemia not only in fetuses before the first intrauterine transfusion, but also in those which have undergone one or more transfusions, with good sensitivity (100%) and specificity (100%).*

7) Mari G, Deter RL, Carpenter RL, 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.*

8) Schild RL, Bald R, Plath H, et al. **Intrauterine management of fetal parvovirus B19 infection. Ultrasound Obstet Gynecol 1999; 13:161-6.**

*In early or overt fetal hydrops, fetal blood sampling is warranted. Marked fetal anemia should be treated by transfusion, rather than by awaiting spontaneous resolution of hydrops.*

## 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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