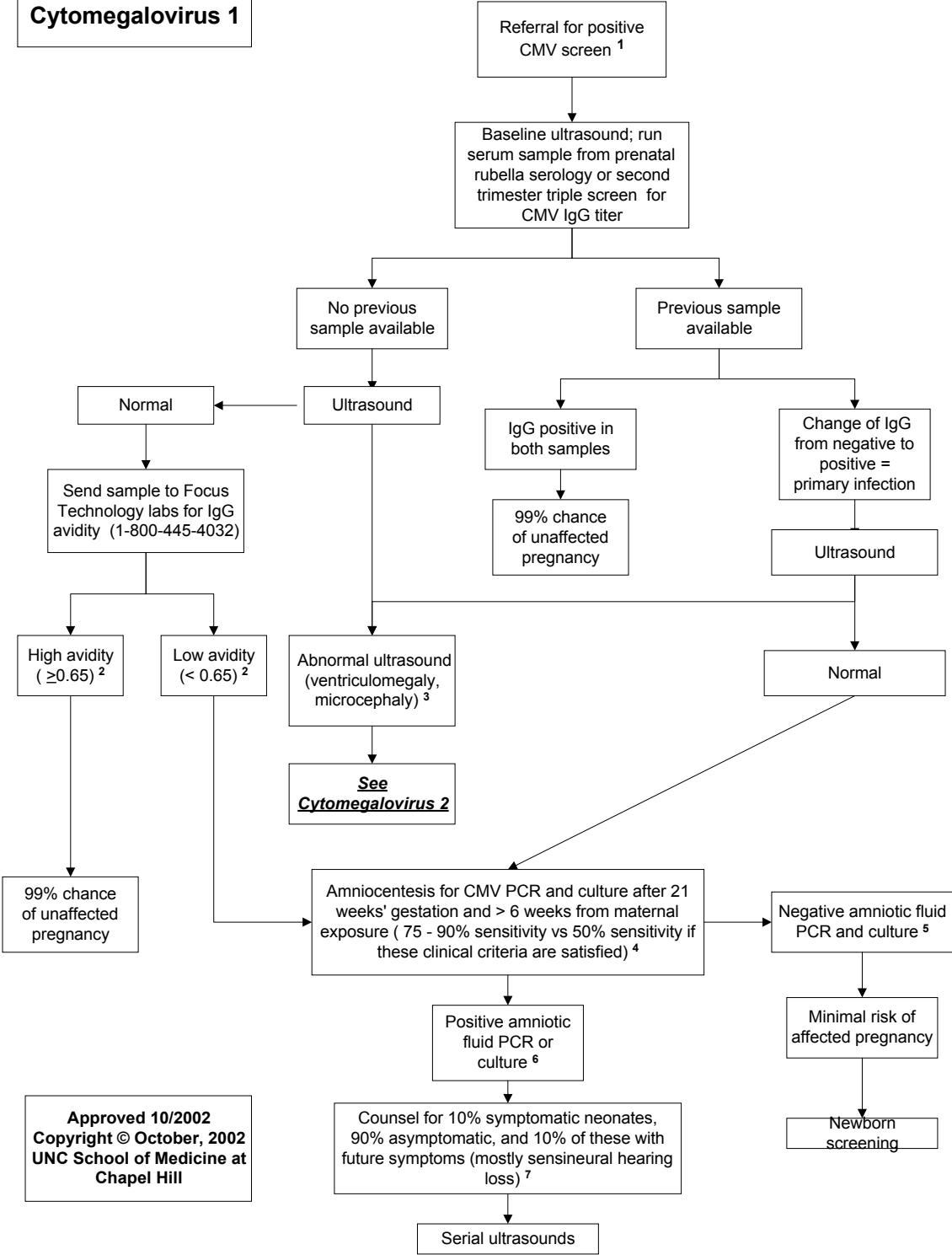


# Cytomegalovirus 1



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## **Cytomegalovirus 1 References:**

- 1) **ACOG Practice Bulletin # 20, September 2000.** Perinatal Viral and Parasitic Infections. *The greatest impact obstetrician–gynecologists can have on reducing CMV disease is by educating patients about preventive measures. Counseling should cover careful handling of potentially infected articles, such as diapers, and thorough hand-washing when around young children or immunocompromised individuals, explaining that careful attention to hygiene is effective in helping to prevent transmission. Currently, routine serologic testing for CMV during pregnancy is not recommended.*
- 2) Bodéus M, Goubau P. Predictive value of maternal IgG avidity for congenital human cytomegalovirus infection. **J Clin Virol 1999;12:3-8.** *Measurement of IgG avidity could be used to demonstrate primary from non-primary human CMV infection in pregnant women. An avidity index of greater than or equal to 0.65 is suggestive of past infection (at least three months earlier). A low avidity index, below 0.5 is highly suggestive of a recent infection. A measurement of between 0.5 and 0.65 does not allow a conclusion to be reached on the date of infection.*
- 3) Enders G, Bader U, Lindemann L, Schalasta G, Daiminger A. Prenatal diagnosis of congenital cytomegalovirus infections in 189 pregnancies with known outcome. **Prenat Diagn 2001; 5:362-77.** *In cases with documented transmission of CMV to the fetus, ultrasound abnormalities including microcephaly, IUGR, and ventriculomegaly were strongly associated with cytomegalic inclusion disease of the newborn. Of 33 live-born infants with congenital CMV infection, 17 were noted to have one or more abnormal ultrasound findings at the time of diagnosis, and all went on to have severe neonatal cytomegalic inclusion disease.*
- 4) Bodéus, M, Hubinot C, Bernard P, Bouckaert A, Thomas K, Goubau P. Prenatal diagnosis of human cytomegalovirus by culture and polymerase chain reaction: 98 pregnancies leading to congenital infection. **Prenat Diagn 1999;19:314-7.** *The sensitivity of prenatal diagnosis in congenital CMV infections is best when performed  $\geq 6$  weeks from maternal infection and later than 22 completed weeks of gestation. The sensitivity increased from 40-50% to 75-95%.*
- 5) Azam AZ, Vial Y, Fawer CL, Zufferey J, Hohlfeld P. Prenatal diagnosis of congenital CMV infection. **Obstet Gynecol 2001; 97:443-7.** *Using current nested PCR and viral culture of amniotic fluid, the sensitivity and specificity of prenatal diagnosis is 77% and 100% respectively. Based on these numbers the negative predictive value (NPV) using current methods is 99.7%.*
- 6) Lipitz S, Achiron R, Zalel Y, Mendelson E, Tepperberg M, Gamzu R. Outcome of pregnancies with vertical transmission of primary cytomegalovirus infection. **Obstet Gynecol 2002; 100:428-33.** *The positive predictive value of amniotic fluid polymerase chain reaction (PCR) analysis for CMV and shell vial culture for vertical transmission of CMV was 92 and 94%, respectively.*

- 7) Azam AZ, Vial Y, Fawer CL, Zufferey J, Hohlfeld P. Prenatal diagnosis of congenital CMV infection. **Obstet Gynecol 2001; 97:443-7.** 10% of congenitally infected infants will have congenital CMV syndrome, whereas 90% are asymptomatic. However, 10-15% of the latter will develop other abnormalities including sensorineural hearing loss, chorioretinitis, or other neurological deficits.

### **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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