Fetal Algorithm

Cytomegalovirus 1

Serologic evidence of primary maternal CMV infection OR abnormal US findings (thickened placenta, ventriculomegaly, intracranial Ca**, echogenic bowel, non-immune hydrops)

Thickened placenta, echogenic bowel, intracranial Ca**, unexplained ventriculomegaly

Maternal IgG, IgM, gG avidity test (Send out to Focus Laboratories)

- gM-, IgG+, IgG avidity ≥ 0.85 (high avidity)
- gM+, IgG+, IgG avidity < 0.50 (low avidity)

Previous maternal CMV infection likely

Fetal CMV unlikely

Negative amniotic fluid CMV culture/PCR

Positive amniotic fluid CMV culture/PCR

Amniocentesis after 21 weeks gestation and > 6 weeks from suspected maternal infection for CMV culture and PCR (culture to be sent to Diagnostic Virology Lab at TCH; 832-824-2280)

- Significant US findings: high risk for symptoms at birth
- No significant fetal US findings:
  - 10% symptomatic at birth
  - 90% asymptomatic – 10% of these with sensorineural hearing loss

Consult Gail Demmler of TCH pediatric infectious disease (TCH pager: 832-824-1000-5180 or gdemmler@tch.org) to notify her of planned day of delivery

- Offer maternal intravenous CMV hyperimmune globulin (15 mg/kg; Cytovar®)
- Admit labs: CBC w/platelets, ALT, AST, CMV quantitative viral load, antibody testing if not previously complete: CMV IgG, CMV IgM, CMV IgG avidity test
- Saliva and urine CMV cultures (contact TCH Diagnostic Virology Lab at 832-824-2280 or Carol Grieser, R.N. @ 832-824-4342 or pager: 832-824-1000-4113)
- Demmler’s group to submit patient to Adler’s CMV registry (http://cmvregistry.org/)

See CMV 2 Algorithm

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This algorithm has been developed for the purpose of unifying the general care of patients. They are not intended to serve as a rigid protocol or a written proxy for the standard of care. It is not intended to impose standards of care preventing selective variances from the guidelines to meet the specific and unique requirements of individual patients. These algorithms do not preclude the use of the physician’s clinical judgment in a specific situation. The algorithms remain the intellectual property of Texas Children’s Hospital. They cannot be reproduced in whole or in part without the expressed permission of Texas Children’s Hospital.
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