TOXOPLASMOSIS

HIV positive,
New cat owner,
History of toxoplasmosis exposure or
Positive TORCH titer at outlying facility

Prevention:
-Handwashing after handling raw meat and cat litter.
-Do not change litter box or wear gloves if necessary.
-Keep cats inside.
-Avoid eating undercooked meat. [1]

IgG and IgM
(Store sample in lab to run in parallel with second titer)

IgG + IgM +

IgG - IgM+

IgG + IgM -

IgG - IgM -

HIV Status → **Negative** → No infection, no immunity

Positive

IgM assay at Reference Laboratory (send 2ml serum in red top tube) [2,3]

Repeat IgG and IgM assay in three weeks at UNC.

Positive IgM Assay

Contact FDA to start Spiramycin **$** (3gm/day in 4 divided doses) [5,6]

≥ Four-fold dilution rise in IgG titer (ie. 1:4 to 1:16) or + titer if previously negative [4]

≤ Four-fold dilution rise in IgG titer or negative titer

Probable Previous Infection

Amniocentesis for Toxo PCR [7]

Positive

Negative

Stop Spiramycin

*Start combined therapy:
Pyrimethamine: 25-50mg/day
Sulfadiazine: 3gm po divided q 6hours
Folinic Acid: 5mg/day [8]
*Alternate combined therapy with Spiramycin in 3 week intervals until delivery

Monthly ultrasound of cranial anatomy

*Monitor maternal CBC weekly

Platelets < 50 x 10^9/L or leukocytes < 4.0 x 10^9/L

Platelets > 50 x 10^9/L or leukocytes > 4.0 x 10^9/L

Stop Pyrimethamine/ Sulfadiazine [9]
Continue Spiramycin until delivery

Toxoplasmosis References

1. Prevention: Lopez, et al. Preventing congenital toxoplasmosis. Morbidity and Mortality Weekly Report 2000;49: RR-2. *Counseling patients on methods to prevent transmission is more effective than any treatment.*

2.Liesenfeld, O et al. False positive results in immunoglobulin M (IgM) toxoplasma antibody tests and importance of confirmatory testing. J Clin Microbiol 1997;35:174-8. *False positive results in IgM antibody test results from a commercial kit were 50%. Confirmatory testing of positive results is recommended at a reference lab, ie, Toxoplasma Serology Laboratory of the Palo Alto Medical Foundation.*

3.Remington Reference Lab, Palo Alto CA. Phone: 650-853-4828.

4.Wong, SY and Remington, JS, Toxoplasmosis in Pregnancy. Clinical Infectious Disease 1994;18:853-61. *A serological diagnosis of acute infection in most instances requires the demonstration of a rise in antibody titer in serial serum specimens preferably obtained at least 3 weeks apart that are tested in parallel.*

5.Desmonts G, Couvreur J. Congenital toxoplasmosis: A prospective study of 378 pregnancies. N Engl J Med 1974;290:1110-6. *The overall risk of fetal transmission of Toxoplasma gondii is 66% in untreated pregnancies. This rate is reduced to 24% when the mother is treated with spiramycin. It does not significantly alter the clinical pattern in infected fetuses therefore it is primarily effective for prophylaxis.*

6.Food and Drug Administration contact: 301-827-2336 (FDA must have serum titer results from Remington's lab in order to dispense Spiramycin).

7.Foulon W, et al. Prenatal diagnosis of congenital toxoplasmosis: A multicenter evaluation of different diagnostic parameters. Am J Obstet Gynecol 1999; 181: 843. *The polymerase chain reaction test performed on amniotic fluid ad the highest level of sensitivity (81%) and also a high specificity (96%) when compared to other diagnostic parameters such as IgM in fetal blood samples. Role of cordocentesis for diagnosis of Toxoplasmosis is limited.*

8.Couvreur J. et al. In utero treatment of toxoplasmic fetopathy with the combination pyrimethamine-
sulfadiazine. Fetal Diagn Ther 1993;8:45-50. A *retrospective study compared the outcome of infected infants treated with spiramycin vs. pyrimethamine-sulfadiazine (PS) and spiramycin.. Those receiving PS therapy had positive IgM in the newborn in 17% of cases compared to 69% of infants treated with spiramycin alone.*

9. Remington Reference Lab and Dr Romain Favre
Severe hematologic reactions may occur with Pyrimethamine/sulfadiazine (PS), especially when large doses of pyrimethamine are administered ie, thrombocytopenia, megaloblastic anemia, leukopenia and agranulocytosis. Fatalities have been reported. Obtain baseline CBC and monitor blood counts weekly. Do not start in medication if there is evidence of baseline folate deficient anemia. If platelets <50,000 discontinue PS and resume Spiramycin until delivery.

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.