

## Toxoplasmosis and Screening in Pregnancy

### **What is Toxoplasmosis?**

Toxoplasmosis is an infection caused by the parasite *Toxoplasma gondii*.

Most immunocompetent people infected with *Toxoplasma* are either asymptomatic or have mild flu-like symptoms. It can cause more severe symptoms usually neurological or ocular symptoms, but this is rare in immunocompetent individuals.

More severe infection can occur in those who immunocompromised by pregnancy or other immune-compromising conditions which require treatment.

### **Modes of transmission:**

- Transplacental from mother to baby
- Undercooked meat or shellfish are the most common food-borne sources.
- Contact with contaminated soil e.g. gardening, or eating unwashed fruit and veg
- Drinking unpasteurised goats' milk or milk products
- Contact with contaminated cat faeces
- Handling pregnant sheep/lambs or products of conception or items in contact with these e.g. contaminated clothing.

### **Should I screen for toxoplasmosis in an asymptomatic pregnant woman?**

In summary, no. Testing can lead to further anxiety and harms.

**UK NSC screening recommendation** Based on the last UK NSC review of this condition that occurred in August 2016 states that screening for toxoplasmosis in pregnant women is not recommended.

This is because:

- The effect of congenital toxoplasmosis on developmental and visual impairment in later childhood is unknown.
- There are concerns about the reliability of the test in the pregnant population (up to 6% false positivity rate)
- There is no clear evidence that prenatal treatment reduces mother to fetus transmission or the severity of the condition's effects on the infected child.
- There are also concerns about the adverse effects of currently available treatments.

In addition, in the newborn period:

- The benefits of currently available treatments have not been evaluated in a randomised controlled trial

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- The optimum duration of treatment is not known and there are concerns about the adverse effects of treatment.

NICE Guidance on Antenatal Care in Uncomplicated Pregnancy advises the following advice to reduce the risk of toxoplasmosis in pregnancy:

- Wash their hands before handling food.
- Thoroughly wash all fruit and vegetables, including ready-prepared salads, before eating.
- Thoroughly cook raw meats and ready-prepared chilled meals.
- Wear gloves and thoroughly wash hands after handling soil and gardening.
- Avoid cat faeces in cat litter or in soil.
- Avoid lambing or milking ewes and contact with newborn lambs.

### **When should I test for toxoplasmosis in pregnancy?**

Serology for toxoplasmosis should be performed if infection is suspected clinically (flu-like illness and maternal lymphadenopathy) or if fetal ultrasound findings suggest the possibility of intrauterine toxoplasmosis (severe IUGR, microcephaly, ventriculomegaly, hydrocephalus, intra-cranial calcification or hepatic calcification).

Avoid screening asymptomatic pregnant women (see above).

### **What tests should I request for suspected Toxoplasmosis infection?**

Serology for Toxoplasma IgG is used to look for evidence of previous infection. To look for evidence of recent infection IgM is used and other tests such as avidity testing may be used by the reference laboratory to assess how recently infection may have occurred.

If there is any uncertainty about whether to test or what tests are required please discuss the case with Microbiology Clinical Team on [rduh.microconsultants@nhs.net](mailto:rduh.microconsultants@nhs.net).

### **References**

1. <https://legacyscreening.phe.org.uk/toxoplasmosis>
2. <https://www.cdc.gov/parasites/toxoplasmosis/>
3. <https://cks.nice.org.uk/topics/antenatal-care-uncomplicated-pregnancy/management/antenatal-care-uncomplicated-pregnancy/#lifestyle-advice>