

Screening pregnant women in the 2015 European guideline on the management of *Chlamydia trachomatis* infections

Dear Editor,

We appreciate the contribution by Lanjouw et al.¹ presenting the up-to-date guidance regarding the broader indications for testing and treatment of *Chlamydia trachomatis* (CT) infections in Europe. While the report provides clear recommendations for CT diagnosis, repeat testing, and prevention of CT in Europe, we note the surprising absence of any mention of CT screening and treatment of pregnant women.

We agree with the authors that use of improved tests (e.g. nucleic acid amplification tests), timely antimicrobial treatment, and follow-up of the partners of those infected are crucial to control the spread of CT in Europe and beyond. However, while the authors included pregnancy termination as an indication for laboratory testing, they did not include any recommendations for CT screening among pregnant women. Further, the authors highlight the impact of CT on pelvic inflammatory disease (PID), ectopic pregnancy, and tubal factor infertility, which all contribute to female infertility, but did not include the studies on the impact of undiagnosed and untreated CT in pregnant women.^{2–9} The only mention of maternal-to-child CT transmission in the guideline is in regard to ocular infection, which can lead to conjunctivitis.

Decades of international research has shown that CT may lead to various adverse outcomes including premature rupture of membranes,^{2–6} preterm labor and delivery,^{7–10,13} chorioamnionitis,^{3,11} low birth weight,^{12,13} congenital infection,¹⁹ stillbirth,^{2,8} neonatal mortality,^{14,15} as well as ocular and lung disease (including pneumonia) in infants.^{16–19} It is estimated that 50–70% of infants born to mothers with CT will become infected with CT, and 30–50% of these infants will then develop chlamydial conjunctivitis, and 10–20% will develop pneumonia.^{19,20} CT-associated mortality is rare; however, chlamydial pneumonia can

persist for weeks and lead to poor feeding and weight gain, as well as abnormal lung function.²¹

Antenatal screening practices for CT vary around the world. We conducted a two-part survey from June 2015 to February 2016 to determine current national screening recommendations. We analyzed English language information on Ministry of Health websites regarding CT antenatal screening. We contacted the Ministry of Health directly (for whom English was the preferred language) if the information on the national antenatal screening was outdated or unavailable. In parallel, we sent a survey to the regional representative for maternal-child health from the World Health Organization (WHO) to help collect country-level data. Finally, we referenced primary country or regional policy documents. We found that only 13 countries have national policies for CT screening in pregnancy (Figure 1), including the following five European countries: Latvia, Estonia, Sweden, Bulgaria, and Germany. Due to the lack of policies for CT screening in pregnancy, adverse pregnancy outcomes and chlamydial conjunctivitis and pneumonia continue to be prevalent worldwide. For example, a 2008 study in the Netherlands found that between 61% and 64% of cases of neonatal conjunctivitis were from CT-infected mothers, while another study estimated that CT was the second most common respiratory pathogen identified in infants under six months.^{16,17,19} The risk of acquiring a CT infection during pregnancy can be high if sexual activity during pregnancy occurs, and if the male partner is not also screened and treated for CT infection. In addition, recent studies have demonstrated that antenatal CT screening of women was cost-effective, even at a low estimated prevalence of 3%.^{22,23}

Considering the above-mentioned research, we strongly advise that the authors re-consider the evidence behind the adverse effects of CT during pregnancy, and the risk of chlamydial conjunctivitis and pneumonia in newborn. We suggest the authors recommend routine CT screening in all pregnant women, regardless of their age or risk factors, in the 2015 European Guidelines.

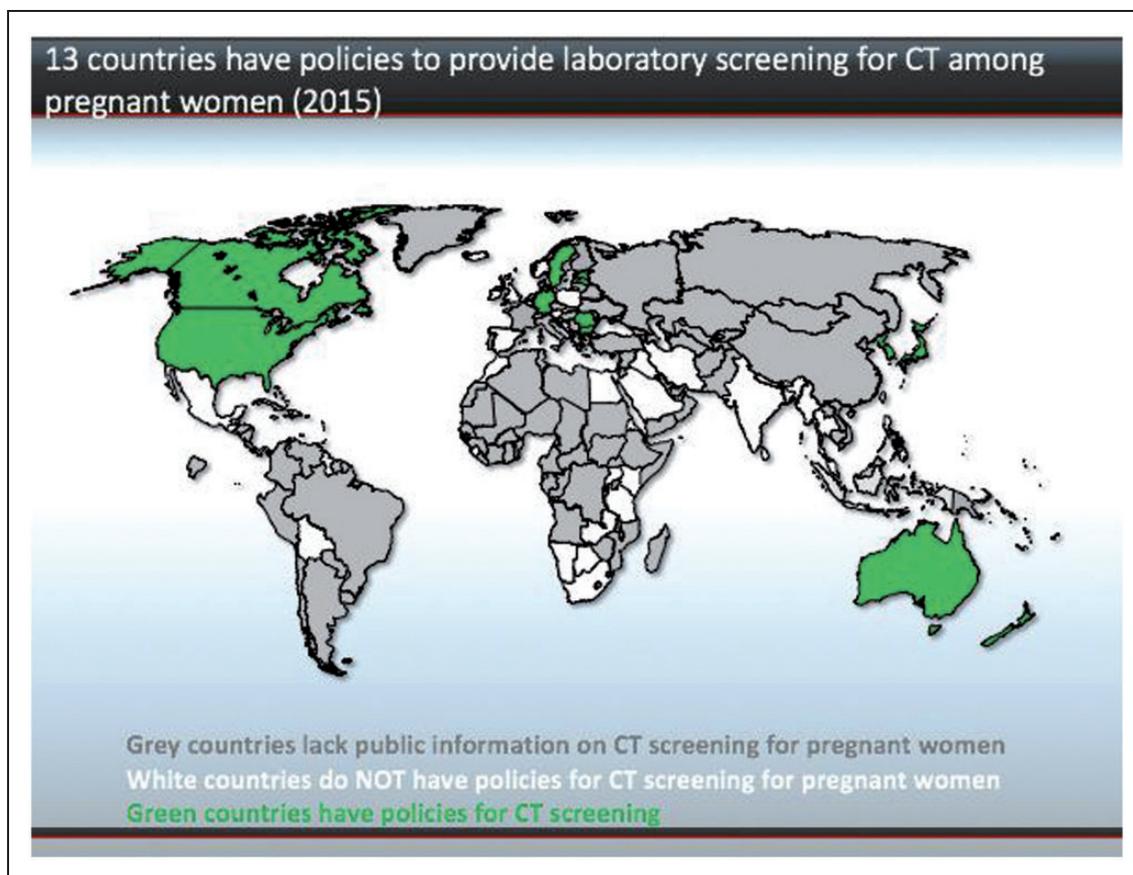


Figure 1. Countries with national policies for antenatal screening for *Chlamydia trachomatis*.

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