Syphilis Testing in Antenatal Care: Policies and Practices among Laboratories in the Americas

M Luu1,2, DC Ham2, ML Kam2b, S Caffé S3, KW Hoover2, F Perez3
1Rollins School of Public Health, Emory University, Atlanta  2U.S. Centers for Disease Control and Prevention (CDC), Atlanta  3Pan American Health Organization (PAHO), Washington DC

BACKGROUND:

- In 2007, the World Health Organization (WHO) launched the global initiative to Eliminate Mother-to-Child Transmission (EMTCT) of Syphilis.
- Substantial progress has already occurred. However, WHO estimated that in 2012 MTCT of syphilis still accounted for 350,000 adverse pregnancy outcomes including 205,000 perinatal deaths.
- EMTCT of Syphilis is based upon 4 pillars:
  - Sustained political commitment and advocacy
  - Increased access to quality maternal/newborn health services
  - Syphilis screening and treatment for ALL pregnant women
  - Quality surveillance, monitoring and evaluation of systems – including laboratory systems
- The Americas Region is a global leader in EMTCT since 1994 calling upon its Member States to eliminate congenital syphilis. Since 2010 the Americas Region has promoted dual elimination in its “Elimination of MTCT of HIV and Congenital Syphilis in the Americas” strategy.

OBJECTIVES:

- To assess syphilis testing policies and practices used in laboratories in the Americas, emphasizing testing in pregnant women given regional elimination goal

METHODS:

- From March – August 2014, we surveyed laboratories in the 35 PAHO member-states, recruiting:
  - National Reference Laboratories
  - Regional and Provincial/State Laboratories
  - Large Maternity Hospital Laboratories
  - Local antenatal clinic (ANC) laboratories or programs
- Respondents must have been the Laboratory Director or his/her designee (a laboratory scientist familiar with the facility’s policies and standards)
- Data were collected using structured, electronically-delivered surveys with questions on:
  - Syphilis test types used
  - Syphilis testing algorithms applied
  - Turn around time for results
  - Quality control (QC) and quality assurance (QA) approaches used
  - Challenges experienced

RESULTS: Reasons for NOT using Rapid Syphilis Tests (RSTs) Reported by 41 Laboratories not using RSTs, Regional Survey of Syphilis Testing in the Americas Region, 2014

- National Syndrome Laboratory (no direct service)
- Staff not trained
- Rapid test not acceptable to lab staff
- Lack of QA protocols/procedures
- Cost
- Not part of national algorithm
- Not available in procurement system
- Not aware of option

CONCLUSIONS:

- Laboratories in the Americas Region reported:
  - Almost 1/3 of countries had no national syphilis testing algorithms. Existing algorithms may not fit the clinical setting (e.g., ANC)
  - Many countries still used older, less specific syphilis tests (e.g., FTA – and less than half used RSTs – often because RSTs were not part of the algorithm or not available in the procurement system.
  - One in five laboratories had no routine QA/QC procedures for syphilis testing. Only 2/3 of laboratories used external QA.
  - Most experienced stock outs of essential syphilis testing supplies

EMTCT of syphilis in the Americas could be advanced by:

- Updating syphilis testing algorithms to fit the clinical setting and available laboratory capacity
- Ensuring testing standards are in place, and routine quality assurance of testing is implemented
- Availability of critical commodities (e.g., RPR kits, gloves, pipettes) through improved procurement strategies and effective distribution

Based on results, PAHO developed a regional guidance on syphilis testing (2015) to improve uptake, interpretation and quality of testing in different clinical settings.

Available at: http://www.paho.org

More details can be found in: Luu M et al. Int J Gynecol Obst (2015):S37-S42