Evaluation of self-collected urine dip swab method for detection of Chlamydia trachomatis

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Abstract

Background: The present study is an evaluation of a self-collected urine dip (SCUD) swab as an alternative sampling method for the detection of Chlamydia trachomatis (CT) in urine samples that conforms to postal service regulations in Australia.

Methods: Sixty urine samples, previously identified as CT positive were used to prepare SCUD swabs in vitro. In addition, replicate SCUD swabs were prepared from known CT positive urine samples and stored at room temperature, or sent through the postal system. All samples were tested for CT and an inhibition control using the Roche TaqMan 48 Real-time polymerase chain reaction system.

Results: Overall, 58/60 (97%) SCUD swabs generated positive CT results. Triplicate SCUD swabs prepared from five known positive urine samples and stored up to 7 days at room temperature, showed positive results in all samples. Ten replicates of SCUD swabs from five known CT positive samples were also tested after being posted from different regions in Australia, with a transit time of 2–7 days, back to the Melbourne laboratory. There was 94% positivity of the SCUD swab samples.

Conclusion: The present study demonstrated SCUD swabs to be a sensitive and robust method of self-collecting samples for detection of CT subsequent to sending the samples through the postal service.

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SCUD swab preparation
Sterile flocked swab (Copan / MicroRheologics, Brescia, Italy) was used for preparation of SCUD swabs.

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