

***“This technology brings STI testing to target populations”*: Opportunities and challenges with chlamydia and gonorrhoea point of care testing in a peer-led community service**

Authors:

Bell SFE¹, Coffey L², Redmond AM^{2,3}, Gilks CF⁴, Debattista J⁵, Whiley DM¹, Oliveira C², Warner M², Dean JA⁴

¹ UQ Centre for Clinical Research, The University of Queensland, Herston, Australia, ² Queensland Positive People, East Brisbane, Australia, ³ Royal Brisbane and Women’s Hospital, Metro North Health, Herston, Australia, ⁴ School of Public Health, The University of Queensland, Herston, Australia, ⁵ Metro North Public Health Unit, Metro North Health, Windsor, Australia.

Background/Approach: Sexually transmissible infection (STI) testing is sub-optimal among key populations at-risk. Challenges include poor service access, lengthy time to results and fear of stigma. Peer-led community STI point of care testing (POCT) services may reduce these testing barriers.

Analysis/Argument: An established peer-led community testing service providing HIV and syphilis POCT undertook an implementation trial offering chlamydia (CT) and gonorrhoea (NG) POCT using the GeneXpert platform (Cepheid, Sunnyvale, CA) to clients accessing the service from March 2017 onwards. Peer testers were initially trained by Cepheid in all aspects of GeneXpert CT/NG testing, including use of the instrument as well as preparation and disposal of client specimens and cartridges. Internal and external quality assurance processes and clinical oversight were maintained. Determined by sexual behaviour, clients self-collected up to three anatomical site (urine, pharynx, rectum) specimens for testing. Service records, client satisfaction surveys and peer interviews evaluated CT/NG POCT acceptability and feasibility.

Outcome/Results: From 1 January to 31 December 2019, clients accepted CT/NG testing at 94.6% (7284/7703) occasions of service, and most provided three anatomical specimens for testing (93.1%, 6780/7284). CT and NG positivity were significantly greater than observed in a local sexual health service population, 9.0% vs. 5.2%, $p < 0.001$ and 5.0% vs. 3.5%, $p < 0.001$, respectively. Peer testers reported operational feasibility and acceptability of CT/NG POCT; however, cost and governance issues were raised as challenges for routine service delivery.

Conclusions/Applications: Implementing CT/NG POCT through peer-led community-based STI testing services is acceptable to clients and service providers and importantly identifies infection which may otherwise go undetected. However, unlike HIV/syphilis POCT, cost and regulatory challenges retard translation of our experience into routine practice independent of research activity. Key stakeholders are urged to work with affected communities to support improved access to CT/NG POCT such as review of regulatory barriers and improved performance of alternative CT/NG POCT diagnostics.

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