

P1887 Evaluation of BD ProbeTec CT/GC Qx DNA Amplified Assay for the molecular detection of *Chlamydia trachomatis* and *Neisseria gonorrhoeae*

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Background: *Chlamydia trachomatis* (CT) and *Neisseria gonorrhoeae* (NG) represent the most common agents of bacterial sexually transmitted infections (STIs), worldwide. Recently, nucleic acid amplification techniques (NAATs) have become the reference methods for CT/NG infection diagnosis, thanks to the excellent sensitivity and specificity. Moreover, the use of multiplex tests allows the detection of both pathogens from the same sample, leading to a more simplified syndromic management.

The aim of this study was to assess the performance of BD ProbeTec CT/GC Qx DNA Amplified assay for CT and NG detection, by a comparison with another commercial NAAT.

Materials/methods: From January 2017, a total of 352 consecutive uro-genital samples, submitted to the Microbiology Unit of S. Orsola-Malpighi Hospital in Bologna (Italy) for CT and NG detection, were selected. In particular, 26 swabs and 141 urines were collected from subjects attending different clinics in the Bologna city area, while 120 urines and 65 swabs from patients attending the STI Outpatients Clinic of the Hospital. All the samples were tested with a multiplex real-time PCR (Versant CT/GC DNA 1.0 Assay; Siemens), currently used in the diagnostic routine. Subsequently, all the specimens were tested also with the BD ProbeTec CT/GC Qx DNA Amplified assay run on BD Viper LT platform. Both the methods are characterized by highly automated systems for nucleic acids extraction and target detection.

Results: When compared, the two methods showed excellent concordance values. In particular, a concordance of 98.4% and 98.8% was found for CT detection on urine samples and genital swabs, with Cohen k of 0.86 and 0.94, respectively. For NG infection, a 100%-concordance was found on urines and a 98.9% of concordance for the genital swabs, with Cohen k of 1 and 0.85, respectively.

NG infection prevalence ranged from the 4% in the population attending the STI Clinic of the Hospital, to the 0.8% in the general population. CT infection prevalence reached the 9.1% in the high-risk subjects, being 2.4% in the general population.

Conclusions: The BD assay and the Vyper system can represent an excellent choice for the molecular detection of CT and NG infection.