

Protecting and improving the nation's health

Confirming GC NAAT results: Is it always necessary? Helen Fifer and Sarah Alexander Sexually Transmitted Bacteria Reference Unit

Public Health England

Background

Current guidance:

All GC NAAT +ve specimens \rightarrow confirmed with second test (with alternative target)

Public Health England

Guidance for the detection of gonorrhoea in England

including guidance on the use of dual nucleic acid amplification tests (NAATs) for chiamydia and gonomhose

Why?

- Gonorrhoea low prevalence in the community (<0.1%, Natsal-3 study 2013)
- NAATs can detect commensal Neisseria sp.
- In most settings, PPV >90% only achieved by confirmatory testing

Confirmatory testing

- Most commercial NAAT platforms → no confirmatory test
- STBRU offers a confirmation service:
 - Multiplex PCR with *PorA* & *opa* gene targets



To determine rates of GC NAAT confirmations by primary screening test and specimen site

Method

 1000 specimens GC NAAT +ve at local laboratories sent for confirmation at STBRU

 Correlation between GC NAAT, confirmatory PCR results & specimen site undertaken

	Genital Swab (F)	Urine (M)	Rectal	Throat
	[119]	[84]	[97]	[694]
Probetec (Becton Dickinson)	79% (37/47)	94% (47/50)	85% (23/27)	44% (248/587)
Cobas Amplicor (Roche)	83% (50/60)	91% (21/23)	79% (27/34)	48% (27/56)
RealTime CT/NG (Abbott)	83% (10/12)	72% (8/11)	81% (29/36)	88% (45/51)

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Conclusions

- High rates of confirmation achieved from genital and rectal specimens, irrespective of the GC screening NAAT
- Caution should be applied if extrapolating this data to low prevalence settings
- Poor confirmation rates from throat specimens, probably due to cross-reactivity with commensal *Neisseria sp*

Key messages

- Local validation studies to determine the need for confirmation of positive NAATs from genital and rectal samples
- Confirmation essential when testing throat samples



Any questions?