Diagnosing gonorrhoea – how do doctors and nurses compare? An audit of gonorrhoea management in a large provincial NHS Trust

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Background

With increasing resistance of gonococci to first-line antibiotics, rises in extra-genital infection and changes to standards for management^{1,2}, it is timely to evaluate the management of gonorrhoea.

- While gonorrhoea rates are rising overall³, incidence of urethral and cervical infection remain low in comparison to historic data. There is concern that expertise in microscopic diagnosis of gonorrhoea may be falling.
- In light of emerging resistance of gonorrhoea to extended-spectrum cephalosporins, multiple guidelines highlight the importance of taking cultures from NAAT positive sites prior to antibiotic treatment⁴.

Aims

- To evaluate the sensitivity of urethral microscopy performed by doctors and nurses .
- To determine the frequency with which samples for NAATs and cultures are taken from all appropriate sites prior to treatment.

Methods

A retrospective case note review of 100 patients with a gonorrhoea diagnosis, and all additional gonorrhoea contacts in the same time period. Data was collected from E-Records of patient notes and SPSS was used for descriptive statistical analysis.

Results

- 100% (19/19) men who had positive urethral culture, had gonococci identified on microscopy when performed.
- Urethral microscopy was positive in 28/33(85%) men with positive gonorrhoea NAATs.
- Doctors identified 8/9(89%) NAAT positive cases through positive microscopy, while nurses identified 20/24(83%) cases. (p=1.00)
- Of all MSM found to have NAAT positive gonorrhoea 49/62(79%) MSM had triple site NAATs testing before treatment. This included 12/14(86%) MSM seen by doctors and 34/41(83%) seen by nurses at point of treatment (p=1.00). (Table 1)
- 23/61(38%) MSM (1 case missing data) found to have NAAT positive gonorrhoea had triple site NAATs and cultures taken before treatment (Figure 1).

Table 1: Frequency of triple site NAATs tests taken before antibiotic treatment in MSM found to have gonorrhoea, by clinician occupation.

		Clinician Occupation at treatment			Total
		Doctor	Nurse	Unknown	
Triple Site NAATs taken before antibiotic treatment	No	2(14%)	7(17%)	4	13(21%)
	Yes	12(86%)	34(83%)	3	49(79%)
Total		14	41	7	62

Figure 1: Bar chart to show frequency of triple site NAATs and culture testing in MSM with NAAT positive gonorrhoea.

- Where genital NAAT was positive, 10/12(83%) doctors and 35/44(80%) nurses ensured cultures were taken before treatment (p=1.00).

Discussion

- No significant differences were found between doctors and nurses in any aspect of diagnosing gonorrhoea, therefore training interventions should target both groups.
- Microscopy in men with genitourinary symptoms remains sensitive in comparison with culture. However, there may be a case for a new auditable standard comparing microscopy with NAATs.
- In light of increasing rates of extra-genital infection and changing patterns of sexual behaviour, interventions should target consistency of triple site testing in MSM.

References

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