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Background:

The Aptima TV NAAT (Hologic) has been approved for use for the detection of *Trichomonas vaginalis* (TV) and is more sensitive (~100%) than wet mount (54%) or culture (75%)¹ Asymptomatic women attending genitourinary (GUM) clinics and patients in primary care are often not tested for TV, as the prevalence of infection and sensitivity of current diagnostic methods is assumed to be too low for testing to be cost effective.

Methods:

9241 unselected women (>17 years) attending a GUM clinic or primary care (GP) either with symptoms of vaginal discharge (Symptomatic) or without symptoms (Asymptomatic), and being tested for chlamydia and gonorrhoea (Aptima CT/GC Combo; Hologic) were tested using the Aptima TV NAAT test alongside existing testing methods. We calculated the following:

- the cost of testing for TV in different settings
- the cost per additional positive case detected

Results

What is the cost of TV testing?

The cost of TV NAAT was estimated to be £15.19 as a new test or £7.62 as an add-on to existing chlamydia/gonorrhoea testing with the same test platform. Existing testing by microscopy / wet prep costs £7.93.

Figure 1 Case detection under existing test strategy

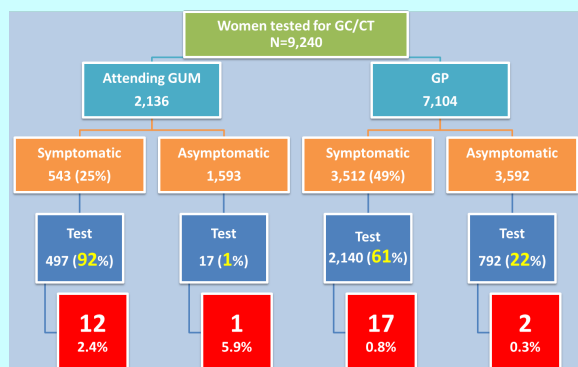
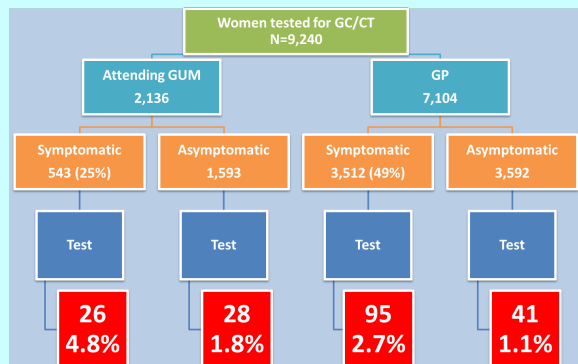


Figure 2 Case detection under new testing strategy

(universal NAAT testing for chlamydia/gonorrhoea/trichomonas)



This strategy would result in the maximum cost and the maximum number of cases identified.

What is the optimal testing strategy?

Is there a rational testing strategy which minimises the cost (by minimising the number of tests performed but maximises the number of cases identified)? Alternative testing strategies also need to be acceptable to clinicians, laboratories and patients and operational in practice.

What is the cost of TV testing?

Figure 3 Cost of including TV tests in STI testing

adjusted for existing expenditure on TV testing (assumed costs offset)

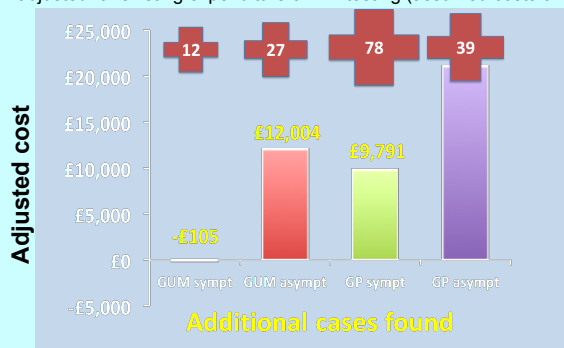
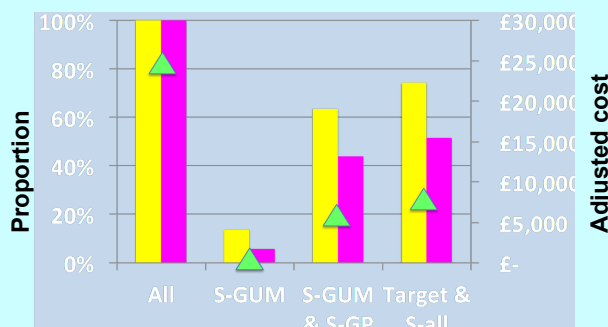


Figure 4 Cost of alternative testing strategies

1) Universal testing 2) Symptomatic GUM only 3) All symptomatic (GUM/GP) 4) Targeted practices and all symptomatic



Yellow bars indicated proportion cases identified, pink bars show the proportion of tests performed under each strategy. Green triangles indicate adjusted cost.

Conclusions:

- ❖ In Bristol we propose to test all symptomatic patients for TV using NAAT tests as part of existing STI testing system
- ❖ High risk asymptomatic patients could also be tested (e.g. based on age/ethnicity)
- ❖ Testing only symptomatics is much cheaper than universal testing, but misses nearly 40% of cases
- ❖ Balance demands to use resources carefully with need for clear, simple testing strategies
- ❖ Need to consider equity of access to appropriate diagnostic testing

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