INTRODUCTION

Chlamydia trachomatis is the most widely reported bacterial sexually transmitted infection (STI) in the UK. There is a delay between people being tested for chlamydia, and receiving test result and treatment, as demonstrated by preliminary data from 3 Genito-Urinary Medicine (GUM) & Reproductive Health (SRH) clinics (Table 1).

This time delay can be due to:
- Service delays (e.g. time for laboratory to process sample and send results to clinic; appointment availability for patient follow-up visit)
- Patient delay (e.g. delay in contacting and attending clinic having received a positive result)

A point-of-care test (POCT), which provides the test result in the same clinical visit as when the sample is taken, would reduce the risk of onward transmission if there were significant risk behaviours during test to treatment turnaround times.

There are few data on patients’ sexual behaviour in the time period between test and treatment. This time period could be important in chlamydia transmission, as infection may continue to be spread to sexual partners whilst awaiting test result and treatment.

Aims:
To investigate the sexual behaviours of patients between the time of being tested for chlamydia and receiving test result and treatment in GUM clinics, in order to investigate the benefits that POCTs might bring to clinical practice.

METHODS

Specific objectives:
1. Describe unsafe sexual behaviour in time-period between chlamydia testing and treatment
2. Determine differences in sexual behaviour before and after chlamydia treatment
3. Identify risk factors for being chlamydia-positive
4. Perform an audit of GUM clinic sexual history taking using BASHH standards

RESULTS

1. Measuring unsafe sexual behaviour:
- Variables used: Condom use, number of partners, number of new partners
- Developed measure of risky sexual behaviour (Table 3):

2. Differences in behaviour pre- and post-test for patients testing positive for chlamydia:

3. Risk factors for being chlamydia-positive:

4. Audit of sexual history taking:

CONCLUSIONS

Some patients continue to engage in high risk sexual behaviour between being tested for chlamydia and receiving treatment
Some patients increase their risky sexual behaviour from low to high risk
A POCT that can test and treat in the same clinical visit would prevent these high risk individuals from transmitting their chlamydia infection to partners
However, the public health impact of POCTs on transmission will be determined by many factors, including:
- Demographics and epidemiology of population group
- Risky sexual behaviour
- POCT accuracy compared to laboratory-based tests
- The extent and type of deployment of POCTs in the healthcare system for each individual population group

DISCUSSION

Some patients continue to engage in high risk sexual behaviour post-test, with sexual behaviour risk not statistically changing between test and treatment
Some change in sexual behaviour:
- 59% of high risk reduced their risky sexual behaviour
- 20% of low-medium risk changed to high risk
Multivariate logistic regression factors associated with high risk behaviour post-test were:
- Black/Black British ethnic group
- Being asymptomatic
- Being infected with ≥ 2 STIs
- Multivariate logistic regression factors associated with being chlamydia positive were:
- 1 new partner in last 3/6 months
- Not always using a condom
- Of chlamydia positives, 52.5% were asymptomatic
- Supports opportunistic screening approach of England’s National Chlamydia Screening Programme (NCSP)
- Chlamydia-negative symptomatic patients were more likely to be infected with another STI
- POCTs could help avoid impromptu syndromic management of patients
- A polyclonal POCT that could detect additional chlamydia could additionally contribute to antibiotic stewardship

REFERENCES


LIMITATIONS

- Small sample size
- Clinical audit led to:
  - Imperfect case-control matching as per study protocol
  - Missing/not documented data

ACKNOWLEDGEMENTS

We thank Innova UK for funding the work. Additional thanks are given to the Electronic Sex Testing Instruments for Sexually Transmitted Infection (eSTI) Consortium funded under the auspices of the Medical Research Council (Grant Number G080079/1).

© 2018 Creative Commons License.