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Monitoring rates of chlamydia re-testing within the English National Screening Programme: January 2013 to June 2018

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Key points

- Young adults who test positive for chlamydia are at high risk of repeat infection(s) [1-8].
- Since August 2013, the NCSP has recommended that young adults who test positive for chlamydia be routinely offered a re-test around three months after completing treatment.
- Re-testing rates have increased since 2013; from an average 12.1% in Jan - Dec 2013 to 14% in July 2017 - June 2018 in non-specialist sexual health services (SHSs) and from 11.9% to 13.9% in specialist SHSs respectively¹. However, the rates vary seasonally throughout the year.
- There is a large variation in re-testing rates by upper tier local authority (UTLA); the Apr - June 2018 quarterly re-testing rates ranged from 0% to 26.7% in non-specialist services and from 2.6% to 36.8% in specialist services.

Background

The English National Chlamydia Screening Programme (NCSP) recommends that sexually active 15 to 24 year-olds are tested for chlamydia annually and on change of sexual partner. Young adults who test positive for chlamydia are at increased risk of subsequently testing positive compared to those who initially test negative [1-8]. Possible reasons for such repeat infections include non-compliance with treatment, incomplete or unsuccessful partner notification, unsafe sexual behaviours and treatment failure of the index patient or a partner [9]. In 2012-13 the NCSP carried out a consultation on whether individuals diagnosed with chlamydia should be routinely offered re-testing following a chlamydia diagnosis. The consultation found that both health professionals and young adults supported a recommendation for routine re-testing. Both groups emphasised that the offer of a re-test should be part of case management and should not replace the need for partner notification or advice on safer sex including condom use [10].

Following the consultation, the NCSP updated their recommendations for case management in August 2013, to include a routine offer of a re-test around three months after treatment completion [11]. Subsequently British Association for Sexual Health and HIV (BASHH) introduced a recommendation to re-test for chlamydia three to six months following a positive diagnosis. In this report patients are considered as returning for a re-test if they have a test within 7 to 14 weeks after their initial test.

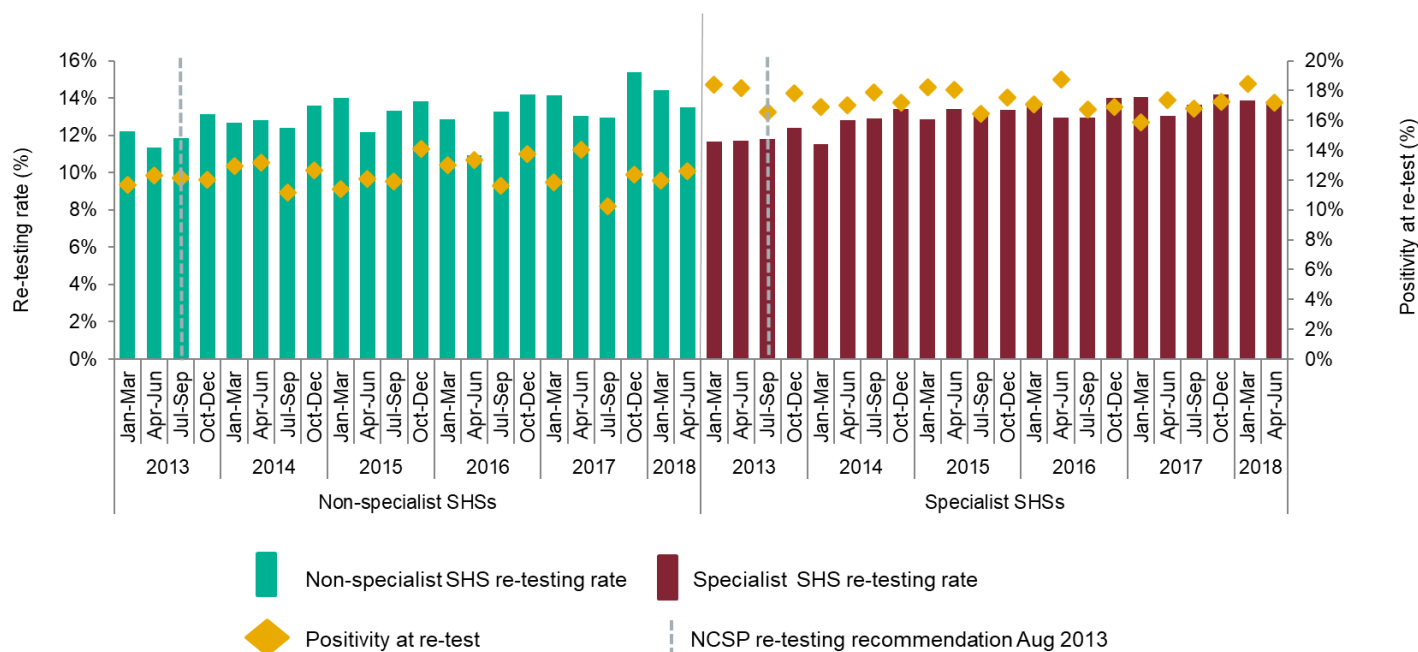
¹ Data are presented split by 'specialist' and 'non-specialist' settings. The term 'specialist sexual health services' refers to services offering level 3 GUM services, many of which will also offer contraceptive services. The term 'non-specialist' is used to refer to anything that is not a 'specialist sexual health service', such as does not offer level 3 GUM services, and is therefore a combination of GPs, sexual and reproductive health (SRH), internet, termination of pregnancy (ToP), pharmacy, other and unknown.

This report accompanies the data tables on chlamydia re-testing rates by PHE Centre area (PHE-C) and UTLA (available [here](#) by PHE-C and by UTLA for users of the HIV-STI web portal). These data tables are available on an annual basis to aid local monitoring and decision making. Data used to produce these tables is collected through the CTAD Chlamydia Surveillance System and GUMCAD STI Surveillance System; for more information on the methodology and data limitations of these analyses please refer to appendix 1 and 2. A re-testing audit tool is also available [here](#).

National rates of re-testing

Since 2013, quarterly re-testing rates for England ranged between 10.9% and 15.4% for non-specialist sexual health services (SHSs)^{••} and between 11.5% and 14.2% in specialist SHSs. Quarterly re-testing rates in non-specialist SHSs have increased from an average 12.1% in Jan - Dec 2013 to 14% in July 2017 - June 2018 and in specialist SHSs from 11.9% to 13.9% respectively. Positivity at re-test was consistently higher in specialist SHSs (15.9% to 18.7%) than in non-specialist SHSs (10.2% to 14.1%) (Figure 1) between Jan 2013 and June 2018. Ignoring quarterly fluctuations, positivity at re-test has remained constant from 2013 to 2018 whilst overall positivity has been steadily increasing from 2014 to 2018 (8.3% to 10.1%) [12].

Figure 1: Chlamydia re-testing rates within 7-14 weeks following a positive diagnosis and positivity at re-test by quarter, non-specialist and specialist SHSs, January 2013 – June 2018, 15-24 year-olds, England^{••}



^{••} Sexual health services (SHSs) include both specialist (level 3)[△] and non-specialist (level 1 & 2)[△] SHSs. Specialist SHSs refers to genitourinary medicine (GUM) and integrated GUM/sexual and reproductive health (SRH). Non-specialist SHSs refers to SRH services, young people’s services, online sexual health services, termination of pregnancy services, pharmacies, outreach and general practice, and other community-based settings.

[△] Please refer to BASHH guidelines for definitions of service levels (Appendix B):

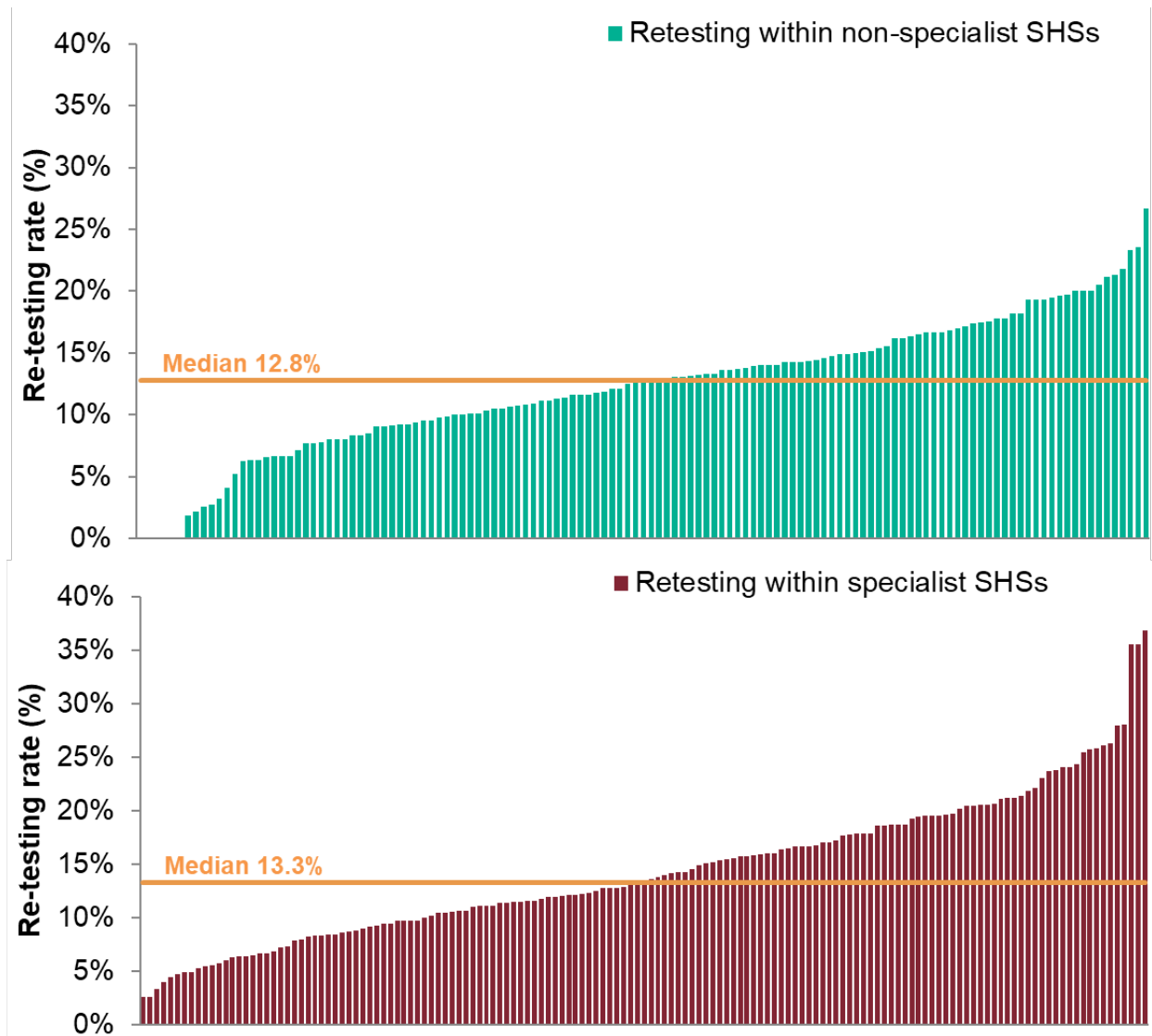
<https://www.bashh.org/about-bashh/publications/standards-for-the-management-of-stis/>

^{••} Non-specialist SHS rates exclude data from UTLAs where >20% of records were missing required data items.

Local rates of re-testing

Rates of re-testing varied considerably by UTLA. Re-testing rates ranged from 0-27% (median 13% IQR: 9%-16%) in non-specialist SHSs and from 3-37% in specialist SHSs (median 13% IQR: 9%-19%) (Figure 2). Positivity at re-test is not presented by UTLA as the numbers are too low in many for meaningful interpretation.

Figure 2: Chlamydia re-testing rates within 7-14 weeks following a positive diagnosis by UT local authority, April – June 2018, 15-24 year-olds, England♦



♦ UTLAs excluded where < 10 diagnoses and/or where UTLA has a population of less than 10,000. UTLAs also excluded from non-specialist SHS analyses where >20% of records were missing required data items. Of the 151 UTLAs in England, 129 for non-specialist SHSs and 147 for specialist SHSs met the criteria for inclusion in the analysis above.

Discussion

This report provides an update for monitoring rates of chlamydia re-testing using the two national STI surveillance systems. Despite the limitations of these data (Appendix 2), our findings suggest that from July 2017 to June 2018, as few as 1 in 7 chlamydia diagnoses among young adults were followed by a re-test within 7 to 14 weeks.

Since the NCSP recommendation for offer of re-test was incorporated into case management guidance in August 2013, surveillance data has not provided strong evidence of a change in re-testing rates at the national level in either non-specialist or specialist SHSs. However, we can only measure re-testing coverage; offer of re-test is not captured in surveillance datasets.

Re-testing rates by UTLA show large variation which may in part be attributable to small numbers of index diagnoses. Most UTLAs have re-testing rates below 20% in both non-specialist and specialist SHSs. PHE has produced a re-testing monitoring tool [13] to allow commissioners to explore their local re-testing figures in more detail.

Positivity at re-test is higher than the positivity seen at initial test in both specialist and non-specialist SHSs: 11.8% vs. 7.6% in non-specialist SHSs and 17.5% vs 12.0% in specialist SHSs in July 2017 to June 2018. The proportion of patients who re-tested positive in specialist SHSs was consistently higher than those re-tested in non-specialist SHSs.

From 2016, PHE has run Chlamydia Care Pathway workshops with local commissioners and providers to support local teams to improve the quality and efficiency of their chlamydia screening services. The importance of re-testing is highlighted in these workshops.

These findings support the inclusion of offer of re-test at around 3 months within the NCSP case management guidance. There are several approaches that can be taken to incorporate re-testing into the patient care pathway and different methods that could be used to recall patients [14]. Local examples are discussed in the document “Chlamydia re-testing of positive cases: models of existing practice” [15] available [here](#). The relative cost of implementing different methods of recall for re-testing is dependent upon existing local practices. A recently published economic evaluation has compared the estimated costs of the re-testing pathway in different settings and recall methods [16].

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Appendix 1: Data collection and methodology

Routine surveillance data on chlamydia testing from the CTAD Chlamydia Surveillance System and GUMCAD STI Surveillance System, collected by Public Health England [17], were used for this analysis. Quarterly re-testing rates (defined as the proportion of individuals with a chlamydia diagnosis for whom another test was recorded within the subsequent 7-14 weeks) among 15 to 24 year-olds were calculated for each UTLA and PHE-C for January 2013 to June 2018. Positivity at re-test was calculated for England and PHE-C areas.

Re-testing rates in non-specialist SHSs, and in specialist SHSs, were calculated separately because it is not possible to track individuals moving between specialist and non-specialist SHSs. Non-specialist SHS data were derived from CTAD and a combination of data items were used to match individuals between different non-specialist SHSs. Specialist SHS data were derived from GUMCAD and clinic-specific identification numbers were used to link unique patient records. Thus, for specialist SHSs, re-testing rates can be calculated only within (and not between) services.

The England and PHE-C totals for non-specialist SHSs excluded data from UTLAs where >20% of records were missing the required combination of data items. Specialist and non-specialist SHS data presented by UTLA also excluded any UTLA with fewer than 10 diagnoses per quarter and/or where the UTLA 15 to 24 year old population was under 10,000. The proportion of UTLAs whose data were included in the analysis has improved from 75% in quarter 1 (Jan-Mar) 2013 to 84% in quarter 2 (Apr-Jun) 2018.

Appendix 2: Data limitations

The data presented here underestimate true re-testing rates due to the following limitations in the data available from the CTAD and GUMCAD national surveillance systems:

- individuals cannot be matched across non-specialist and specialist SHSs in CTAD and GUMCAD.
- individuals cannot be matched between specialist SHSs in GUMCAD because numbers linking patient records are unique only within a clinic.
- a proportion of non-specialist SHS records were reported without the data items required to monitor re-testing. Since monitoring began this figure has been reduced from 23% in Q1 2013 to 12% in Q2 2017 so we can be more confident in the accuracy of these re-testing estimates.

Accuracy and interpretation of monitoring re-testing rates using surveillance data could be improved by:

- increased completion of data items submitted to CTAD;
- better understanding of the proportion of patients who are likely to retest in a different service from their initial test, either by moving between specialist SHSs, or between specialist and non-specialist SHSs. We recommend LAs check patient pathways to determine the extent to which this may affect their data.

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