De-Duplication Guidance
for Gonorrhea and Chlamydia Laboratory Reports

Background

Chlamydia and gonorrhea, the two most commonly reported notifiable conditions, can be diagnosed with highly sensitive nucleic acid amplification tests (NAATs) (1). A positive NAAT in the weeks following successful treatment may indicate residual genetic material rather than a new or persistent infection and should not be reported as a second infection (2). However, there is no national guidance on the minimum amount of time between positive laboratory test results to trigger a report of a new infection (3, 4). To inform guidance development, we reviewed current surveillance practices in local and state jurisdictions, literature on time to NAAT clearance, and current CDC test of cure recommendations.

In 2015, STD surveillance programs in CDC's funded project areas completed an assessment of current surveillance practices. Reporting practices were reviewed for de-duplication of cases of chlamydia and gonorrhea separately, including time period used to decide when a second positive test should be reported as a case and the method of de-duplication (e.g., automatic or manual).

The reported time period for de-duplication of case data varied by jurisdiction and by pathogen. Sites reported using a range of 7 to 90 days for de-duplication for both chlamydia and gonorrhea case report data. The majority of jurisdictions de-duplicate case data in 30 days; 57% of jurisdictions reported 30 days for chlamydia and 54% of jurisdictions reported 30 days for gonorrhea. A few jurisdictions had additional de-duplication rules for certain populations (e.g., different time periods for pregnant women). And several jurisdictions reported different time periods of de-duplication for gonorrhea and chlamydia with some of these jurisdictions using a shorter time period for de-duplication of gonorrhea cases. In jurisdictions that provided enough details, de-duplication methods also varied across jurisdictions with 28% using automated de-duplication within their surveillance information system, 20% using manual methods (e.g., data clerk deciding whether to enter the laboratory report as a new case) and 22% using a combination of methods.

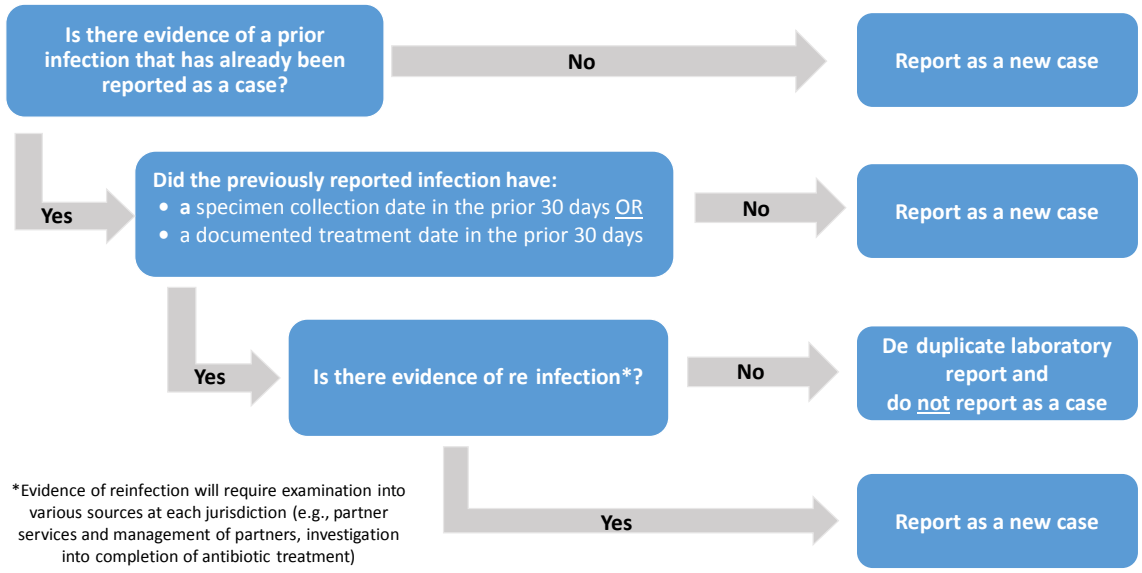
Residual nucleic acid from bacteria rendered noninfective by antibiotics might still give a positive *C. trachomatis* NAAT up to 3 weeks after therapy (5, 6). Detection of *N. gonorrhoeae* nucleic acid has been observed for up to 2 weeks following therapy although the vast majority of patients who were treated effectively for gonorrhea had a negative NAAT 1 week after treatment (7). Routine re-testing following a positive NAAT test is no longer recommended by CDC for chlamydia or gonorrhea unless it has been indicated in a package insert. For these reasons, current CDC guidelines for chlamydia recommend test of cure for pregnant women at 3-4 weeks. For gonorrhea, test of cure is recommended for persons with pharyngeal gonorrhea not treated with a recommended regimen of 14 days (1).

The majority of jurisdictions are currently de-duplicating chlamydia and gonorrhea cases reported in a short time period (e.g., 30 days); however, methods and time periods for de-

duplicating case report data vary across jurisdictions and may lead to non-comparability. While some jurisdictions use automated de-duplication methods in their electronic databases for case data, not all jurisdictions do. Without reliance on an already implemented automated and evaluated de-duplication system, it may be difficult for jurisdictions to implement different time periods for each condition.

Statement of the desired action(s) to de-duplicate laboratory reports:

Figure 1. Determination of when to report a positive laboratory report as a new case



Jurisdictions should report a positive chlamydia laboratory report as a new case unless a prior chlamydial infection has already been reported as a case and 1) the previously reported infection had a specimen collection date in the prior 30 days or had a documented treatment date in the prior 30 days and 2) there is no evidence of re-infection. (See Figure 1) Evidence of re-infection can be investigated by various methods within and among jurisdictions. To help determine if a positive laboratory report represents a prior, previously reported infection that should not be reported as a new case, jurisdictions should routinely review data from partner services and management of partners as well as investigation into completion of antibiotic treatments, treatment logs, and laboratory data. Additional methods may occur at jurisdictions as needed.

Jurisdictions should use the same method to determine if a positive gonorrhea laboratory report should be reported as a new case. (See Figure 1)

If a system is set up to automatically de-duplicate a case report on a designated time frame, this process can remain as long as it's within the 30-day window. Otherwise, de-duplication algorithms should be incorporated into electronic surveillance information systems if possible.

Jurisdictions, however, should ensure that chlamydia and gonorrhea case report data are reviewed and de-duplicated as appropriate prior to each data submission to CDC. If a positive laboratory (or provider) report is not reported as a new infection, it should be retained in the surveillance database to aid in patient follow-up and to allow for evaluation of surveillance practices.

NOTE: These guidelines are intended to inform reporting of chlamydia and gonorrhea cases for the purpose of disease surveillance. These surveillance methodologies will be shared online at: http://www.cdc.gov/std/program/data-mgmt.htm. Providers should treat as clinically appropriate.

References

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