Annual chlamydia screening may not protect women from pelvic inflammatory disease

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It is unlikely that single screening for chlamydia will prevent women developing pelvic inflammatory disease in the following year, according to research published in the British Medical Journal today.

The study concludes that most cases of pelvic inflammatory disease occurred in women who did not have chlamydia infection when they were screened, suggesting they may have become infected later.

The authors call on policy makers to publicise the recommendations of the national chlamydia screening programme that in addition to annual screening, individuals should be tested for chlamydia whenever they have a new sexual partner.

Chlamydia is the most common sexually transmitted infection in the USA and Europe with over 3 million new infections diagnosed each year. The infection often has no symptoms and remains undiagnosed. This is concerning because untreated chlamydia in women can lead to pelvic inflammatory disease (PID) which can result in infertility, chronic pelvic pain and ectopic pregnancy.

The authors, led by Dr Pippa Oakeshott from St George's, University of London, recruited 2529 sexually active female students between the ages of 16 to 27 from 20 universities and further education colleges in London.

The participants completed questionnaires, provided vaginal swabs and

agreed to a follow-up after one year. Written consent was obtained from everyone involved in the study.

Participants were randomly divided into two groups - the swabs of one were tested immediately while the samples of the other group were tested after a year. All women were told about the risks associated with chlamydia and warned that their samples might not be tested for twelve months and were therefore advised to get checked independently if they believed they were at risk.

The results show that 68 (5.4%) out of 1254 women who were screened immediately had chlamydia and 75 (5.9%) out of the 1265 screened a year later tested positive.

Fifteen (1.3%) of the immediately screened women went on to develop PID versus 23 (1.9%) of the women tested after a year. The findings also suggest an 80% reduction in the risk of pelvic inflammatory disease in women treated for chlamydial infection.

However, most cases of PID (79%) occurred in women who tested negative for chlamydia when they were initially tested, says the study. The researchers argue that this suggests that frequent testing for chlamydia aimed at high risk groups might be more effective at preventing PID than single screening.

Oakeshott maintains that the absolute numbers of PID cases that can be prevented from single screening is small. She says "our findings suggest that to prevent one case of clinical PID over 12 months, it may be necessary to screen 147 women for chlamydial infection or to treat 13 women who are positive for chlamydia. Some women may be unaware of the recommendation to be retested for chlamydia every time they have a new sexual partner."

The authors conclude that single screening is not particularly successful at reducing PID cases and may be less cost-effective than previously thought.

In an accompanying editorial, Jessica Sheringham from University College London, writes that "it is disappointing but not surprising that this study could not provide a clear answer as to whether screening is effective in reducing the incidence of pelvic inflammatory disease."

Sheringham adds that there remains doubt on whether screening can reduce the prevalence of chlamydia and that further research is needed to improve understanding of chlamydia and its associated reproductive health risks.

Provided by British Medical Journal