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MEDIA RELEASE

GONORRHOEA TEST LEADING TO OVERDIAGNOSIS

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THE overuse of a particular test for gonorrhoea in women who are at low risk is resulting in false-positive results and overdiagnosis, and is probably leading to unnecessary treatment, according to research published in the *Medical Journal of Australia*.

Researchers from the Melbourne Sexual Health Centre (MSHC), Monash University, Royal Women's Hospital Melbourne and University of Melbourne, led by Dr Eric Chow, have found that although the number of positive results for gonorrhoea in Victorian women tested by the nucleic acid amplification test (NAAT) tripled between 2008 and 2013, the prevalence of cases confirmed by culture did not change over time.

"There was no observable increase in the proportion of women diagnosed with gonorrhoea by culture at the MSHC, or in the proportion of notifications per reported [Medicare Benefits Schedule] item numbers for dual NAAT in Victoria", the researchers wrote.

"Taken collectively, these data suggest that the prevalence of gonorrhoea among women remains very low and stable in Victoria (0.2%–0.3%) and at the MSHC (0.4%–0.6%), and that the rise in notifications is likely due to false-positive results arising from the increased use of NAATs in a low-prevalence population, with potential for unnecessary treatment of patients and partners and consequent harm."

In a linked *MJA* editorial, Dr Katy Bell and her coauthors, from Bond University and University of Sydney, wrote that screening for gonorrhoea in women who are at low risk has become increasingly common because of dual testing for chlamydia and gonorrhoea.

"Two factors which may partly account for the increase in testing are (i) clinicians misinterpreting guidelines as meaning that opportunistic screening should be done for both infections, and (ii) use of dual NAATs by laboratories to test for both infections, even when clinicians have only requested chlamydia testing", Bell et al wrote.

They argued that misdiagnosis via the NAAT is causing unnecessary physical and psychological harm in patients.

"The psychological consequences of false-positive test results are substantial", they wrote.

"They include anxiety and depression, feelings of guilt and self-blame, loss of self-esteem and self-confidence, feelings of social isolation, and existential concerns.

"[It] can also affect long-term sexual relationships, leading to concerns about trust and fidelity, and fear about disclosing results to a partner.

"There are physical consequences and adverse effects of treatment, and financial costs to the patient and the health care system."

Chow et al and Bell et al suggested that limiting the routine screening to higher-risk populations with higher underlying rates of infection was one solution.

“the take-home messages to primary care physicians are that (i) false-positive results are likely if a NAAT is used on its own in a low-risk population and (ii) further tests (supplementary NAAT and culture) and repeat tests (eg, in 1 week) may be the best strategy for dealing with an initial positive NAAT result”. Bell et al concluded.

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