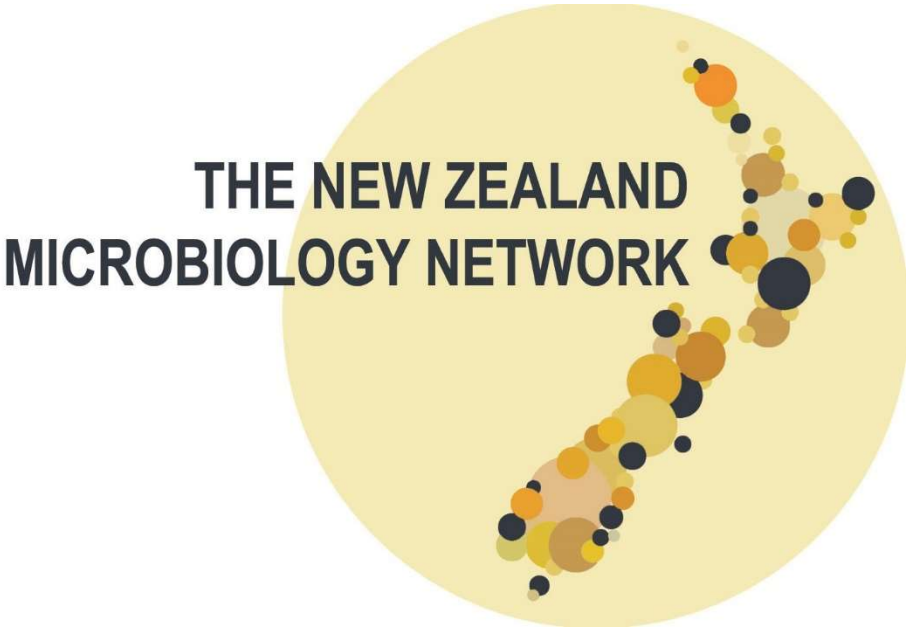

Document Title:	**Position statement from the New Zealand Microbiology Network (NZMN) regarding routine testing for sexually transmitted infections in asymptomatic women** Replaces earlier version: "NZMN position statement regarding female genital specimen processing; Routine screening… for sexually transmitted infections…concurrently with cervical smears…"
Created date:	August 2017
Last review date:	N/A
Latest version:	2.0
Reviewed date:	August 2024
Next review due:	August 2026

Position statement from the New Zealand Microbiology Network (NZMN) regarding routine testing for sexually transmitted infections in asymptomatic women

Routine testing of asymptomatic women for sexually transmitted infections (STIs) in the absence of other risk factors (age, past STIs, relevant sexual history) is not recommended.

New Zealand Microbiology Network

The New Zealand Microbiology Network (NZMN) core membership comprises clinical microbiologists representing laboratories interested in and supporting public health microbiology testing in New Zealand, representatives of the Ministry of Health and Ministry for Primary Industries, and representatives of the Institute of Environmental Science and Research Limited (ESR).

The vision of the NZMN is to build national capability, optimise technical methods and collaborative processes in public health microbiology across New Zealand.

Relevance

This position statement from the New Zealand Microbiology Network (NZMN) contains information for relevant stakeholders including smear takers, GPs, midwives, practice nurses, sexual health services, family planning, and O & G specialists.

Position background

This position statement addresses screening for sexually transmitted infections (STI) in asymptomatic women only. Healthcare providers commonly collect genital swabs for STI testing in asymptomatic patients, for example, prior to intrauterine coil device (IUCD) insertion or at the time of specimen collection for cervical cancer screening. This practice is not supported by the NZMN.

Nucleic acid amplification test (NAAT) tests used for STI testing have very good sensitivity and specificity but the positive predictive value (PPV) of a positive result (that is, how likely a person with a positive result truly has the disease) also depends on the prevalence of the disease in the population being tested. In low prevalence populations for STI, such as asymptomatic women without any STI risk factors, the PPV may be as low as 20%. This means the positive result is more likely to be a false positive than a true positive, with the potential to cause significant patient harm. Tables 1 and 2 demonstrate the impact of disease prevalence on PPV.

NZMN recommends that asymptomatic STI testing be performed only if one or more of the following risk factors are present:

- Two or more sexual partners in the past year
- STI in the past 12 months
- Sexual partner with an STI
- Pre-termination of pregnancy
- Sex under the influence of drugs/ alcohol
- History of transactional sex
- History of incarceration
- History of sexual assault or intimate partner violence
- Refugees and asylum seekers

Note that patient- or clinician-collected vaginal swabs for STI testing should be taken before cervical cancer screening samples, and that STI screening includes syphilis and HIV serology.

References

1. Pillay J, Wingert A, MacGregor T *et al*. Screening for chlamydia and/or gonorrhea in primary health care: systematic reviews on effectiveness and patient preferences. Systematic Reviews 2021; 10: 118.
2. Hocking JS, Temple-Smith M, Guy R *et al.* Population effectiveness of opportunistic chlamydia testing in primary care in Australia: a cluster-randomised controlled trial. Lancet 2018; 392: 1413-22.
3. NZ STI Management Guidelines for use in Primary Care. Available at: https://sti.guidelines.org.nz/infections/gonorrhoea/
4. CDC STI Screening Recommendations 2021. Available at: https://www.cdc.gov/std/treatment-guidelines/screening-recommendations.htm
5. Field N, Clifton S, Alexander S, Ison CA *et al*. Confirmatory assays are essential when using molecular testing for *Neisseria gonorrhoeae* in low-prevalence settings: insights from the third National Survey of Sexual Attitudes and Lifestyles (Natsal-3). Sex Transm Infect 2015;91(5):338–41.

Tables 1 and 2: Impact of infection prevalence on the positive predictive value (PPV) of a test

Table 1. PPV with a test specificity of 99%

Prevalence	**0.3%**	**1%**	**5%**	**10%**
Population number	1000	1000	1000	1000
Number with infection	3	10	50	100
Number without infection	997	990	950	900
True positives (assuming 100% sensitivity)	3	10	50	100
False positives (assuming **99% specificity**)	9.97	9.9	9.5	9
Total numbers test positive	12.97	19.9	59.5	109
Positive predictive value (PPV)	**23%**	**50%**	**84%**	**92%**

Table 2. PPV with a test specificity of 99.9%

Prevalence	**0.3%**	**1%**	**5%**	**10%**
Population number	1000	1000	1000	1000
Number with infection	3	10	50	100
Number without infection	997	990	950	900
True positives (assuming 100% sensitivity)	3	10	50	100
False positives (assuming **99.9% specificity**)	0.997	0.99	0.95	0.9
Total numbers test positive	3.997	10.99	50.95	100.9
Positive predictive value (PPV)	**75%**	**91%**	**98%**	**99%**