specimens 17% (12/73) [male (3/61 (5%) and female 9/12 (75%)] were wild-type and therefore assumed to be sensitive to macrolides.

Discussion/conclusion Eighty-four percent of MG specimens examined had SNPs associated with macrolide resistance. These levels of resistance are higher than previously documented in other studies and highlight the need for (i) greater access to MG diagnostic testing and (ii) a requirement for more effective antimicrobials if MG infection is to remain a treatable in the future.

Abstract O27 Table 1 Characteristics of point mutations in the *23S rRNA* gene from 73 MG specimens

Sequence identified	Phenotype	No. specimens (73)	No. by sex (M – 61, F – 12)
Wild-type	Sensitive	12/73 (17%)	M – 3/61 (5%)
			F – 9/12 (75%)
A2058G	Resistant	22/73 (31%)	M – 21/61 (34%)
			F – 1/12 (8%)
A2058T	Resistant	1/73 (1%)	M – 0/61 (0%)
			F – 1/12 (8%)
A2059G	Resistant	34/73 (47%)	M – 32/61 (53%)
			F – 2/12 (17%)
A2059C	Resistant	4/73 (6%)	M – 4/61 (7%)
			F – 0/12 (0%)

O28 TREATMENT OF *MYCOPLASMA GENITALIUM* WITH AZITHROMYCIN 1 G IS LESS EFFICACIOUS AND ASSOCIATED WITH INDUCTION OF MACROLIDE RESISTANCE COMPARED TO A 5 DAY REGIMEN

[1,2]Patrick Horner*, [1]Suzanne Ingle, [2]Karla Blee, [3]Peter Muir, [4]Harald Moi. *[1]University of Brsitol, Bristol, UK; [2]University Hospitals Bristol NHS Trust, Bristol, UK; [3]Public Health England, Bristol, UK; [4]Oslo University Hospital, Oslo, UK*

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Background *Mycoplasma genitalium* (MG) is an emerging important STI. Failure rates with azithromycin 1 g appear to be increasing. This may be due to the emergence of macrolide antimicrobial resistance as a consequence of extensive use of azithromycin 1 g. An extended regimen of azithromycin 500 mgs on day one then 250 mgs daily for 4 days (5 day regimen) was introduced in the 1990s for treatment of MG and has high efficacy rates (if no pre-existing macrolide resistance) and is less associated with induction of macrolide resistance. There are no comparative trials of the two regimens.

Aim To undertake a meta-analysis of MG treatment studies using the two azithromycin regimens to determine which is more effective.

Methods MG treatment studies were included if: patients were initially assessed for macrolide resistance genetic mutations, were treated with azithromycin 1 g or 5 days, and those who failed were again resistance genotyped. Sensitivity analyses included only patients without prior treatment.

Results Five studies were identified. Compared to the 5 day regimen, azithromycin 1 g had higher failure risk (difference: 11.8%, 95% CI: 7.3%, 16.2%) and more developed macrolide resistance (risk difference: 11.8% (8.3%, 15.3%)). The 5 day regimen included 52 patients with prior doxycycline treatment. Sensitivity analysis showed a failure risk difference of 9.2% (0.9%, 17.5%). Resistance risk did not change.

Conclusion Azithromycin 1 g is more likely to result in treatment failure and the development of macrolide antimicrobial resistance than 500 mgs on day one then 250 mgs daily for 4 days.

O29 TV IN PRIMARY CARE – IS THERE MORE OUT THERE THAN WE THINK?

[1]Jane Nicholls*, [2]Paddy Horner, [2]Katy Turner, [2]John Macleod, [3]Paul North, [3]Ralph Ferguson, [2]Margaret May, [3]Peter Muir. *[1]Bristol Sexual Health Centre, Bristol, UK; [2]Department of Social and Community Medicine, University of Bristol, Bristol, UK; [3]Public Health England, Bristol Laboratory, Bristol, UK*

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Background Tests for *Trichomonas vaginalis* (TV) are often not performed on samples submitted from primary care because the prevalence is assumed to be too low for testing to be cost effective. Current microbiological testing involves wet mount microscopy (sensitivity 50%) or culture (sensitivity 75%). In practice, sensitivity rates may often be lower than this, due to deterioration of specimens during transport to the laboratory. The Aptima TV NAAT test has recently been approved for use (sensitivity ~100%).

Aim To determine the positivity of TV in symptomatic and asymptomatic women at risk of an STI, seen in primary care using Aptima TV NAAT.

Methods The Aptima TV NAAT test was performed on 6716 remnant samples from women undergoing chlamydia and gonorrhoea NAAT testing in primary care.

Results The positivity of TV in symptomatic and asymptomatic patients from primary care was **2.6%** (86/3271) and **1.2%** (40/3445) respectively compared with an expected positivity of 0.3% and 0.1%, based on existing methods. TV positivity rates varied between GP practices from 0% to 4.8%. Higher positivity rates were observed in practices serving areas of deprivation, as well as those with higher black and minority ethnic populations.

Conclusions This is the first study to report TV positivity, using a TV NAAT, in unselected women presenting for STI testing in

Abstract O28 Table 1 Treatment of *Mycoplasma genitalium*

		Treated with 5 day regimen			Number treated with 1 g regimen		
Study	Sample size	Total	Failure	Resistance	Total	Failure	Resistance
Anagrius *et al*. 2013	195	78	1 (1.3%)	0	117	10 (8.5%)	7 (6.0%)
Twin *et al*. 2012	66	0			66	14 (21.2%)	14 (21.2%)
Couldwell *et al*. 2013	12	0			12	4 (33.3%)	3 (25%)
Walker *et al*. 2013	28	0			28	3 (10.7%)	3 (10.7%)
Bissessor *et al*. 2014	99	0			99	11 (11.1%)	11 (11.1%)
Total	400	78	1 (1.3%)	0	322	42 (13.0%)	38 (11.8%)

primary care. In view of the wide variation in positivity by locality, it is likely testing for TV will be cost effective in some areas. Ongoing surveillance may be necessary to identify those at risk.

O30 SERVICE PROVISION AND ECONOMIC IMPLICATIONS OF IMPLEMENTING NAAT TESTS FOR *TRICHOMONAS VAGINALIS* IN WOMEN ATTENDING GENITOURINARY MEDICINE CLINICS AND PRIMARY CARE

[1]Katy Turner*, [2]Jane Nicholls, [3]Peter Muir, [1]Margaret May, [2]Paul North, [1]John Macleod, [1]Paddy Horner. *[1]University of Bristol, Bristol, UK; [2]Bristol Sexual Health Clinic, Bristol, UK; [3]Public Health England, Bristol, UK*

10.1136/sextrans-2015-052126.30

Background/introduction Laboratory tests for *Trichomonas vaginalis* using culture and microscopy in current practice have low sensitivity, however new, highly sensitive PCR-based nucleic acid amplification tests (TV NAATs) have been approved e.g. Aptima TV NAAT. It is not known how to optimally deploy these new tests in different settings.
Aim(s)/objectives To assess the cost-effectiveness of new TV NAAT tests for the diagnosis of TV infection in women attending genitourinary medicine (GUM) and primary care clinics. To inform national decision-making about who should be offered TV testing.
Methods We analysed data from TV tests in residual chlamydia/gonorrhoea samples from nearly 9,000 women. We conducted notes review in GUM clinics to understand current practice. We compared current and proposed pathways for management of TV. We calculated the cost of testing for TV in GUM and primary care.
Results Table 1 shows the breakdown of test results by symptomatic/asymptomatic and setting and indicates the current and new cost of testing. (NB. Provisional data, study closed 31/1/2015). Compared with current testing practice, TV NAAT testing detected an additional 41 cases from GUM. In primary care few samples were sent for laboratory testing; only 15 out of 126 NAAT positive cases would have been detected.
Discussion/conclusion TV NAAT tests detected many more infections than current testing. Nationally, this translates to an increase in GUM from 6,000 cases to 23,400 cases annually. Overall, the crude cost of adding TV NAAT testing to all chlamydia and gonorrhoea tests is £307 per additional infection diagnosed.

O31 MENSES – TO TEST OR NOT TO TEST?

[1]Sarah Schoeman*, [2]Catherine Stewart, [1]Janet Wilson. *[1]Leeds Teaching Hospitals Trust, Leeds, UK; [2]Salford Royal Foundation Trust, Manchester, UK*

10.1136/sextrans-2015-052126.31

Background/introduction Varied advice is given to women about testing for chlamydia (CT) and gonorrhoea (NG) whilst menstruating. Some are advised it makes no difference, others are advised not to test or are offered urine sampling instead of a vulvovaginal swab. There is no published evidence to inform such advice.
Aim(s)/objectives To determine if menses affects the performance of CT/NG NAATs.
Methods Using data collected in a large CT/NG NAATs diagnostic study we compared the prevalence of infections in menstruating women versus those not menstruating.
Results Of the 3973 study participants 162 (4%) were menstruating and 3811 were not. 30 (18.5%) menstruating women had CT and 10 (6.2%) had NG; 380 (10%) non-menstruating women had CT and 90 (2.4%) had NG. Menstruating women were more likely to be diagnosed with CT (OR 2.05; p = 0.0008) and NG (OR 2.72; p = 0.0055); less likely to have had a previous STI (OR 0.66) and to have cervicitis (OR 0.21) but more likely to be a STI contact (OR 2.13) and have bacterial STI symptoms (OR 1.36). After adjusting for these confounding variables menstruating women remained more likely to be diagnosed with CT (Adjusted OR 1.98; 95% CI 1.27–3.09; p = 0.003).
Discussion/conclusion Menses does not have a negative effect of the performance of CT/NG NAATs; in fact the prevalence of infections was higher in menstruating women. Only 4% of women were menstruating suggesting that women avoid attending for STI testing during their period unless really necessary. Hence testing should be performed during menstruation using vulvovaginal or endocervical swabs.

O32 ASYMPTOMATIC NEUROSYPHILIS IS UNLIKELY IN HIV INFECTED PATIENTS AFTER TREATMENT FOR EARLY SYPHILIS WITH BENZATHINE PENICILLIN G

Andrew Tomkins*, Shazaad Ahmad, Darren E Cousins, Francisco Javier Vilar, Stephen P Higgins. *North Manchester General Hospital, Manchester, UK*

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Background/introduction Benzathine penicillin G (BPG) does not cross the blood-brain barrier. Some experts believe that BPG may be ineffective when treating patients co-infected with HIV and syphilis.
Aim(s)/objectives To establish the risk of asymptomatic neurosyphilis (ANS) after treatment of early syphilis in HIV positive patients with single dose BPG.
Methods HIV patients with early syphilis were offered a post-treatment lumbar puncture if their CD4 count was <350 and/or their serum RPR >16. Patients with clinical neurosyphilis were excluded. ANS was defined as a positive CSF RPR, or CSF white blood cells >20/mm^3 plus CSF TPPA >1:320.

Abstract O30 Table 1 *Trichomonas vaginalis* test results in symptomatic and asymptomatic women in GUM and primary care

		Positive (current)	Negative	Total (current)	Positivity	Current cost	New cost	Cost per extra case
Genitourinary medicine	Symptomatic	22 (9)	497	519 (440)	4.2%	£3,489	£3,955	£35.8
	Asymptomatic	28 (0)	1571	1599 (0)	1.8%	£0	£12,184	£435.2
Primary care	Symptomatic	86 (13)	3185	3271 (1651)	2.6%	£13,092	£24,925	£162.1
	Asymptomatic	40 (2)	3405	3445 (497)	1.2%	£3,941	£26,251	£587.1
Total		**176 (24)**	**8658**	**8834 (2588)**	**2.0%**	**£20,523**	**£67,315**	**£307.8**