Abstract P3-S1.39 Table 1 Comparison of empiric treatment strategies using MPC or increased WBC on wet prep to direct treatment

Strategy	% (N) CT cases treated	% (N) CT cases missed	% (N) missed CT cases other strategy covers	% (N) treated patients without CT	CT-negative patients treated/CT case treated	CT-positive cases missed/CT case treated	Time to treatment for missed CT cases in % Note: 0 days = treated as contact day of visit
Treat all MPC as CT	13% (209)	87% (1419)	64% (907)	77% (691)	3.3	6.8	0 days: 32% 1–14 days: 29% 15–30 days: 11% 31–90 days: 5% Not treated: 23%
Treat all increased WBC as CT	67% (1089)	33% (539)	5% (27)	82% (4896)	4.5	0.5	–
Treat all NGU as CT	(1725)	–	–	64% (3105)	1.8	–	–

cervix on speculum exam. We modelled what effect two strategies would have on empiric CT treatment in the Denver Metro Health Clinic (DMHC). Current strategy is to treat all MPC to cover possible CT. We compared that to expected results if all increased WBC on wet prep were treated to cover possible CT. Early treatment is thought to be important in preventing complications in women. The US Infertility Prevention Project guidelines call for treating 75% of women by 14 days after testing, and 90% by 30 days.

Methods The DMHC is an urban STD clinic with an electronic medical record (EMR). The EMR was used to identify all women attending the DMHC and receiving a wet prep between 09/01/06 and 02/04/11. They were divided into two groups by wet prep results (increased WBC vs normal WBC) and further divided by diagnoses of MPC and CT. Differences between the groups were assessed by χ^2, and the sensitivity and specificity of increased WBC and MPC for CT were calculated. For each strategy, the % of treated and missed cases of CT; % of missed cases that would have been treated by the other strategy; % of treated patients without CT; and the number of CT-negative patients treated, and CT-positive patients missed, for every CT case treated were calculated. NGU in men was used as a comparison where applicable. For CT cases that were missed by the MPC strategy, actual time to treatment was identified.

Results 19 027 women were seen during this time and 12 066 had a wet prep done. Of these, 5985 had increased WBC, 6081 had normal WBC, 900 had MPC and 1628 had CT. CT was positive in 1089 with increased WBC (182 had MPC) and 539 with normal WBC (27 had MPC). Both MPC and increased WBC were significantly associated with CT infection ($p<0.0001$): CT positivity rates were 23.2% in women with MPC; 18.2% in women with increased WBC; and 8.7% in women with neither. The sensitivity and specificity of MPC for CT were 12.8% and 93.3% and for increased WBC 66.9% and 53.1%. See Abstract P3-S1.39 table 1 for comparison of the strategies.

Conclusions Increased WBC have poor specificity for CT but better sensitivity than MPC. Given greater delay in treatment with the MPC strategy, the increased WBC strategy is attractive for our clinic.

P3-S1.40 FREQUENCY AND PREDICTORS OF RECOMMENDED GONORRHOEA THERAPIES IN WASHINGTON STATE

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Background Washington State (WA) and CDC treatment guidelines recommend ceftriaxone (CFX) as the primary therapy for gonorrhoea (GC), and some evidence suggests that azithromycin (AZM) plus an oral cephalosporin is superior to an oral cephalosporin alone in the treatment of GC.

Methods We used information from WA GC case report forms submitted July 2009–December 2010 to calculate the proportion of cases receiving different GC therapies. We used log regression to identify factors associated with recommended treatments.

Results Treatment data were available for 3910 (96%) of 4066 reported GC cases; 2087 (53.4%) were treated with CFX, 931 (23.8%) with cefixime, (533) 13.6% with cefpodoxime, and 359 (9.2%) with another drug. Of 1464 persons receiving an oral cephalosporin, 507 (34.6%) also received AZM. Abstract P3-S1.40 table 1 displays the distribution of single and multidrug therapies for the three most common therapies observed. In a multivariate model, treatment with CFX was associated with male gender (prevalence ratio (PR): 1.23, 95% CI 1.14 to 1.32), Asian/Pacific Islander race (PR: 1.10, 95% CI 1.00 to 1.20) and other/multiple races (PR: 1.13, 95% CI 1.04 to 1.22) (vs White race). Compared to persons treated by private sector medical providers, CFX use was more common among persons treated in STD clinics (PR: 1.65, 95% CI 1.53 to 1.77), ER/urgent care clinics (PR: 1.37, 95% CI 1.25 to 1.50), other hospital settings (PR: 1.27, 95% CI 1.12 to 1.44), or community health centers (PR: 1.14, 95% CI 1.00 to 1.29), and less common among those treated in family planning clinics (PR: 0.38, 95% CI 0.30 to 0.47) and by other provider types (PR: 0.86, 95% CI 0.76 to 0.98). Among persons treated with oral cephalosprins, concurrent treatment with AZM was associated with male gender (PR: 1.71 95% CI 1.45 to 2.01), treatment in an STD clinic (PR: 1.64, 95% CI 1.41 to 1.91) or ER/urgent care clinic (PR: 1.28, 95% CI 1.03 to 1.58) vs by a private provider, having GC only (PR:3.88, 95% CI 2.84 to 5.28) (vs chlamydial coinfection), and Seattle residence (1.32, 95% CI 1.08 to 1.61).

Abstract P3-S1.40 Table 1

	Total	Single drug therapy	With AZM	With doxyclycline	With another drug
Ceftriaxone	2087	773 (37.0%)	1051 (50.4%)	231 (11.1%)	32 (1.5%)
Cefixime	931	543 (58.3 %)	334 (35.9%)	50 (5.4%)	4 (0.3%)
Cefpodoxime	533	334 (62.6%)	173 (32.5%)	25 (4.7%)	1 (0.2%)

Conclusions Approximately half of all persons with gonorrhoea in WA do not receive CFX and over 20% receive an oral cephalosporin alone, which is not recommended in WA guidelines. Efforts to increase CFX should focus on identifying and surmounting barriers to the use of CFX, particularly in places such as family planning clinics and other settings where use is now low.