

historically treated patients with PP regardless of syphilis stage. We compared serological response, adherence and tolerance among these patients compared with those receiving alternative regimens.

Methods A retrospective analysis of HIV positive individuals with early syphilis infection. Response to treatment was defined by ≥ 4 -fold decline in VDRL titer within 13 months.

Results 197 patients were diagnosed with primary(24%), secondary(50%) or early-latent(26%) syphilis between 2012-2015. 102(52%) received PP, 26(13%) BPG, 38(19%) doxycycline for 28 days and 4(2%) amoxicillin plus probenecid. For 27(14%), treatment regimen was unknown. Of those who completed PP, 91% had serological response, BPG 65%, doxycycline 79%. Four patients on PP switched due to non-adherence. Of the PP patients median age 42, CD4 576 and 80% were on antiretroviral therapy. This did not differ greatly between those who achieved serological response and those who did not.

Abstract UG6 Table 1 Demographics and follow up of patients divided by treatment regimen

	PP (%)	BPG (%)	DOXY (%)	AMOX+P (%)
No. of patients started treatment	102 (52)	26 (13)	38 (19)	4 (2)
No. of patients completed treatment	94 (92)	26 (100)	34 (89)	4 (100)
Serological Response	86 (91)	17 (65)	27 (79)	3 (75)
Serological Failure	3 (3)	1 (4)	3 (8)	1 (25)
Lost to Follow up <13 months	5 (5)	8 (31)	4 (11)	0
No. of patients did not complete treatment	8 (8)	0	4 (11)	0
Serological Response	7 (88)		3 (75)	
Serological Failure	1 (12)		1 (25)	
Switched Treatment Regimen	4 (4)	0	1 (3)	0
BPG	1 (25)	0	1 (100)	0
Doxycycline	3 (75)	0	0	0
Serological Response	4 (100)	0	1 (100)	0
Age				
Median	42	44	38	54
Range	25–46	29–68	27–58	40–63
Syphilis Infection				
Primary	24 (24)	9 (35)	7 (18)	1 (25)
Secondary	47 (46)	12 (46)	25 (66)	1 (25)
Early Latent	31 (30)	5 (19)	6 (6)	2 (50)
CD4 at Diagnosis				
Median	576	654	534	728
Range	126–	170–	274–847	404–1146
	1223	2384		
On ART at Diagnosis				
Yes	82 (80)	21 (81)	30 (80)	4 (100)
No	20 (20)	5 (19)	8 (20)	0

PP=procaine penicillin plus oral probenecid; BPG= benzathine penicillin G; DOXY= doxycycline; AMOX+P= amoxicillin plus oral probenecid; HART=HIV antiretroviral therapy

Discussion We demonstrate good adherence and tolerance of PP. There was a superior serological response to treatment in this group but a large loss to follow up among those treated with BPG. Further statistical analysis may identify factors associated with serological failure. Prospective studies exploring co-infection are required.

Poster Presentations

Bacterially Sexually Transmitted Infections

P001

WHAT IS THE EVIDENCE THAT PREVIOUS AZITHROMYCIN TREATMENT FOR CHLAMYDIA OR GONORRHOEA IS ASSOCIATED WITH NEISSERIA GONORRHOEA AZITHROMYCIN RESISTANCE?

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Introduction The prevalence of azithromycin resistance in *Neisseria gonorrhoeae* (NG) including high-level resistance (HL-AziR NG) is increasing in England. It has been suggested that exposure to azithromycin at sub-optimal doses may facilitate development of azithromycin resistance in NG. We investigated whether treatment history for non-rectal chlamydia (CT) or NG (as proxies for azithromycin exposure) in GUM services was associated with susceptibility of NG to azithromycin.

Methods Descriptive and negative binomial regression analyses of azithromycin Minimum Inhibitory Concentration (MIC) data from 4608 NG isolates collected by the Gonococcal Resistance to Antimicrobials Surveillance Programme (GRASP) 2013–2015 (matched to GUMCADv2 data on CT/NG diagnoses) were performed. Descriptive analyses of previous CT/NG among 56 HL-AziR NG isolates (MIC>256 mg/L) were also performed (2013–2016).

Results Modal azithromycin MIC was 0.25mg/L (1 dilution below the resistance breakpoint) in those with and without history of CT or GC. There were no differences in MIC distribution by previous CT/NG, nor by time since most recent infection (CT: $p=0.97$; NG: $p>0.99$). Among patients with HL-AziR NG, 4 (8%) were treated for CT and 4 (8%) for NG in the previous year, compared with 9% and 13% respectively for all GRASP patients.

Discussion There was no evidence of an association between previous CT/NG treatment in GUM services and subsequent presentation with an azithromycin-resistant strain. However, 46% of CT diagnoses occur in non-GUM settings therefore further research is needed to explore whether an association with azithromycin exposure in other settings and for other conditions exists.

P002

ASSESSING THE IMPACT OF INDIVIDUALISED TREATMENT: AN INDIVIDUAL-BASED MATHEMATICAL MODELLING STUDY OF ANTIMICROBIAL RESISTANT NEISSERIA GONORRHOEA TRANSMISSION, DIAGNOSIS AND TREATMENT IN MEN WHO HAVE SEX WITH MEN

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Introduction Antimicrobial resistant (AMR) gonorrhoea is a global public health threat. In London, diagnoses in men who