Routine treatment of chlamydia and gonorrhoea sexual contacts attending Sexual Health Services: Is immediate treatment necessary?

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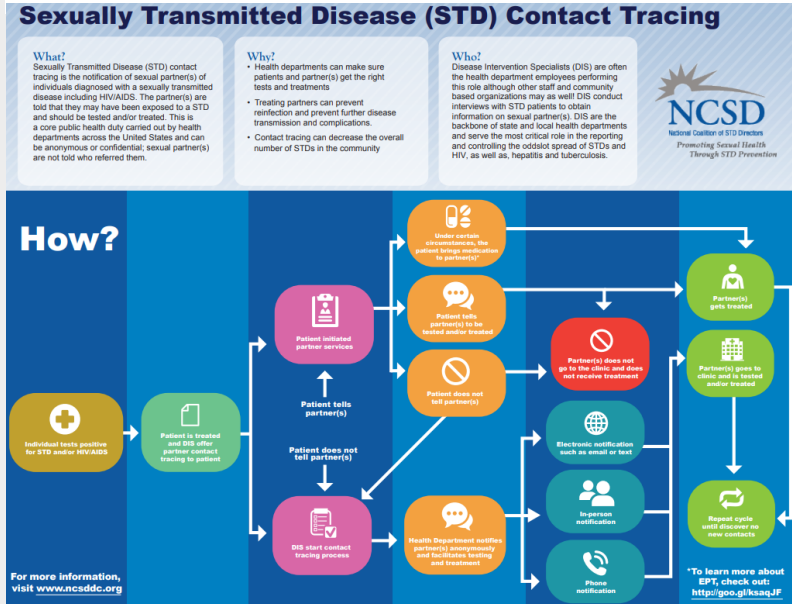
Introduction

- Treating sexual contacts immediately is recommended in guidelines



Introduction

- Increasing azithromycin resistance and reported ceftriaxone resistance

- Study aim: assess CT and NG positivity among sexual contacts to determine if guidelines recommending immediate treatment is still warranted

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Methods

Australian Collaboration for Coordinated Enhanced Sentinel Surveillance of Sexually Transmitted Infections and Blood Borne Viruses

- Retrospective observational cohort study
- De-identified demographic & STI data
- 1 January 2013 to 31 December 2017
- ACCESS project database
- 9 clinics, 83% urban
- Inclusion criteria:
  - Sexual contact recorded as reason for attendance
  - Treatment data collected electronically

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Methods

- Demographic and behavioural risk factors assessed:
  - Gender, age group, sexual preference, symptoms, sex worker status, geographical location
  - Treatment data used to determine whether a contact was attending for CT or NG exposure
  - Repeated measures model used to assess demographic and risk behaviour characteristics

Results

- 16836 episodes (4.1%) recorded for contact as a reason for attendance
- Median age:
  - Females: 23 years (IQR: 20-28)
  - Males: 28 years (IQR: 23-35)
- Overall CT positivity in contacts: 34.4% (n=2820)
- Overall NG positivity in contacts: 37.3% (n=1376)

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Results: characteristics associated with CT and NG positivity in contacts

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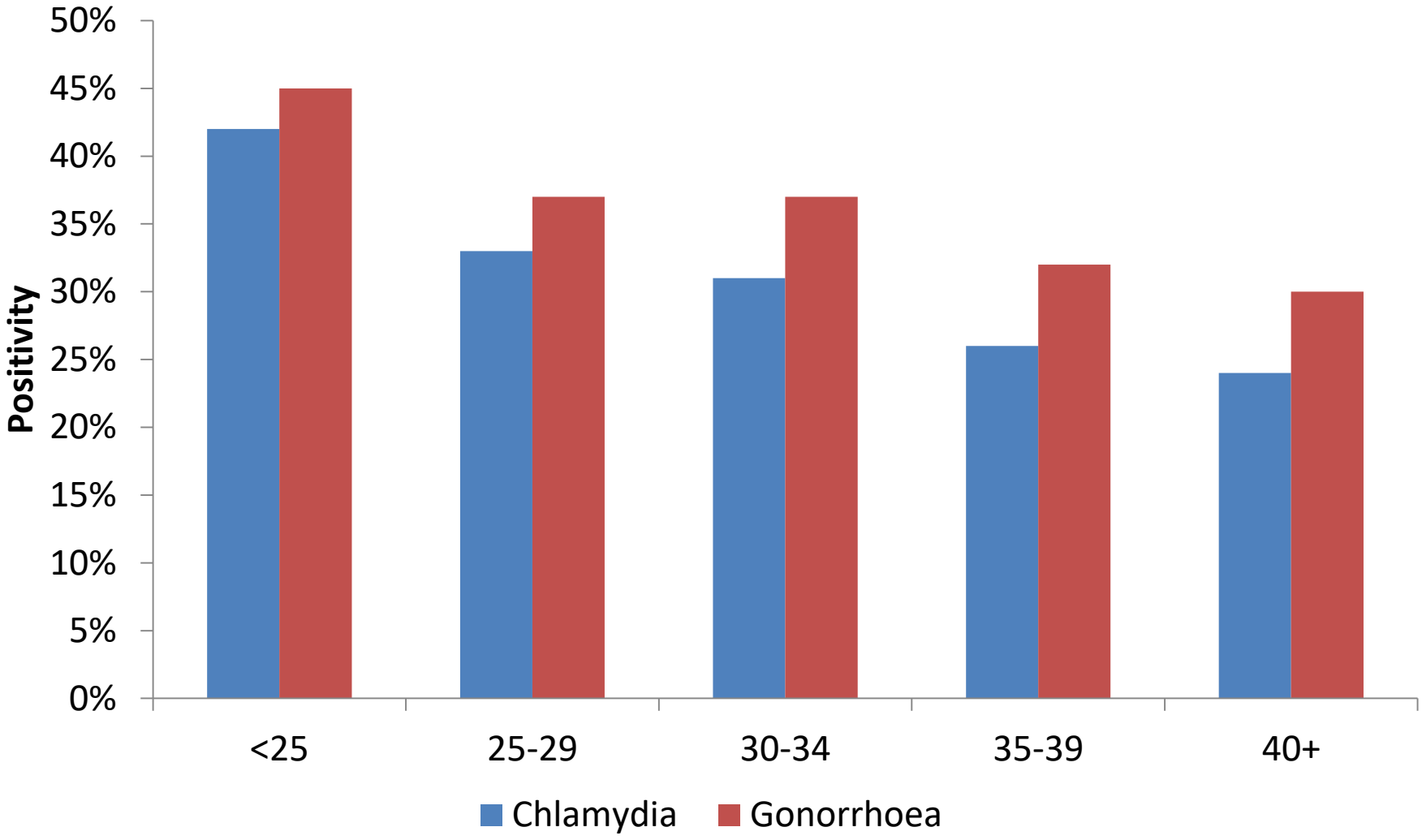
	CT positivity n (%)	NG positivity n (%)
Gender		
Male	1973 (32.0)	1232 (36.2)
Female	847 (41.5)	144 (49.5)
Among male		
GBM	823 (27.4)	1169 (37.3)
Heterosexual	1139 (36.5)	62 (23.5)
Symptoms		
Yes	671 (38.8)	371 (40.7)
No	569 (38.0)	285 (35.6)
Location		
Urban	2441 (33.7)	1254 (37.4)
Non Urban	379 (40.5)	122 (35.8)
Sex worker		
Yes	34 (33.3)	28 (51.9)
No	2786 (34.4)	1348 (37.0)

CT and NG positivity in contacts by age group



CT positivity in contacts

Category	Unadjusted OR (95% CI)	P-value	Adjusted OR	P-value
Gender				
Male	Reference			
Female	**1.50 (1.34-1.67)**	**<0.001**	-	-
Age group				
<25	**2.34 (1.96-2.78)**	**<0.001**	**1.86 (1.52-2.27)**	**<0.001**
25-29	1.57 (1.31-1.88)		1.38 (1.13-1.68)	
30-34	1.40 (1.15-1.72)		1.31 (1.05-1.63)	
35-39	1.13 (0.90-1.43)		1.01 (0.79-1.30)	
≥40	Reference			
Among male				
GBM	Reference			
Heterosexual	**1.36-1.70)**	**<0.001**	**1.35 (1.20-1.31)**	**<0.001**
Location				
Urban	**Reference**			
Non Urban	**1.35 (1.16-1.54)**	**<0.001**	1.14 (0.64-1.35)	0.147
Symptoms				
No	Reference			
Yes	1.08 (0.90-1.20)	0.603	-	-

NG positivity in contacts

Category	Unadjusted OR (95% CI)	P-value	Adjusted OR	P-value
Gender				
Male	Reference		-	-
Female	**1.71 (1.34-2.18)**	**<0.001**		
Age group				
20-24	**1.89 (1.53-2.34)**	**<0.001**	**1.80 (1.31-2.48)**	**<0.001**
25-29	1.39 (1.27-1.72)		1.14 (0.82-1.59)	
30-34	1.36 (1.08-1.72)		1.36 (0.97-1.96)	
35-39	1.12 (0.84-1.46)		0.44 (0.60-1.42)	
≥40	Reference		Reference	
Among male				
GBM	**1.96 (1.45-2.61)**	**<0.001**	**1.65 (1.14-2.44)**	**0.009**
Heterosexual	Reference			
Location				
Urban	1.07 (0.86-1.36)	0.524	-	-
Non Urban	Reference			
Symptoms				
No	Reference			
Yes	**1.25 (1.02-1.52)**	**0.029**	**1.30 (1.04-1.60)**	**0.019**

Conclusion

- More than 60% of contacts were negative for CT and NG
- Some differences in positivity by gender, age, sexual preference
- GBM - overall positivity for CT or NG <40%
- Strongest association for both infections was being aged less than 25 years

Limitations

- Several large clinics excluded from the study e.g. no treatment data unavailable
- Regional breakdown was modified – several clinics excluded
- Some risk factor categories not included
- Unable to identify if symptoms were related to diagnosis

Conclusion

- Findings support a test-and-wait approach for contacts
- Some sexual health clinics already introduced the model
- Operational research warranted in different settings and populations to confirm all contacts will return for treatment

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