

## Rate of repeat diagnoses in men who have sex with men for *Chlamydia trachomatis* and *Neisseria gonorrhoeae*: a retrospective cohort study

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### Supplementary Tables

**Table S1. Demographic characteristics and sexual behaviours among MSM who were retested following the initial gonorrhoea diagnosis, from 2006-2013.**

Year of attendance	Age	Percentage of Australian-born	Number of male partners in the last three months	Number of male partners in the last 12 months
<b>2006</b>	31 (25-40)	63.6%	3 (1-7)	10 (3-25)
<b>2007</b>	33 (26-41)	64.3%	3 (1-7)	10 (3-20)
<b>2008</b>	32 (26-41)	60.1%	3 (1-6)	7 (3-20)
<b>2009</b>	31 (26-40)	59.4%	3 (1-5)	6 (3-15)
<b>2010</b>	31 (26-40)	58.4%	3 (1-5)	6 (3-15)
<b>2011</b>	31 (25-40)	57.7%	3 (1-5)	5 (2-12)
<b>2012</b>	31 (25-40)	56.5%	3 (1-5)	5 (3-12)
<b>2013</b>	31 (26-40)	55.4%	3 (1-5)	6 (3-11)
<b>Overall</b>	31 (26-40)	58.4%	3 (1-5)	6 (3-15)
<b><i>p</i>-value</b>	<0.001	<0.001	<0.001	<0.001

**Table S2. Demographic characteristics and sexual behaviours among MSM who were retested following the initial chlamydia diagnosis, from 2006-2013.**

<b>Year of attendance</b>	<b>Age</b>	<b>Percentage of Australian-born</b>	<b>Number of male partners in the last three months</b>	<b>Number of male partners in the last 12 months</b>
<b>2006</b>	30 (27-35)	78.8%	4 (2-15)	15 (5-74)
<b>2007</b>	33 (26-42)	73.6%	4 (2-7)	10 (4-30)
<b>2008</b>	31 (25-29)	61.5%	3 (1-10)	8 (3-28)
<b>2009</b>	32 (26-40)	64.5%	3 (2-6)	9 (5-20)
<b>2010</b>	32 (27-41)	56.8%	3 (2-6)	10 (4-20)
<b>2011</b>	32 (26-41)	61.3%	3 (2-6)	10 (4-20)
<b>2012</b>	31 (26-42)	63.6%	3 (2-5)	7 (3-16)
<b>2013</b>	31 (26-40)	56.5%	3 (2-6)	10 (4-20)
<b>Overall</b>	30 (25-39)	61.3%	3 (2-6)	10 (4-20)
<b><i>p</i>-value</b>	0.854	0.012	0.807	0.460

**Table S3. Demographic characteristics and sexual behaviours among MSM who were retested following the initial gonorrhoea diagnosis, from 2006-2013.**

<b>Year of attendance</b>	<b>Age</b>	<b>Percentage of Australian-born</b>	<b>Number of male partners in the last three months</b>	<b>Number of male partners in the last 12 months</b>
<b>2006</b>	28 (24-36)	96.0%	6 (3-15)	20 (3-50)
<b>2007</b>	29 (25-41)	72.9%	10 (3-19)	20 (8-60)
<b>2008</b>	30 (26-39)	69.8%	6 (3-11)	20 (6-30)
<b>2009</b>	29 (24-35)	62.5%	4 (2-10)	10 (4-30)
<b>2010</b>	28 (25-37)	68.7%	4 (2-5)	10 (3-17)
<b>2011</b>	30 (25-37)	66.9%	3 (2-6)	9 (4-20)
<b>2012</b>	29 (25-37)	66.7%	3 (2-6)	9 (3-20)
<b>2013</b>	30 (25-38)	64.5%	4 (2-7)	10 (5-20)
<b>Overall</b>	29 (25-37)	67.3%	4 (2-8)	10 (4-20)
<b><i>p</i>-value</b>	0.687	0.029	0.001	0.002

**Table S4. Number retested, proportion positive and rate per 100 per years for chlamydia or gonorrhoea following a positive diagnosis of chlamydia between 29 and 365 days.**

	<b>1<sup>st</sup> Quarter (29-90 days)</b>	<b>2<sup>nd</sup> Quarter (91-180 days)</b>	<b>3<sup>rd</sup> Quarter (181-270 days)</b>	<b>4<sup>th</sup> Quarter (271-365 days)</b>	<b>Overall (10-365 days)</b>
<b>Chlamydia</b>					
<b>Proportion positive*</b>	119/563 (21%)	108/609 (18%)	38/216 (18%)	17/99 (17%)	282/1487 (19%)
<b>Cumulative proportion positive<sup>^</sup></b>	119/563 (21%)	227/1172 (19%)	265/1388 (19%)	282/1487 (19%)	-
<b>Total person-year</b>	92	211	129	80	513
<b>Rate of repeat diagnoses per 100 py (95% CI)</b>	129 (106-152)	51 (42-61)	29 (20-39)	21 (11-31)	55 (49-61)
<b>Rate ratio (rate of repeat diagnoses to background incidence of diagnoses)</b>	7	4	4	2	4
<b>Gonorrhoea</b>					
<b>Proportion positive</b>	34/479 (7%)	53/553 (10%)	32/207 (15%)	11/96 (11%)	130/1335 (10%)
<b>Cumulative proportion positive<sup>^</sup></b>	34/479 (7%)	87/1032 (8%)	119/1239 (10%)	130/1335 (10%)	-
<b>Total person-year</b>	80	192	124	79	475
<b>Rate of repeat diagnoses per 100 py (95% CI)</b>	43 (28-57)	28 (20-35)	26 (17-35)	14 (6-22)	27 (23-32)
<b>Rate ratio (rate of repeat diagnoses to background incidence of diagnoses)</b>	15	6	3	2	6

\*Proportion who tested positive during the defined interval after diagnosis and treatment of the primary infection.

<sup>^</sup>Proportion who tested positive by the end of the specific quarter

**Table S5. Number retested, proportion positive and rate per 100 per years for chlamydia or gonorrhoea following a positive diagnosis of gonorrhoea between 29 and 365 days.**

	<b>1<sup>st</sup> Quarter (29-90 days)</b>	<b>2<sup>nd</sup> Quarter (91-180 days)</b>	<b>3<sup>rd</sup> Quarter (181-270 days)</b>	<b>4<sup>th</sup> Quarter (271-365 days)</b>	<b>Overall (10-365 days)</b>
<b>Gonorrhoea</b>					
<b>Proportion positive*</b>	52/296 (18%)	38/235 (16%)	18/135 (13%)	5/53 (9%)	113/719 (16%)
<b>Cumulative proportion positive<sup>^</sup></b>	52/296 (18%)	90/531 (17%)	108/666 (16%)	113/719 (16%)	-
<b>Total person-year</b>	48	101	82	26	256
<b>Rate of repeat diagnoses per 100 py (95% CI)</b>	109 (79-138)	38 (26-50)	22 (12-32)	19 (2-36)	44 (36-52)
<b>Rate ratio (rate of repeat diagnoses to background incidence of diagnoses)</b>	18	6	4	3	7
<b>Chlamydia</b>					
<b>Proportion positive*</b>	39/265 (15%)	30/230 (13%)	22/133 (17%)	7/52 (13%)	98/680 (14%)
<b>Cumulative proportion positive<sup>^</sup></b>	39/265 (15%)	69/495 (14%)	91/628 (14%)	98/680 (14%)	-
<b>Total person-year</b>	44	84	81	40	249
<b>Rate of repeat diagnoses per 100 py (95% CI)</b>	89 (61-117)	36 (23-49)	27 (16-39)	17 (4-30)	39 (32-47)
<b>Rate ratio (rate of repeat diagnoses to background incidence of diagnoses)</b>	10	4	3	2	5

\*Proportion who tested positive during the defined interval after diagnosis and treatment of the primary infection.

<sup>^</sup>Proportion who tested positive by the end of the specific quarter