

# **GUM Papers**

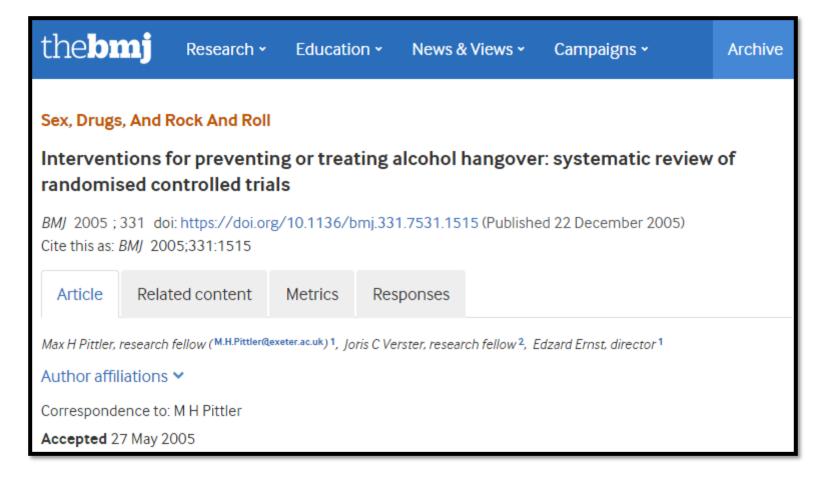
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Conflict of interests: none declared













# **Aims and Objectives**

- Syphilis
- Epidemiological treatment
- Chemsex
- PrEP
- HPV vaccines

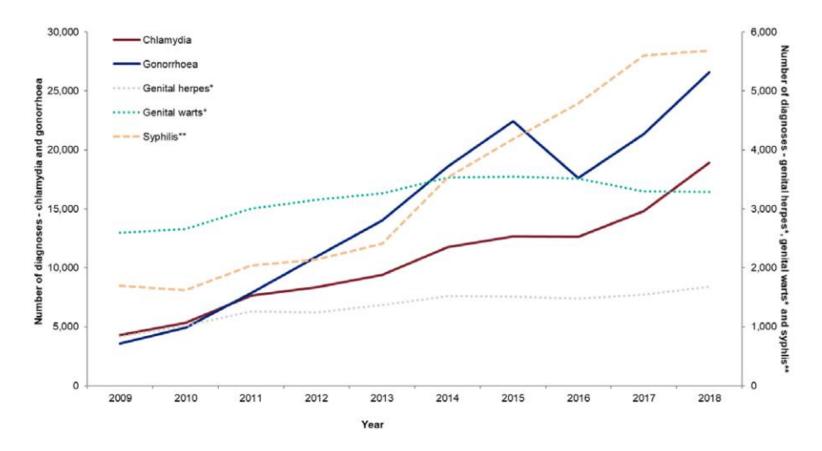








Figure 3. Number of new diagnoses of selected sexually transmitted infections in gay, bisexual and other men who have sex with men attending sexual health services<sup>†</sup>, 2009–2018, England







### **Enhanced surveillance of STS in MSM**

- Enhanced surveillance for newly diagnosed syphilis in MSM
  - established by PHE
  - 3 London sexual health clinics
  - Oct 2016 Jan 2017
- Sexual health advisors (SHAs) completed 107 questionnaires
  - sexual behaviour
  - method of meeting new partners
  - means of accessing health information
  - ways to refine public health interventions





#### Risk behaviour

- 57% HIV positive
- 97% reported sex with ≥1 person in the previous three months
- 32% reported engaging in group sex
- 47% reported drug use during sex
  - Alcohol (45%)
  - Mephedrone (28%)
  - GHB/GBL (28%)
  - Crystal methamphetamine (25%)



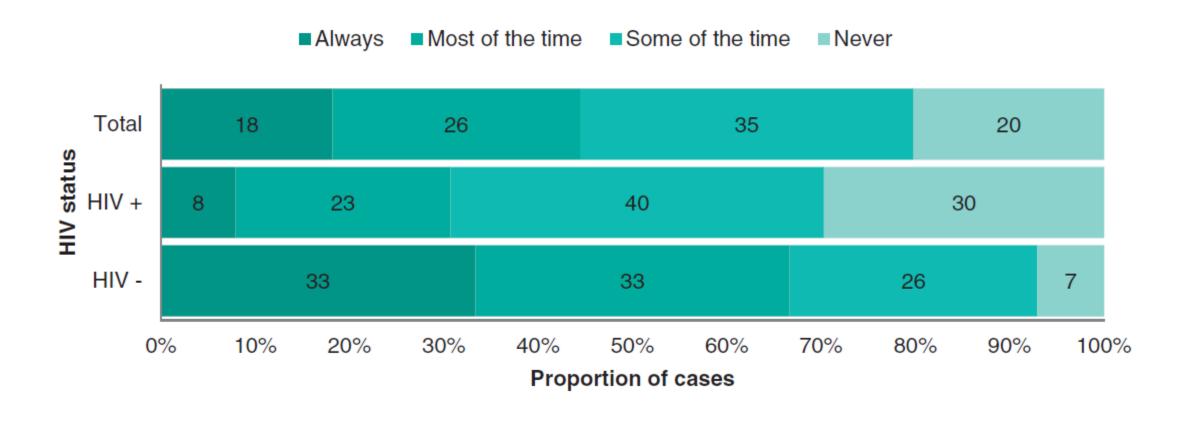


Figure 1. Frequency of condom use for sex in the previous three months by HIV status.

Table 2. Apps/websites and venues used to meet sexual partners in the previous three months.

	All		HIV+		HIV-		
Apps/websites and venues	n = 95	%	n = 55	%	n = 37	%	p-value
Did not use any	4	4	4	7	0	_	
Via apps or websites (any)	75	79	43	78	29	78	0.98
<ul> <li>Grindr</li> </ul>	57	60	29	53	25	68	0.166
<ul> <li>BBRT (BareBack Real Time)</li> </ul>	14	15	14	25	0	$\overline{}$	$0.00^{a}$
Scruff	14	15	9	16	5	13	0.70
<ul> <li>Squirt</li> </ul>	7	8	5	9	2	5	$0.70^{a}$
Tinder	7	8	1	2	6	16	$0.02^{a}$
<ul> <li>Gaydar</li> </ul>	5	5	3	5	2	5	$0.30^{a}$
<ul> <li>Facebook</li> </ul>	4	4	1	2	3	8	$0.30^{a}$
<ul> <li>Other<sup>b</sup></li> </ul>	11	12	8	15	3	8	
Via venues (any)	76	80	40	$\overline{71}$	33	92	$0.03^{a}$
Bar or club	32	34	18	32	13	36	0.70
House/sex party	19	20	11	20	7	19	0.98
Through friends	16	17	8	14	8	22	0.33
A sauna	9	9	5	9	3	8	1.00 <sup>a</sup>
A dark room	4	4	2	4	2	6	0.64 <sup>a</sup>
An outdoor cruising ground	2	2	1	2	1	3	1.000 <sup>a</sup>
A porn cinema	1	1	0	_	1	3	$0.39^{a}$
Cottaging	1	1	1	2	0	_	1.00 <sup>a</sup>
Other <sup>c</sup>	2	2	1	2	5	14	

**Table 3.** Preferences for accessing health information and messages about syphilis (n=92).

	All		HIV+		HIV-		
Means of access	n = 92	%	n = 53	%	n = 36	%	p-value
Sexual health clinic health advisor	58	63	40	75	16	44	0.003
Google/Wikipedia	34	37	18	34	15	42	0.46
Posters/leaflets at sexual health clinics	22	24	12	23	9	25	0.80
NHS choices website <sup>a</sup>	20	22	10	19	9	25	0.49
Through apps	13	14	6	11	6	17	0.47
Posters or leaflets at bars/venues	9	10	7	13	2	6	0.30 <sup>b</sup>
GP practice	8	9	4	8	4	- 11	0.71 <sup>b</sup>
Public Health England website	7	8	5	9	2	6	0.70 <sup>b</sup>
Social media, e.g. Twitter, Facebook	6	7	3	6	3	8	0.70 <sup>b</sup>
Other organisation websites, e.g. Terrence Higgins Trust (THT)	4	4	2	4	2	6	1.00 <sup>b</sup>
Peers or community groups	4	4	2	4	2	6	1.00 <sup>b</sup>
From the news	2	2	2	4	0	_	
Do it London <sup>c</sup> website	1	1	0	_	1	3	
Other, please specify <sup>d</sup>	6	7	2	4	4	- 11	





## **Conclusions**

- Limitations
  - limited sample size
  - different number/responder characteristics between clinics
  - variable questionnaire completeness
- Important factors in the rise in syphilis in MSM
  - lack of condoms
  - multiple partners
  - group sex
  - chemsex
  - use of apps to meet partners



Original research article



Empiric antimicrobial treatment for asymptomatic sexual contacts of sexually transmitted infection in the era of antimicrobial resistance: time to rethink? International Journal of STD & AIDS 2019, Vol. 30(2) 137–139

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**\$**SAGE

Elizabeth Pearce<sup>1</sup>, Derek J Chan<sup>1,2</sup> o and Don E Smith<sup>1,2</sup> o

#### Abstract

Prudent prescribing of antimicrobials is essential in ameliorating the public health problem of antimicrobial resistance. This retrospective audit assesses whether empiric antimicrobial treatment for asymptomatic sexual contacts of sexually transmitted infection is appropriate based on laboratory confirmation.

#### Keywords

Antibiotic, Australia, treatment, screening, sexually transmitted infection

Date received: 13 June 2018; accepted: 14 August 2018





# **Empirical antibiotic treatment**

- Guidelines recommend that STI contacts receive empirical antimicrobial therapy (EAT)
- However if no STI is present
  - unnecessary side effects
  - IM injections
  - decreased susceptibility & resistance
- Retrospective case note audit
  - 100 asymptomatic STI contacts
  - 15th Jan 2017 to 15th Nov 2017





**Table 1.** STI reported vs. confirmed diagnosis.

		NAAT diagnosi	NAAT diagnosis n = 25			
Contact STI	N = 100	Gonorrhoea	Syphilis	Chlamydia	Mgen & GC	
Chlamydia	42	3	-	6	_	
Gonorrhoea	38	10	_	-	_	
GC & CT	16	-	_	1	-	
Syphilis	3	_ /	3	\ - /	-	
CT & Mgen	1		-		1	





### Results

- All received empirical antibiotics
  - 75 (75%) had no STI
- STI contacts
  - 100% of Syphilis contacts were serologically confirmed cases
  - 19% of Gonorrhoea contacts
  - 12% of Chlaymdia contacts
- Overall, 80% of patients were incorrectly treated
  - 5% received the wrong treatment
  - 75% received unnecessary treatment





### **Conclusion**

- Discontinued asymptomatic EAT
  - except syphilis
  - recalled according to results
  - retest according to window period
- However
  - relies on abstaining / returning
  - chaotic patients unlikely to re-attend
  - NAAT result time 1-5 days
  - may not be generalisable beyond urban MSM.



#### **Behaviour**



ORIGINAL ARTICLE

Changes in recreational drug use, drug use associated with chemsex, and HIV-related behaviours, among HIV-negative men who have sex with men in London and Brighton, 2013–2016

Janey Sewell, <sup>1</sup> Valentina Cambiano, <sup>1</sup> Ada Miltz, <sup>1</sup> Andrew Speakman, <sup>1</sup> Fiona C Lampe, <sup>1</sup> Andrew Phillips, <sup>1</sup> David Stuart, <sup>2</sup> Richard Gilson, <sup>1</sup> David Asboe, <sup>2</sup> Nneka Nwokolo, <sup>2</sup> Amanda Clarke, <sup>3</sup> Graham Hart, <sup>1</sup> Alison Rodger <sup>1</sup>





# Changes in drug use

- Compare the prevalence and use of chemsex drugs, and HIV-related behaviours
  - between 2 time periods
  - using 2 groups of HIV negative MSM
  - adjusted for sociodemographic factors
  - attending clinics in London and Brighton
- Baseline cross-sectional questionnaire data from two studies
  - AURAH study (June 2013 Sept 2014)
  - AURAH2 study (Nov 2014 April 2016)



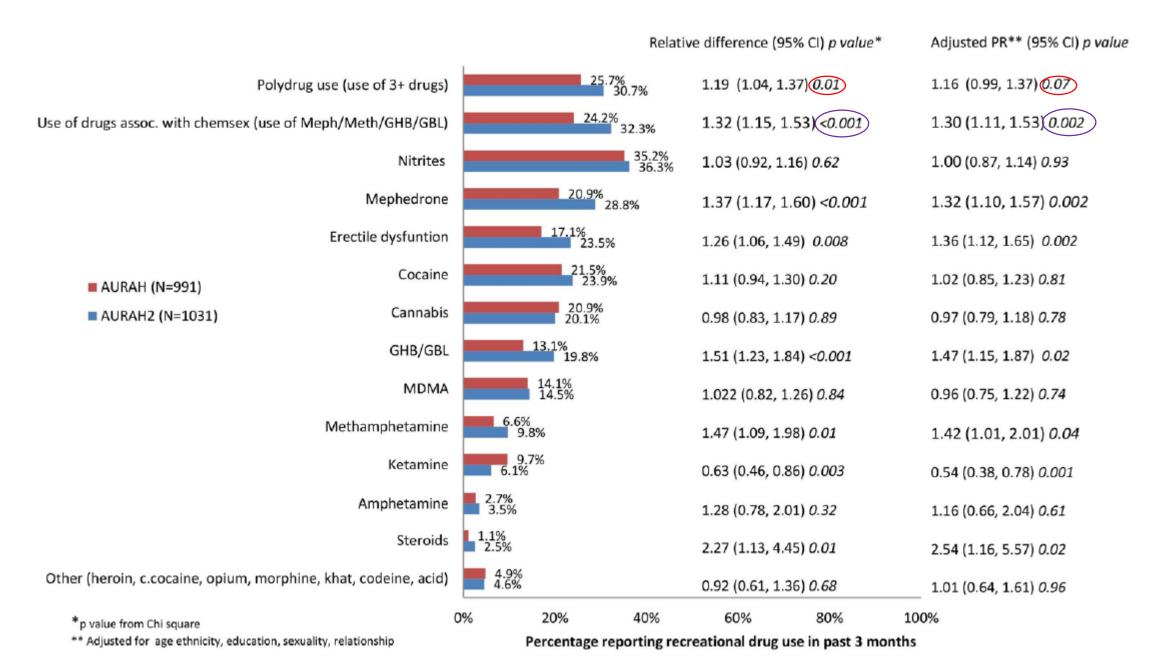


Figure 1 Prevalence of polydrug use, drug use associated with chemsex and individual drug use in MSM participants in the AURAH, (2013-14) and AURAH2, )2014-16) studies.

			Unadjusted PR (95% CI)			
Measures of sexual behaviour	Study	Prevalence n (%) (95% CI)	AURAH2 vs AURAH*	P valuet	Adjusted‡ PR (95% CI)	P valuet
CLS with one or more partners	AURAH	558 (56.3%) (53.3% to 59.4%)	1.14 (1.07 to 1.23)	< 0.001	1.14 (1.05 to 1.24)	0.001
(past 3 months)	AURAH2	664 (64.4%) (61.5% to 67.4%)				0.001
CLS with two or more partners	AURAH	286 (28.8%) (26.1% to 31.8%)	1.22 (1.08 to 1.39)	0.002	1.22 (1.05 to 1.41)	0.009
(past 3 months)	AURAH2	365 (35.4%) (32.5% to 38.4%)				0.008
CLS with unknown/HIV+ status	AURAH	310 (31.3%) (28.5% to 34.3%)	1.00 (0.88 to 1.14)	0.944	0.99 (0.85 to 1.14)	0.893
partner(s) (past 3 months)	AURAH2	324 (31.4%) (28.7% to 34.3%)				0.033
Receptive CLS with unknown HIV	AURAH	116 (11.7%) (9.8% to 13.8%)	1.06 (0.84 to 1.34)	0.624	0.98 (0.75 to 1.28)	0.901
status partner(s) (past 3 months)	AURAH2	128 (12.4%) (10.5% to 14.6%)				0.301
Self-reported bacterial STI	AURAH	303 (30.5%) (27.8% to 33.5%)	1.30 (1.15 to 1.47)	< 0.001	1.24 (1.08 to 1.43)	0.002
diagnosis (past year)	AURAH2	411 (39.8%) (36.9% to 42.9%)				0.002
Eleven or more new sexual	AURAH	374 (37.7%) (34.8% to 40.1%)	1.07 (0.97 to 1.20)	0.168	1.11 (0.98 to 1.25)	0.09
partners (past year)	AURAH2	420 (40.7%) (37.8% to 43.7%)				0.03
Group sex (past 3 months)	AURAH	388 (39.1%) (36.2% to 42.2%)	1.10 (0.99 to 1.22)	0.069	1.10 (0.97 to 1.24)	0.08
	AURAH2	438 (42.5%) (39.5% to 45.5%)				0.00
PEP use (past year)	AURAH	151 (15.2%) (13.1% to 17.6%)	1.43 (1.18 to 1.72)	< 0.001	1.50 (1.21 to 1.88)	€0.001
	AURAH2	224 (21.7%) (19.3% to 24.4%)				(0.001)
PrEP use (past year)	AURAH	38 (3.8%) (2.5% to 4.5%)	1.44 (0.96 to 2.15)	0.074	1.31 (0.70 to 1.82)	0.611
	AURAH2	57 (5.5%) (4.3% to 7.1%)				0.011
Recent HIV test (past 6 months)	AURAH	631 (63.8%) (60.7% to 66.7%)	1.15 (1.09 to 1.22)	< 0.001	1.14 (1.07 to 1.21)	<0.001
	AURAH2	757 (73.4%) (70.6% to 76.0%)				0.001

Table 2. Prevalence of HIV-related behaviours among MSM in the AURAH (n=991) and AURAH2 (n=1031) studies and association of these measures with study



#### Conclusion

- Substantial increases over the 3-year period from the AURAH to AURAH2 study
  - chemsex drug use
  - condomless sex, reported STIs and PEP
  - reported HIV testing
- Polydrug / chemsex drug use associated with almost all measures of HIV-related behaviour measures
- Limitations
  - chemsex drug use does not necessarily equate to use of drugs during sex
  - may not be directly generalisable to broader MSM population
  - 2 participating clinics are specialist centres of chemsex support so awareness is more robust



# Incidence of HIV-infection in the ANRS <u>Prevenir</u> Study in the Paris Region with Daily or On Demand <u>PrEP</u> with TDF/FTC

J.-M. Molina, J. Ghosn, L. Béniguel et al.

# 22<sup>th</sup> International AIDS Conference Amsterdam, July 25, 2018

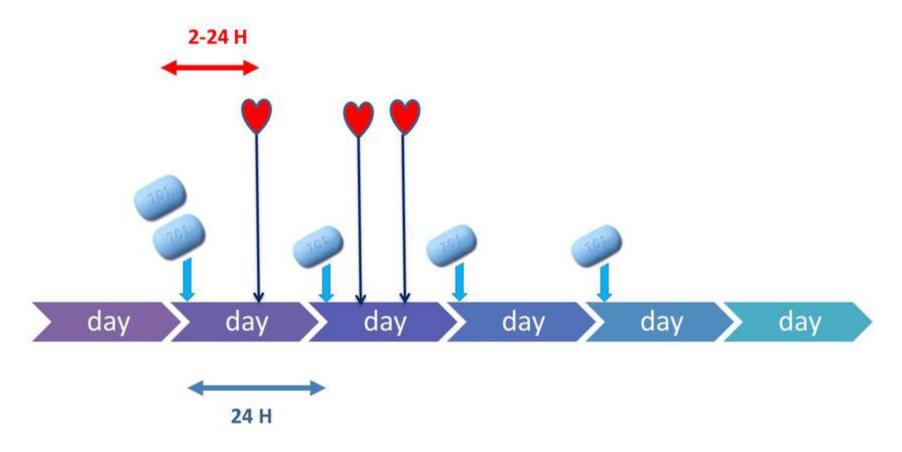








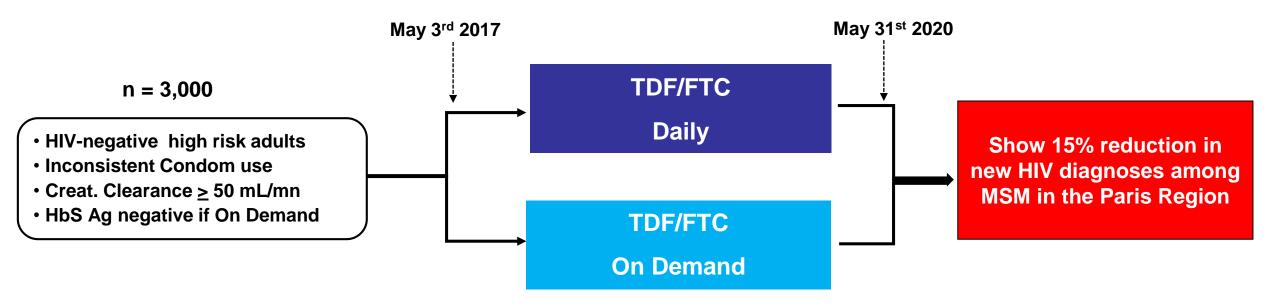








#### **Open-Label Prospective Cohort Study in the Paris Region**



- Daily or On-Demand PrEP and could switch regimens
- Follow-up every 3 months with HIV test and plasma creatinine
- Condoms, risk reduction, adherence counselling, sexual behaviour discussions





Baseline Characteristics (n, %)	Daily n = 724 (45.4%)	On Demand n= 870 (54.6%)	P-value
Heterosexual men or women	7 (0.1)	5 (0.6)	<.01
Transgender	8 (1.1)	0 (0)	<.01
No regular sex partner	380 (53)	437 (51)	0.41
History of PrEP use	408 (56.5)	515 (59.2)	0.28
Use of Chemsex	128 (17.7)	124 (14.3)	0.06
No. condomless sex acts in prior 4 weeks	3 (1-8)	2 (0-4)	<.001
No. sexual partners in prior 3 months	15 (7-25)	10 (5-15)	<.001





(n, %)	Daily n = 1088 acts	On Demand n = 1191 acts	Total n= 2279
Total PrEP use	1068 (98.2)	967 (81.2)	2035 (89.2)
- Correct use	1024 (95.8)	931 (96.2)	1955 (96.1)
- Suboptimal	44 (4.1)	36 (3.7)	80 (3.9)
Condoms	206 (18.9)	258 (21.6)	464 (20.4)





Treatment	Follow-Up Pts-years	HIV Incidence per 100 Pts-years (95% CI)
TDF/FTC (Daily)	443	<b>0</b> (0-0.8)
TDF/FTC (On Demand)	506	<b>0</b> (0-0.7)





Cochrane Database of Systematic Reviews

Prophylactic vaccination against human papillomaviruses to prevent cervical cancer and its precursors (Review)

Arbyn M, Xu L, Simoens C, Martin-Hirsch PPL

Arbyn M, Xu L, Simoens C, Martin-Hirsch PPL.

Prophylactic vaccination against human papillomaviruses to prevent cervical cancer and its precursors.

Cochrane Database of Systematic Reviews 2018, Issue 5. Art. No.: CD009069.

DOI: 10.1002/14651858.CD009069.pub3.

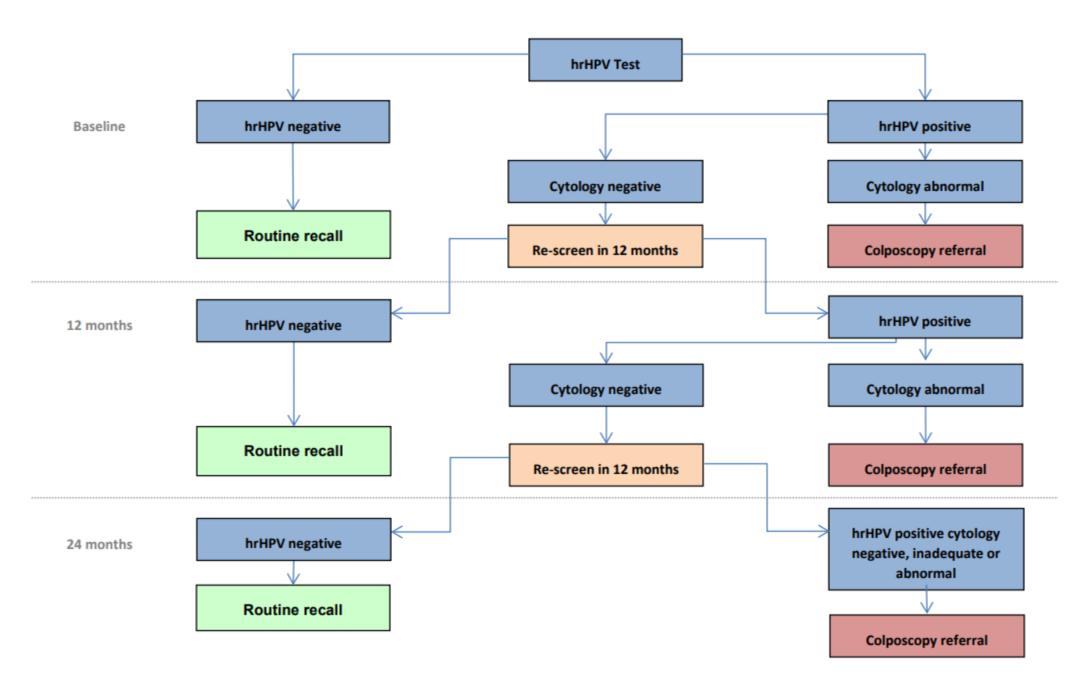
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Prophylactic vaccination against human papillomaviruses to prevent cervical cancer and its precursors (Review)
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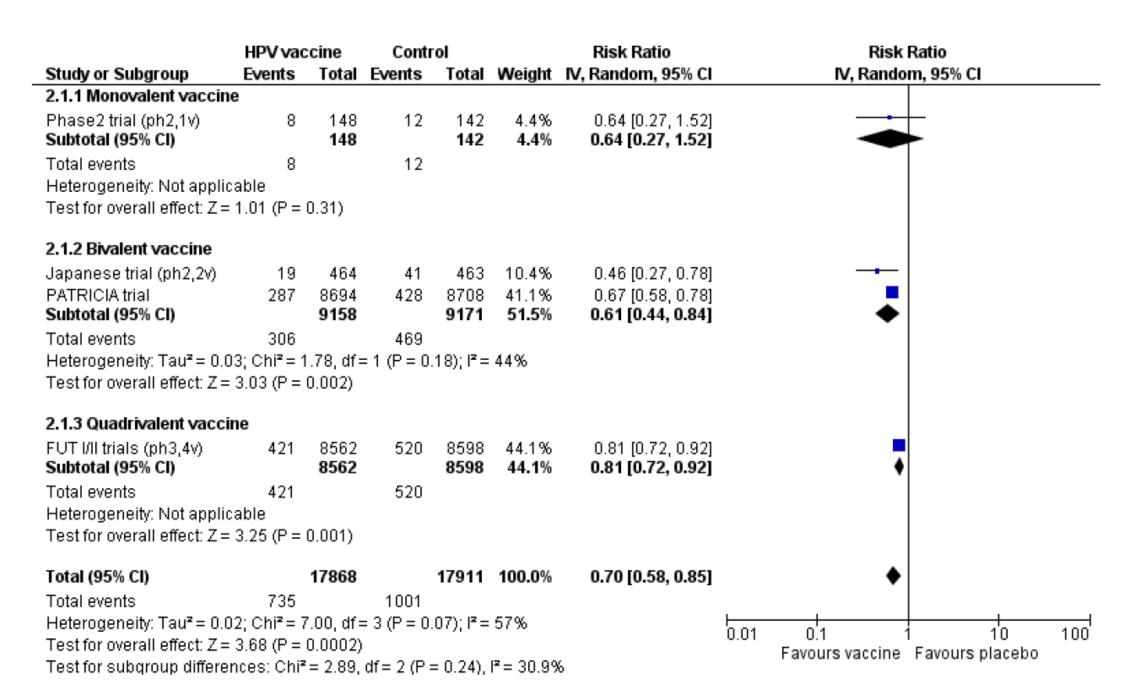


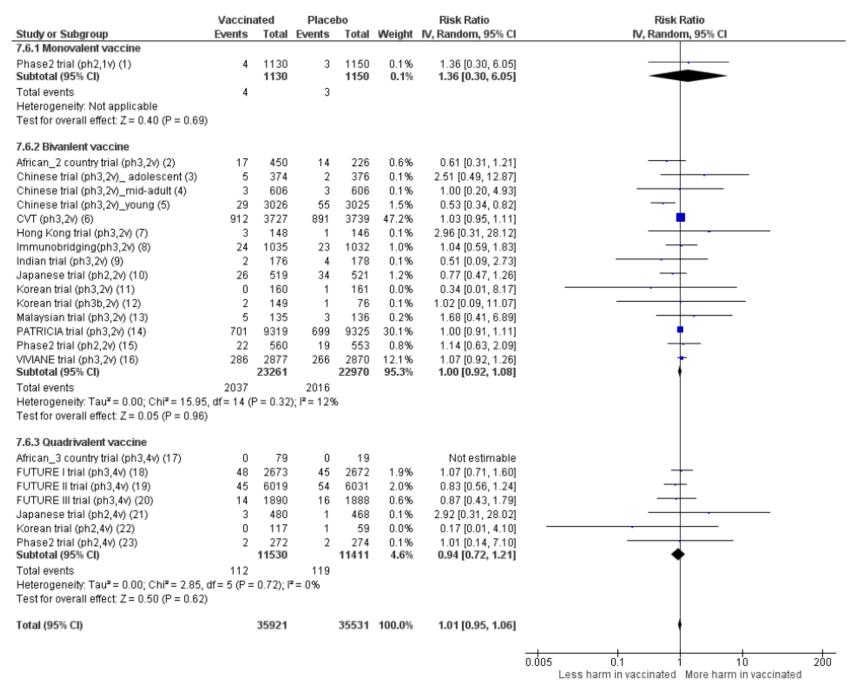


## **Prophylactic HPV vaccination**

- Cochrane review 2018: effects of at least one HPV vaccine dose
  - 26 trials (73,428 participants)
  - 10 trials, with FU 1.3 to 8 years, addressed CIN/AIS
  - 23 studies assessed safety over 6 months to 7 years
- Studies involved monovalent (N = 1), bivalent (N = 18), and quadrivalent vaccines (N = 7)
- Studies not large/long enough to evaluate Cervical cancer
- All but one trial funded by vaccine manufacturers
  - considered low risk of bias
- Most in <26 years; three trials recruited ≥25 years</li>







Sensitivity analysis of Analysis 7.6 on severe adverse effects restricting to data extracted from publications in peer-reviewed journals.



### **Conclusion**

- HPV vaccines protect against cervical pre-cancer in adolescent girls / young women aged 15 to 26
  - high-certainty evidence
  - effect > for lesions associated with HPV16/18
  - effect > in those who are negative for hrHPV or HPV16/18 DNA
- HPV vaccines reduce CIN2+ in older women who are HPV16/18 negative
  - moderate-certainty evidence
  - not when they are unselected by HPV DNA status.





