



Atelier IST 2017

A Riché, E Caumes



Les Pensières





Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

STD Risk and Oral Sex - CDC Fact Sheet



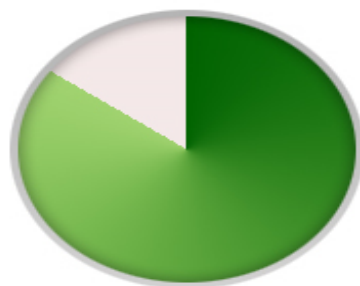
Fast Facts

- Many sexually transmitted diseases (STDs) can be spread through oral sex.
- Using a condom, dental dam or other barrier method each and every time you have oral sex can reduce the risk of giving or getting an STD.
- Although oral sex may carry a lower risk for spreading HIV than other forms of sex, repeated unprotected exposures may increase risk of transmission.

What is Oral Sex?

Oral sex involves using the mouth, lips, or tongue to stimulate the penis (fellatio), vagina (cunnilingus), or anus (anilingus) of a sex partner. The penis and testicles and the vagina and area around the vagina are also called the genitals or genital area.

How Common is Oral Sex?



85% of sexually active adults aged 18-44 years reported having had oral sex at least once with a partner of the opposite sex

Oral sex is commonly practiced by sexually active adults. Oral sex can happen between heterosexual (straight) and same-sex (gay or lesbian) couples. More than 85% of sexually active adults aged 18-44 years reported having had oral sex at least once with a partner of the opposite sex. A separate survey conducted during 2007-2010 found that 33% of teenage girls and boys aged 15-17 years reported having had oral sex with a partner of the opposite sex.



Average annual number of cancers attributed to HPV, United States, 2008–2012

Cancer	Average number of cancers per year where HPV is found	HPV attributable No. (%)	HPV 16/18 attributable No. (%)	HPV 31/33/45/52/58 attributable No. (%)
Cervical	11,771	10,700 (90.6)	7,800 (66.2)	1,700 (14.7)
Vaginal	802	600 (75.0)	400 (55.1)	100 (18.3)
Vulvar	3,554	2,400 (68.8)	1,700 (48.6)	500 (14.2)
Penile	1,168	700 (63.3)	600 (47.9)	100 (9.0)
Anal	5,010	4,600 (91.1)	4,000 (79.4)	400 (8.2)
Rectal	750	700 (91.1)	600 (79.4)	100 (8.2)
Oropharyngeal	15,738	11,000 (70.1)	9,500 (60.2)	900 (5.7)
Total	38,793	30,700	24,600	3,800

Adapted from: Viens et al. Human Papillomavirus- Associated Cancers—United States, 2008–2012. MMWR 2016

Differences in Oral Sexual Behaviors by Gender, Age, and Race Explain Observed Differences in Prevalence of Oral Human Papillomavirus Infection



January 2014 | Volume 9 | Issue 1 |

Number of people performed oral sex on in lifetime*	Oral HPV*	Oral HPV16*
	Odds Ratio(95% CI)	Odds Ratio(95% CI)
0	1.00	1.00
1-2	0.79 (0.36, 1.76)	0.32 (0.04, 2.39)
3-5	1.69 (0.96, 2.96)	0.61 (0.08, 4.74)
6-10	2.12 (0.97, 4.64)	1.10 (0.11, 10.66)
>10	3.65 (1.52, 8.75)	3.88 (0.27, 55.37)
p-trend	p<0.001	p=0.03

Michael Douglas: 'Oral Sex Caused My Cancer'



**Risque X 3 tabac
X 32 HPV 16**

Homme > 5 partenaires oraux X 8

ACCUEIL > SCIENCES

Cancer: La pipe aussi dangereuse que le cigare

SANTÉ es rapports sexuels oraux augmentent plus le risque de cancer de la gorge que la fumée ou l'alcool...

Yaroslav Pigenet | Publié le 11/05/07 à 00h00 — Mis à jour le 15/09/14 à 12h19

STDs spread by “fecal-oral” contact

- Usually transmitted by contaminated food or water; CAN be transmitted sexually through:
 - Anilingus
 - Fellatio immediately after anal sex
 - Oral contact with sex toys immediately after anal contact
- Sexually transmitted enteric infections include:
 - Hepatitis A (HAV)
 - *Entamoeba histolytica*
 - *Giardia lamblia*
 - *Shigella*
 - *Salmonella*
 - *Cryptosporidium*
 - *Campylobacter*

A Possible Cluster of Sexually Transmitted *Entamoeba histolytica*: Genetic Analysis of a Highly Virulent Strain

Irving E. Salit,^{1,2} Krishna Khairnar,⁴ Kevin Gough,^{2,5} and Dylan R. Pillai^{2,3,4}

¹University Health Network, Toronto General Hospital, ²Division of Infectious Diseases, Department of Medicine, and ³Department of Medicine and Pathobiology, University of Toronto, ⁴Toronto Public Health Laboratory, Ontario Agency for Health Protection and Promotion and ⁵St. Michael's Hospital, Toronto, Canada

CID 2009;49 (1 August)

EMERGING INFECTIOUS DISEASES®

ISSN: 1080-6059

EID Journal

CDC > EID Journal > Past Issues > May 2013

June 2015



Past Issues

May 2013

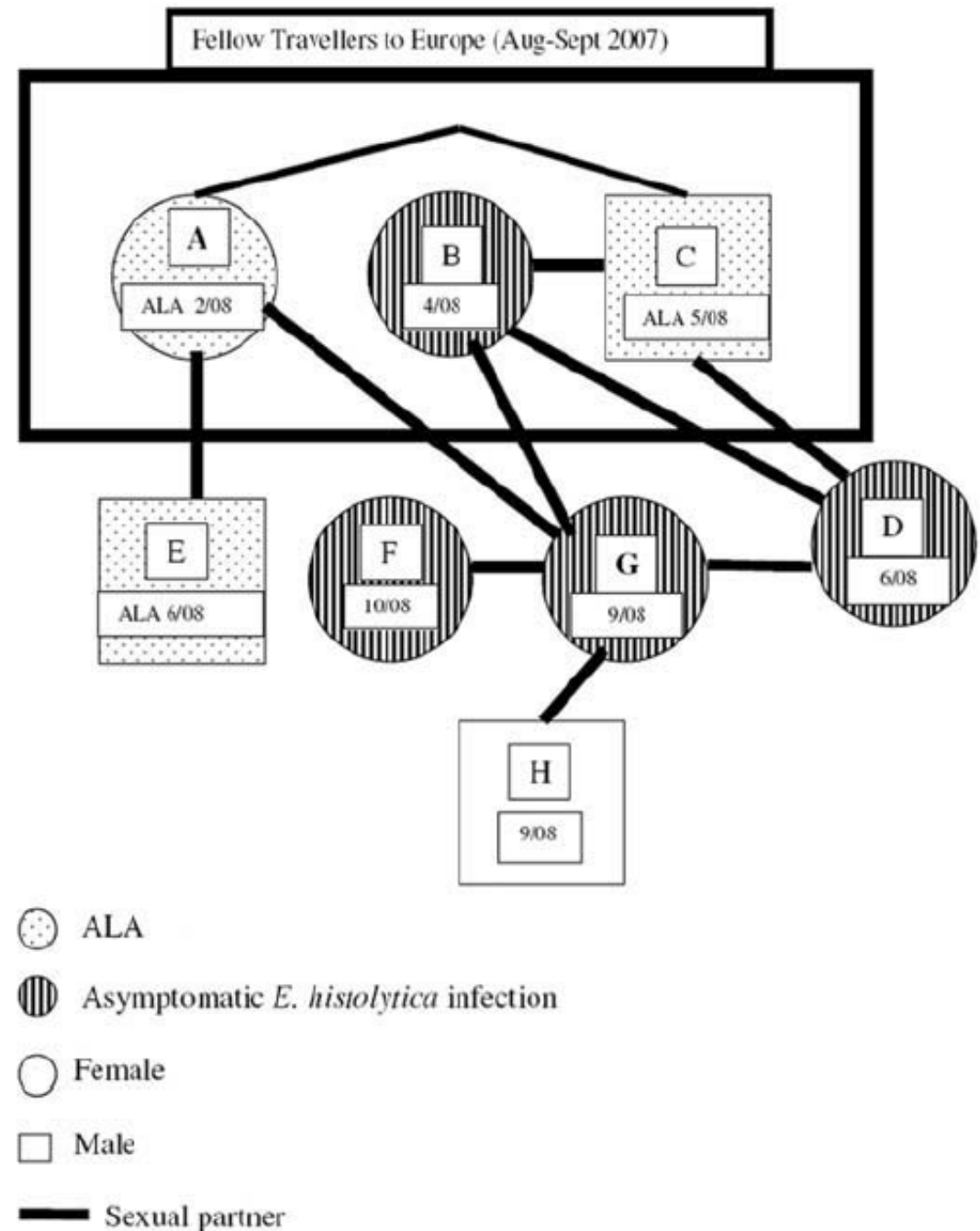
Volume 19, Number 5—May 2013

Campylobacter coli Outbreak in Men Who Have Sex with Men, Quebec, Canada, 2010–2011

Dispatch

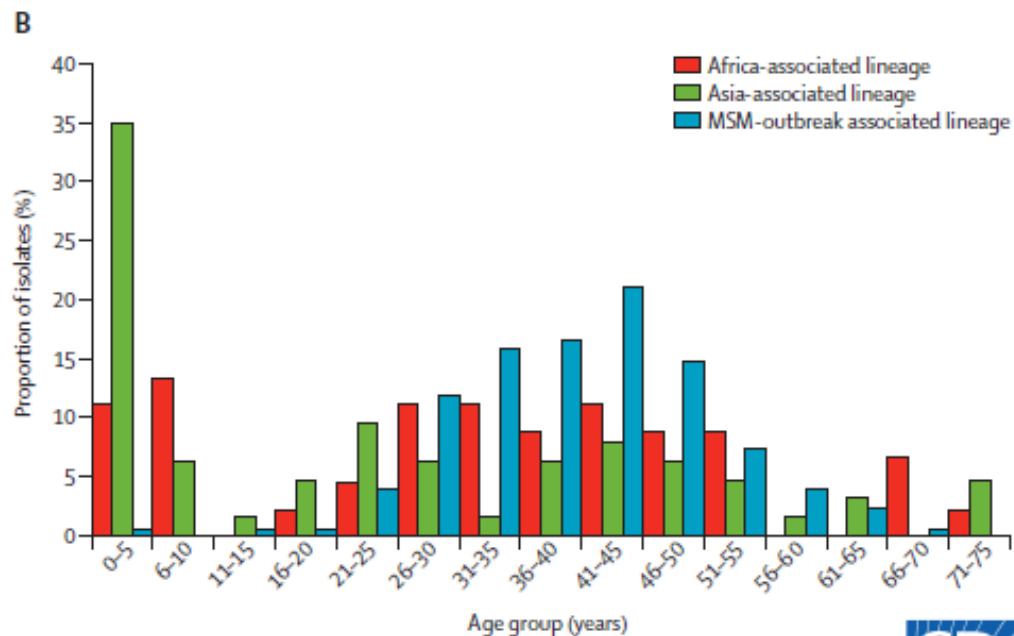
Campylobacter coli Outbreak in Men Who Have Sex with Men, Quebec, Canada, 2010–2011

N = 6 en 1 mois



Intercontinental dissemination of azithromycin-resistant shigellosis through sexual transmission: a cross-sectional study

Lancet Infect Dis 2015



☐ *S Flexneri 3a*, 2004-2013

N = 331 dont 275 zone faible
risque dont 97 % MSM

☐ *S Sonnei* 2015-2016

N = 103 dont 63 % MSM



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Morbidity and Mortality Weekly Report (MMWR)

[CDC](#) > [MMWR](#)

Notes from the Field: Shigellosis Outbreak Among Men Who Have Sex with Men and Homeless Persons – Oregon, 2015–2016

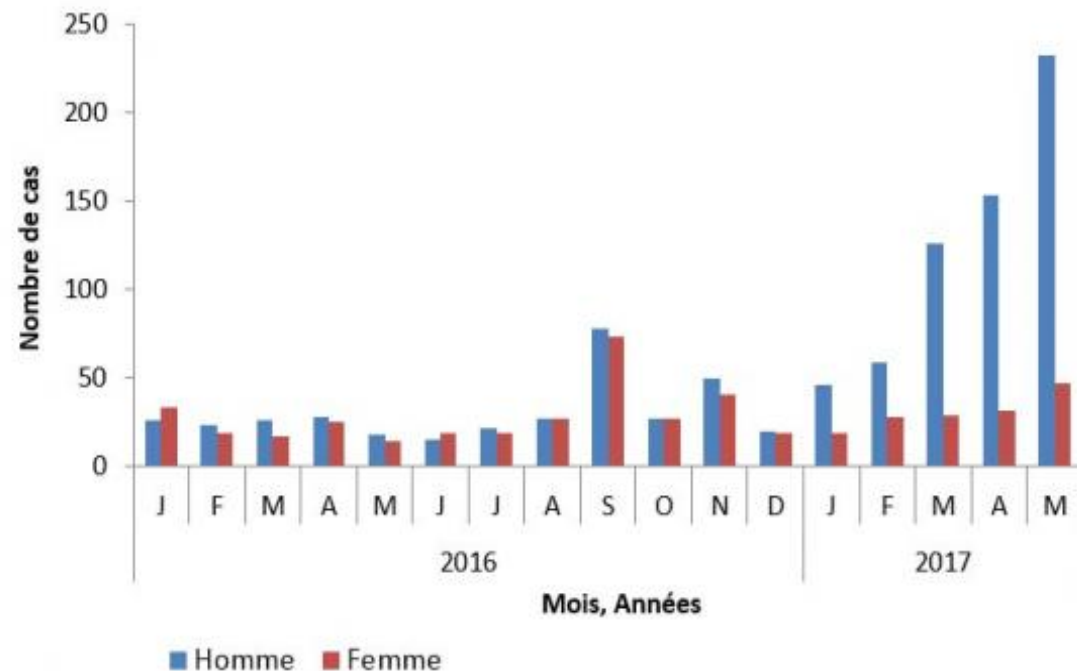
Weekly / August 12, 2016 / 65(31):812–813

Hepatitis A outbreak among men who have sex with men (MSM) predominantly linked with the EuroPride, the Netherlands, July 2016 to February 2017

CNR : 3 souches épidémiques
en Europe chez HSH
58 % « UK travel to Spain »
40 % « NI Europride »

France : **N = 1149** DO
entre janvier et juin 2017
(693 en 2016)
Ile de France , PACA, Rhône-Alpes
Moy d'âge = 36 ans
H/F = 3,9

Nombre de cas d'hépatite A par sexe, France 2016-2017



- **Mr A, 25 ans**
- Béninois, hétérosexuel
- Dysurie et écoulement urétral purulent depuis 4 jours
- ADP inguinales bilatérales
- Fellation il y a 10 j et 5 j

Que proposez vous ?

Mr A

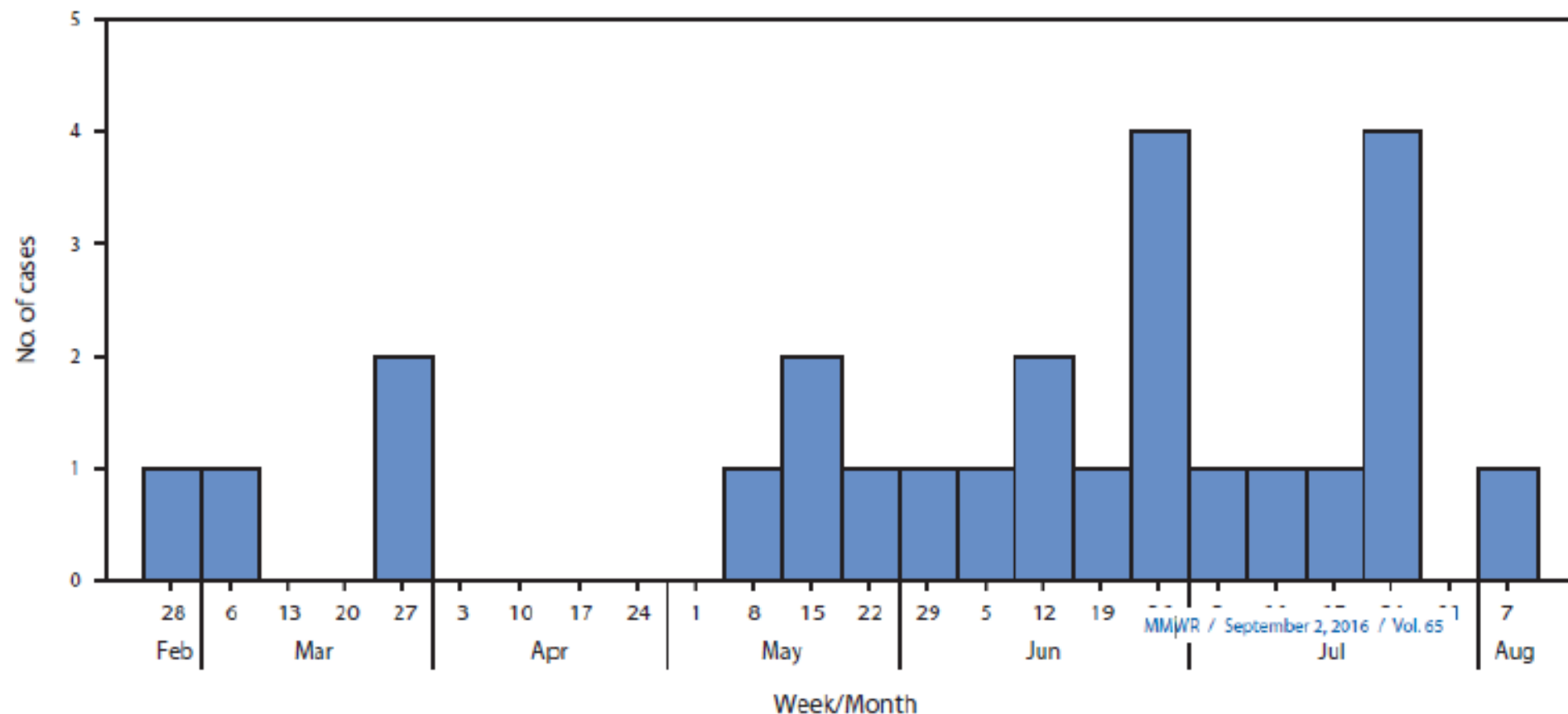
- Serologies HIV, HVB, VDRL/TPHA
- PCR 1^{er} jet urine NG CT
- Ceftriaxone IM + Azithromycine 1 g
- Prélèvement urétral : diplocoques gram neg

Que faites vous ?

Outbreak of Serogroup C Meningococcal Disease Primarily Affecting Men Who Have Sex with Men — Southern California, 2016

Srinivas Nanduri, MD^{1,2}; Chelsea Foo, MPH^{3,4}; Van Ngo, MPH³; Claire Jarashow, PhD^{1,3}; Rachel Civen, MD³; Ben Schwartz, MD³; John Holguin, MPH⁵; Eric Shearer, MPH⁶; Matt Zahn, MD⁶; Kathleen Harriman, PhD⁷; Kathleen Winter, PhD⁷; Cecilia Kretz, PhD²; How Yi Chang, PhD²; Sarah Meyer, MD²; Jessica MacNeil, MPH²

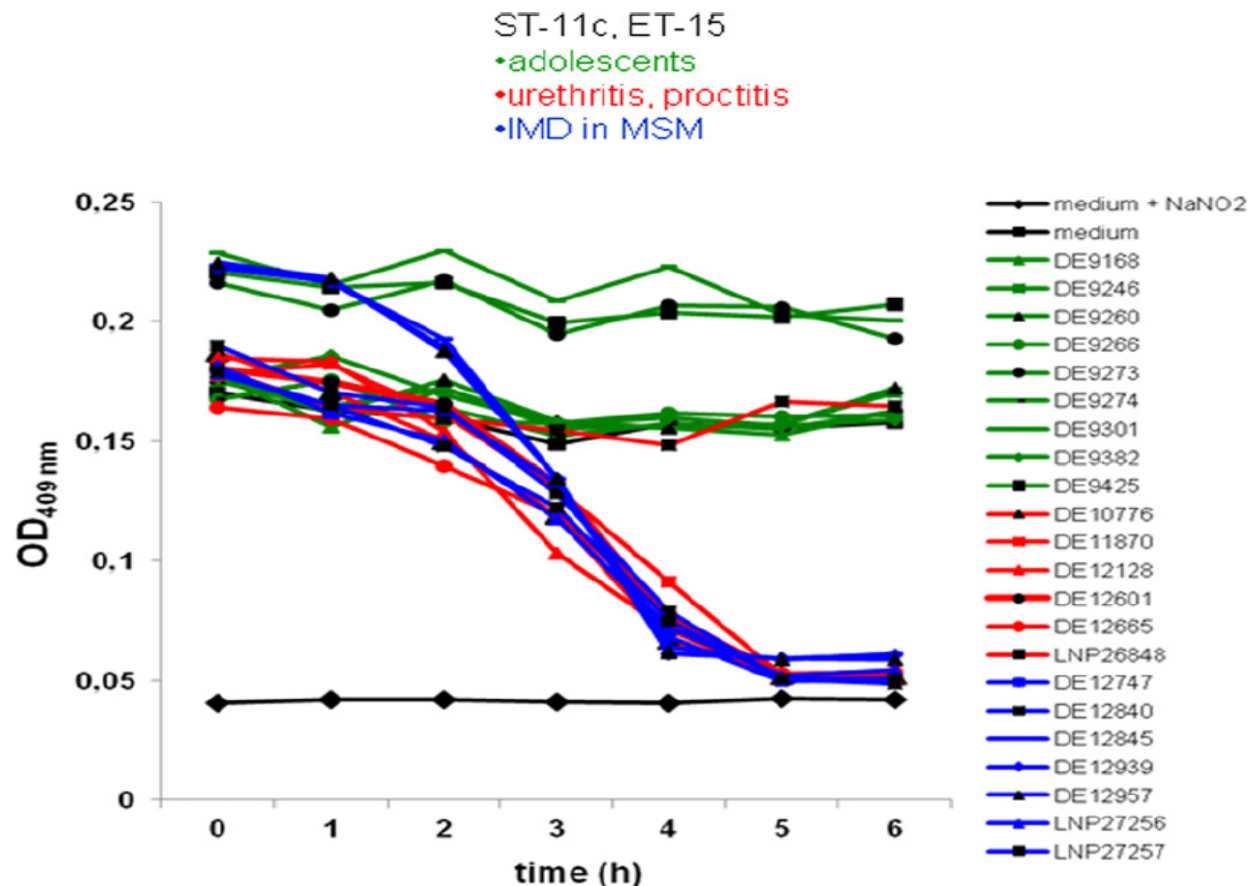
FIGURE. Outbreak-associated cases of meningococcal disease, by week — Southern California, 2016



Evolutionary Events Associated with an Outbreak of Meningococcal Disease in Men Who Have Sex with Men

Muhammed-Kheir Taha¹

May 11, 2016



Survie anaérobie
à PH acide

fHbp
defectueux

Fig 2. AnxA nitrite reductase activity as measured by sodium nitrite consumption. cc11/ET-15 isolates from MSM (blue), urethritis (red) and adolescents (green) were investigated. The black curve corresponds to the control (culture medium without NaNO₂).

Vaccination Méningocoque C

- 2013-2014 : Infections invasives à méningocoque C chez HSH (France- Allemagne)

⇒ Recommandations HCSP HSH > 24 ans et ceux fréquentant rassemblements gays

- 2015-2016 : Diminution cas liés au variant (1 seul HSH)

- Enquête prévagay : 19 % accès recommandations
14 % vaccinés

=> Plus de recommandations vaccinales spécifiques HSH depuis fin 2016

- **Mr C,**
- 28 ans, homosexuel,
- urétrite au CEGIDD
- ATCD : AES sous STRIBILD / 28 j 3 mois avant
- Rapports buccaux, anaux actifs et passifs
- VIH, VDRL/TPHA, VHC neg, VHB vacciné

Que faites vous ?

Mr C

BIOLOGIE MOLECULAIRE : PCR

Nature de prélèvement : Urines

Neisseria gonorrhoeae :

PCR en temps réel, Aniplex II STI-7 Detection (Seegene)

Négatif

Trichomonas vaginalis :

PCR en temps réel, Aniplex II STI-7 Detection (Seegene)

Négatif

Mycoplasma genitalium :

PCR en temps réel, Aniplex II STI-7 Detection (Seegene)

POSITIF

Mycoplasma hominis :

PCR en temps réel, Aniplex II STI-7 Detection (Seegene)

Négatif

Ureaplasma urealyticum :

PCR en temps réel, Aniplex II STI-7 Detection (Seegene)

Négatif

Ureaplasma parvum :

PCR en temps réel, Aniplex II STI-7 Detection (Seegene)

Négatif

Que faites vous ?

Mycoplasma genitalium

- **1980:** *M. genitalium* isolé pour 1ere fois UNG
classe des *Mollicutes* : pas de paroi, culture lente > 50 j
- **1995 :** séquençage, plus petit génome connu
(580 kbp, 480 gènes)
- **Epidémiologie :**
 - Prévalence : 1-3 %
 - 20-25 % des UNGNC
 - 2^e cause des UNG après CT
 - Co-inf CT possible
 - Cible = haut risque sexuel < 40 ans, > 3 contacts récents > 5 partenaires

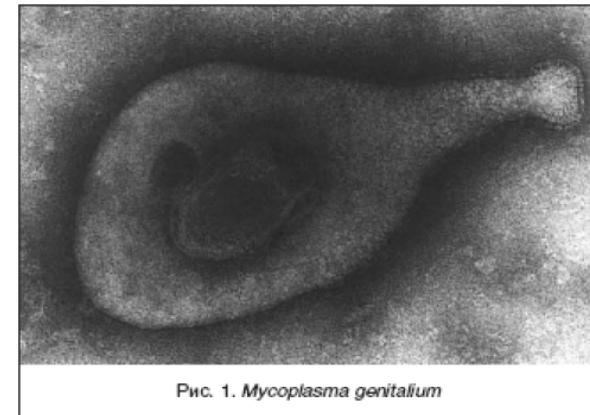


Рис. 1. *Mycoplasma genitalium*

Mycoplasma genitalium

- **Homme :**

- Urétrite aiguë : 5 à 33 % NGU
- Urétrite persistante : 30 %
- Epididymite : 2 à 9 %
- Proctite : 12 %

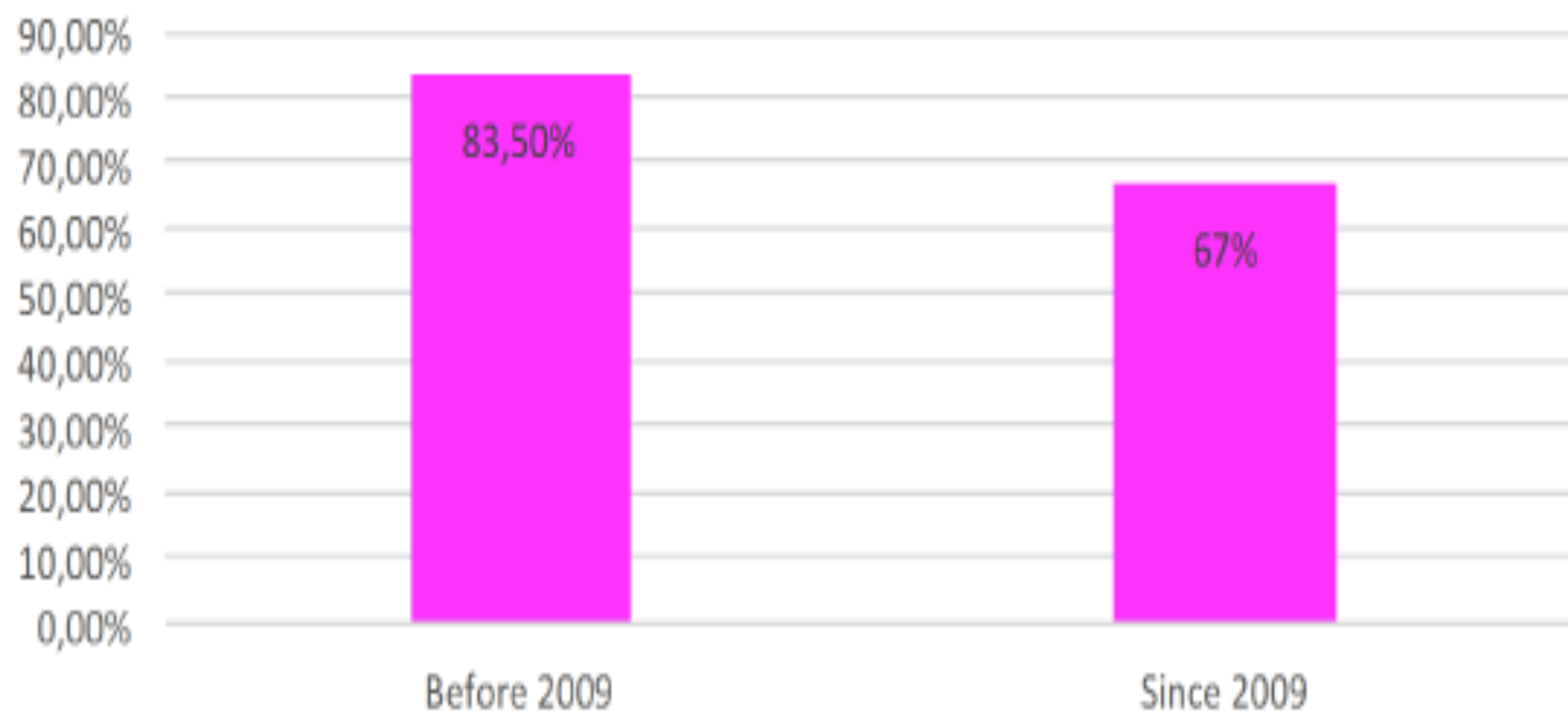
- **Femme :**

- Cervicite : 10 à 30 % (n = 20) **X 2**
- Salpingite : 2 à 22 % (n = 10) **X 2**
- Avortement spontané, naissance avant terme (n = 9) **X 2**
- Infertilité (n = 5) **X 2 à 5**

Mr C

- **Quel traitement proposez vous ?**
 - Azithromycine : 1g DU
 - Azithromycine : 500 mg J1 puis 250 mg/j J2 à J5
 - Moxifloxacin : 400 mg/j 7-10j
 - Pristinamycine : 1g X 4/j 10j
 - Doxycycline : 100 mg X 2/j 14j

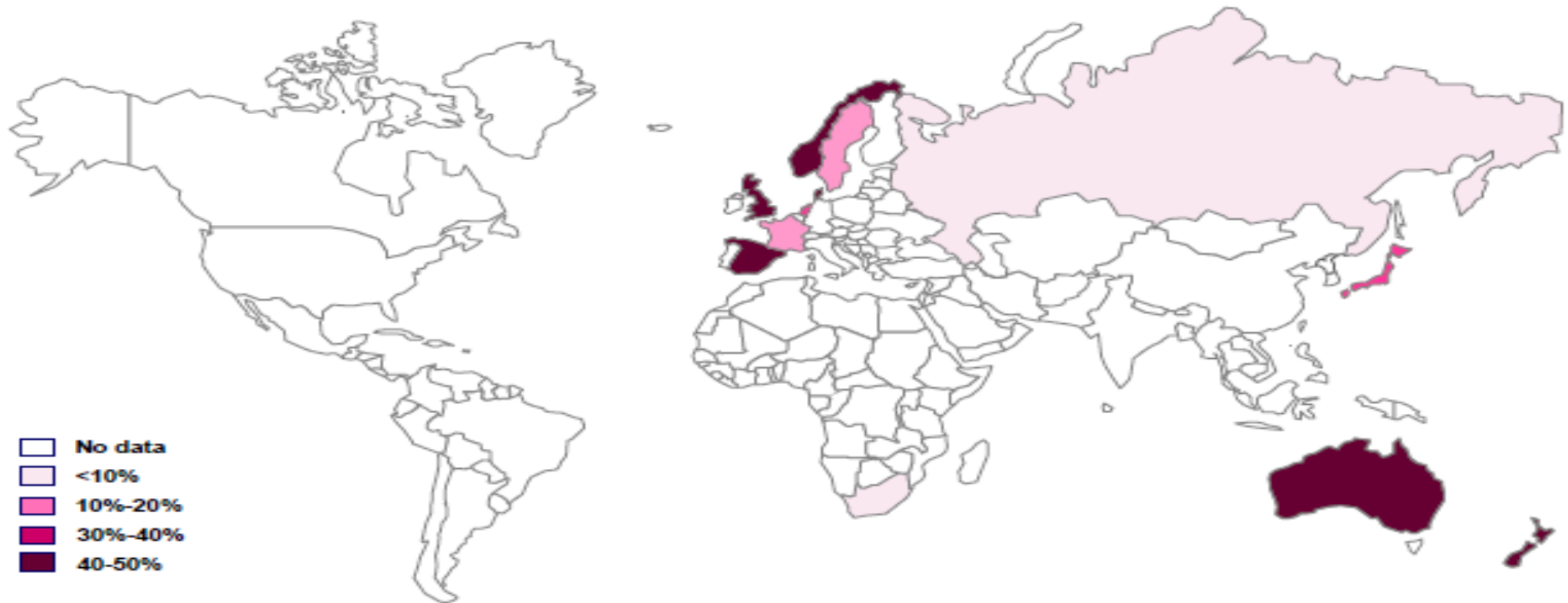
Efficacy of azithromycin against *M.genitalium* declines



Pooled microbial cure rate from meta-analysis of 21 studies (n=1,490)

Source: Lau A, et al. Clin Infect Dis. 2015;doi:10.1093/cid/civ644.PMID: 26240201

Frequency of macrolide resistance in *M. genitalium*



France : 17 %

Danemark, UK : 40 %

Groenland : 100%

TRAITEMENT 1ere INTENTION

- **Doxycycline : NON**
60 % d'échec sans résistance in vitro
- **Azithromycine DU : NON**
39-60% résistance
Mutation domV 23S rARN
- **Azithromycine 1,5 g sur 5 j : OUI**
500 mg J1, puis 250 mg/j J2-J5
85-95 % efficacité si sensible
Non recommandé après 1ere cure AZM DU
- **Josamycine : OUI**
500 mg X 3 /10j

Mr C

- Azithromycine DU
- Test of cure à M1 :
- PCR MG +, partenaire non traité
- **Quel traitement 2^e ligne proposez vous ?**
 - Azithromycine : 1g DU
 - Azithromycine : 500 mg J1 puis 250 mg/j J2 à J5
 - Moxifloxacinine : 400 mg/j 7-10j
 - Pristinamycine : 1g X 4/j 10j
 - Doxycycline : 100 mg X 2/j 14j

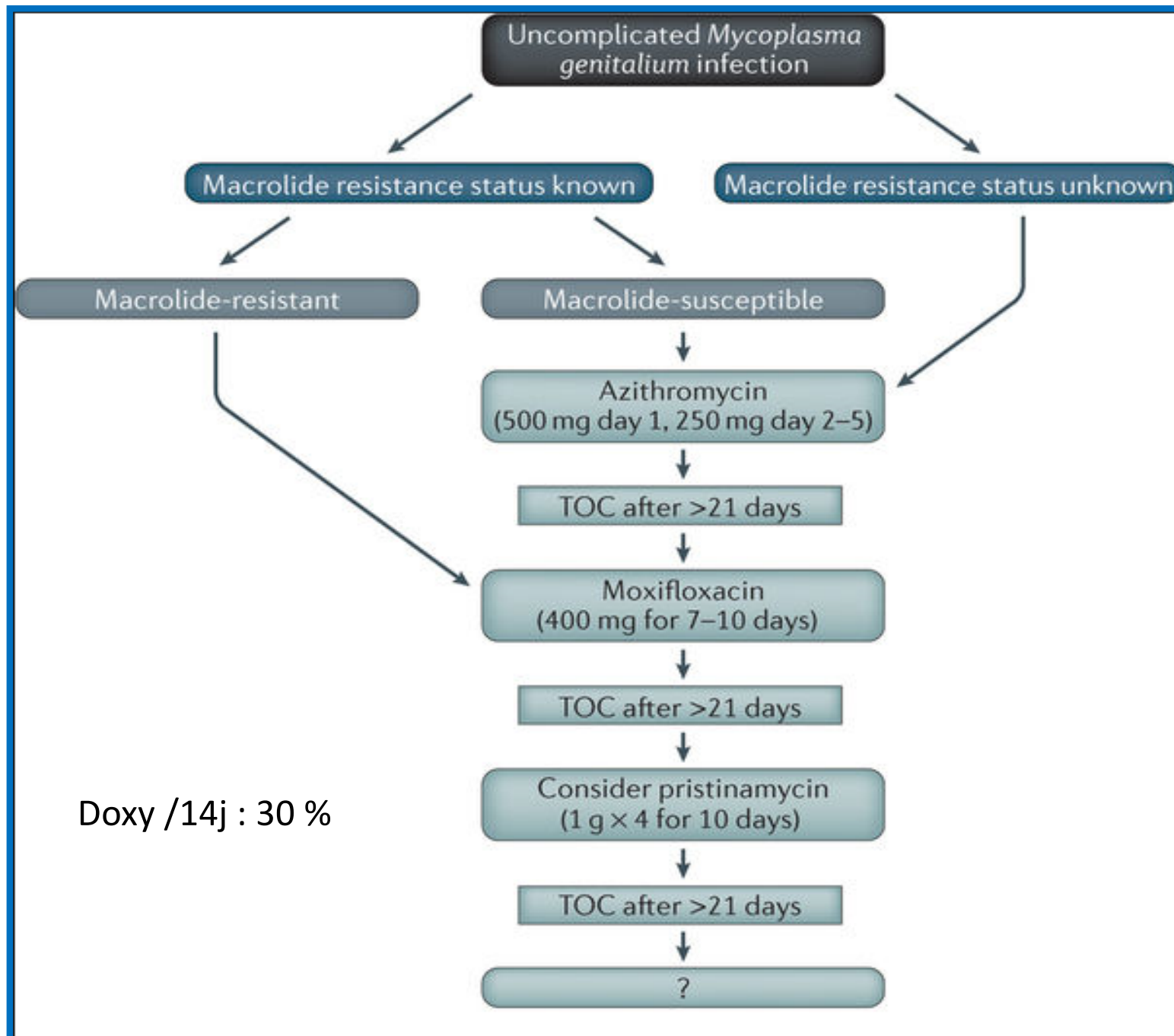
Mr C

- Azithromycine DU
- Test of cure à M1 :
- PCR MG +, partenaire non traité
- **Quel traitement 2^e ligne proposez vous ?**
 - Moxifloxacin : 400 mg/j 7-10j
 - Moxifloxacin : 400 mg/j 14 j si cervicite, epididymite

MXF RESISTANCE

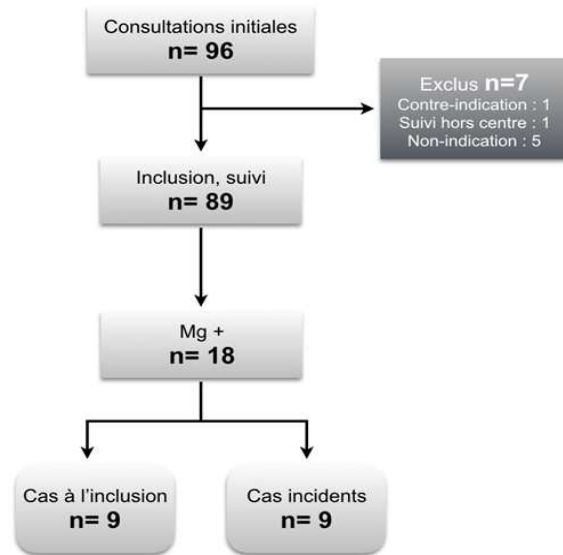
- **Mutation S 83 *parC* :**
 - France : 1,5 % à 7 %
 - Europe : 5 %
 - Japon : 3,6 à 36,8 %
 - Australie : 8,4 %
 - 2012-2013 (n = 140)

=> 10 % Résistance aux TTT 1e et 2^e ligne

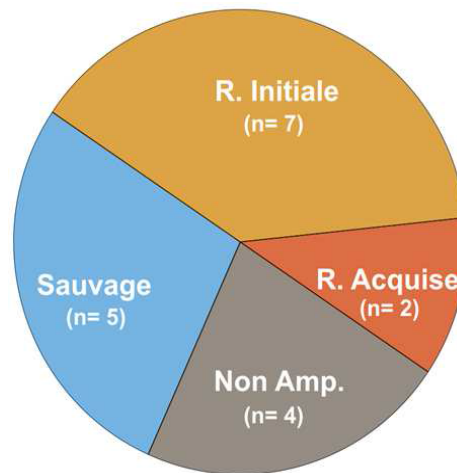


PrEPEURS

- **Janv 2016 à Mai 2017 : N = 89, 88 HSH**
- **pharynx, 1^{er} jet urine, auto-prélevement anal :
PCR temps réel + mutation R ARNr 23S**



**Prévalence Mg à
l'inclusion : 10 %**



**Résistance aux
macrolides (n=18)**

26 prélèvements +
(15 anus, 9 urines, 2 pharynx)

Mg associé au sur-risque
d'infection VIH

Mauvaise diffusion AZM rectal

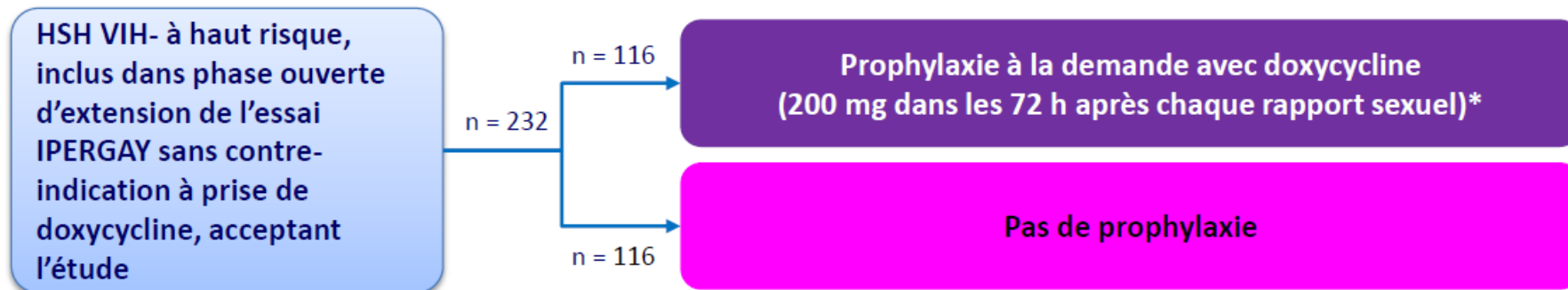
Cazenave C, JINI 2017

ATTENTION!!!

- Azithromycine DU $\neq$ TTT 1ere ligne urétrites
non documentées
- Moxifloxacinine = molécule de réserve
- Doxycycline /7 j ou Azithromycine 1,5 g/5j

PrEPEURS

Doxycycline en prophylaxie post-exposition des IST bactériennes : étude randomisée dans la phase ouverte de l'essai IPERGAY (1)

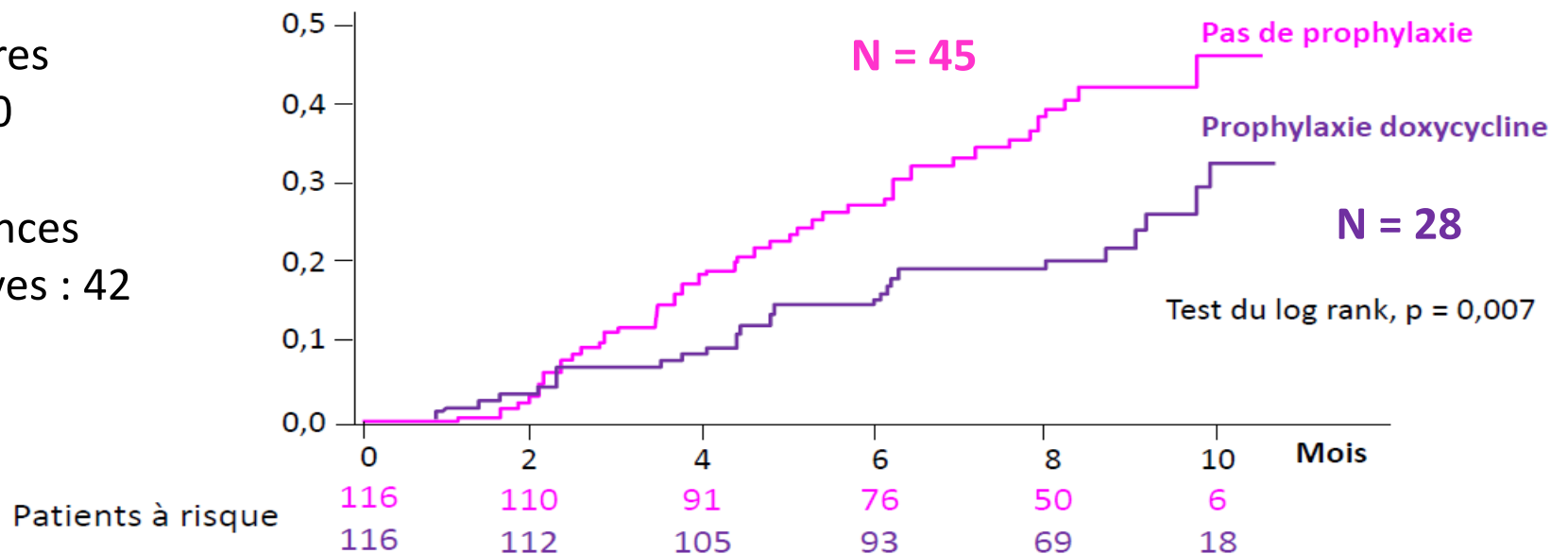


* Pas plus de 6 comprimés à 100 mg/semaine

Probabilité cumulée de survenue d'une 1^{ère} IST

Nb partenaires
/ 2 mois = 10

Prise substances
psychoactives : 42
%



PEP

- PEP Doxycycline ↘ 47 % incidence IST HSH à risque
- Pas d'effet sur la survenue d'infection à gonocoque
- Réduction nette (70-73 %) de l'incidence des infections à CT et syphilis
- Tolérance : 7 % d'arrêts pour effets gastro-intestinaux

Questions non résolues

- Efficacité et tolérance à long-terme
- Sélection de résistance
- Impact sur le microbiote



Pas de recommandation
à ce stade

STRATÉGIE MONDIALE DU SECTEUR
DE LA SANTÉ CONTRE

LES INFECTIONS SEXUELLEMENT TRANSMISSIBLES 2016-2021

VERS L'ÉLIMINATION DES IST

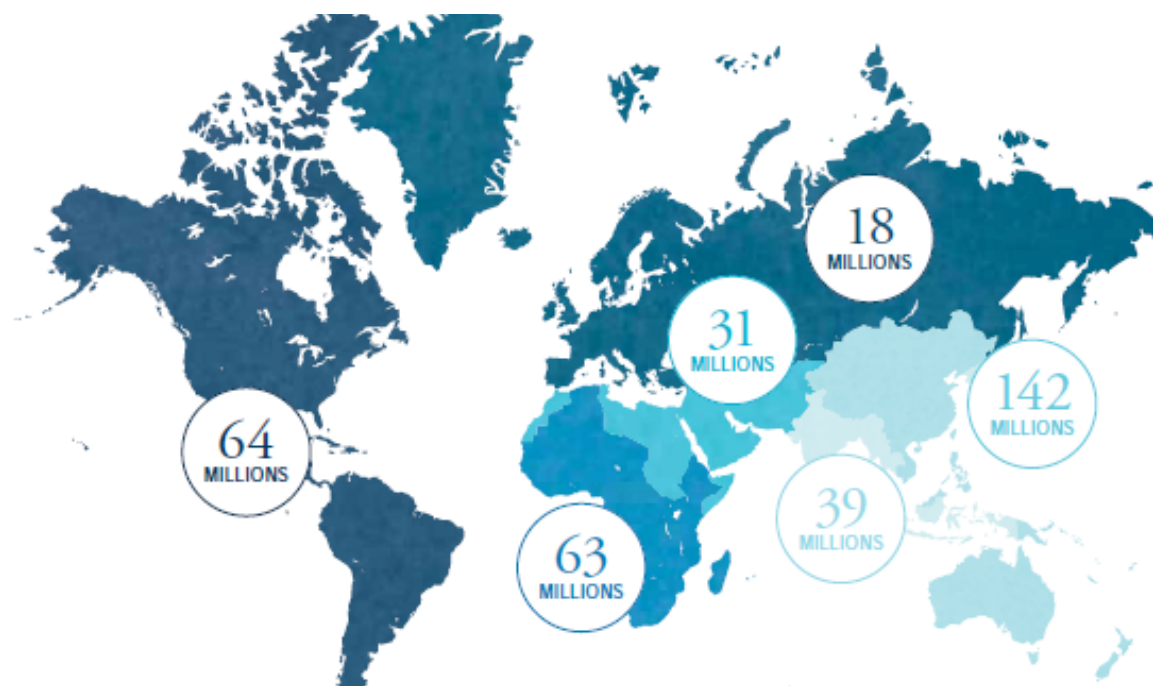


Figure 2. Estimations de l'OMS : 357 millions de nouveaux cas d'infections sexuellement transmissibles curables en 2012

