

TUNISIE

HAMMAMET

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au 21 | 2021

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AFRAMED 2021

VIH, Hépatites, Santé sexuelle
Infections émergentes



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INFECTIONS SEXUELLEMENT TRANSMISSIBLES ET RESISTANCE MICROBIENNE



EPIDEMIOLOGIE GENERALE

- 1 million d'IST diagnostiquées PAR JOUR dans le monde
- En 2016, 376 millions d'IST diagnostiquées dont :
 - *Chlamydia trachomatis* : 127 millions
 - *Neisseria gonorrhoeae* : 87 millions
 - Syphilis : 6,3 millions

PROBLEME MONDIAL DE SANTE PUBLIQUE



CHLAMYDIA TRACHOMATIS

- Difficile à explorer +++ (technique ; réels échecs de traitement ?)
- Mutations ARNr 23s et protéines ribosomales
- Exceptionnelles *in vivo*, difficilement inductibles *in vitro* (dernière étude CNR France : 24 souches étudiées, toutes sensibles)

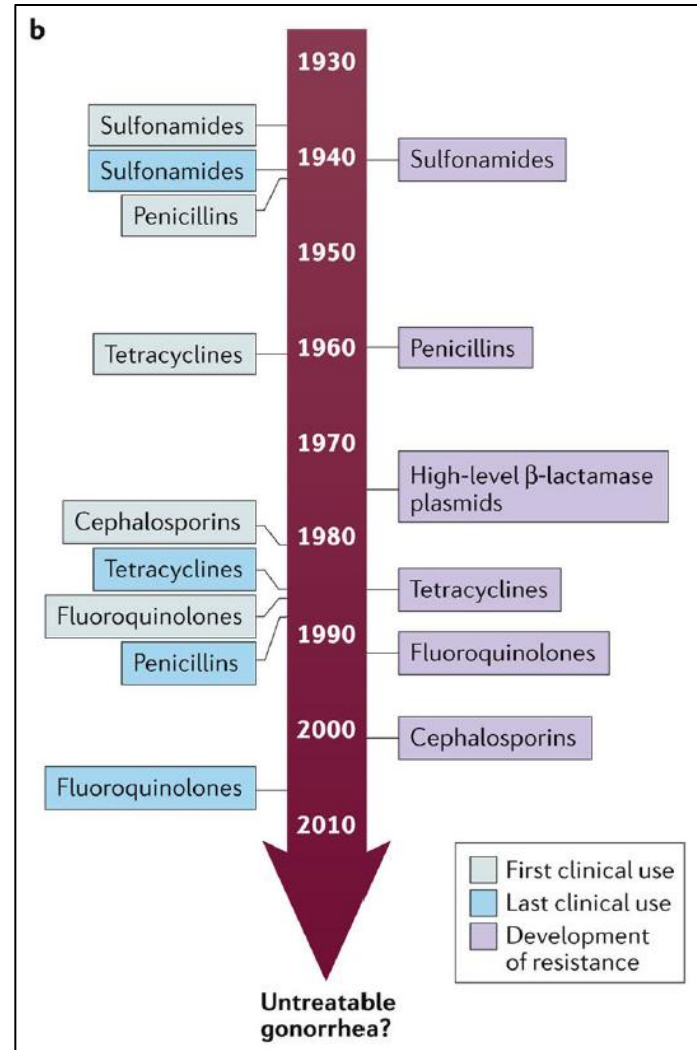
Table 4

Comparison the results of antimicrobial susceptibility of *C. trachomatis* in this surveillance and in the previous reports.

The author in the report (year)	Number of isolates	MIC (µg/ml)	Antimicrobial agent			
			LVFX	DOXY	CAM	AZM
Donati M et al. (2010)	50	MIC	0.5	0.03–0.06	0.015–0.06	0.25–0.5
		MIC range	–	–	–	–
Ljubin-Sternak S et al. (2013)	24	MIC ₉₀	–	0.064	–	0.125
		MIC range	–	0.016–0.064	–	0.064–0.125
Zheng H et al. (2015)	61	MIC ₉₀	–	0.064	0.032	0.160
		MIC range	–	0.016–0.640	0.008–0.064	0.080–0.640
Previous study (2016)	58	MIC ₉₀	0.5	0.125	0.016	0.063
		MIC range	0.25–0.5	0.063–0.25	0.004–0.016	0.031–0.125
Present study	41	MIC ₉₀	0.5	0.125	0.031	0.125
		MIC range	0.25–1	0.063–0.125	0.008–0.031	0.031–0.25



NEISSERIA GONORRHOEAE / EVOLUTION DE LA RESISTANCE



NEISSERIA GONORRHOEAE/ EPIDEMIOLOGIE - RESISTANCE AUX C3G

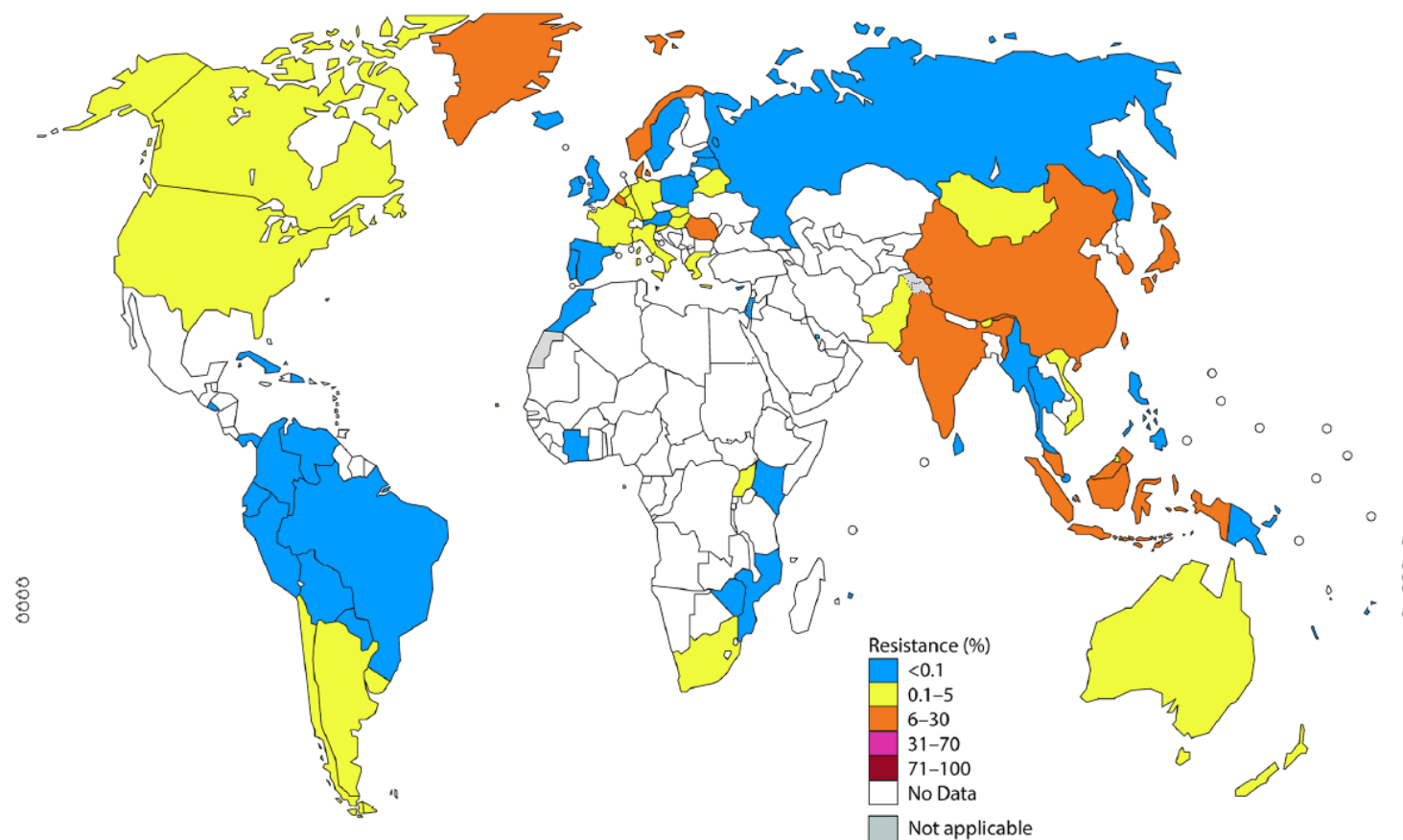
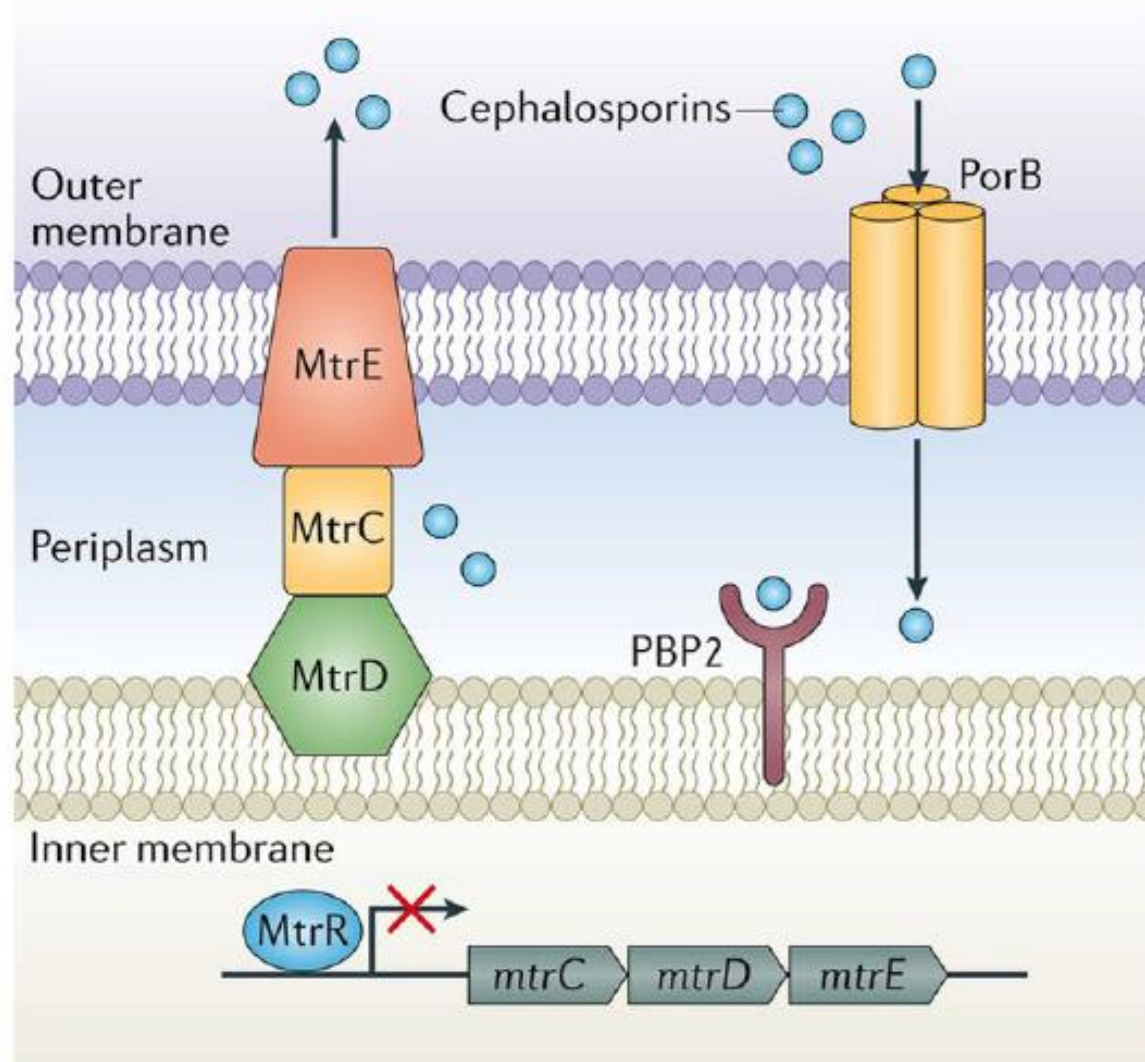


Fig 1. The percentage (%) of isolates with decreased susceptibility or resistance to extended-spectrum cephalosporin (ESC) (cefixime and/or ceftriaxone) according to the most recent World Health Organization (WHO) Gonococcal Antimicrobial Surveillance Programme (GASP) data (2014 for most countries, but for a few countries, only 2011–2013 data were available). Note: The areas in grey are disputed territories (e.g., Western Sahara, Jammu, and Kashmir), and no antimicrobial resistance (AMR) data are available from these regions.



NEISSERIA GONORRHOEAE / C3G - MECANISMES DE RESISTANCE





NEISSERIA GONORRHOEAE/ EPIDEMIOLOGIE - RESISTANCE A L'AZITHROMYCINE

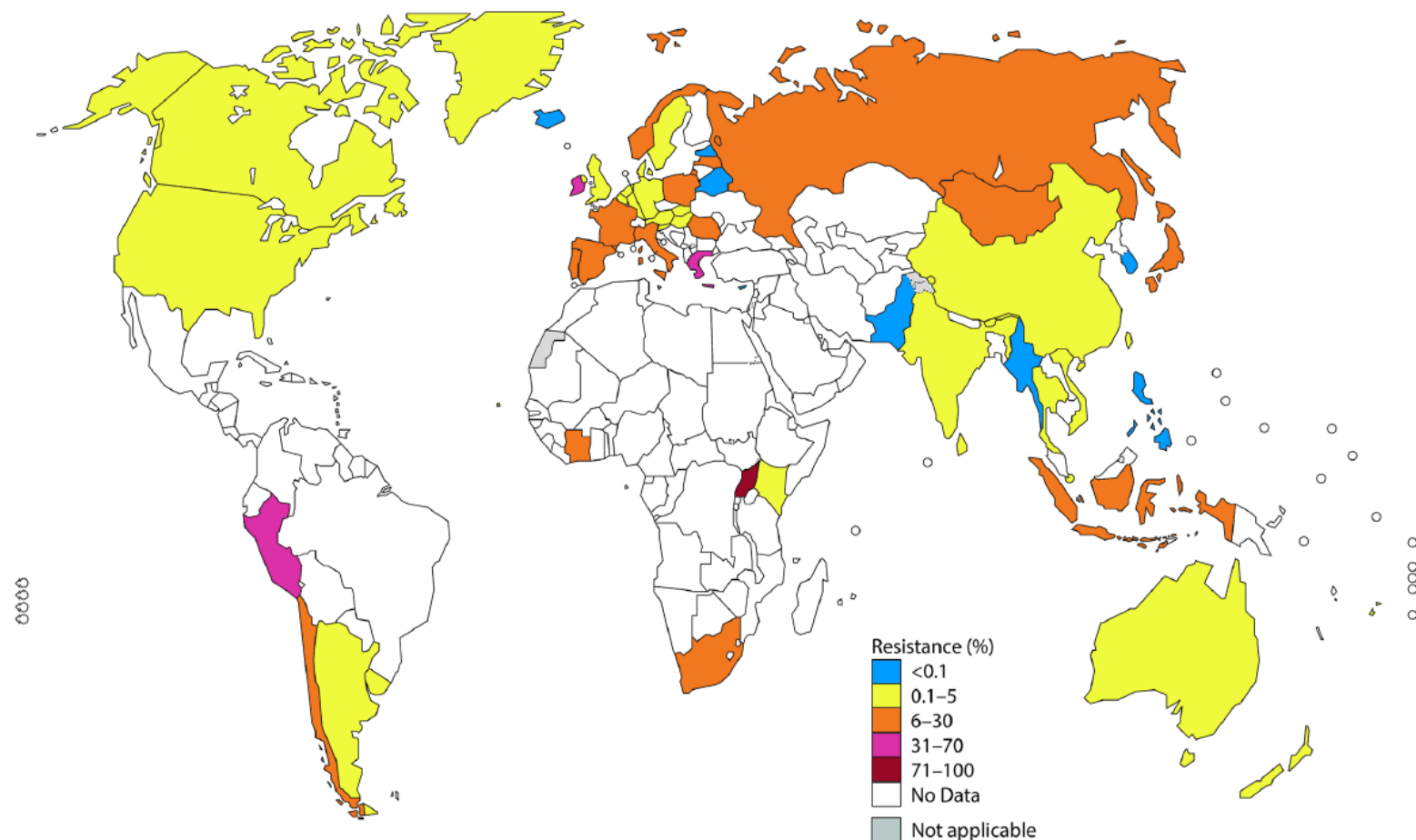


Fig 2. The percentage (%) of isolates with resistance to azithromycin according to the most recent World Health Organization (WHO) Gonococcal Antimicrobial Surveillance Programme (GASP) data (2014 for most countries, but for a few countries, only 2011–2013 data were available). Note: The areas in grey are disputed territories (e.g., Western Sahara, Jammu, and Kashmir), and no antimicrobial resistance (AMR) data are available from these regions.

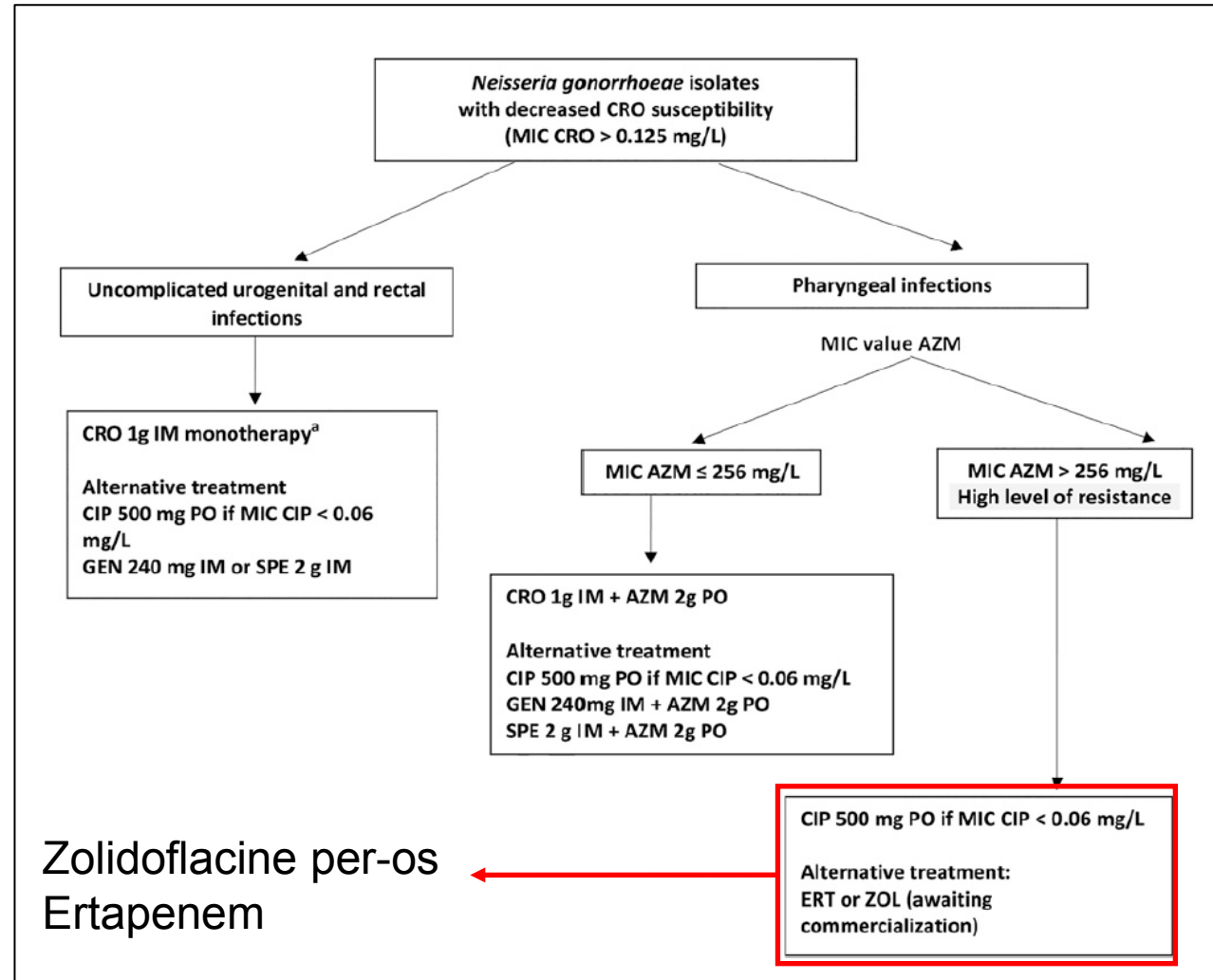


NEISSERIA GONORRHOEAE / RECOMMANDATIONS THERAPEUTIQUES

- Tunisie : CEFTRIAXONE 500mg IM
- France : idem
- CDC : idem
- eCDC : CEFTRIAXONE 1g IM + AZITHROMYCINE 2g po ou CEFTRIAXONE 1g IM si C3G S (avec Test of Cure)

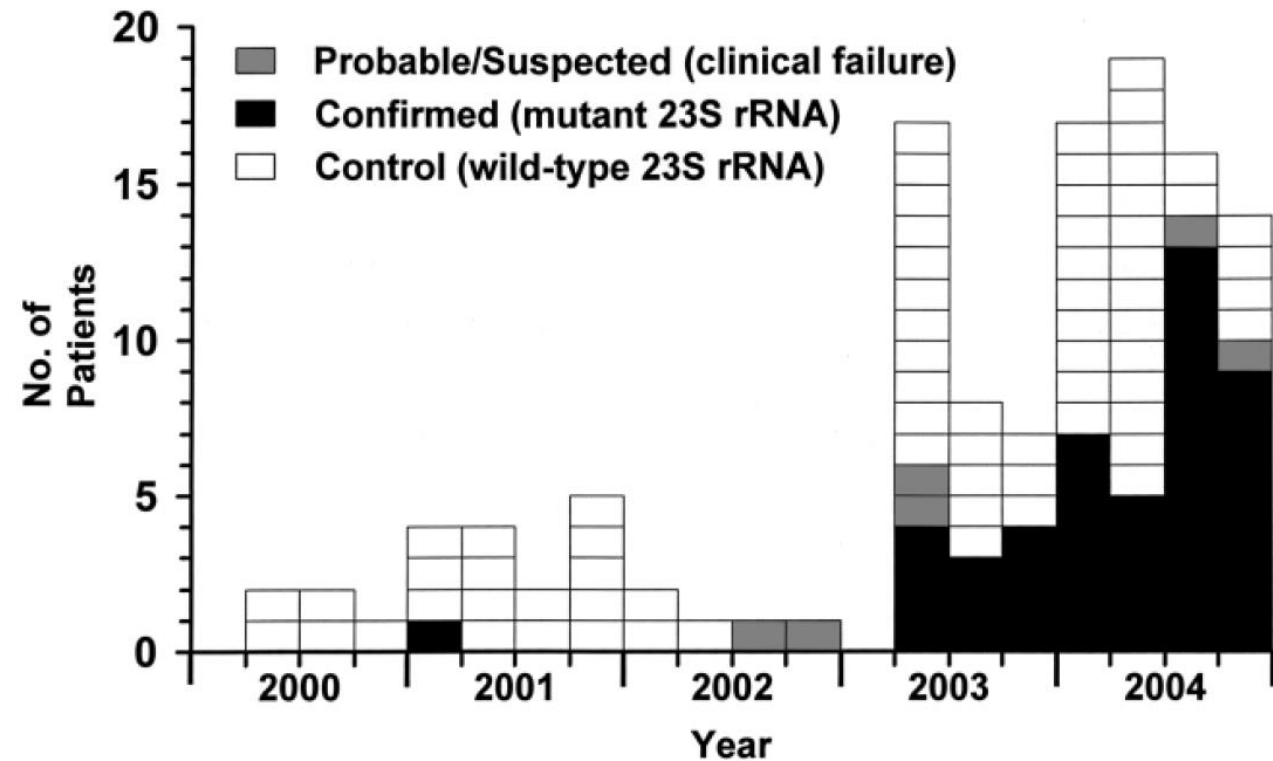


NEISSERIA GONORRHOEAE / PERSONNALISER LE TRAITEMENT ?



SYPHILIS / RESISTANCE AUX MACROLIDES

- Echecs de traitement par Erythromycine connus depuis les années 70
- Mutation A2058G sur l'ARNr 23S



Le CNR a analysé **104 échantillons** issus du protocole **GENOSYPH** provenant d'ulcérations cutanéomuqueuses de patients suspectés de syphilis récente. Nous montrons que **88 (85%)** échantillons possèdent la mutation **A2058G** sur le gène de l'**ARN 23S** correspondant à la résistance clinique de la syphilis à l'azithromycine.

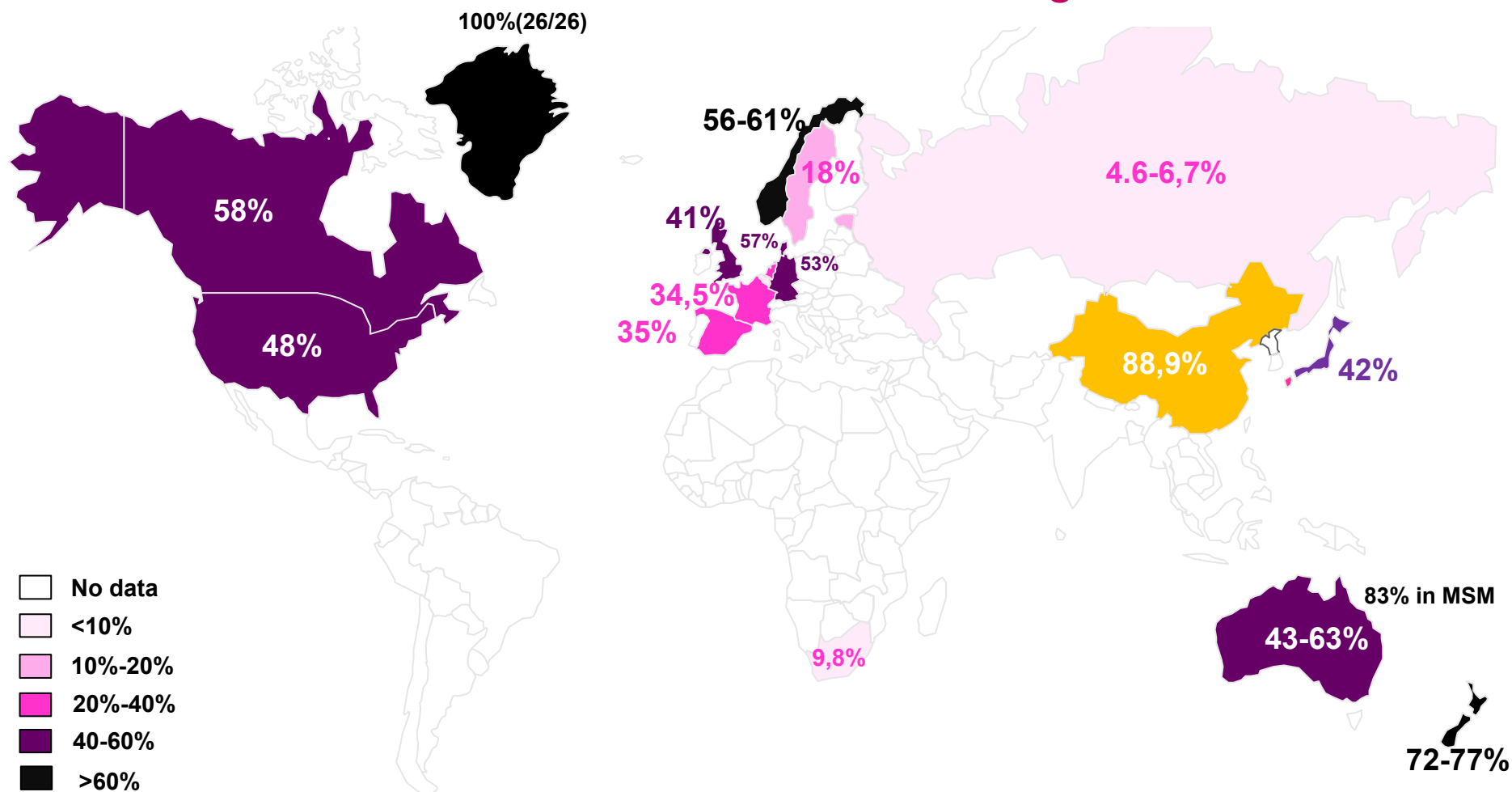


SYPHILIS / RESISTANCE A LA DOXYCYCLINE ?

Dans un contexte de l'utilisation accrue de la doxycycline pour le traitement de la syphilis (rupture de distribution de la BPG en 2017, augmentation de la PrEP et mise en place de la PeP), l'évaluation de la présence de marqueurs moléculaires potentiels responsables d'une résistance à la doxycycline a été mise en place en France par le CNR.

Le CNR a analysé **130 échantillons** issus du protocole **GENOSYPH** provenant d'ulcérations cutanéomuqueuses de patients suspectés de syphilis récente. Nous montrons **qu'aucun (0%) des échantillons** ne possède les mutations 926-928, 939, 965-967 et 1058 localisées au niveau du gène de l'ARNr 16S (numérotation *E. coli*) correspondant aux marqueurs moléculaires de la résistance aux tétracyclines connus pour d'autres bactéries.

Prevalence of macrolide resistance in *M. genitalium*



Par le Pr BEBEAR.

Anagrus, PloS one 2013; Tagg, J. Clin. Microbiol. 2013; Pond, Clin. Inf. Dis. 2014; Salado-Rasmussen, Clin. Inf. Dis. 2014; Kikuchi, J. Antimicrob. Chemother. 2014; Hay, Sex. Transm. Dis. 2015; Gushin, BMC Infect. Dis. 2015; Nijhuis, J. Antimicrob. Chemother. 2015; Gesink, Can. Fam. Physician, 2016; Getman, J. Clin. Microbiol. 2016; Gossé, J. Clin. Microbiol. 2016; Shipitsina, Plos One, 2017; Basu, J. Clin. Microbiol. 2017; Tabrizi, J. Clin. Microbiol. 2017; Barbera, Sex. Transm. Dis. 2017; Dumke, Diagn Microbiol infect Dis, 2016; Coorevits, J. Glob. Antimicrob. Resist. 2017; Anderson, J. Clin. Microbiol. 2017; Unemo, Clin. Microbiol. Infect. 2017. Bébéar and Pereyre, French National Center for STI report, 2019; Li, Clin. Infect. Dis. 2019.



MYCOPLASMA GENITALIUM / RESISTANCE AUX MACROLIDES

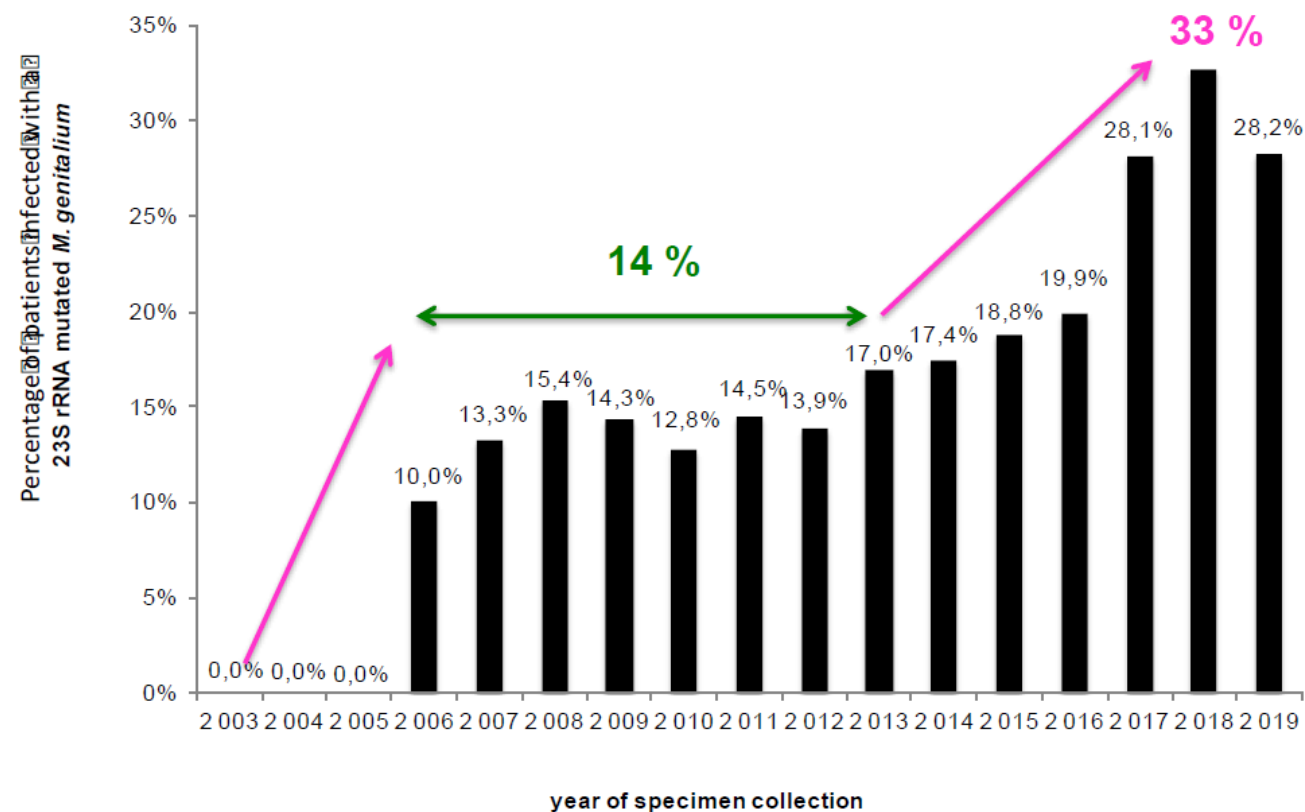
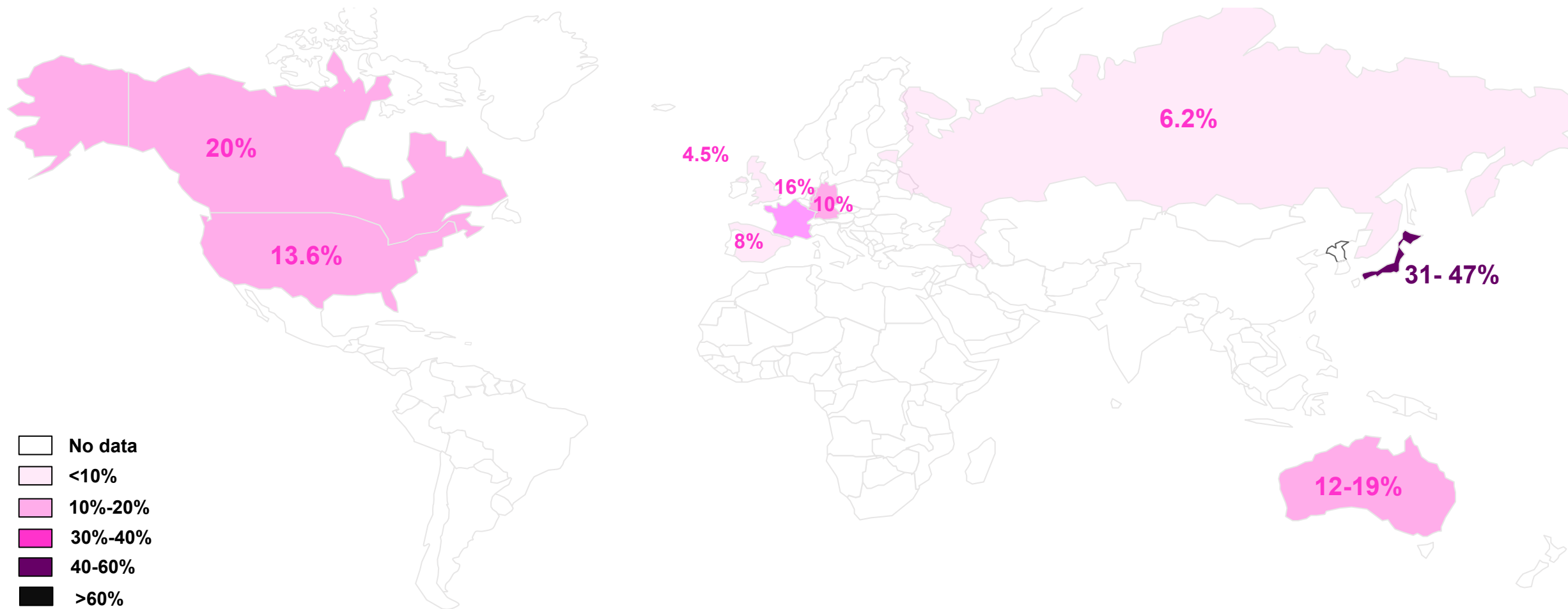


Figure. Evolution de la résistance aux macrolides de *M. genitalium* au CHU de Bordeaux 2003-2019.



Prevalence of fluoroquinolone resistance in *M. genitalium*



Par le Pr BEBEAR.

Bissessor Clin Infect Dis 2015; Deguchi, Clin Infect Dis 2016; Dumke, DMID 2016; Kikuchi J Antimicrob Chemother 2014; Le Roy Emerg Infect Dis 2016; Pond Clin Infect Dis 2014; Shipitsina PLoS one 2017; Couldwell Int J STD and AIDS 2013; Gesink Can family Physician 2016; Tagg J Clin Microbiol 2013; Murray Emerg Infect Dis 2017; Barbera Sex Transm infect 2017



MYCOPLASMA GENITALIUM / DOUBLE-RESISTANCE

Tableau. Prévalence de la résistance aux macrolides et aux fluoroquinolones par centre participant.

Centre	Type de centre	Nb de patients	Nb (%) de patients avec résistance aux macrolides*	Nb (%) de patients avec sensibilité aux macrolides*	Nb (%) de patients avec résistance aux fluoroquinolones*	Nb (%) de patients avec sensibilité aux fluoroquinolones*	Nb (%) de patients avec une double résistance**
BARLA NICE	Privé	33	10 (37)	17 (63)	4 (14)	25 (86)	2 (8)
CLINIQUE PASTEUR TOULOUSE	Privé	4	2 (50)	2 (50)	0	4 (100)	0
BIO 67 STRASBOURG	Privé	6	0	4 (100)	0	4 (67)	0
BIORYLIS	Privé	11	2 (25)	6 (75)	0	8 (73)	0
CERBA	Privé	45	13 (37)	22 (63)	4 (15)	22 (85)	4 (25)
LDA 13, MARSEILLE	CeGIDD	5	2 (67)	1 (33)	0	5 (100)	0
CH CAEN	CH	8	0	5 (100)	2 (29)	5 (71)	0
CHU BORDEAUX	CHU	11	2 (20)	8 (80)	0	7 (64)	0
CHU CLERMONT FERRAND	CHU	10	2 (22)	7 (78)	1 (11)	8 (89)	0
CHU DIJON	CHU	3	1 (50)	1 (50)	0	2 (67)	0
CHU LYON	CHU	28	11 (58)	8 (42)	4 (21)	15 (79)	1 (6)
CHU MARSEILLE	CHU	20	3 (20)	15 (80)	1 (8)	11 (92)	0
CHU MONTPELLIER	CHU	6	4 (67)	2 (33)	0	1 (17)	0
CHU POITIERS	CHU	19	3 (20)	12 (80)	2 (22)	7 (78)	2 (22)
CHU TOULOUSE	CHU	16	3 (21)	11 (79)	0	16 (100)	0
CHU TOURS	CHU	20	4 (37)	7 (63)	0	15 (75)	0
ANTOINE BECLERE	CHU APHP	7	0	3 (100)	0	2 (29)	0
LOUIS MOURIER	CHU APHP	16	1 (8)	11 (92)	0	9 (56)	0
SAINT-LOUIS	CHU APHP	111	36 (44)	46 (56)	26 (27)	72 (63)	13 (16)
19		379	99 (34,5)	188 (66)	44 (15,6)	238 (74)	22 (9,2)

MYCOPLASMA GENITALIUM / QUEL TRAITEMENT ?

DEPISTAGE ET TRAITEMENT SI SYMPTOMES



Clinical Infectious Diseases

MAJOR ARTICLE

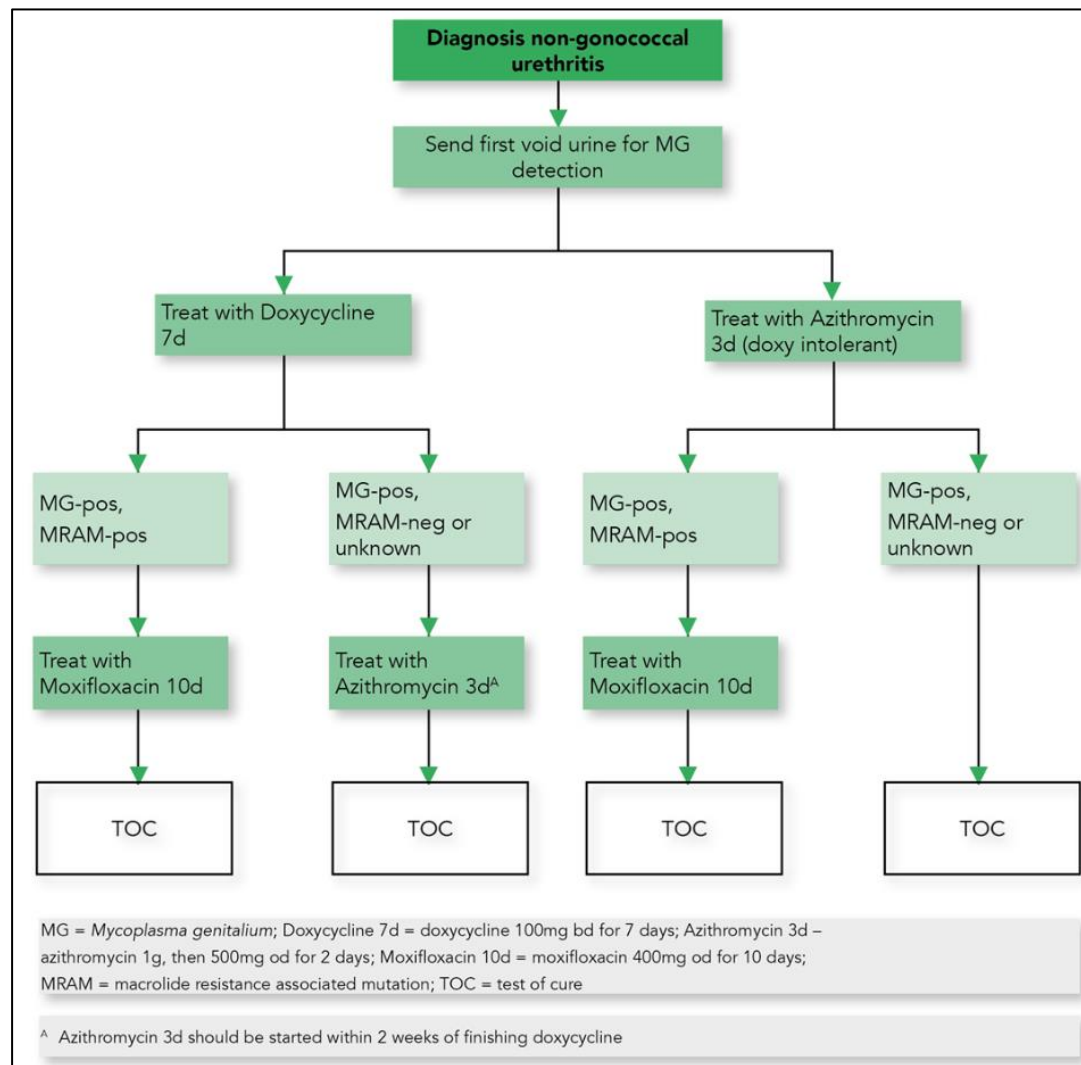


Resistance-Guided Antimicrobial Therapy Using Doxycycline–Moxifloxacin and Doxycycline–2.5 g Azithromycin for the Treatment of *Mycoplasma genitalium* Infection: Efficacy and Tolerability

Duygu Durukan,^{1,2} Tim R. H. Read,^{1,2} Gerald Murray,^{3,4} Michelle Doyle,² Eric P. F. Chow,^{1,2} Lenka A. Vodstrcil,^{1,2} Christopher K. Fairley,^{1,2} Ivette Aguirre,² Elisa Mokany,⁵ Lit Y. Tan,⁵ Marcus Y. Chen,^{1,2} and Catriona S. Bradshaw^{1,2}

¹Central Clinical School, Faculty of Medicine, Nursing and Health Sciences, Monash University, Melbourne, Australia; ²Melbourne Sexual Health Centre, Alfred Health, Carlton, Victoria, Australia; ³Murdoch Children's Research Institute, Royal Children's Hospital, Parkville, Victoria, Australia; ⁴Centre for Women's Infectious Diseases, Royal Women's Hospital, Melbourne, Victoria, Australia; and ⁵SpeedX Pty Ltd, National Innovation Centre, Eveleigh, New South Wales, Australia

Si XDR : DOXYCYCLINE puis PRISTINAMYCINE





IST RESISTANTES EMERGENTES

*Clinical Infectious Diseases***MAJOR ARTICLE**

International Spread of Multidrug-Resistant *Campylobacter coli* in Men Who Have Sex With Men in Washington State and Québec, 2015–2018

MICROBIAL GENOMICS**OUTBREAK REPORT**

Baker *et al.*, *Microbial Genomics* 2018;4
DOI 10.1099/mgen.0.000181



An outbreak of a rare Shiga-toxin-producing *Escherichia coli* serotype (O117:H7) among men who have sex with men

Kate S. Baker,^{1,*} Timothy J. Dallman,² Nicholas R. Thomson³ and Claire Jenkins²

Swiss Medical Weekly

Formerly: Schweizerische Medizinische Wochenschrift
An open access, online journal • www.smw.ch

Original article | Published 22 August 2018 | doi:10.4414/smww.2018.14645
Cite this as: Swiss Med Wkly. 2018;148:w14645

First report of sexually transmitted multi-drug resistant *Shigella sonnei* infections in Switzerland, investigated by whole genome sequencing

Hinic Vladimira^a, Seth-Smith Helena^{ab}, Stöckle Marcel^c, Goldenberger Daniel^a, Egli Adrian^{ab}