World Organisation for Animal Health | Organisation mondiale de la santé animale | Organización Mundial de Sanidad Animal

18th CONFERENCE OF THE REGIONAL COMMISSION FOR THE MIDDLE EAST

Larnaca, Cyprus, 24-28 November 2025

Antimicrobial Resistance

Everyone's matter, Everyone's responsibility

JOURNAL OF CLINICAL MICROBIOLOGY, Oct. 2001, p. 3693–3695
0095-1137/01/$04.00+0 DOI: 10.1128/JCM.39.10.3693–3695.2001

Vol. 39, No. 10

Identification of *Staphylococcus* spp. by PCR-Restriction Fragment Length Polymorphism of *gap* Gene

TEMPRANO,[1] MARÍA SÁNCHEZ,[1]

JOURNAL OF CLINICAL MICROBIOLOGY, Dec. 2000, p. 4351–4355
0095-1137/00/$04.00+0

Glyceraldehyde-3-Phosphate Deh
a Useful Taxonomic Tool

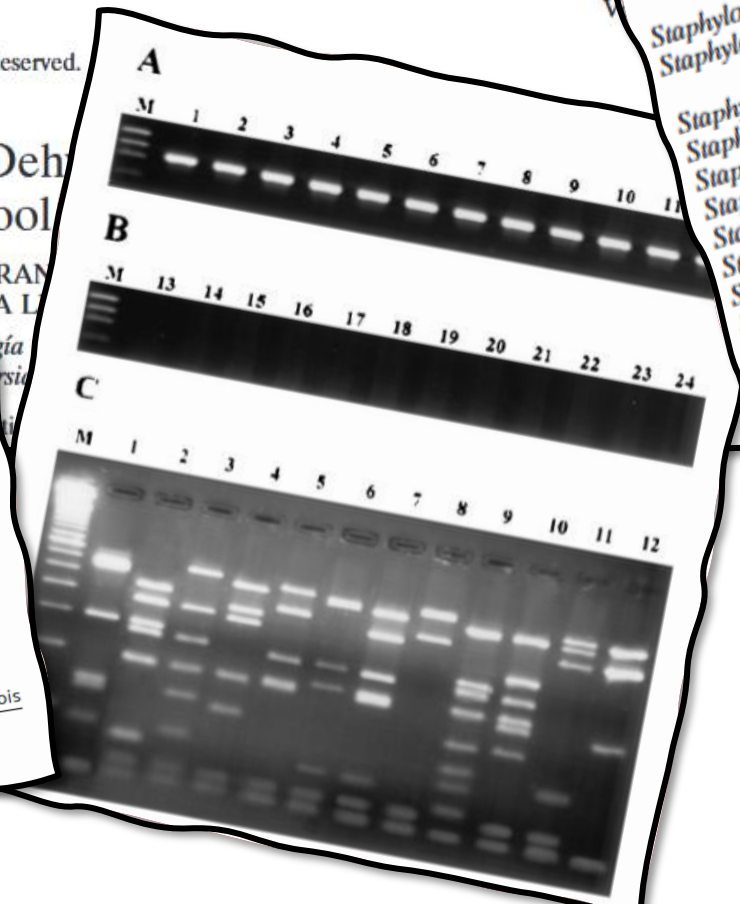
JAVIER YUGUER PRAN
ÍA L

Journal of Microbiological Methods
Volume 60, Issue 2, February 2005, Pages 275-279

Note

Evaluation of a high-density oligonucleotide array for characterization of *grlA*, *grlB*, *gyrA* and *gyrB* mutations in fluoroquinolone resistant *Staphylococcus aureus* isolates

Sabine Couzinet [a,1], Javier Yugueros [b,1], Christine Barras [a], Nathalie Visomblin [b], Patrice Francois [a], Bruno Lacroix [b], Guy Vernet [b], Daniel Lew [a], Alain Troesch [b], Jacques Schrenzel [a], Corinne Jay [b]



Strain
Staphylococcus aureus
Staphylococcus epidermidis
Staphylococcus capitis
Staphylococcus hominis
Staphylococcus saprophyticus
Staphylococcus warneri
Staphylococcus sp.
Staphylococcus xylosus
Staphylococcus sp.
Staphylococcus auricularis
Staphylococcus carnosus
Staphylococcus simulans
Staphylococcus intermedius
Staphylococcus haemolyticus
Streptococcus sp.
Streptococcus agalactiae
Streptococcus bovis
Streptococcus dysagalactiae
Streptococcus suis
Bacillus cereus
Enterococcus faecalis
Micrococcus luteus
Aeromonas hydrophila
Escherichia coli
Salmonella cholerasuis
Yersina ruckeri

HOSPITAL DE LEÓN
Altos de Nava S/N
Microbiología

Pág

Personal data protected

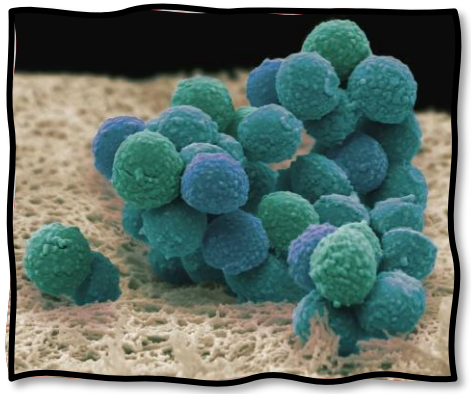
Tipo de Muestra **ORINA SONDA VESICAL**

UROCULTIVOS
UROCULTIVO

Valorar clinicamente
POSITIVO
Recuento aproximado 50.000 UFC/ml

Staphylococcus epidermidis

	S.epidermidis	
Penicilina	>0.25	R
Amoxi/Clav.	8/4	R
Oxacilina	>2	R
Gentamicina	>4	R
Nitrofurantoina	<=32	S
Levofloxacina	>4	R
Cotrimoxazol	<=1/19	S
Fosfomicina	<=32	S
Vancomicina	2	S
Teicoplanina	4	S



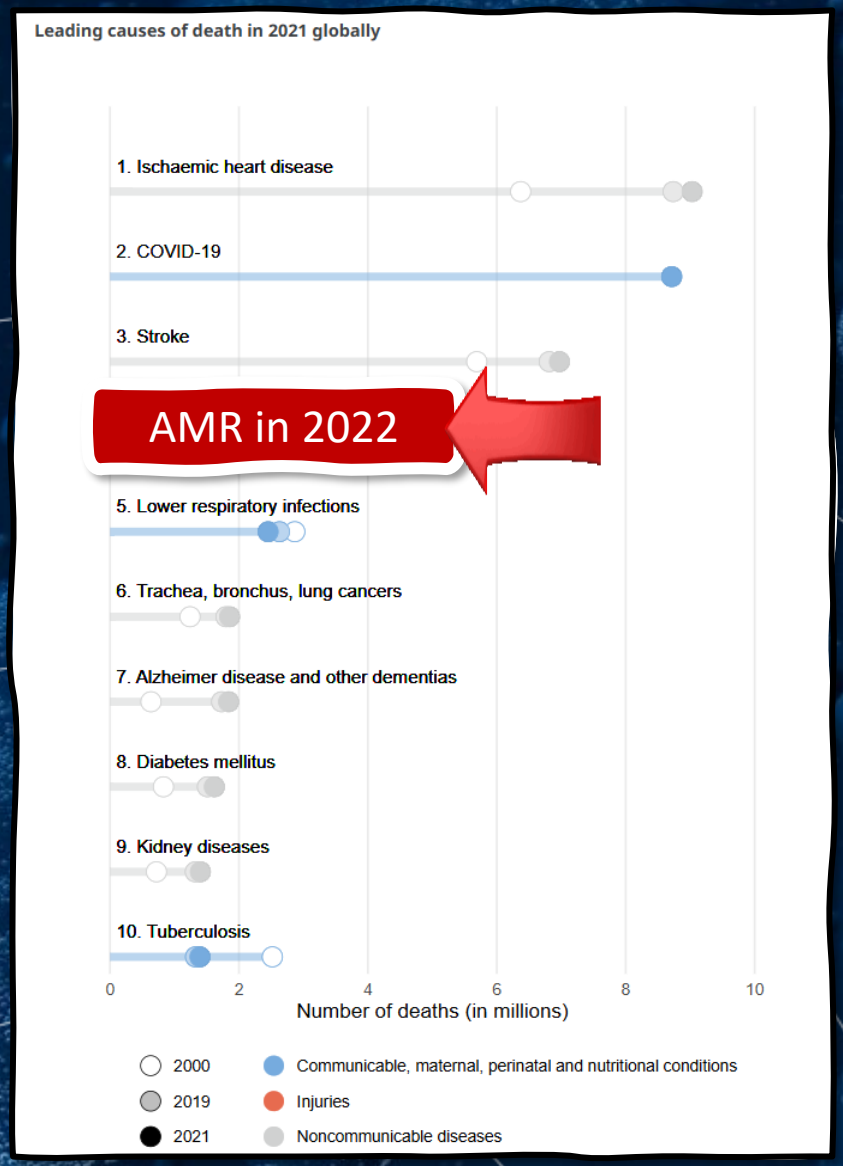
Staphylococcus epidermidis, also know as 'the white Staph', is part of the normal skin flora and can cause opportunistic infections

- Penicillins
- Aminoglycosides
- Fluoroquinolones
- 2nd generation cephalosporins

Multi-drug resistant

- Phosphonic acid derivatives
- Glycopeptides

AMR – How big is the burden (in humans)?



Source: https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death
*Source: https://www.woah.org/app/uploads/2024/09/ihme-human-health-web-f23924.pdf

And what would happen if we do not change our current behaviour?

From now to 2050…

https://www.woah.org/en/superbugs-could-jeopardise-food-security-for-over-two-billion-people-and-increase-annual-health-care-costs-by-us-159-billion-annually-by-2050-finds-most-extensive-modelling-to-date/

AMR – How big is the burden (in animals)?

World Organisation for Animal Health | WAHIS

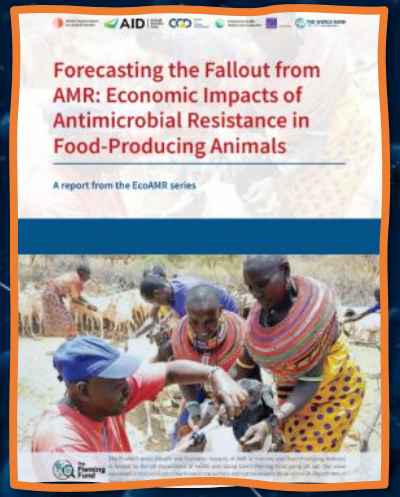
- Diseases 'present'
- Domestic & Wild Animals
- First Semester 2025 (Jan – Jun)

96 different diseases

Disease	Grand Total	Africa	Americas	Asia	Europe	Oceania
Influenza A viruses of high pathogenicity (Inf. with) (non-poultry including wild birds) (2017-)	73	2	15	9	47	
African swine fever virus (Inf. with)	54	7		15	31	1
High pathogenicity avian influenza viruses (poultry) (Inf. with)	48	10	5	12	20	1
Foot and mouth disease virus (Inf. with)	32	17		12	3	
Rabies virus (Inf. with)	28	8	2	14	4	
Anthrax	21	12	3	4	2	
Bluetongue virus (Inf. with)	19	5		1	13	
Peste des petits ruminants virus (Inf. with)	17	8		5	4	
Newcastle disease virus (Inf. with)	14	6	1	3	4	
Brucella abortus (Inf. with)	13	3	4	4	2	
Mycobacterium tuberculosis complex (Inf. with)(2019-)	12	3	1	3	5	
Lumpy skin disease virus (Inf. with)	11	4		5	2	
New world screwworm (Cochliomyia hominivorax)	11		11			
Pathogenic rabbit lagoviruses (Rabbit haemorrhagic disease) (Inf. with)	11	6	2		3	
Bovine anaplasmosis	9	3	3	2	1	
Bovine babesiosis	9	3	3	2		1
Sheep pox and goat pox	9	3		3	3	
Equine infectious anaemia	8		2		6	
Varroa spp. (Inf. of honey bees with) (Varroosis)	8	1	3		3	1
Bovine pestiviruses (Bovine viral diarrhoea) (Inf. with)	7	1	3	1	2	
Brucella melitensis (Inf. with)	7	3		2	2	
Echinococcus granulosus (Inf. with) (2014-)	7		2	4	1	
Fowl typhoid	7	3	2	2		
Infectious bursal disease (Gumboro disease)	7	3	2	2		
Avian infectious bronchitis	6	3	2	1		
Avian infectious laryngotracheitis	6	2	3		1	
Leishmania spp. (Inf. with) (Leishmaniosis)	6	1	2	1	1	1
Mycoplasma gallisepticum (Avian mycoplasmosis) (Inf. with)	6	1	2	2	1	
Mycoplasma mycoides subsp. mycoides SC (Inf. with) (Contagious bovine pleuropneumonia)	6	6				

- AMR does not appear, as in the human list
- Mortality & prevalence studies are rare and scattered
- How many of thse require antimicrobials for veterinary care?
- What's the impact of drug-resistant bacteria in productivity?

Three reports & one policy brief providing new evidence on the cost of AMR from a One Health Perspective



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CENTER FOR GLOBAL DEVELOPMENT

RAND EUROPE

WORLD BANK GROUP

Institute for Health Metrics and Evaluation

World Organisation for Animal Health
Founded as OIE

Organisation mondiale de la santé animale
Fondée en tant qu'OIE

Organización Mundial de Sanidad Animal
Fundada como OIE