ÚS OPTIMITZAT DELS ANTIBIÒTICS

DES DE LA VESSANT DE L'ATENCIÓ PRIMÀRIA

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80%
OF ALL ANTIBIOTICS ARE
USED ON FARM ANIMALS
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ANTIBIÒTICS I ATENCIÓ PRIMÀRIA

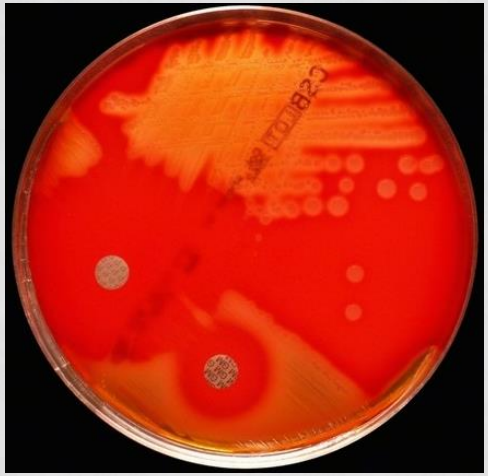
- On som ?

ANTIBIÒTICS I ATENCIÓ PRIMÀRIA

- Resistencies de Streptococcus pyogenes a penicil·lines?

RESISTENCIAS: PENICILINA

***Streptoccus pyogenes* o estreptococo β-hemolítico del grupo A (EBHGA)**



0 %

No se ha descrito **nunca** una cepa resistente a la penicilina

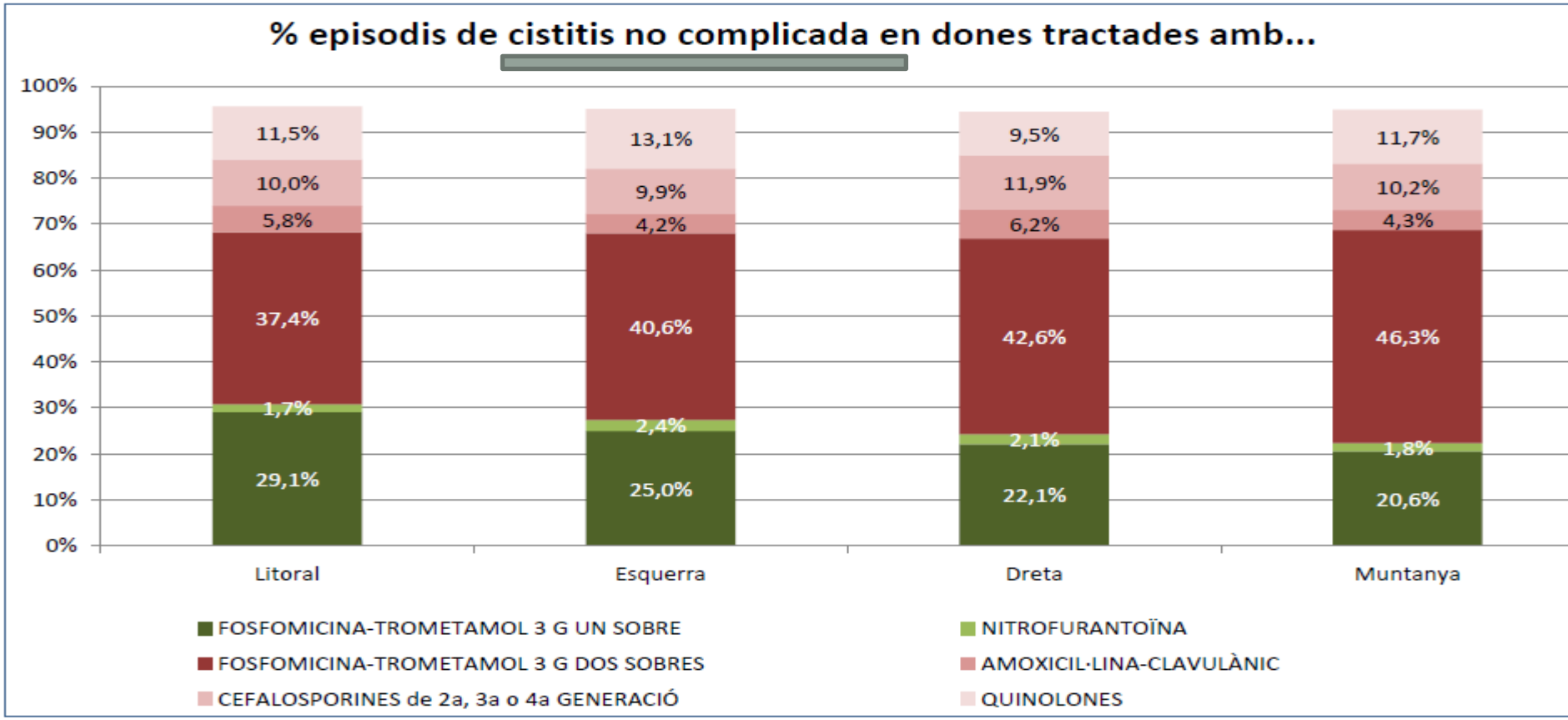
ANTIBIÒTICS I ATENCIÓ PRIMÀRIA

- En cistitis simple esta indicat Fosmomicina 1 sobre o 2 sobres?

NOMÉS UN 26% DE LES PRESCRIPCIONS D'ANTIBIÒTICS EN CISTITIS NO COMPLICADA DE TOTA L'AP-BCN ES CONSIDEREN ADEQUADES (FOSFOMICINA 3 G 1 SOBRE I NITROFURANTOÏNA 100MG DURANT 5 DIES).

Indicadors d'adequació de la prescripció: CNC

Període: gen-des 2020 **Nivell d'agregació: SAP**



ANTIBIÒTICS I ATENCIÓ PRIMÀRIA

- Quin es l'antibiòtic d'elección en la Pneumonia?

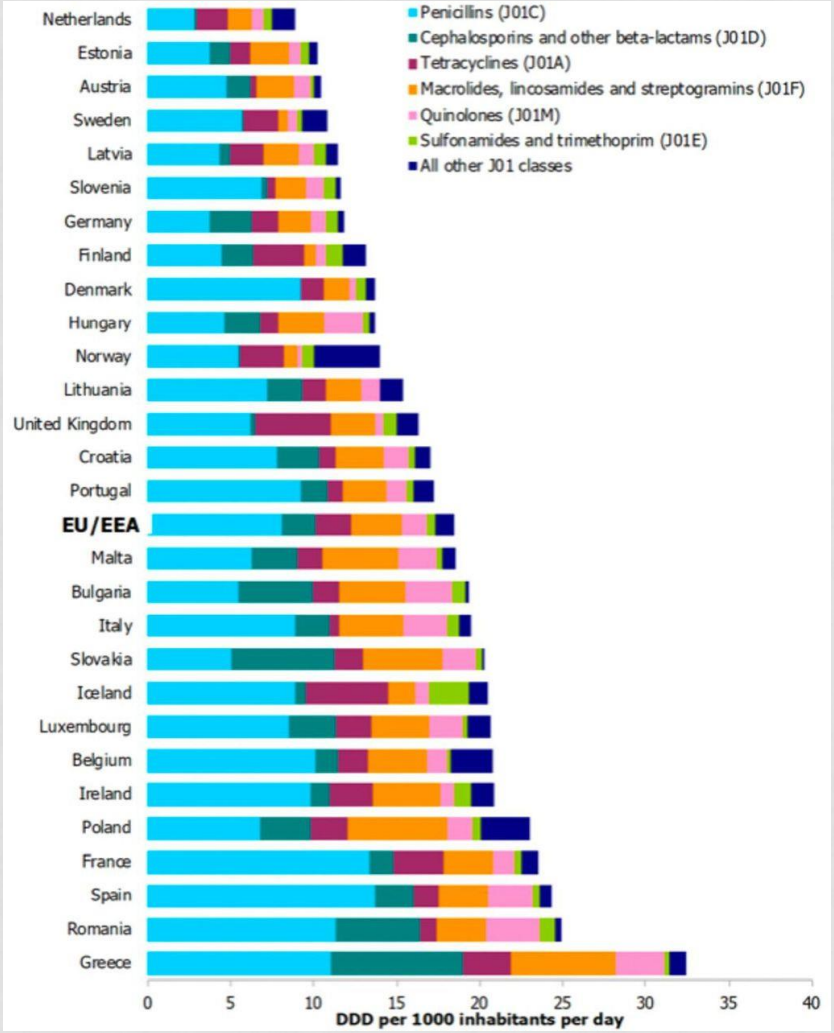
Anàlisis de dades segon trimestre 2021

Pneumònia bacteriana no especificada
Pneumònia causada per microorganismes no especificada
Pneumònia per *Streptococc*
Pneumònia lobar causada per microorganisme no especificat

Pneumònia

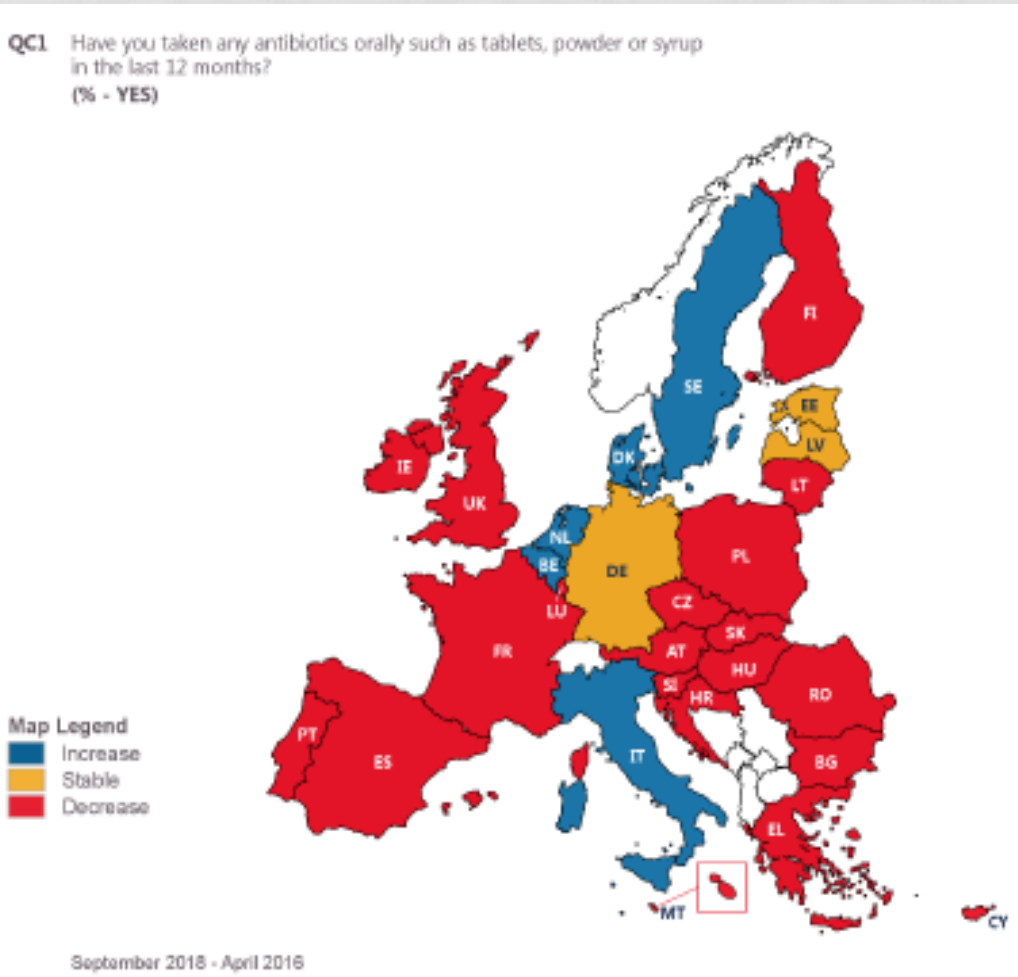
ANTIBIÒTIC	Prescripcions	%	Residències	MACA
Amoxicilina + Ac Clav	713	27,1	31	15
Levofloxacino	687	26,1	21	13
Amoxicilina	587	22,3	5	1
Azitromicina	322	12,3	4	1
Cefditoreno	71	2,7	5	3
Moxifloxacino	44	1,7	0	1
Cefixima	42	1,6	3	2
Cefuroxima	38	1,4	2	1
Ciprofloxacino	31	1,2	2	1
Sulfametoxazol y trimetoprima	28	1,1	0	0
Claritromicina	27	1,0	0	0
Clindamicina	20	0,8	2	3
Doxiciclina	8	0,3	0	0
Ceftriaxona	4	0,2	4	0
Eritromicina	2	0,1	0	0
Josamicina	2	0,1	0	0
Cefotaxima	1	0,0	0	0
Fosfomicina	1	0,0	0	0
Total general	2628		79	41

Consumption of antibiotics for systemic use (ATC group J01) in EU/EEA countries in 2018 (expressed as DDD per 1000 inhabitants per day)

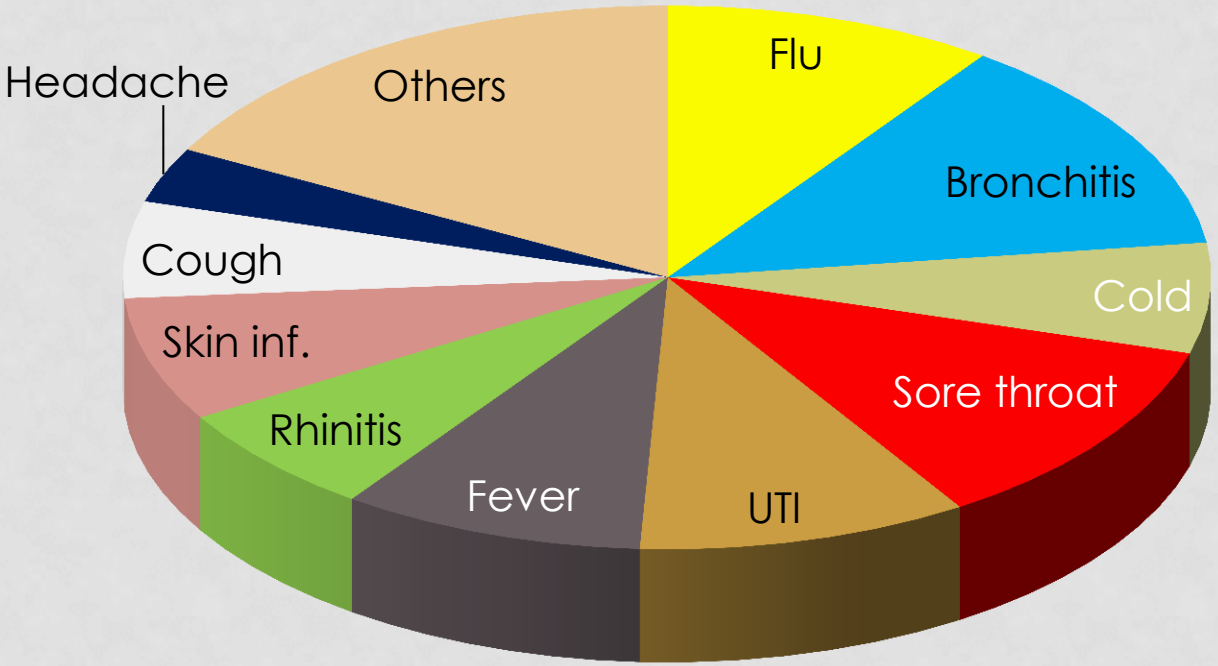


Eurobarometer 2018.
Have you taken an antibiotic over the last year?

DK	28	▲ 5
IT	47	▲ 4
SE	20	▲ 2
NL	21	▲ 1
BE	33	▲ 1
EE	32	=
LV	31	=
DE	23	=
CY	40	▼ 1
HR	35	▼ 1
AT	31	▼ 1
PT	32	▼ 1
SK	34	▼ 1
HU	33	▼ 1
SI	24	▼ 1
EU28	32	▼ 2
FR	37	▼ 2
LT	31	▼ 4
IE	40	▼ 4
UK	31	▼ 4
PL	24	▼ 4
ES	42	▼ 5
CZ	28	▼ 5
FI	26	▼ 5
BG	34	▼ 5
MT	42	▼ 6
LU	34	▼ 7
EL	31	▼ 7
RO	28	▼ 10



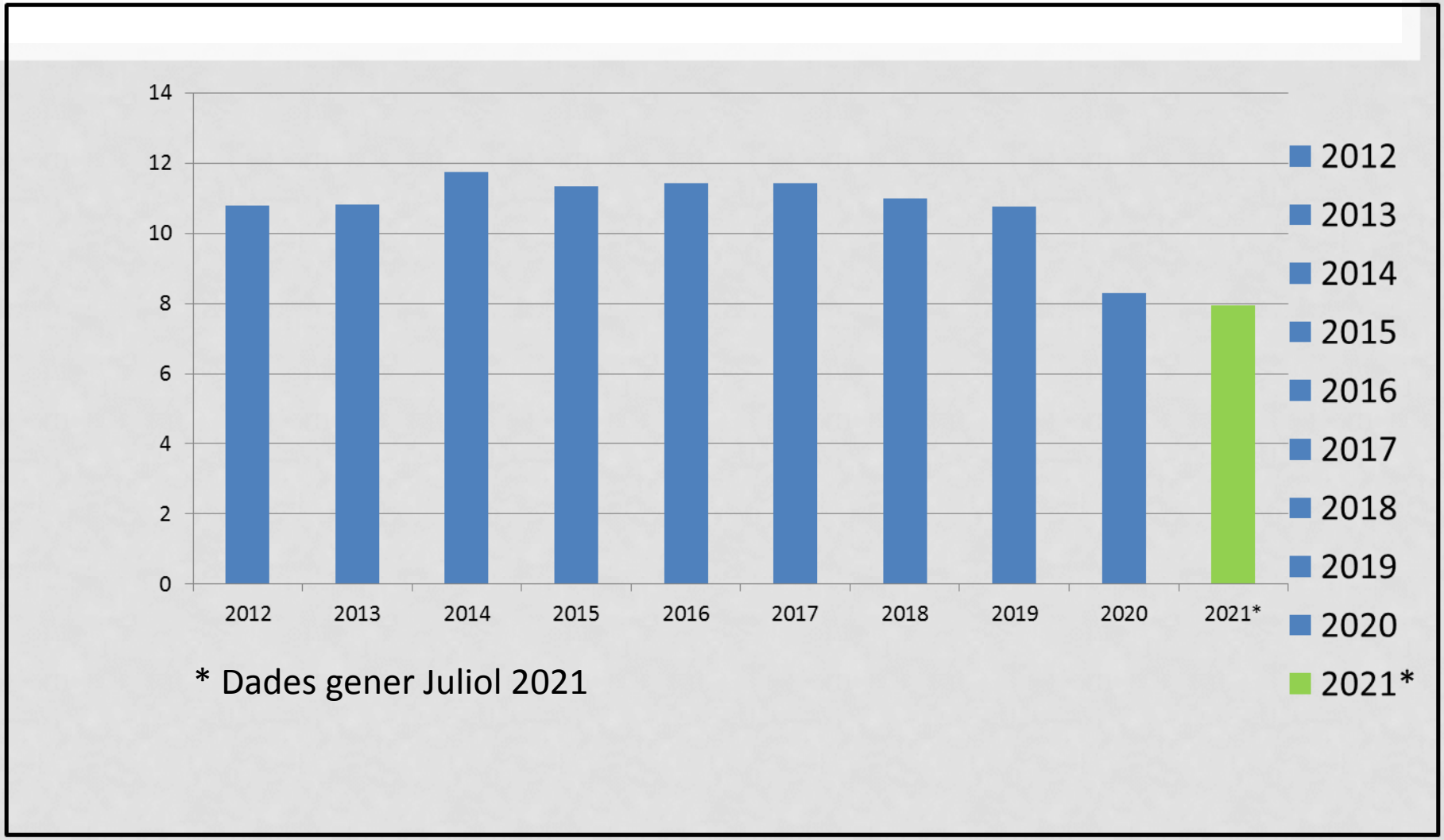
Eurobarometer 2018.
What was the reason for last taking the antibiotics that you used? Respondents who have taken antibiotics (n=8,416)



ANTIBIÒTICS I ATENCIÓ PRIMÀRIA

- Que estem fent?

DADES D'UTILITZACIÓ D'ANTIBIÒTICS A CATALUNYA
DADES DE L'INSTITUT CATALÀ DE LA SALUT



* Dades gener Juliol 2021

DHD de penicil·lines prescrites

ANTIBIÒTIC	DHD 2019	DHD 2020	DHD 2021
AMOXICIL·LINA TRIHIDRAT	**2,3**	**2,1**	**2,0**
AMOXICIL·LINA+CLAVULANIC	**2,6**	**2,5**	**2,6**

Font: aplicació de farmàcia de l'ICS

ANTIBIÒTICS I ATENCIÓ PRIMÀRIA

- Com podem millorar ?

¿Podemos modificar los hábitos de los médicos de atención primaria en cuanto a prescripción antibiótica?

Métodos pasivos dirigidos a médicos
Clases, charlas, folletos para médicos, guías, audits sin feedback

→ Controvertido

Excepción: Estudios de Finlandia e Islandia

Métodos activos dirigidos a médicos y pacientes
Recuerdos, audits con feedback y discusión de resultados, folletos para pacientes

→ Poco efectivo

Mejor si son polifacéticos

Tests rápidos en la consulta
Prescripción diferida de antibióticos
Habilidades comunicativas

→ Efectivo

Arnold SR & Strauss SE. C*ochrane Database Syst Rev* 2005;(**4**):CD003539.
Spurling GKP et al. *Cochrane Database Syst Rev* 2013;(**4**): CD004417.

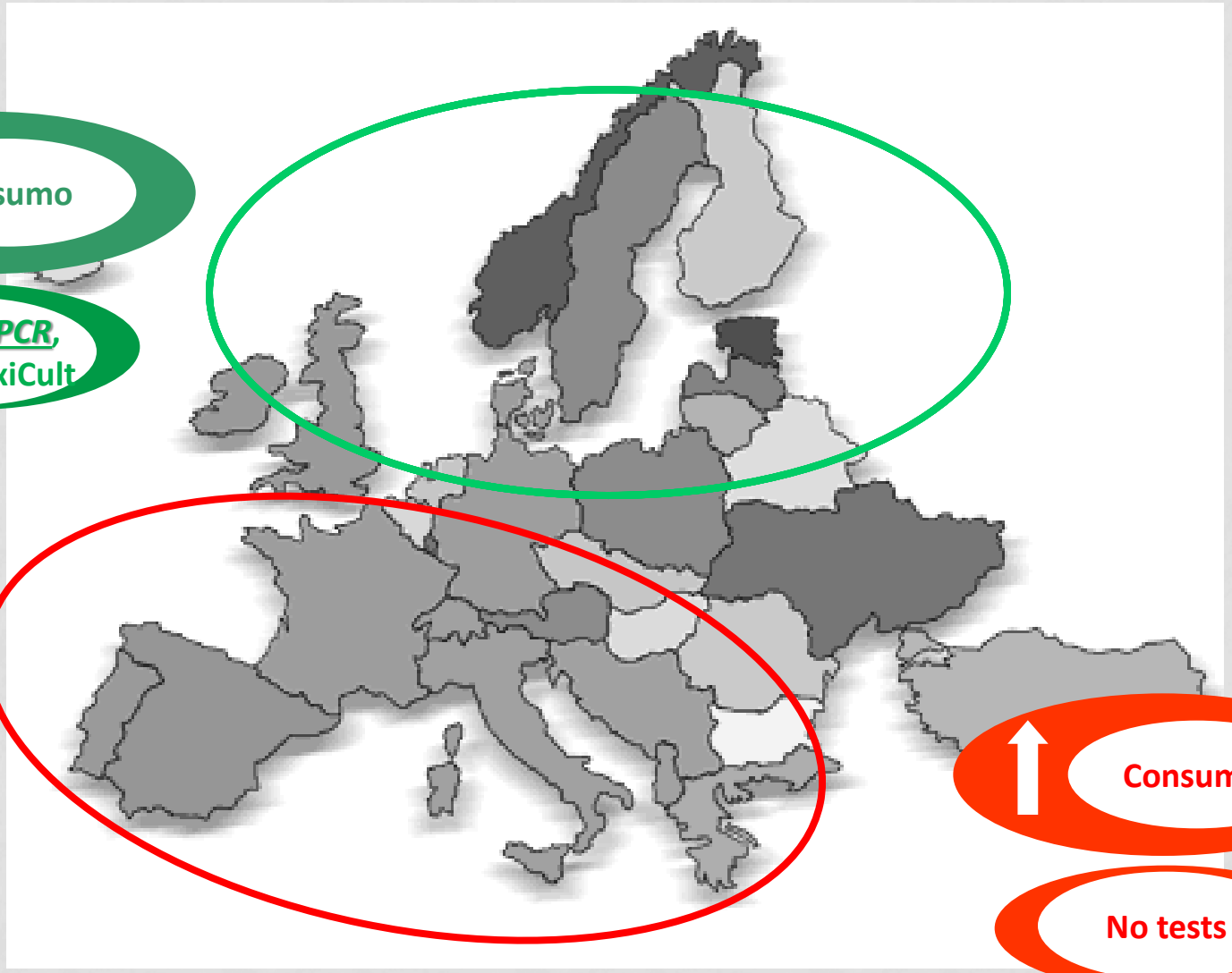
Probes de Diagnòstic Ràpid

Streptococo A

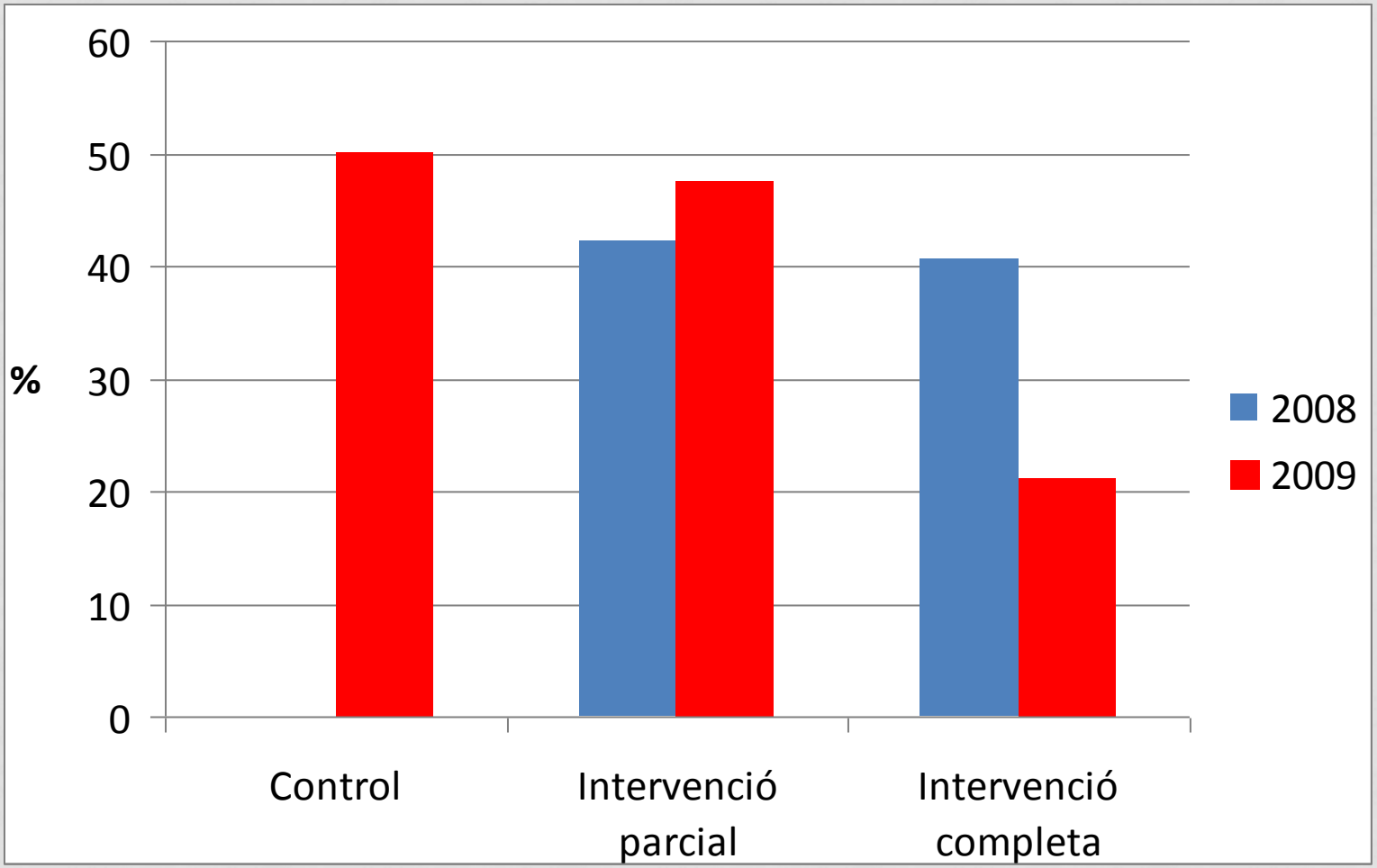
Tira reactiva orina

Proteina C Reactiva

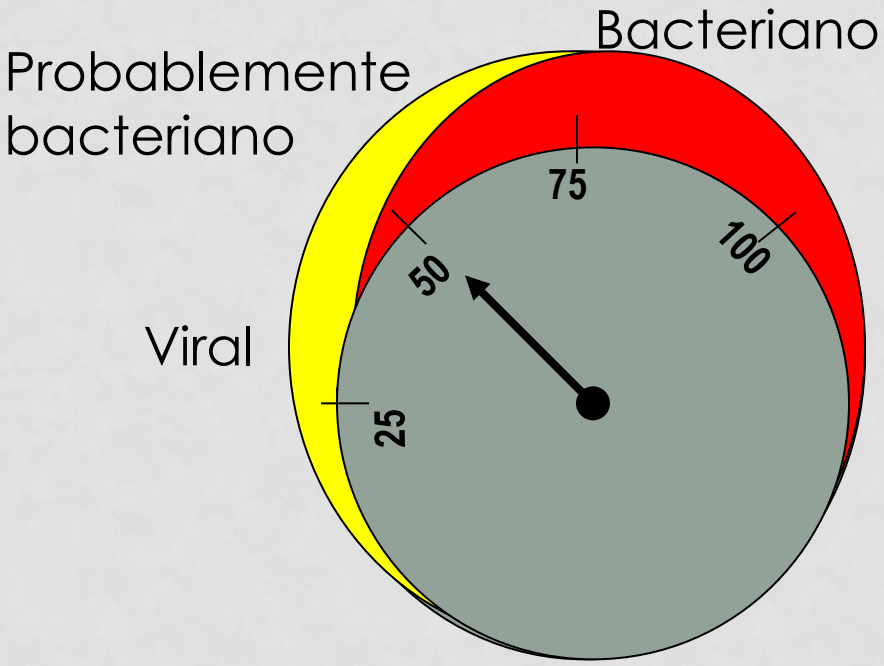
Correlación negativa entre consumo & resistencia y uso de tests rápidos



Porcentaje de prescripción antibiótica en la amigdalitis aguda segun grupo (n: 2.153). Estudio Happy Audit



¿BRONQUITIS AGUDA O NEUMONÍA? DIAGNÓSTICO MÁS PROBABLE SEGÚN VALORES DE LOS REACTANTES DE FASE AGUDA

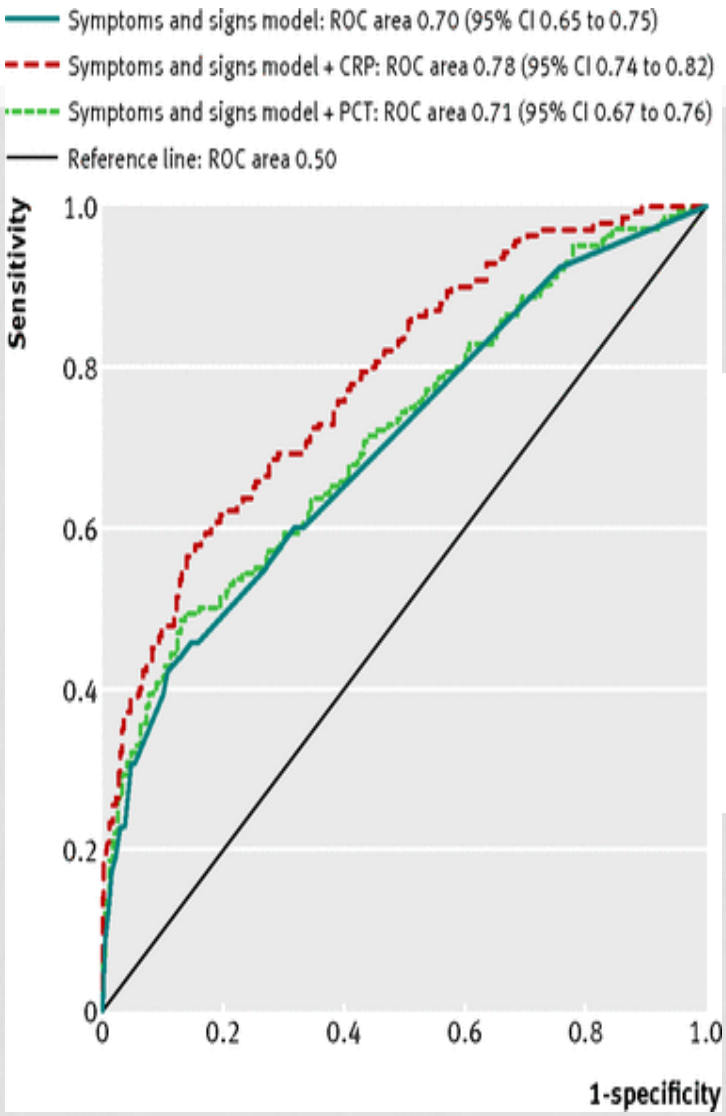


Proteína C reactiva (mg/l)

- < 20 bronquitis
- 20 – 100 duda
- > 100 neumonía

Predicción de riesgo estimado de presentar una neumonía

Estudio GRACE



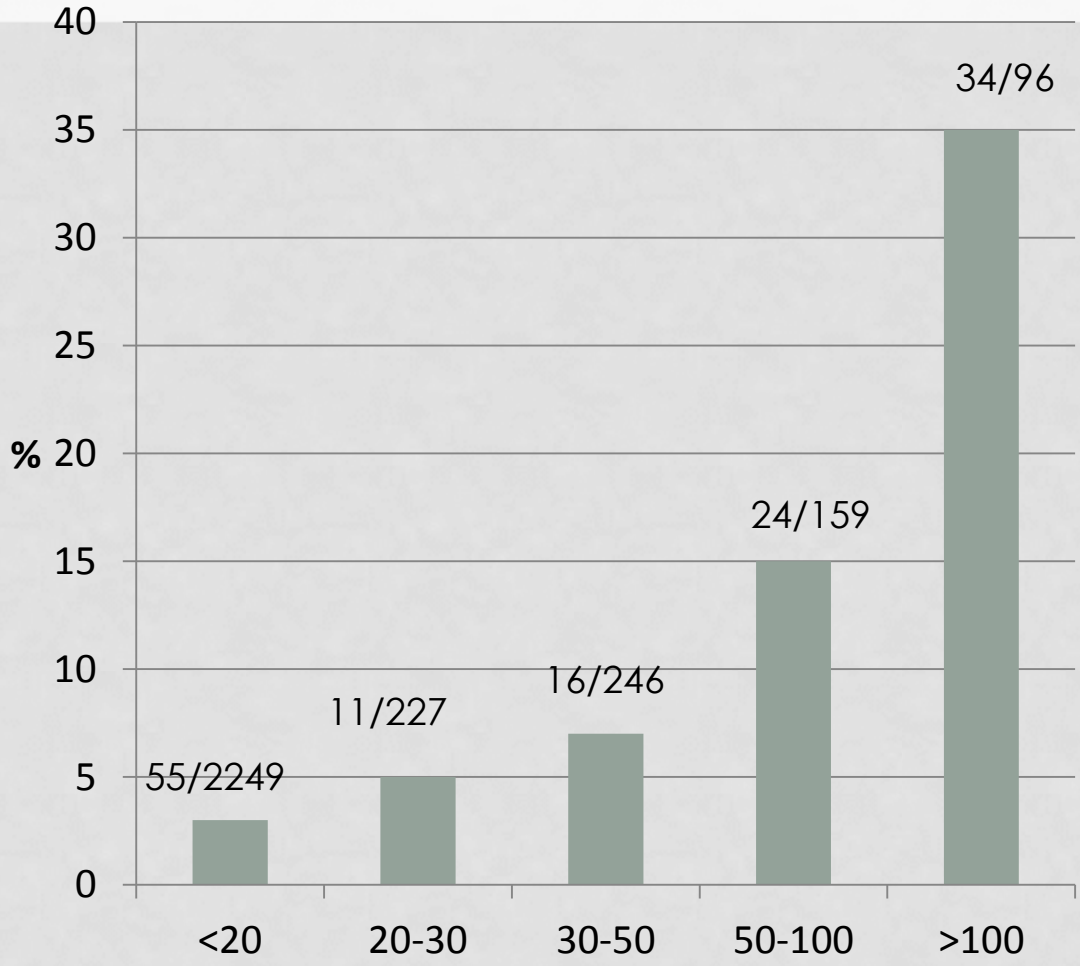
Signos y síntomas:

- Ausencia de rinorrea
- Disnea
- Crepitantes
- ↓ murmullo vesicular
- Taquicardia (> 100 lpm)
- Temperatura >37,8C

Van Vugt SF et al. *BMJ* 2013;**346**:f2450.

Incidencia de neumonía según concentraciones de PCR (en mg/L)

Estudio GRACE

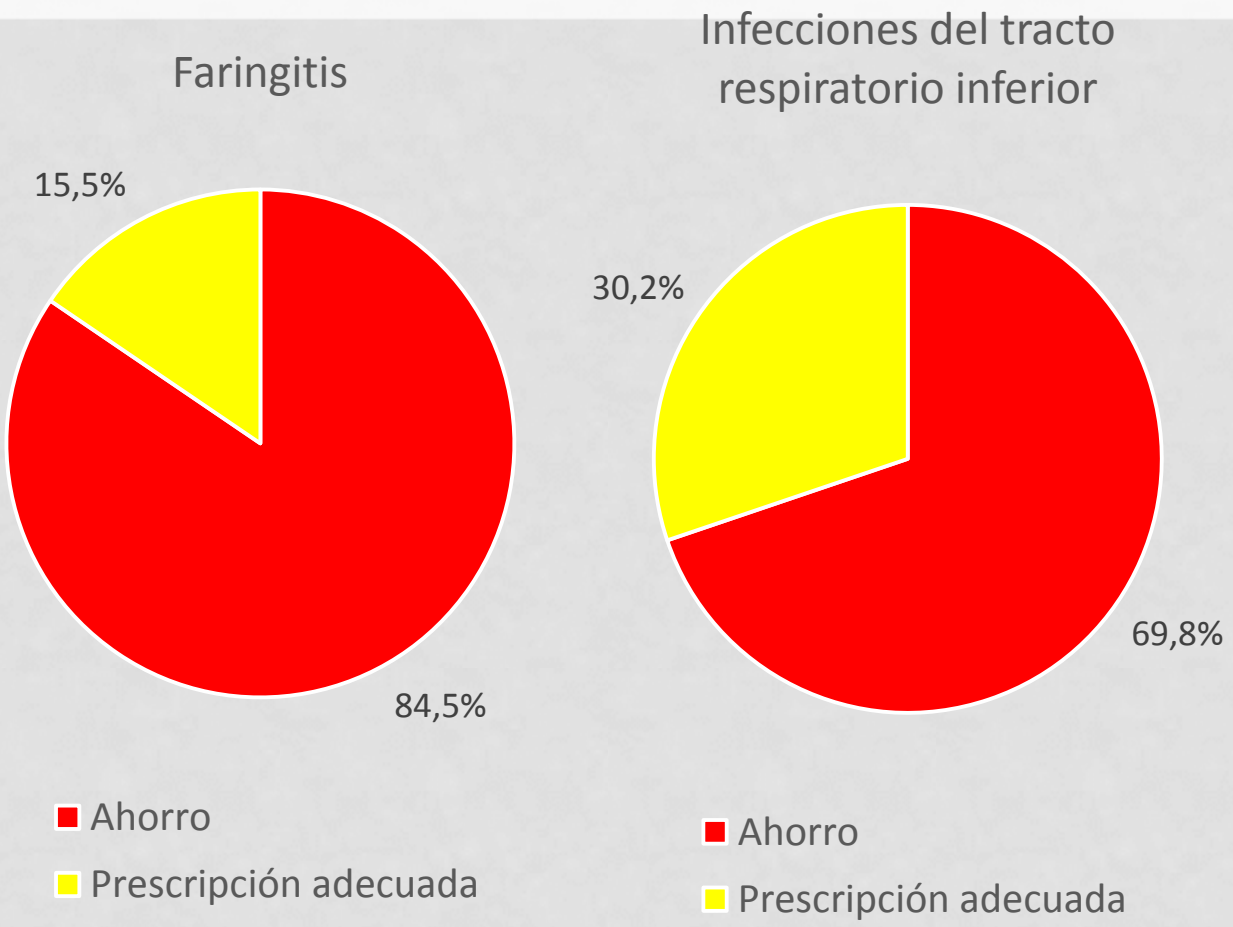


Van Vugt SF et al. *BMJ* 2013;**346**:f2450.

Prescripció antibiòtica en les infeccions del tracte respiratori inferior segons nivell de PCR obtingut. Grup Intervenció Completa 2009 – Estudi Happy Audit

Utilització de PCR	Prescripció antibiòtica. n (%)
No ús de PCR	2.992 / 4.840 (61,8)
Ús de PCR:	
- 0 – 10 mg/L	35 / 253 (13,8) 75%casos
- 11 – 20 mg/L	16 / 28 (57,1) 15% casos
- > 20 mg/L	168 / 213 (78,9) 10% casos
- Valor no escrit	20 / 51 (51,0)
- Total	239 / 545 (43,9)

Ahorro estimado de antibióticos en las faringitis e infecciones del tracto respiratorio (basado en el estudio Happy Audit 3, 2015)



Prescripció Diferida Antibiòtics

Study protocol

Highly accessed

Open Access

Rationale, design and organization of the delayed antibiotic prescription (DAP) trial: a randomized controlled trial of the efficacy and safety of delayed antibiotic prescribing strategies in the non-complicated acute respiratory tract infections in general practice

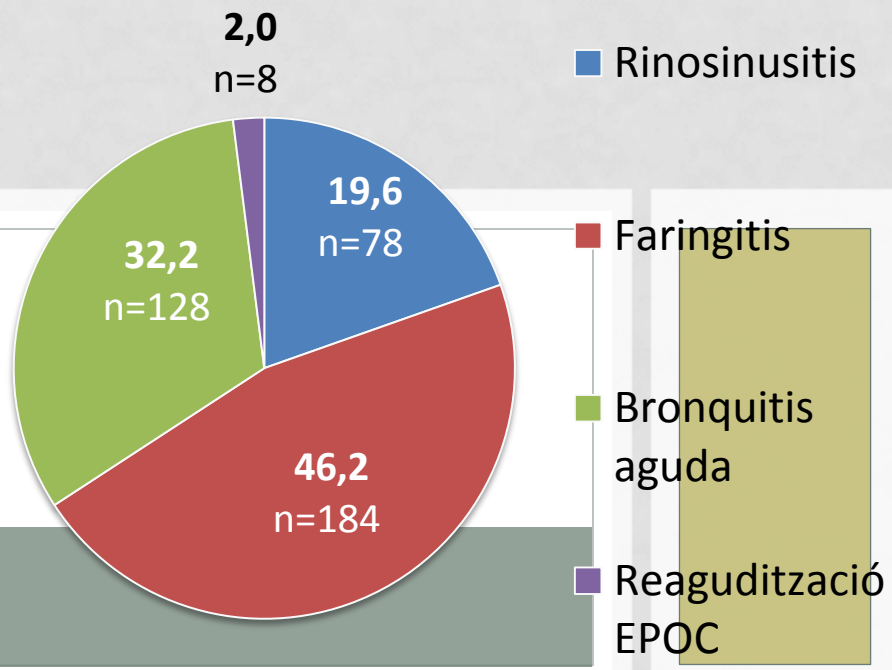
Mariam de la Poza Abad[1], Gemma Mas Dalmau[2], Mikel Moreno Bakedano[3], Ana Isabel González González[4], Yolanda Canellas Criado[5], Silvia Hernández Anadón[6], Rafael Rotaeche del Campo[7,8], Pere Torán Monserrat[10,9], Antonio Negrete Palma[10], Guillem Pera[9], Eulàlia Borrell Thió[11], Carl LLor[6], Paul Little[12], Pablo Alonso Coello[2,8]* and for the Delayed Antibiotic Prescription (DAP) Working Group

JAMA Intern Med. 2016;176(1):21-29. doi:10.1001/jamainternmed.2015.7088
Published online December 21, 2015.

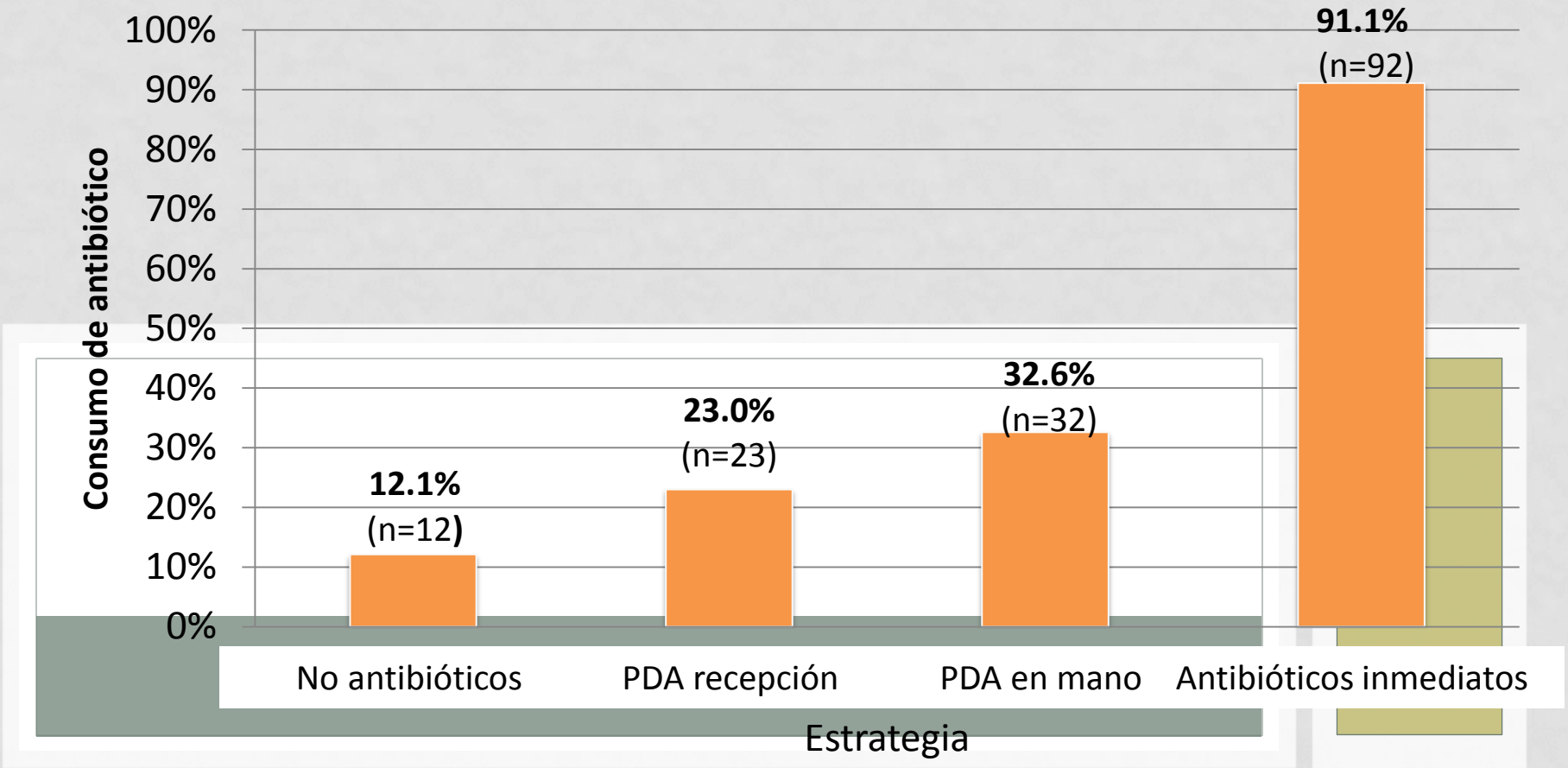
Resultados: Datos generales

- 405 pacientes aleatorizados
- 398 pacientes incluidos
- 65,8% mujeres (n=262)
- Duración media de síntomas en visita basal de 6 días (SD=6)
- La mayoría de pacientes no eran fumadores (80.1%) y no tenían comorbilidades respiratorias (93,5%)

(%) de pacientes incluidos por patología



Resultados: Consumo de antibióticos



Habilitats Comunicatives en prescripció d'antibiòtics

Habilidades comunicativas: Estudio GRACE-INTRO

Effects of internet-based training on antibiotic prescribing rates for acute respiratory-tract infections: a multinational, cluster, randomised, factorial, controlled trial

Paul Little, Beth Stuart, Nick Francis, Elaine Douglas, Sarah Tonkin-Crine, Sibyl Anthierens, Jochen W L Cals, Hasse Melbye, Miriam Santer, Michael Moore, Samuel Coenen, Chris Butler, Kerenza Hood, Mark Kelly, Maciek Godycki-Cwirko, Artur Mierzecki, Antoni Torres, Carl Llor, Melanie Davies, Mark Mullee, Gilly O'Reilly, Alike van der Velden, Adam W A Geraghty, Herman Goossens, Theo Verheij, Lucy Yardley, on behalf of the GRACE consortium

Summary

Background High-volume prescribing of antibiotics in primary care is a major driver of antibiotic resistance. Education of physicians and patients can lower prescribing levels, but it frequently relies on highly trained staff. We assessed whether internet-based training methods could alter prescribing practices in multiple health-care systems.

Methods After a baseline audit in October to December, 2010, primary-care practices in six European countries were cluster randomised to usual care, training in the use of a C-reactive protein (CRP) test at point of care, in enhanced communication skills, or in both CRP and enhanced communication. Patients were recruited from February to May, 2011. This trial is registered, number ISRCTN99871214.

Results The baseline audit, done in 259 practices, provided data for 6771 patients with lower-respiratory-tract infections (3742 [55·3%]) and upper-respiratory-tract infections (1416 [20·9%]), of whom 5355 (79·1%) were prescribed antibiotics. After randomisation, 246 practices were included and 4264 patients were recruited. The antibiotic prescribing rate was lower with CRP training than without (33% *vs* 48%, adjusted risk ratio 0·54, 95% CI 0·42–0·69) and with enhanced-communication training than without (36% *vs* 45%, 0·69, 0·54–0·87). The combined intervention was associated with the greatest reduction in prescribing rate (CRP risk ratio 0·53, 95% CI 0·36–0·74, p<0·0001; enhanced communication 0·68, 0·50–0·89, p=0·003; combined 0·38, 0·25–0·55, p<0·0001).

Interpretation Internet training achieved important reductions in antibiotic prescribing for respiratory-tract infections across language and cultural boundaries.

Funding European Commission Framework Programme 6, National Institute for Health Research, Research Foundation Flanders.

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See Online/Comment http://dx.doi.org/10.1016/S0140-6736(13)61445-7

Primary Care and Population Sciences Division, University of Southampton, Southampton, UK (Prof P Little FRCGP, B Stuart PhD, S Tonkin-Crine PhD, M Santer PhD, M Moore FRCGP, M Mullee MSc, G O'Reilly PhD, A W A Geraghty PhD); Centre for Applications of Health Psychology (CAHP), Faculty of Social and Human Sciences (E Douglas MSc, Prof L Yardley PhD) and Julius Centre for Health Sciences and Primary Care (A van der Velden PhD, Prof T Verheij MRCGP), University Medical Centre Utrecht, Utrecht, Netherlands; Cochrane Institutes of Primary Care and Public Health (N Francis PhD, Prof C Butler FRCGP), and South East Wales Trials Unit (Prof K Hood PhD, M Kelly PhD), School of Medicine, Cardiff University, Cardiff, UK; Department of Family and Community Medicine, Medical University of Lodz, Lodz, Poland (M Godycki-Cwirko PhD); Independent Laboratory of Family Physician Education, Pomeranian Medical University in Szczecin, Szczecin, Poland (A Mierzecki PhD); Ely Bridge Surgery, Ely, Cardiff, UK (M Davies MSc); Pneumology Department, Clinic Institute of Thorax, Hospital Clinic of Barcelona-Institut d'Investigacions Biomediques, August Pi i Sunyer-University of Barcelona-Ciber de Enfermedades Respiratorias, Barcelona, Spain (Prof A Torres PhD); Centre for General Practice

Introduction

Physicians prescribe antibiotics for many patients with acute uncomplicated lower-respiratory-tract infections, which are among the most common acute presentations in primary care.[1–3] Most of these infections are viral, and evidence from systematic reviews[4] and other studies[5,6] suggest only slight benefit is achieved from the prescription of antibiotics. Thus, rationalisation of antibiotic use in the treatment of lower-respiratory-tract infections in primary care is a priority in the prevention of antibiotic resistance.[7]

C-reactive protein (CRP) has predictive value for pneumonia.[8,9] In the IMPAC3T study,[10] training of physicians in CRP testing lowered the rate of antibiotic prescribing by 20%. These findings were supported in a later study.[11] The usefulness of training in consultation skills requires clarification[10] because there is limited evidence for effects on symptom control[10,12,13] and whether a particular approach to training can be used in different settings.

Interactive workshops for health-care professionals and education of patients are likely to lower the rate of antibiotic prescribing.[12,14,15] The IMPAC3T study[10] showed that the training of physicians in advanced communication skills by seminar role-playing and peer feedback on consultation transcripts reduced antibiotic prescribing rates by 20%. The STAR programme involves five stages of web-based training in advanced communication skills that include recording of reactions to scenarios, sharing of accounts of clinical experience, and expert-led face-to-face seminars. This approach led to a 4% reduction in global antibiotic use over 1 year in practices across Wales.[16] Nevertheless, because such outreach interventions are generally performed by small groups of highly trained staff based at research centres of excellence, the generalisability of delivery and the potential effects on real-world practice are questionable. Novel techniques are, therefore, needed to lead to changes at national and international levels. Internet training has the advantage that it can be disseminated widely at low cost and does not require highly trained outreach facilitators to be on site. In one study of internet training for general practitioners, the use of an interactive booklet for consultations with children attending for

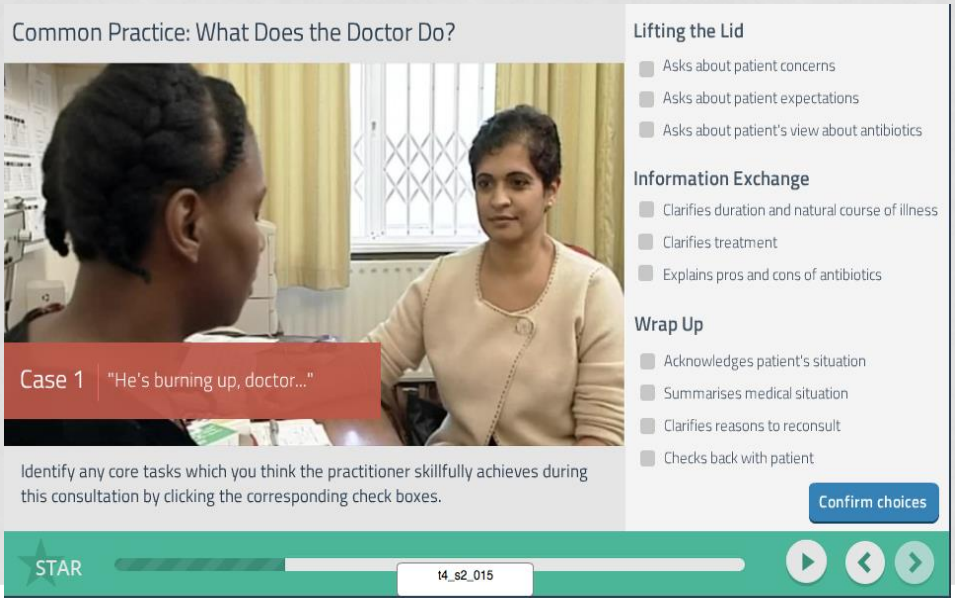
- Ensayo clínico aleatorio.
- 259 consultas con 6.771 pacientes con infecciones del tracto respiratorio inferior.
- Variable de resultado principal: prescripción antibiótica.

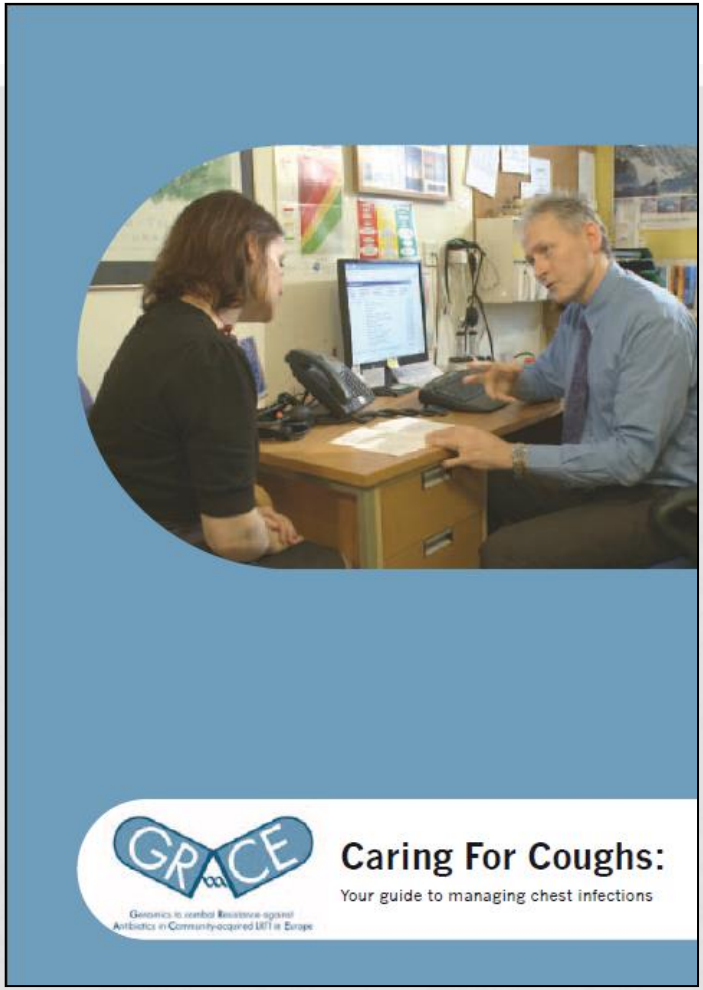
Little P et al. *Lancet* 2013;**382**:1175-82.

Habilidades comunicativas: Estudio GRACE-INTRO

Grupo de comunicación

- Videos online de comunicación
- Folletos informativos





Little P et al. *Lancet* 2013;**382**:1175-82.

Habilidades comunicativas

Resultado del estudio GRACE-INTRO. Prescripción antibiótica en la visita inicial

		Comunicación	
		Sí	No
PCR	Sí	(Comunicación + PCR) **33%**	(PCR) **37%**
	No	(Comunicación) **43%**	(Consulta habitual) **62%**

Little P et al. *Lancet* 2013;**382**:1175-82.

Pautes antibiòtiques curtes que caldria recomanar

Infecció	Comparació	n	Evidència
Rinosinusitis bacteriana aguda[1]	3-7 vs. 6-10 dies 5	4.430 (12 estudis)	OR de curació clínica: 0,95 (0,81 – 1,12)
Otitis mitjana aguda[2]	2-7 vs. ≥7 dies 5	570 (5 estudis)	OR de fracàs terapèutic de 0,85 (0,60-1,21) en més grans de 2 anys
Pneumònia adquirida a la comunitat[3,4]	3-5 vs. >7 dies 5	1540 (8 estudis)	RR de fracàs clínic: 0,96 (0,74 – 1,26)
Exacerbació d'MPOC[5]	<5 vs. ≥5 dies 5	10.698 (21 estudis)	OR de curació clínica als 25 dies: 0,99 (0,90 – 1,08)
Pielonefritis aguda[6]	7-14 vs. 14-42 dies 7	185 (2 estudis)	OR d'èxit clínic de 1,03 (0,80 – 1,32)

[1]Falagas ME et al. *Br J Clin Pharmacol* 2009;**67**:161–71. [2]Kozyrskyj A et al. *Cochrane Database Syst Rev* 2010;**9**:CD001095. [3]Li JZ et al. *Am J Med* 2007;**120**:783–90. [4]el Moussaoui R et al. *BMJ* 2006;**332**:1355. [5]El Moussaoui R et al. *Thorax* 2008;**63**:415–22. [6]Kyriakidou KG et al. *Clin Ther* 2008;**30**:1859–68.

CONCLUSIONS - I

Existeix

-Sobrediagnòstic d'infeccions bacterianes

-Sobretractament amb antibiòtics

CONCLUSIONS -II

Tenim eines per millorar la prescripció d'antibiòtics com:

-les probes de diagnòstic ràpid (institució)

-la prescripció diferida antibiòtics (professionals)

-la comunicació al pacient (població)

Moltes Gracies

Jose M Cots: jcy23465@comb.cat

DADES D'UTILITZACIÓ D'ANTIBIÒTICS A CATALUNYA
DADES DE L'INSTITUT CATALÀ DE LA SALUT GLOBALS

ESTÀNDART DE QUALITAT DE LA PRESCRIPCIÒ
Utilització d'antibiòtics (AB)

INDICADORS:

- Monitorar possible hiperprescripció AB
  DHD d'AB

- Limitar AB ampli espectre
  % amoxicil·lina-àcid clavulànic/total de penicil·lines

- Prioritzar selecció d'AB
  % AB recomanats/total d'AB

Plan Nacional Resistencia Antibióticos

3. Identificar e impulsar medidas alternativas y/o complementarias de prevención y tratamiento

Pruebas de diagnóstico en el punto de Atención al Paciente:

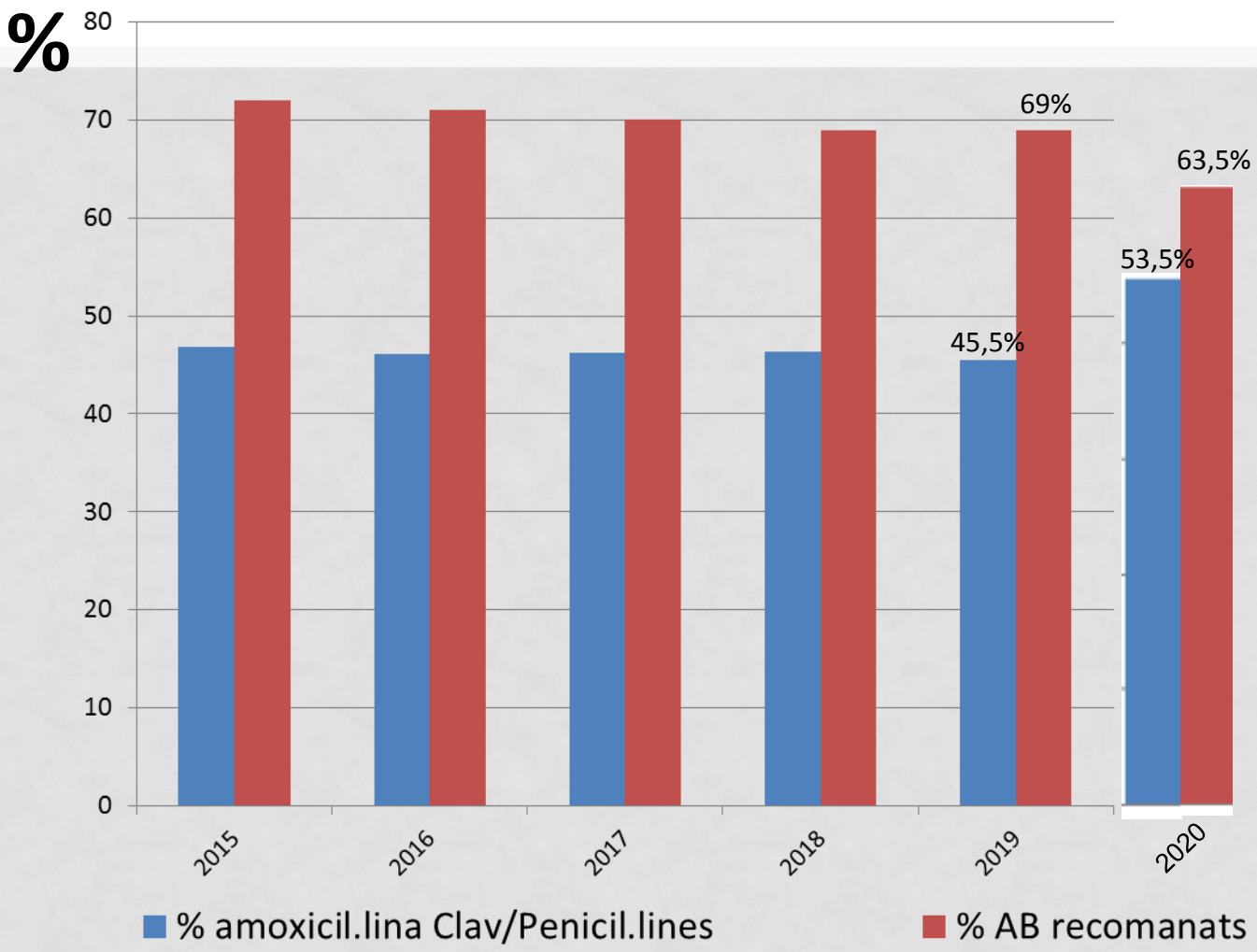
- Prueba rápida detección de EstreptoA en faringoamigdalitis aguda
- Prueba cuantitativa determinación Proteína C Reactiva (PCR) en infecciones respiratorias vías bajas

Prevalence of antimicrobial use by residents in long-term care facilities, by country, 2016-2017

Country	Nursing homes	Eligible residents	Residents with at least 1 antibiotic	Prevalence, % (95% CI)
Austria	12	2,065	67	3.2 (2.5 to 4.1)
Belgium	79	8,206	482	5.9 (5.4 to 6.4)
Croatia	8	1,607	32	2.0 (1.4 to 2.8)
Denmark	95	3,346	350	10.5 (9.4 to 11.5)
Finland	149	5,914	394	6.7 (6.0 to 7.3)
France	91	6,957	187	2.7 (2.3 to 3.1)
Germany	82	6,705	85	1.3 (1.0 to 1.6)
Greece	13	812	49	6.0 (4.5 to 7.9)
Hungary	75	7,670	71	0.9 (0.7 to 1.2)
Ireland	109	5,613	543	9.7 (8.9 to 10.5)
Italy	196	11,417	495	4.3 (4.0 to 4.7)
Lithuania	26	3,438	25	0.7 (0.5 to 1.1)
The Netherlands	57	4,547	202	4.4 (3.9 to 5.1)
Norway	62	2,447	169	6.9 (5.9 to 8.0)
Poland	24	2,281	73	3.2 (2.5 to 4.0)
Portugal	132	3,633	220	6.1 (5.3 to 6.9)
Serbia	6	1,168	57	4.9 (3.7 to 6.3)
Slovakia	59	5,091	113	2.2 (1.8 to 2.7)
Spain	46	6,808	717	10.5 (9.8 to 11.3)
Sweden	285	3,604	118	3.3 (2.7 to 3.9)
EU/EEA	1,788	102,301	5,035	4.9 (4.8 to 5.1)

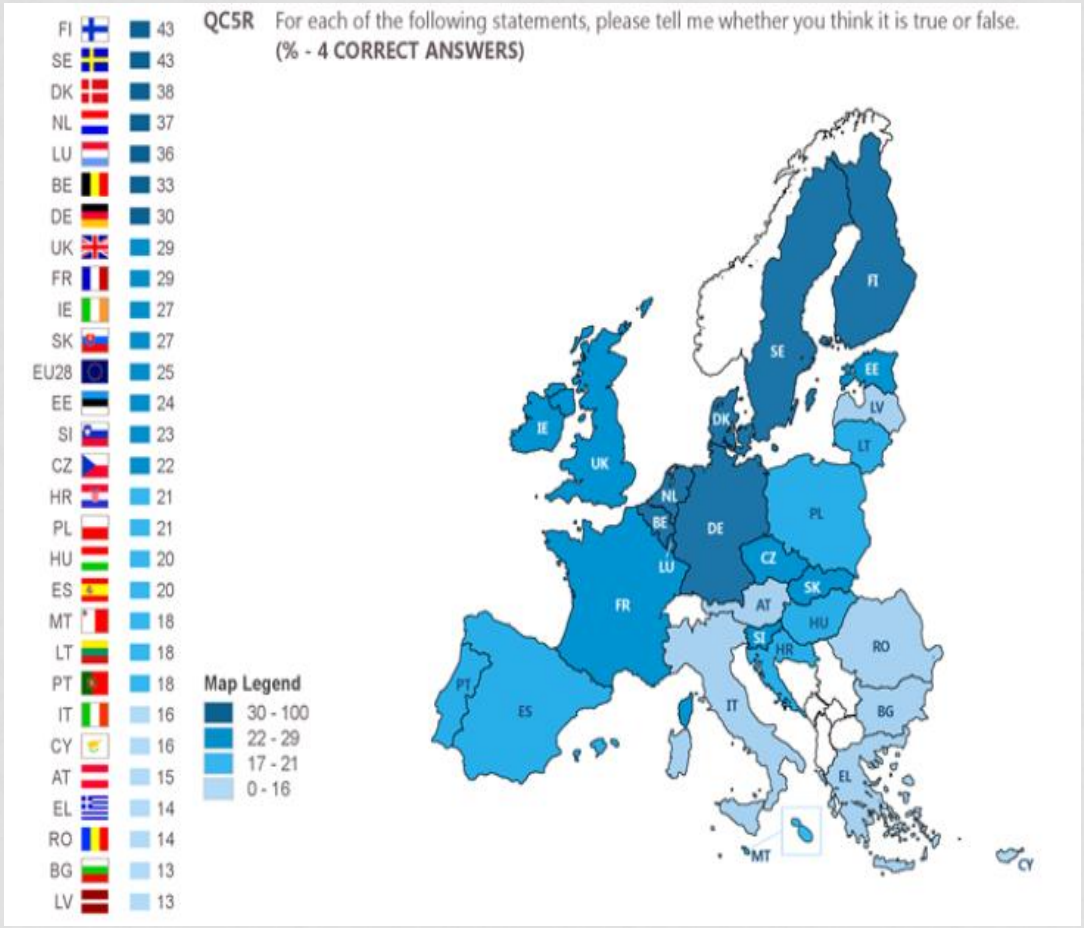
Ricchizzi E et al. *Euro Surveill* 2018;**23.**

DADES D'UTILITZACIÓ D'ANTIBIÒTICS A CATALUNYA
DADES DE L'INSTITUT CATALÀ DE LA SALUT DADES GLOBALS



Dades de gener a juny del 2021: % amoxicil·lina Clav/ Penicilines 55,3%
% AB recomanats 62,7%

Eurobarometer 2018.
What Europeans know about antibiotics?



1. Antibiotics kill viruses	False
2. Antibiotics are effective against colds and flu	False
3. Unnecessary use of antibiotics makes them become ineffective	True
4. Taking antibiotics often has side effects, such as diarrhoea	True