

Antibiotics in the Community

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National Medicines Conference May 2016

Gp 25 Years Elmwood

HCAI AMR QID 5th year

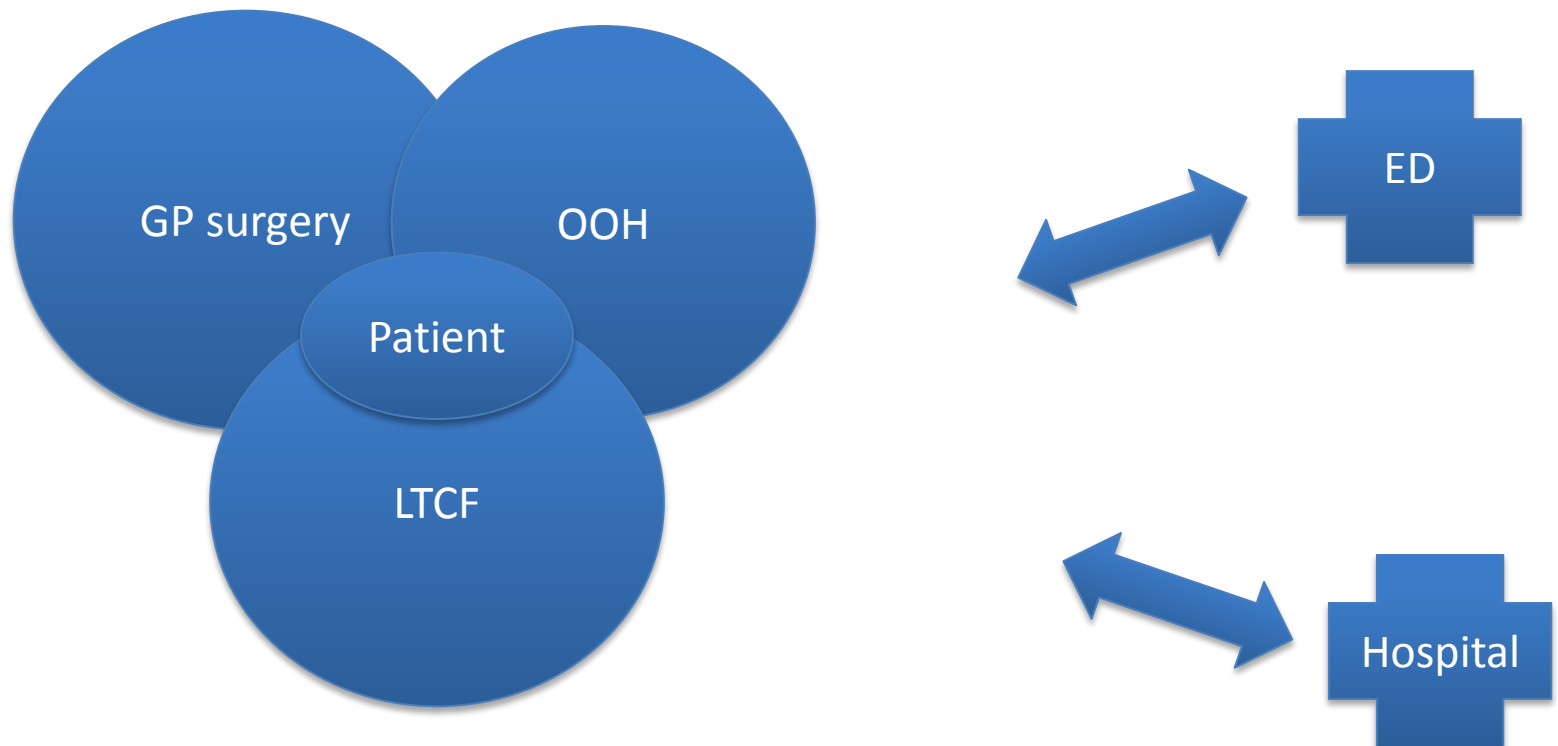


Antibiotics in the Community

“Presentations on the day will reflect the importance of all departments and organizations working together for the safe, effective and cost-effective use of medicines in society”

Antimicrobial Stewardship in the Community

Where are antibiotics prescribed and by whom ?



What is Antibiotic Stewardship?

Using antibiotics wisely and safely

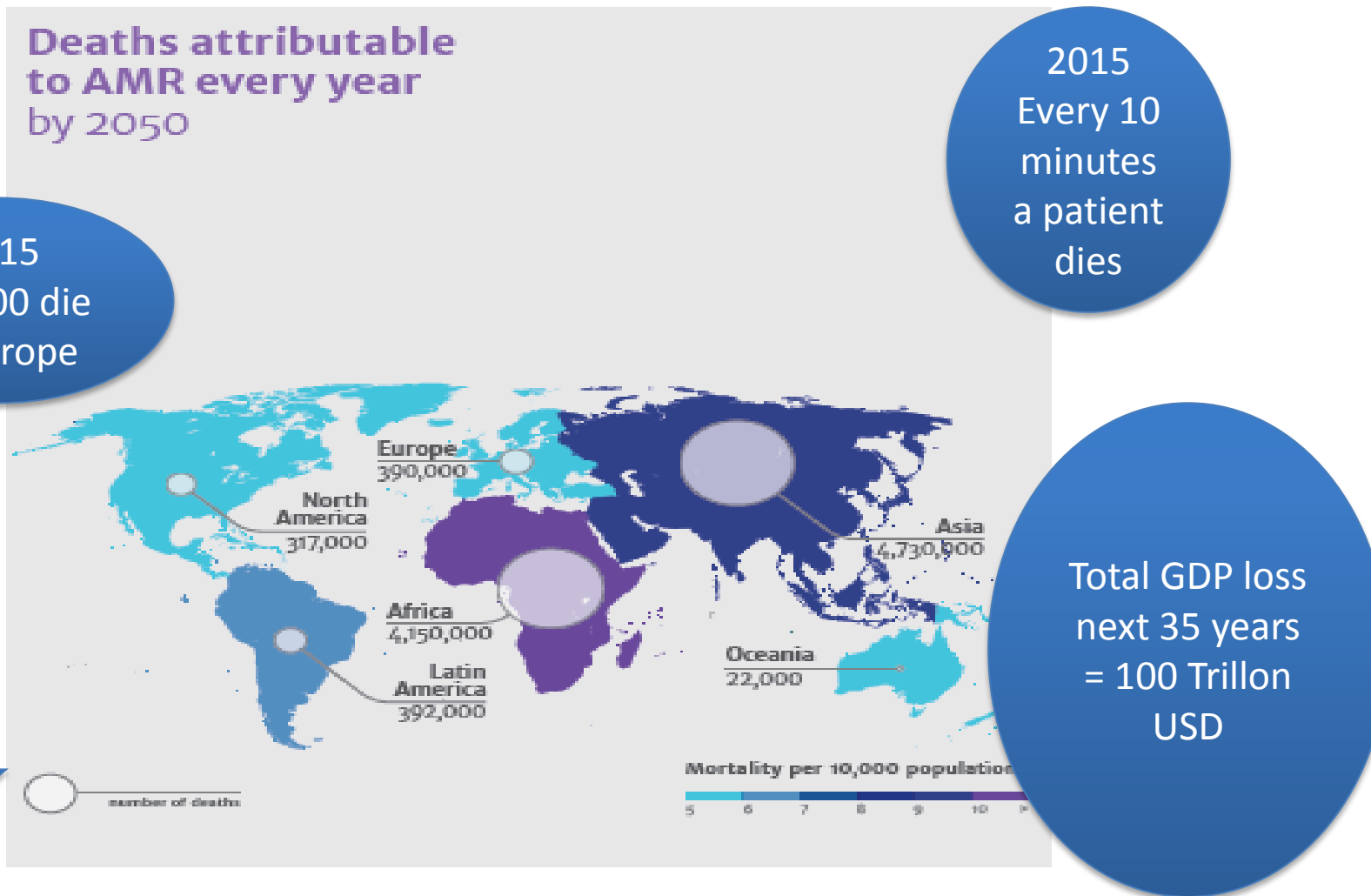
- Ensuring you prescribe the right antibiotic for the patient in front of you
- Right dose duration and route for the condition you are treating
- Cause the least amount of harm (toxicity) to that patient
- Least harm to future patients by limiting antibiotic resistance

Only use for
suspected
bacterial
infections

Do Not
prescribe for
obvious viral
infections



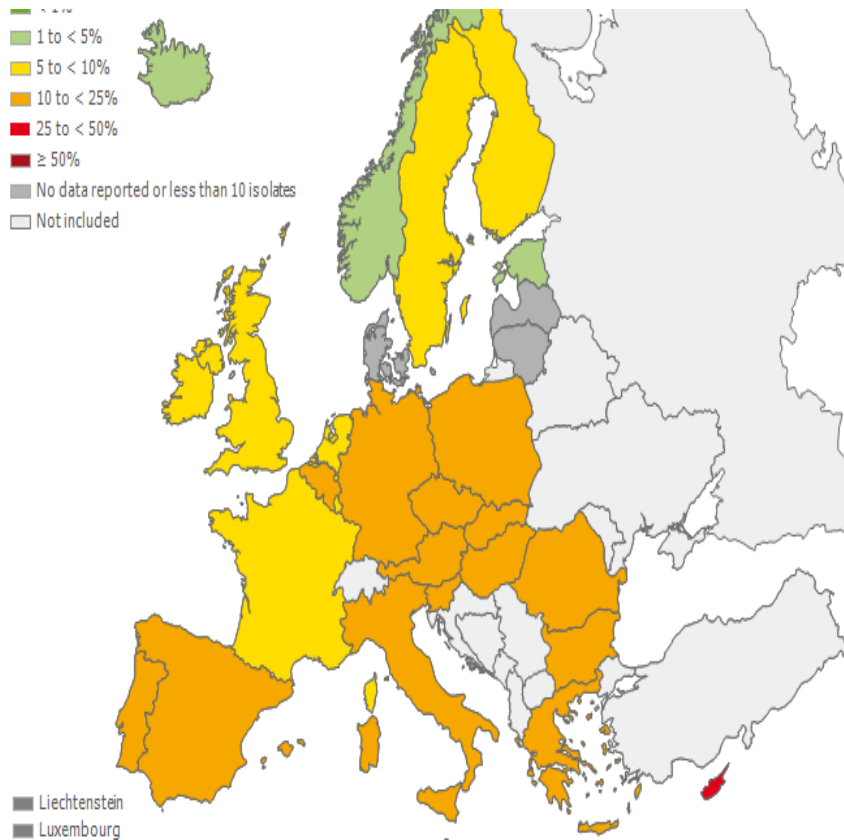
10 million deaths attributable to AMR worldwide by 2050 if current trends continue



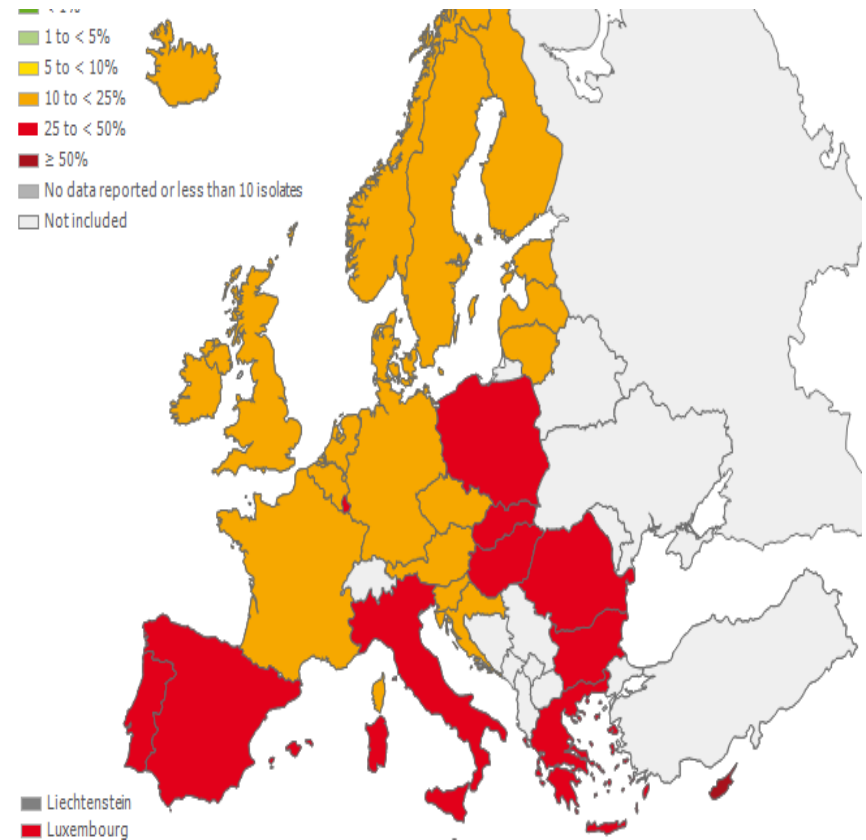
Because antibiotics are no longer effective against the bacteria responsible for the infection

Fluoroquinolones (R) resistant *Escherichia coli* isolates in participating countries

2003 -2003



2013

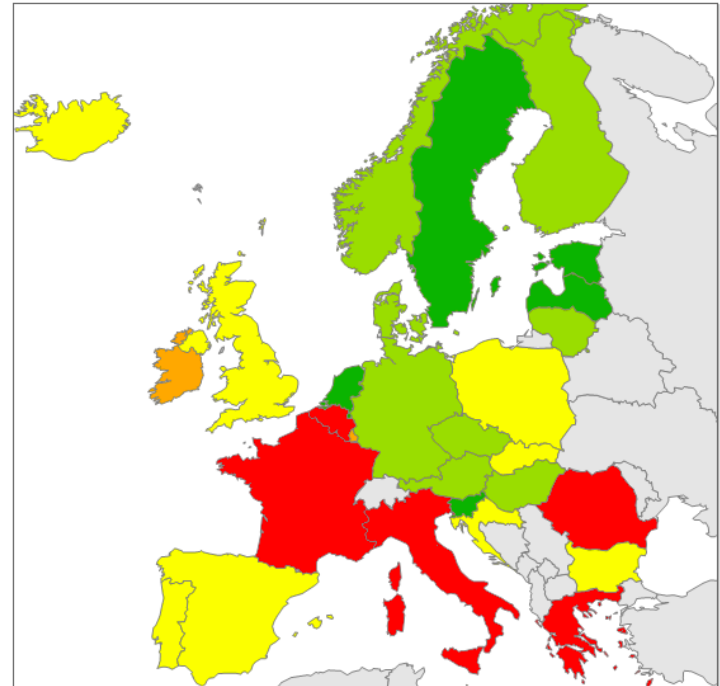


Northern v southern European countries Source EARS-Net

What's different about countries with low rates AMR

Primary Care Antibiotic Consumption Rates DDD's

- Overall consumption of antibiotics is less.
- Greece and Cyprus use 3 times more antibiotics per head of population than Netherlands
- Use more narrow spectrum Antibiotics than broad spectrum.

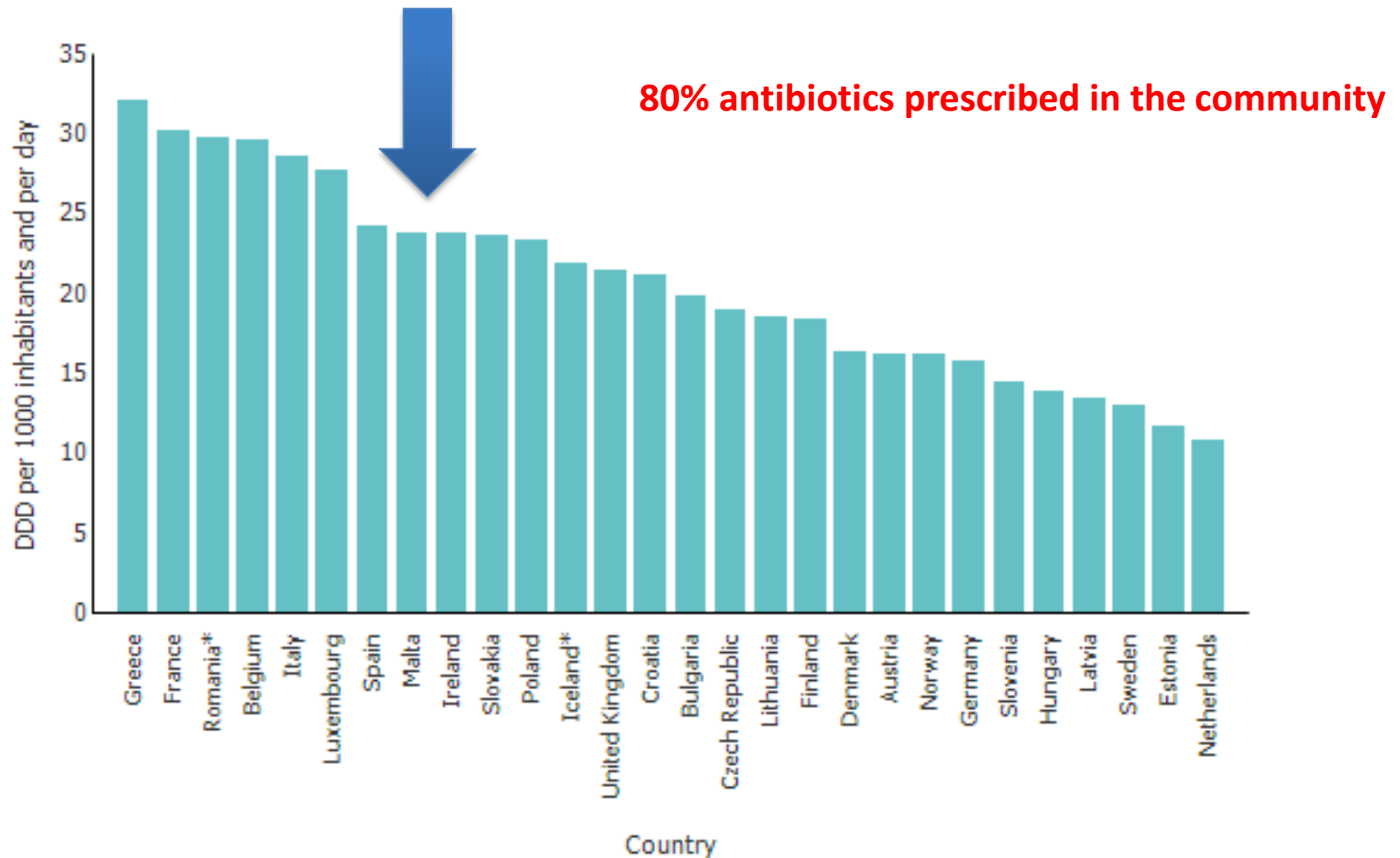


Levels of AMR consistently correlate with the levels of antibiotic consumption

We use a lot of antibiotics in Ireland

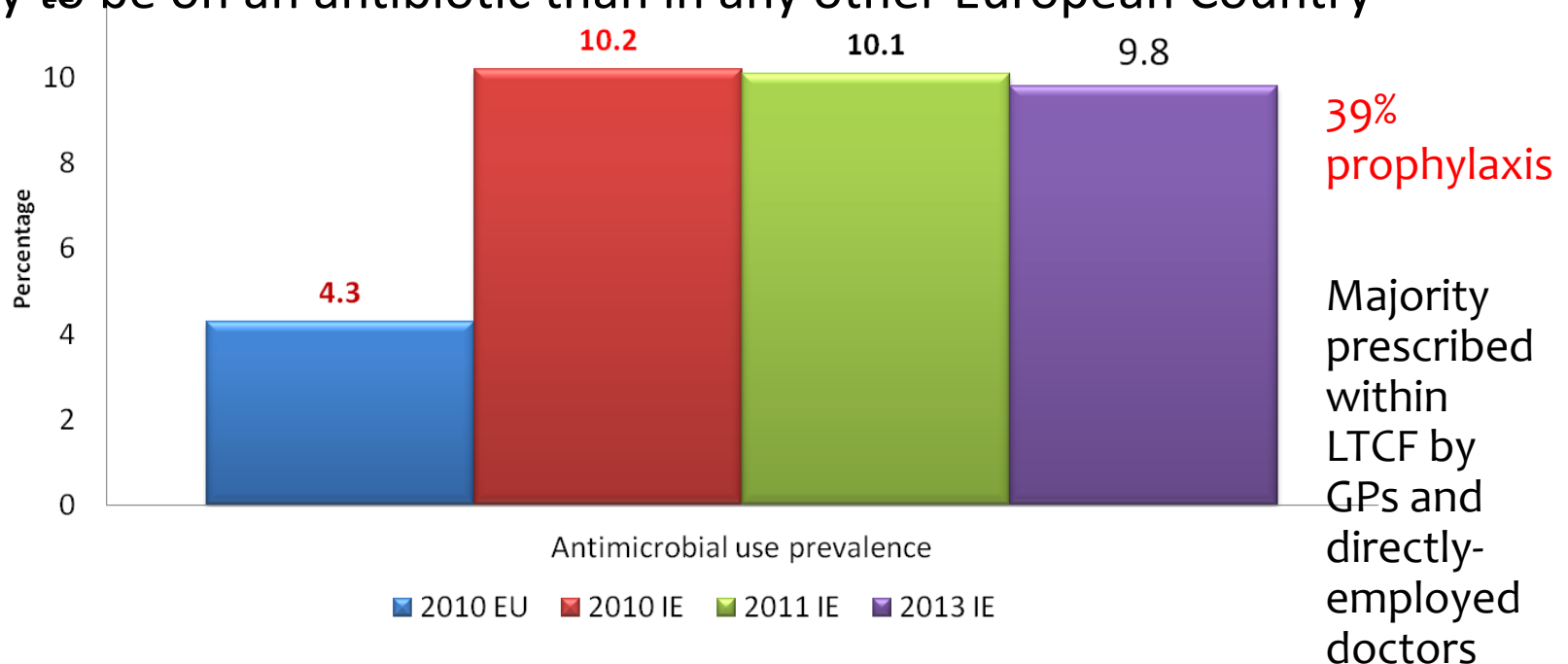
Antibiotic use is mid-to-high compared with other EU countries

Consumption of antimicrobials of Antibacterials For Systemic Use (ATC group J01) in the community (primary care sector) in Europe, reporting year 2013



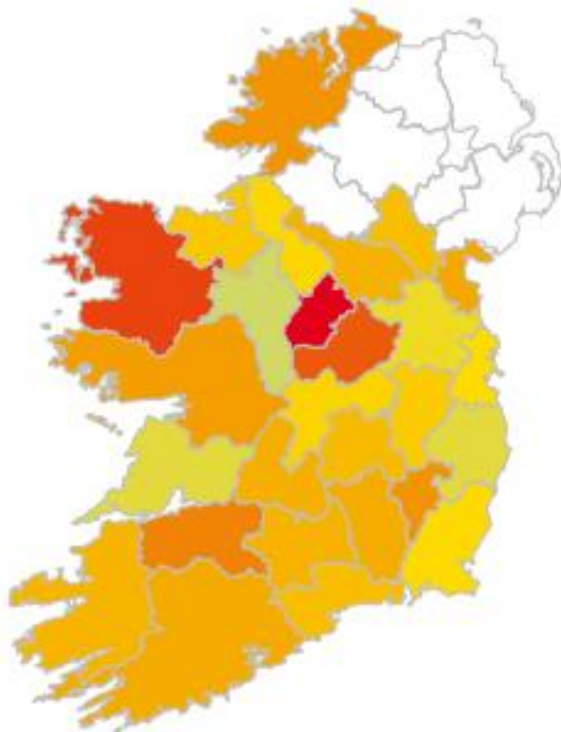
Antimicrobial Use % Prevalence HALT Ireland V Europe

If you are resident in an Irish nursing home, you are more than twice as likely to be on an antibiotic than in any other European Country



Regional variations Antibiotic consumption HPSC Data

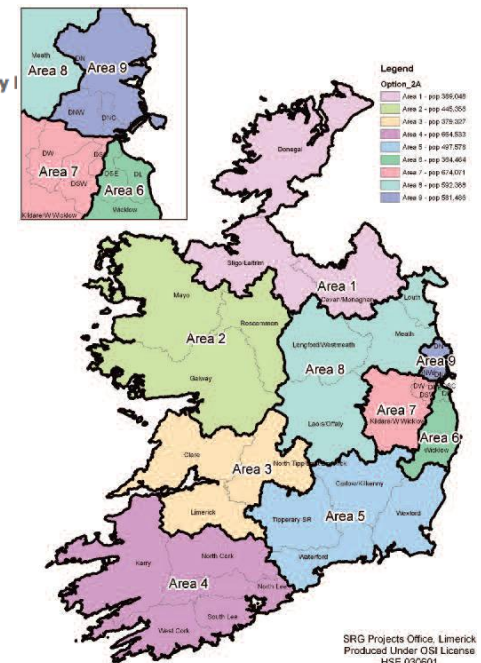
! regional variation in the use of antibiotics in Ireland



Total Antibiotic Use by the Nine Community Health Organisations (CHOs) in DDD per 1000 inhabitants per day

CHO Area	Rate
1	27.45
2	28.4
3	26.49
4	27.99
5	26.07
6	25.66
7	22.02
8	26.02
9	21.43

Data for latest year provisional to 2015Q4



Barriers to effective Antimicrobial Stewardship in the Community

- Lack of true community resistance data
- Lack of accurate antibiotic data
- Lack of access to diagnostics laboratory and near patient e.g CRP
- Lack of access to experts in microbiology/ care of the elderly etc for complex cases -CHO
- Lack of leadership and governance
- Lack of time for everyone !

Antibiotic resistance? Sorry, not my problem

J Antimicrob Chemother 2016; 71: 27–33

doi:10.1093/jac/dkv310 Advance Access publication 12 October 2015

55,425 people

- 70% of people knew that using too many or unnecessary antibiotics caused antibiotic resistance.
- The problem was they did not think they used too many or that their antibiotic use was unnecessary
- BUT It was other people were the issue – doctors prescribing too many, other people using them unnecessarily and governments not tackling the issue.

11,593 health professionals

- 90 % too many antibiotics=resistance
- ONLY < 70% thought an issue for their clinical practice
- Many did not see antibiotic resistance as a priority when faced with treating an individual patient.
- They attributed responsibility to patients, other countries and health-care settings.e
- < 50% felt AMR influenced their decision

Prescribers and patients tend to overestimate the benefits of antibiotics and underestimate the harm they cause

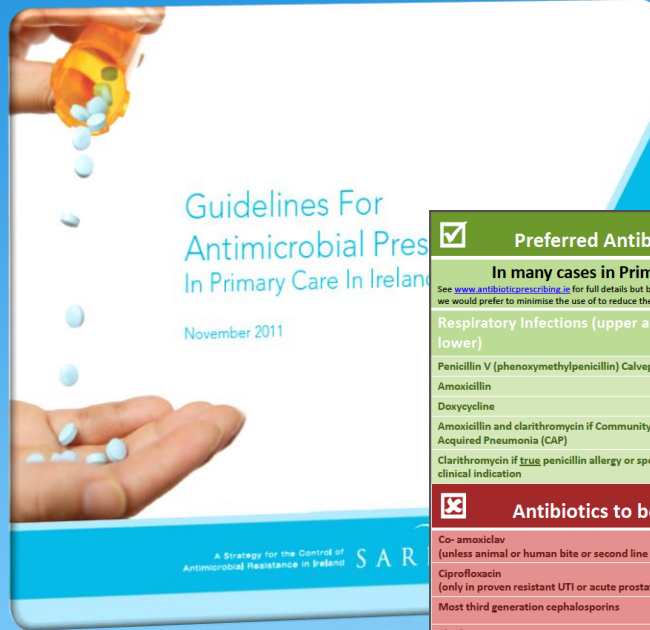
Antimicrobial Stewardship –Key Elements

- Antimicrobial guidelines
- Appropriate diagnostics
- Timely resistance data
- Antibiotic prescribing data
- Microbiologist expertise
- Antibiotic pharmacist
- Clinical expertise e.g care of the elderly
- Education prescribers
- Education patients and public

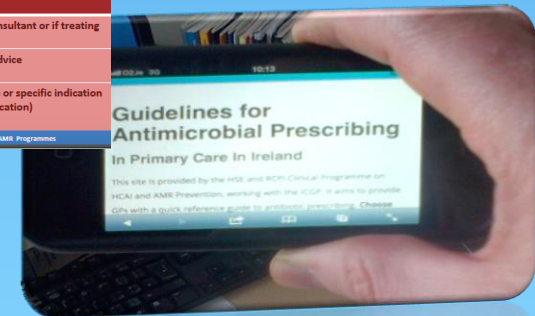


What can individual Gp's do to ensure safe antibiotic use?

Reflect on your individual prescribing habits .



Preferred Antibiotics in Primary Care		
In many cases in Primary Care the Preferred Antibiotic is No antibiotic <small>See www.antibioticprescribing.ie for full details but below are the preferred first line treatment choices when antibiotics are indicated and which antibiotics we would prefer to minimise the use of to reduce the emergence of resistance.</small>		
Respiratory Infections (upper and lower)	Urinary Tract Infections	Soft tissue infections – cellulitis, acne
Penicillin V (phenoxymethylpenicillin) Calvepen®	Trimethoprim	Flucloxacillin
Amoxicillin	Nitrofurantoin	Doxycycline
Doxycycline	Fosfomycin	Lymecycline (Tetralysal®)
Amoxicillin and clarithromycin if Community Acquired Pneumonia (CAP)	Cephalexin	Trimethoprim
Clarithromycin if true penicillin allergy or specific clinical indication		
Antibiotics to be avoided in Primary Care		
Co-amoxiclav (unless animal or human bite or second line for some infections)	Azithromycin – only on advice of consultant or if treating STI	
Ciprofloxacin (only in proven resistant UTI or acute prostatitis)	Moxifloxacin – only on consultant advice	
Most third generation cephalosporins	Macrolides (unless penicillin allergic or specific indication e.g. mycoplasma, helicobacter eradication)	
Clindamycin		



Have I consulted the antibiotic guidelines recently? www.antibioticprescribing.ie

Am I familiar with the preferred antibiotics ?

INTEGRATED GUIDANCE



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3 Groups of Patient GP Prescriber



- * Bacterial infection
- * Viral infection
- * Not so sure - ? Crp /time
- * OOH V Own GP

Narrow versus broad-spectrum

Penicillin V for strep throat

Co amoxiclav for strep throat



GP's need to think more scientifically – what are you treating ?

**Behaviour change and antibiotic
prescribing in healthcare settings**
Literature review and behavioural
analysis

February 2015




Barriers to changing Gp prescribing

Fear of what might happen if they
withhold antibiotic

Perception that patients will be
dissatisfied

OOH The Reality at the Frontline

Southdoc

- U 6 Jan –March 27% 
- U 10 10% 
- Difficult to see own GP
- Referral rate to hospital 55% 

Doctor overworked ,no time to review in few hours ,how can I sort this problem now BURNOUT

OOH Antimicrobial Stewardship project

- Improve quality of antibiotic prescribing by Gp
- Reduce demand for Inappropriate antibiotic prescriptions
- Promote self-care and appropriate use of OOH service at triage reception and wait rooms

Antimicrobial Stewardship Practice Policy

- We use www.antibioticprescribing.ie to guide best antimicrobial choice to minimize AMR
- We prescribe preferred antibiotics for primary care as per HSE Medicines Management Programme
- Simple antibiotic prescribing audit to show policy in action
- Demonstrate how practice has reduced e.g. co amoxiclav, quinolone, macrolide use as % overall prescribing – Frontline Ownership
- **NO difference in/ OOH LTCF /Community hospital / Acute hospital /ED**

Antibiotic Audit

[illegible]

LTCF Resident 30 – 50% of frail, elderly long-term care residents can have a positive urine culture without symptoms of UTI

- Do NOT perform dipstick urinalysis if patients are asymptomatic or if urinary catheter present (false positives)
- A positive urine dipstick result in an asymptomatic patient is not significant and should not be treated
- **DO NOT SEND URINE FOR CULTURE IF THERE ARE NO SIGNS AND SYMPTOMS OF UTI**

Dysuria, frequency, urgency, new onset incontinence, fever $>38^{\circ}$, suprapubic tenderness, haematuria

Urinary catheter: loin pain, fever $>38^{\circ}$

Urinary Tract Infection –must have symptoms and signs





Tell patients when they should start to feel better

Do you know how long common illnesses last?

Ear infection	around 4 days
Sore throat	around 1 week
Common cold (runny nose)	around 1½ weeks
Sinus infection	around 2½ weeks
Cough (which often happens after a common cold)	around 3 weeks



Féidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Quality Improvement Division



LTCF -Engage with the relatives

- Management plan
- Why antibiotics are being prescribed
- Why antibiotics are not being prescribed
- Why UTI prophylaxis is being stopped
- When can they expect their loved one to be better



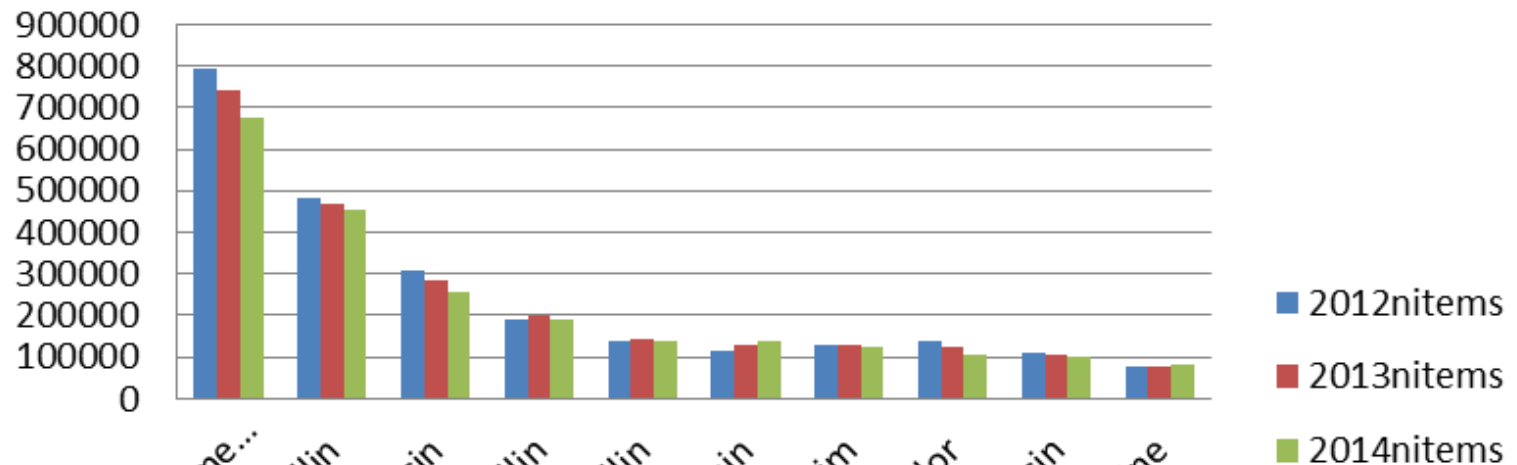
Use antibiotics wisely and correctly !

- Take *exactly* as prescribed
 - Finish the course!
 - Don't save for later
 - Don't share
-
- And when abroad....



Prescribing of antibiotics (all ages) in the GMS scheme from 2012-2014 inclusive

Antibiotics (top 10) - total number of items each year



Total number of items
2012 = 2.89million
2013 = 2.83million
2014 = 2.68million



Medicines Management
Programme

Ref: Analysis by Dr Kathleen Bennett for HSE Medicines Management
Programme, 18th Nov 2014

Some more progress this year

- National Task for for HCAI AMR
- Governance structure at Directorate level
- Governance at CHO level
- HCAI AMR committees each CHO
- Urinary resistance and antibiotic audit data tool for all Gp software systems 2016/2017
- OOH Antimicrobial stewardship project



Better data enables frontline ownership and it works!

- Accountable justification ,24.1 – 5.2 %
- Peer comparison 24.1 to 3.7 %
- Poster declaring intention to avoid inappropriate prescriptions reduced them by 19 %



Nudge doctors in the right direction

Keeping Antibiotics Safe And Effective For Future Generations ...

It's everyone's responsibility

