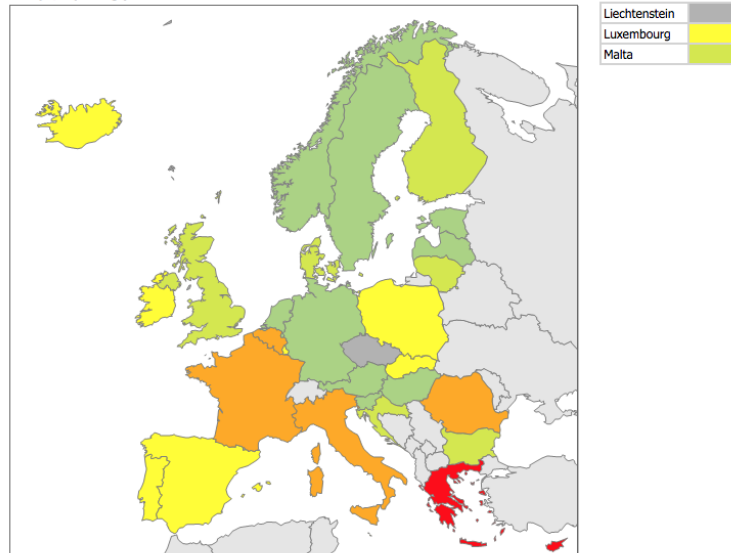


# SouthDoc OOH Antibiotic Prescribing Quality Improvement Project

AIM :To improve the **Quality** of antibiotic prescribing by 50% in Southdoc OOH cells in line with National Preferred Antibiotic Guidelines by end of June 2018

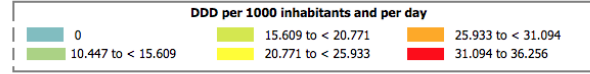
## Geographical distribution of the consumption of Antibacterials for systemic use (ATC group J01) in the community (primary care sector) in Europe, reporting year 2016

Consumption of Antibacterials for systemic use (ATC group J01) in the community (primary care sector) in Europe, reporting year 2016



Liechtenstein  
Luxembourg  
Malta

No data reported  
Not included



Cyprus, Romania provided only total care data.

<https://ecdc.europa.eu/en/antimicrobial-consumption/database/country-overview>

Less Antibiotics  
Narrow  
Spectrum

### Preferred Antibiotics in Primary Care

**In many cases in Primary Care the Preferred Antibiotic is No Antibiotic**

See [www.antibioticprescribing.ie/](http://www.antibioticprescribing.ie/) If antibiotic therapy is indicated the preferred first line choices below are most likely to be effective, have fewer side effects, and less likely to lead to resistant infections.

Respiratory Infections (upper and lower)	Urinary Tract Infections	Soft tissue infections – cellulitis, acne
Penicillin V (phenoxymethylpenicillin)	Trimethoprim*	Flucloxacillin
Amoxicillin	Nitrofurantoin*	Doxycycline*
Doxycycline*	Fosfomycin*	Lymecycline*
Clarithromycin* only for specific clinical indication	Cephalexin	Trimethoprim*

Antibiotics marked \* may be safely used in patients with true penicillin allergy (immediate hypersensitivity). See [www.antibioticprescribing.ie/](http://www.antibioticprescribing.ie/) for details

### Antibiotics to be avoided First Line in Primary Care

Co- amoxiclav (unless animal or human bite, facial cellulitis, post partum endometritis, caesarean wound infections, pyelonephritis)	Azithromycin* – only on advice of consultant or if treating STI
Ciprofloxacin* (only in proven resistant UTI or acute prostatitis)	Erythromycin* – probably ineffective due to resistance
Most other cephalosporins e.g cefaclor, cefixime, cefuroxime	Moxifloxacin* – only on consultant advice
Clindamycin*	Macrolides (unless TRUE PENICILLIN ALLERGY or specific indication e.g. mycoplasma, helicobacter eradication)

Antibiotics can be associated with significant drug-drug interactions e.g statins, QT interval prolongation, warfarin. Always Check before prescribing [www.antibioticprescribing.ie/](http://www.antibioticprescribing.ie/)

Building a Better Health Service

Seirbhís Sláinte Níós Fear & Fóirte

ICGP

Preferred Drugs

undertheweather.ie

Get advice and get better

July 2018

Dr Nuala O Connor ICGP Lead Antimicrobial Resistance and Infection Control  
 Roisin Breen QI Facilitator HSE Quality Improvement Division QID



# Context QI Project- Why SouthDoc OOH GP Service ?



- Access to large doctor population - 507 GPs
- 170K face to face consultations per year
- QI Spill over to daytime practice
- Geographically challenging – 3 cells
- Connections with Nuala – Winning hearts and minds
- Governance
- Expert oversight RCPI Diploma Leadership and quality

# What was the problem in Southdoc?



Not using prescribing module

No access to real time data for improvement

Poor data quality

Pre intervention data –

file dump, resource heavy, unreliable

and not sustainable

Sub Antimicrobial Report						
Date	Week	Age	Diagnosis	Allergy	Tr. Centre	Antibiotics
20/11/2017 18:14		47 7 Year(s)	SEPTIC THROAT		Cork Blackpool	Penicillin V (phenoxyethylpenicillin)
20/11/2017 18:16		47 18 Year(s)	Strep throat		Cork Southside	Penicillin V (phenoxyethylpenicillin)
20/11/2017 18:16		47 19 Year(s)	L tonsillitis		Cork Southside	Penicillin V (phenoxyethylpenicillin)
30/11/2017 19:31		47 33 Year(s)	Pharyngitis		Cork Southside	Penicillin V (phenoxyethylpenicillin)
30/11/2017 19:32		47 11 Year(s)	Viral RTI		Cork Southside	Penicillin V (phenoxyethylpenicillin)
30/11/2017 21:19		47 2 Y(s) 7 M(s)	bacterial tonsillitis		Cork Southside	Penicillin V (phenoxyethylpenicillin)
21/11/2017 18:16		16 Year(s)	urti, tonsillitis, tx with calvepen susp 500mg tid for one week and early review if any worsening		Cork Blackpool	Penicillin V (phenoxyethylpenicillin)
21/11/2017 19:02		47	urti, throat infection, tx with calvepen susp 125mg qid for one week and early review if any worsening		Cork Blackpool	Penicillin V (phenoxyethylpenicillin)
21/11/2017 19:21		32 Year(s)	probable bacterial complication of viral throat infection		Cork Blackpool	Penicillin V (phenoxyethylpenicillin)
21/11/2017 19:25		40 Year(s)	adenitis, tx with calvepen 666 qid for one week, early review if any worsening	lipitor lycia aspirin	Cork Blackpool	Penicillin V (phenoxyethylpenicillin)
22/11/2017 18:51		47 34 Year(s)	URTI		Cork Blackpool	Penicillin V (phenoxyethylpenicillin)
22/11/2017 19:33		47 1 Y(s) 5 M(s)	tonsillitis		Cork Blackpool	Penicillin V (phenoxyethylpenicillin)
22/11/2017 20:33		47 4 Year(s)	tonsillitis		Cork Southside	Penicillin V (phenoxyethylpenicillin)
23/11/2017 18:35		47 17 Year(s)	tonsillitis		Cork Blackpool	Penicillin V (phenoxyethylpenicillin)
23/11/2017 18:39		47 22 Year(s)	Strep throat		Killarney	Penicillin V (phenoxyethylpenicillin)
23/11/2017 18:41		47 6 Year(s)	urti		Cork Blackpool	Penicillin V (phenoxyethylpenicillin)
23/11/2017 19:42		47 58 Year(s)	Strep throat ?		Cork Southside	Penicillin V (phenoxyethylpenicillin)
23/11/2017 19:44		10 Year(s)	IDDM, BM lewisish		Killarney	Penicillin V (phenoxyethylpenicillin)
24/11/2017 18:03		47 9 Year(s)	subluxed ribs.		Cork Blackpool	Penicillin V (phenoxyethylpenicillin)
24/11/2017 18:07		17 Year(s)	Likely bacterial tonsillitis, no sign quinsy		Cork Blackpool	Penicillin V (phenoxyethylpenicillin)
24/11/2017 19:51		47 21 Year(s)	tonsillitis		Cork Blackpool	Penicillin V (phenoxyethylpenicillin)
25/11/2017 09:59		47 1 Y(s) 5 M(s)	PHARYNGITIS		Cork Southside	Penicillin V (phenoxyethylpenicillin)
25/11/2017 10:38		47 10 Year(s)	Pharyngitis		Cork Southside	Penicillin V (phenoxyethylpenicillin)
25/11/2017 11:06		47 21 Year(s)	no specific low back pain	clarythromycin	Cork Blackpool	Penicillin V (phenoxyethylpenicillin)
25/11/2017 11:50		47 34 Year(s)	tonsillitis		Cork Blackpool	Penicillin V (phenoxyethylpenicillin)
25/11/2017 12:15		47 20 Year(s)	tonsillitis		Cork Blackpool	Penicillin V (phenoxyethylpenicillin)

**Solution: Antibiotic Trigger Tool Preferred Antibiotics**

2 fold purpose - Educational Nudge & data collection

**Key point** – Not interfering with GP consultation - Not telling them what to do

# Test of improvement : Antibiotic Trigger Tool

Antimicrobial Prescribing Stewardship Programme

Have you prescribed an antibiotic?

Yes No



Preferred Antibiotics in Primary Care

In many cases in Primary Care the Preferred Antibiotic is No Antibiotic  
See [www.antibioprescribing.ie](http://www.antibioprescribing.ie). If antibiotic therapy is indicated the preferred first line choices below are most likely to be effective, have fewer side effects, and less likely to lead to resistant infections.

Respiratory Infections (upper and lower)	Urinary Tract Infections	Soft tissue infections - cellulitis, acne
Penicillin V (phenoxymethylpenicillin)	Trimethoprim*	Flucloxacillin
Amoxicillin	Nitrofurantoin*	Doxycycline*
Doxycycline*	Fosfomycin*	Lymecycline*
Clarithromycin* only for specific clinical indication	Cephalexin	Trimethoprim*

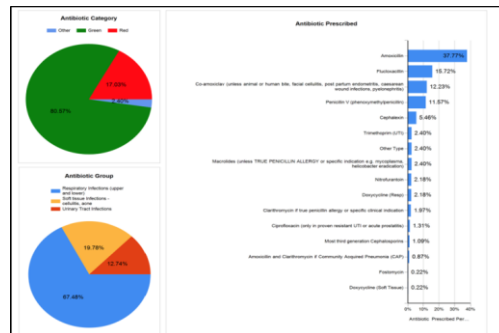
Antibiotics marked \* may be safely used in patients with true penicillin allergy (immediate hypersensitivity). See [www.antibioprescribing.ie](http://www.antibioprescribing.ie) for details.

Antibiotics to be avoided First Line in Primary Care

Co-amoxiclav (unless animal or human bite, facial cellulitis, post partum endometritis, caesarean wound infections, pyelonephritis)	Azithromycin* - only on advice of consultant or if treating STI
Ciprofloxacin* (only in proven resistant UTI or acute prostatitis)	Erythromycin* - probably ineffective due to resistance
Most other cephalosporins e.g cefaclor, cefixime, cefuroxime	Moxifloxacin* - only on consultant advice
Clindamycin*	Macrolides (unless TRUE PENICILLIN ALLERGY or specific indication e.g. mycoplasma, helicobacter eradication)

Antibiotics can be associated with significant drug-drug interactions e.g. statins, QT interval prolongation, warfarin. Always Check before prescribing [www.antibioprescribing.ie](http://www.antibioprescribing.ie)

July 2018

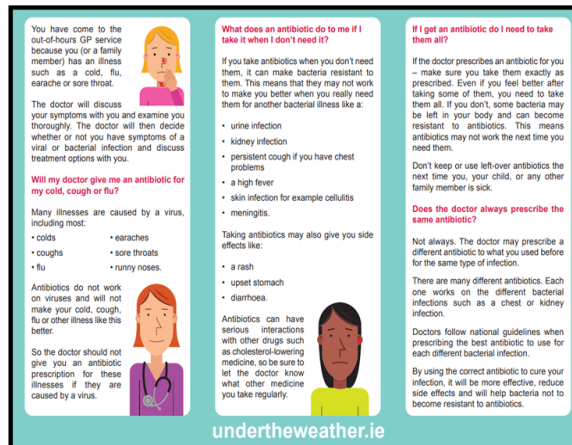
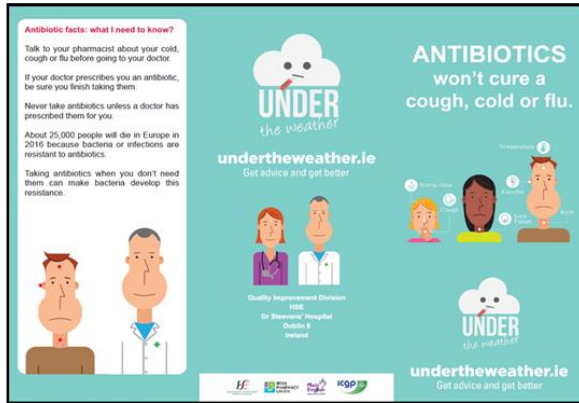


Sub Antimicrobial Report

Date	Age	Diagnosis	Allergy	Tr. Centre	Antibiotics
05/01/2017 07:49	0 Years	, viral		Clonakilty	Amoxicillin, Co-amoxiclav, Doxycycline
08/01/2017 22:50	31 Years	, flu like illness. ? rti.		Bantry	Amoxicillin
11/01/2017 10:50	82 Years	, gingivitis		Skibbereen	Amoxicillin, Flucloxacillin
15/01/2017 13:50	72 Years	, brnchitis	Klacid	Cork Blackpool	Amoxicillin
19/01/2017 11:51	0 Years	, viral rti		Tralee	Amoxicillin, Azithromycin
22/01/2017 19:51	15 Years	, tonsilitis		Midleton	Amoxicillin
25/01/2017 17:52	2 Years	, urti - wheeze		Tralee	Amoxicillin, Ciprofloxacin



# Patient Education: Promote self-care and appropriate use of antibiotics at reception, and waiting room areas

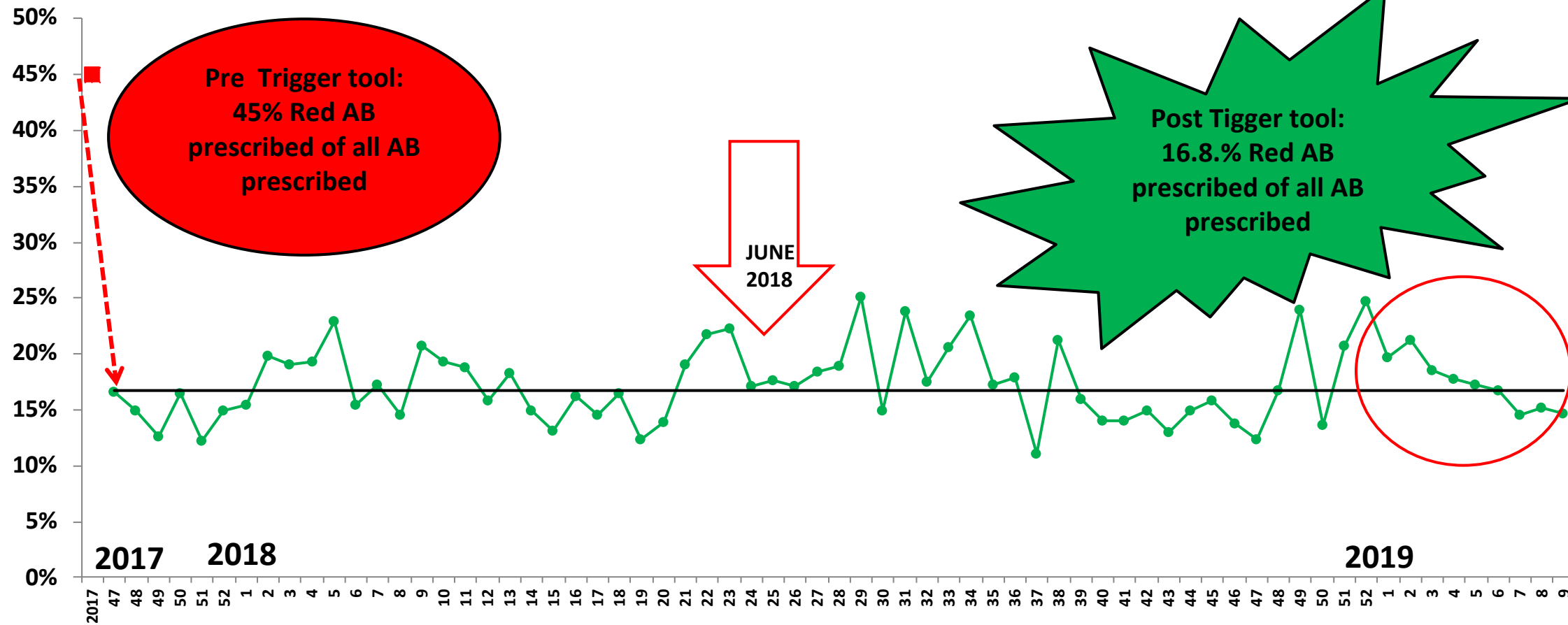


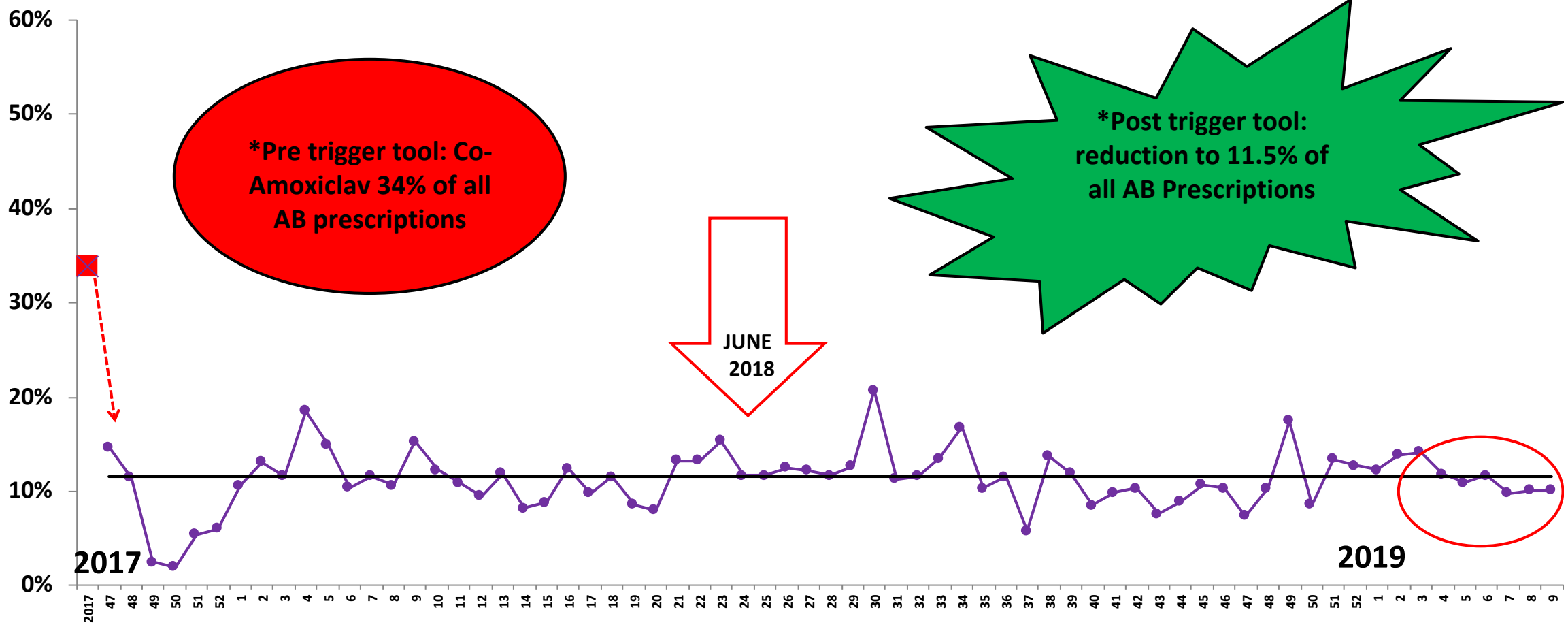
Prime the patient that they might not need an antibiotic



Antimicrobial Resistance and Infection Control Team



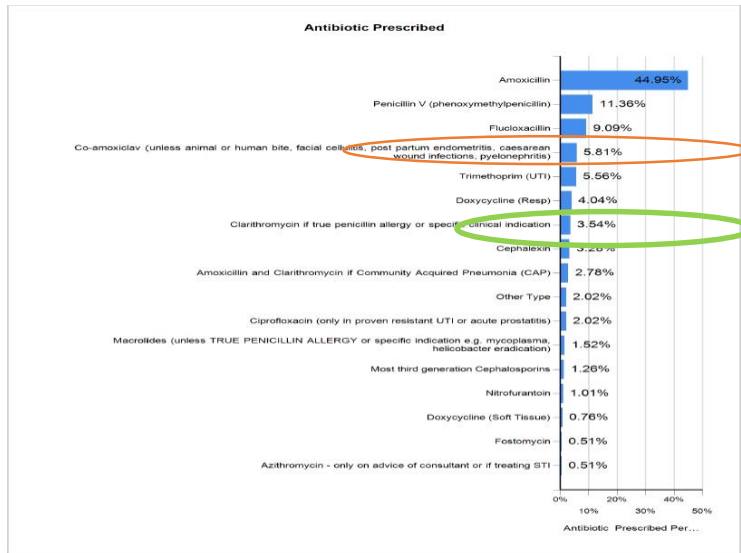






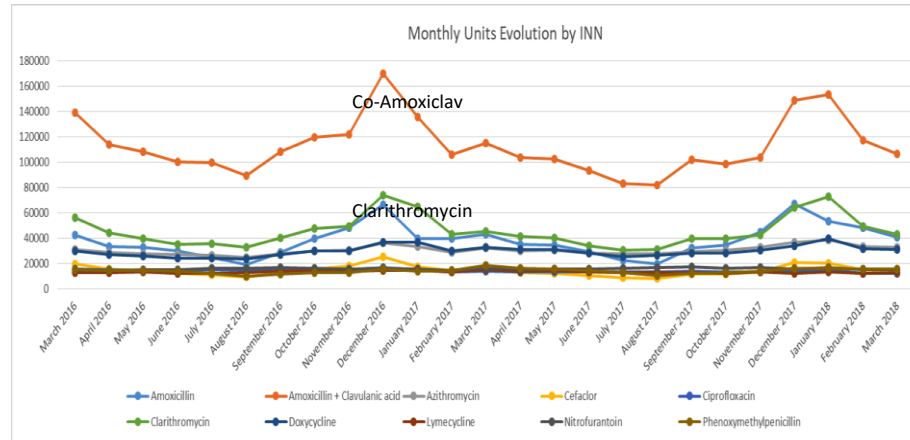


# OOH Antibiotic Prescribing QI Project -Reversed National picture



September 9<sup>th</sup> -16<sup>th</sup> 2018

- Total Pharmacy Prescription Data-Private and GMS



The Quality of AB prescribing can be improved by combining multiple interventions to address different aspects of the process.

# What did GPs think



## **Antibiotic trigger tool**

- “The Antibiotic pop up makes me think more about what I am prescribing and why”
- “it is pretty quick, it can be a reminder a nudge”
- “it is your conscience - every time I want to give an antibiotic I have to follow this pop up”
- “Its changed the way I prescribe in my own daytime practice”

## **Patient Information Leaflets/ prescription pads and TVs?**

- “When People see the TV & patient leaflet think about why they are here. Its great it saves us a lot of time in explaining.”
- “Attitudes have changed over past few months because of the information leaflets and prescription pads”
- “Even this morning someone came in more for reassurance as they knew they had a virus.”
- “I think there has been a change in the questions asked and people are more informed”

# Key Learnings “Winning hearts and minds”

- Making it easy to do the right thing
- Relationships and people vital
- Expertise and The Republic of Cork 😊
- Involve patients and staff at all stages of improvement journey
- Display real time data in a manner in which people understand.
- Improvement can be achieved when communication (face to face) and geography is challenging
- Frontload support → Sustainable Improvement

