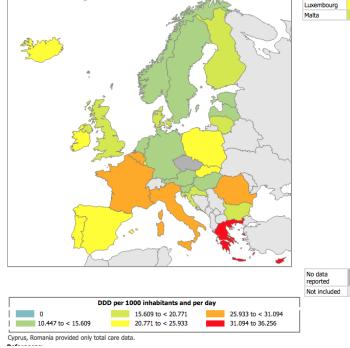
SouthDoc OOH Antibiotic Prescribing Quality Improvement Project

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 DDD per 1000 inhabitants and per day 0 15.609 to < 20.771 25.933 to < 31.094 10.447 to < 15.609 20.771 to < 25.933 31.094 to 36.256

 \checkmark **Preferred Antibiotics in Primary Care** In many cases in Primary Care the Preferred Antibiotic is No Antibiotic See 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** Urinary Tract Infections Soft tissue infections -(upper and lower cellulitis, acne Penicillin V (phenoxymethylpenicillin) Flucloxacillin **Trimethoprim** Amoxicillin Nitrofurantoin Doxycycline* Fosfomycin* Doxycycline' Lymecycline* Trimethoprim' Clarithromycin* only for specific clinical indication Cephalexin Antibiotics marked * may be safely used in patients with true penicillin allergy (immediate hypersensitivity). See www.antibioticprescribing.ie for details X Antibiotics to be avoided First Line in Primary Care Co- amoxiclar Azithromycin* - only on advice of consultant or if treating STI (unless animal or human bite, facial cellulitis, post partum endometritis, caesarean wound infections, pyelonephritis) Ciprofloxacin Erythromycin* - probably ineffective due to resistance (only in proven resistant UTI or acute prostatil Most other cephalosporins e.g Moxifloxacin* - only on consultant advice cefaclor, cefixime, cefuroxime Macrolides (unless TRUE PENICILLIN ALLERGY or specific Clindamycin ndication e.g. mycoplasma, helicobacter eradicatio Antibiotics can be associated with significant drug-drug interactions e.g statins, QT interval July 2018 prolongation, warfarin, Always Check before prescribing www.antibioticprescribing.ie cop undertheweather.ie Get advice and get better

Less Antibiotics Narrow Spectrum



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



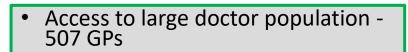
Dr Nuala O Connor ICGP Lead Antimicrobial Resistance and Infection Control **Roisin Breen QI Facilitator HSE Quality Improvement Division QID**



Context QI Project- Why SouthDoc OOH GP Service ?







- 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

Date	Week	Age	Diagnosis	Allergy	Tr. Centre	Antibiotics
0/11/2017 18:14		7 Year(s)	SEPTIC THROAT		Cork Blackpool	Penicillin V (phenoxymethylpenicillin)
0/11/2017 18:16		18 Year(s)	Strep throat		Cork Southside	Penicillin V (phenoxymethylpenicillin)
0/11/2017 18:16	47	19 Year(s)	L tonsillitis		Cork Southside	Penicillin V (phenoxymethylpenicillin)
0/11/2017 19:31	47	33 Year(s)	Pharyngitis		Cork Southside	Penicillin V (phenoxymethylpenicillin)
0/11/2017 19:32		11 Year(s)	Viral RTI		Cork Southside	Penicillin V (phenoxymethylpenicillin)
0/11/2017 21:19	47	2 Y(s) 7 M(s)	bacterial tonsillitis.		Cork Southside	Penicillin V (phenoxymethylpenicillin)
21/11/2017 18:16	47	16 Year(s)	urti, tonsillitis, tx with calvepen susp 500mg tid for one week and early review if any worsening		Cork Blackpool	Penicillin V (phenoxymethylpenicillin)
21/11/2017 19:02	47	1 Y(s) 1 M(s)	urti, throat infection, tx with calvepen susp 125mg qid for one week and early review if any worsening		Cork Blackpool	Penicillin V (phenoxymethylpenicillin)
21/11/2017 19:21	47	32 Year(s)	probable bacterial complication of viral throat infection		Cork Blackpool	Penicillin V (phenoxymethylpenicillin)
1/11/2017 19:25	47	40 Year(s)	adenititis, tx with calvepen 666 qid for one week, early review if any worsening	lipitor lyrica asprin	Cork Blackpool	Penicillin V (phenoxymethylpenicillin)
2/11/2017 18:51	47	34 Year(s)	URTI		Cork Blackpool	Penicillin V (phenoxymethylpenicillin)
2/11/2017 19:33		1 Y(s) 5 M(s)	tonsillitios		Cork Blackpool	Penicillin V (phenoxymethylpenicillin)
2/11/2017 20:33	47	4 Year(s)	tonsillitis		Cork Southside	Penicillin V (phenoxymethylpenicillin)
3/11/2017 18:35		17 Year(s)			Cork Blackpool	Penicillin V (phenoxymethylpenicillin)
3/11/2017 18:39	47	22 Year(s)	Strep throat.		Killarney	Penicillin V (phenoxymethylpenicillin)
3/11/2017 18:41		6 Year(s)			Cork Blackpool	Penicillin V (phenoxymethylpenicillin)
3/11/2017 19:42	47	58 Year(s)	urti		Cork Southside	Penicillin V (phenoxymethylpenicillin)
23/11/2017 19:44	47	10 Year(s)	Strep throat ? IDDM. BM lowish		Killarney	Penicillin V (phenoxymethylpenicillin)
4/11/2017 18:03	47	9 Year(s)	subluxed ribs.		Cork Blackpool	Penicillin V (phenoxymethylpenicillin)
4/11/2017 18:07	47	17 Year(s)	Likely bacterial tonsillitis, no sign quinsy		Cork Blackpool	Penicillin V (phenoxymethylpenicillin)
4/11/2017 19:51		21 Year(s)	tonsillitis		Cork Blackpool	Penicillin V (phenoxymethylpenicillin)
5/11/2017 09:59		1 Y(s) 5 M(s)	PHARYNGITIS		Cork Southside	Penicillin V (phenoxymethylpenicillin)
25/11/2017 10:38		10 Year(s)	Pharyngitis		Cork Southside	Penicillin V (phenoxymethylpenicillin)
5/11/2017 11:06		21 Year(s)	no specific low back pain	clarythromycin	Cork Blackpool	Penicillin V (phenoxymethylpenicillin)
25/11/2017 11:50		34 Year(s)	tonsillitis		Cork Blackpool	Penicillin V (phenoxymethylpenicillin)
5/11/2017 12:15	47	20 Year(s)	tonsillitis		Cork Blackpool	Penicillin V (phenoxymethylpenicillin)

Solution: Antibiotic Trigger Tool Preferred Antibiotics 2 fold purpose - Educational Nudge & data collection

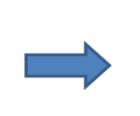
Key point – Not interfering with GP consultation - Not telling them what to do





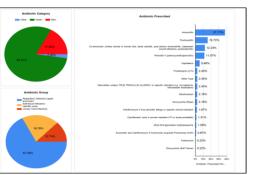
Test of improvement : Antibiotic Trigger Tool

Have vo	u prescrit	ed an antib	viotic?
nave ye	nu preserin	/cu un anna	nouce
		-	No
	Have yo	Have you prescrib	Have you prescribed an antib



Preferred Antibiotics in Primary Care

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*
		nary Care
(unless animal or human bite, facial cellulitis, post pa endometritis, caesarean wound infections, pyelonep Ciprofloxacin*	Azithromycin* - only on advi	ce of consultant or if treating STI
(unless animal or human bite, facial celluitis, post pa endometritis, caesarean wound infections, pyelonep Ciprofloxacin* (only in proven resistant UTI or acute prostatitis) Most other cephalosporins e.g	Azithromycin* – only on advi artum ihritis)	ce of consultant or if treating STI
Co-amoxiclav (unless animal or human bite, facial celluitis, post pa endometritis, caesarean wound infections, pyelonep Ciprofloxacin* (only in proven resistant UTI or acute prostatilis) Most other cephalosportins e, g celacior, cellune, coluroxime Clindamycin*	Azithromycin* – only on advi hritis) Erythromycin* – probably ine Mozifioxacin* – only on cons	ce of consultant or if treating STI effective due to resistance sultant advice SNICILLIN ALLERGY or specific



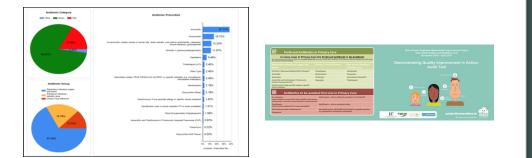


Sub Antimicrobial Report							
Date	Age	Diagnosis	Allergy	Tr. Centre	Antibiotics		
05/01/2017 07:49	0 Years	, viral		Clonakilty	Amoxicillin, Co- amoxiclav, Doxycycline		
08/01/2017 22:50	31 Years	, flu like illness. ? rti.		Bantry	Amoxicillin		
11/01/2017 10:50	82 Years	, gingivitis		Skibbereen	Amoxicillin, Flucloxacillin		
15/01/2017 13:50	72 Years	, brinchitis	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		









South Doc Antibiotic Improvement Update 6/05/2018 Co Amox has gone from 34% to an average of 10% of total antibiotics prescribed. Try to avoid for tonsillitis and Otitis media as not first line antibiotic

	are the <u>Preferred Antibiots</u> lote therapy is indicated the preferred first line of or side effects, and less likely to lead to resistant	oices below are most	
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*	
unless animal or human bite, facial cellulitis, post pa			
endometritis, caesarean wound infections, pyelonep			
Ciprofloxacin*	Erythromycin* - probably in	affective due to resistance	
Ciprofloxacin* (only in proven resistant UTI or acute prostatitis) Most other cephalosporins e.g	Erythromycin* - probably in Moxifloxacin* - only on con		
endonsettitis, caesarean wound infections, pyelonep Ciprofloxacin* (only in proven resistant UTI or acute prostatitis) Most other cephalosporins e.g oefacior, celfizime, cefuroxime Clindamycin*	Moxifloxacin* - only on con	sultant advice INICILLIN ALLERGY or specific	

ant will have received a leafer on arrival sublining why they may not get an antibiotic during autation and that if they do get one it may not be their 'usual' antibiotic.	Why we find it hard to change our prescribing habits and tips to help A. Pay of what much happen if we withhold the antifests
suitation should proceed as normal but we ask you to do the following:	
prescribe an antibiotic if there is a reasonable certainty	URTI - which includes minits, minoeinuelts, OW, Ioneliits, branchite
Bacterial Infection. Temporabure	Several large studies confirm that approximately 45% of antibiotics prescribed for URTI are not
he fail ine recommended profesed antibiotes for syloommunity care as per www.antibiotepresoriting.ie	necessary. A large Lik cohort study of 45.5 million person years 2005-2014 showed that if a GP practice with 7,000 patients reduced their antibiotic presentang for URT1 by 10% they could expect.
to a reminder on the mouse pad and poster in the	 no inovase in masibidita, empyeina, meningtia, intracranial abscess and Lemiene's syndrome.
alaton norm. D	 one more case of performitiar abscess every 10 years.
ment the full name of the antitrotic and indication you Earoche	 1.5 more cases of URTI each year.
Note only - before you finish the consultation you will be	These numbers provide reasourance of the safety of reducing antibiotic prescribing.
If Fyou prescribed an antibiotic or not and Fyos have. se which one from the drop down menu let.	Obline media - Many any Vital. Oth media resulties over 3 days in 60% without antibotics. Antibotics do not reduce pain in find 34 hours, subsequent attacks or deathwas. Children with obintoea, or +2
a wish to complete a personal audit then print-outs of the	years with blakes acute offis media, have greater benefit but are still eligible for decayed prescribing. If you shoese to prescribe Amorystillin is preferred blake unless the patient is penkittle
I one all start of your shift and fill in the details on the final attents for whom you prescribed an antibiotic.	of processes of pression composition in pressive choice sinces on particle in particular always.

GP Interventions

GP Education Tips for handling consultations if patient expecting antibiotics

Address GP fears of potential patient harm and patient dissatisfaction

Gp Tools Preferred antibiotics – mouse mat & poster

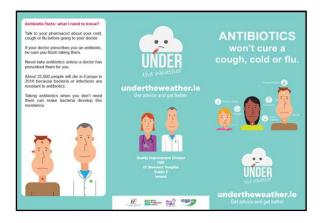
Web Access – **www.antibioticprescribing.ie** (Nov 2016)

Personal audit tool guide and self assessment forms

Give Data feedback

"Winning hearts and minds"

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



		What does an antibiotic do to me if I	
You have come to t out-of-hours GP servi because you (or a fam	ice	take it when I don't need it?	If I get an antibiotic do I need to take them all?
member) has an illne	ess P	If you take antibiotics when you don't need	If the doctor prescribes an antibiotic for year
such as a cold, f earache or sore throat		them, it can make bacteria resistant to them. This means that they may not work to make you better when you really need	 make sure you take them exactly a prescribed. Even if you feel better aft taking some of them, you need to tai
The doctor will discu your symptoms with your		them for another bacterial illness like a:	them all. If you don't, some bacteria ma be left in your body and can becom
thoroughly. The doct	or will then decide	urine infection	resistant to antibiotics. This mea
whether or not you h viral or bacterial infe		 kidney infection 	antibiotics may not work the next time y need them.
treatment options with		 persistent cough if you have chest problems 	Don't keep or use left-over antibiotics th next time you, your child, or any oth
Will my doctor give r my cold, cough or flu		a high fever	family member is sick.
		 skin infection for example cellulitis 	Does the doctor always prescribe th
Many illnesses are o including most:	caused by a virus,	meningitis.	same antibiotic?
	earaches	Taking antibiotics may also give you side effects like:	Not always. The doctor may prescribe
	 sore throats 	• a rash	different antibiotic to what you used befor for the same type of infection.
	 runny noses. 	a rasn upset stomach	There are many different antibiotics. Ea
Antibiotics do not we on viruses and will r make your cold, coug	not gh,	• diarrhoea.	one works on the different bacter infections such as a chest or kidn infection.
flu or other illness like ti better.	his	Antibiotics can have serious interactions	Doctors follow national guidelines wh
So the doctor should r give you an antibio		with other drugs such as cholesterol-lowering medicine, so be sure to	prescribing the best antibiotic to use f each different bacterial infection.
prescription for the	ese	let the doctor know	By using the correct antibiotic to cure yo infection, it will be more effective, redu
illnesses if they a caused by a virus.	ire	what other medicine you take regularly.	side effects and will help bacteria not become resistant to antibiotics.
		undertheweather.ie	

idhmeannacht na Seirbhíse Sláinte Health Service Executive

Quality Improvement Division

<image><section-header><section-header><section-header><section-header><section-header>



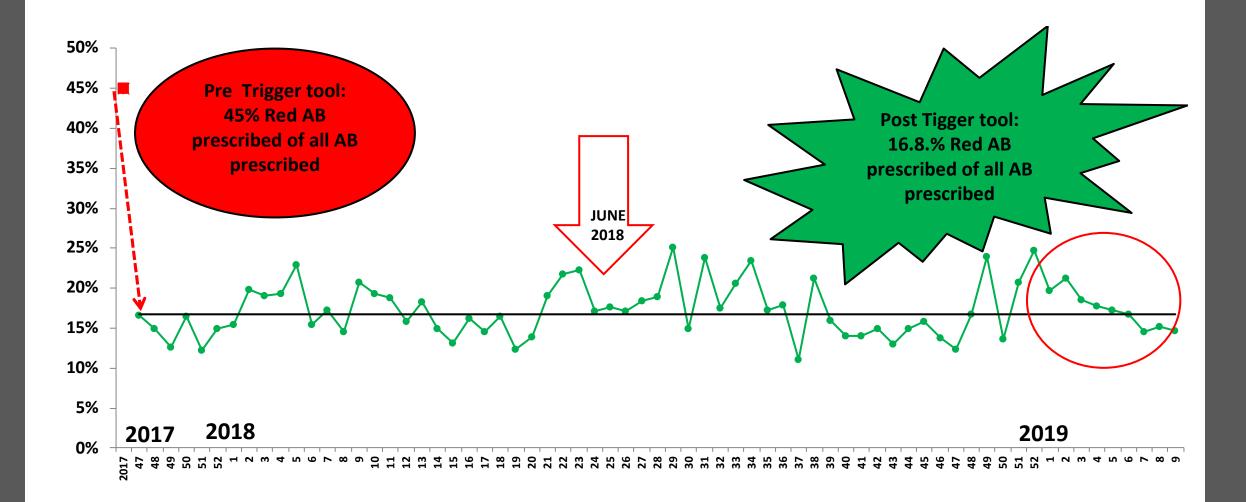
wind my earache on my own

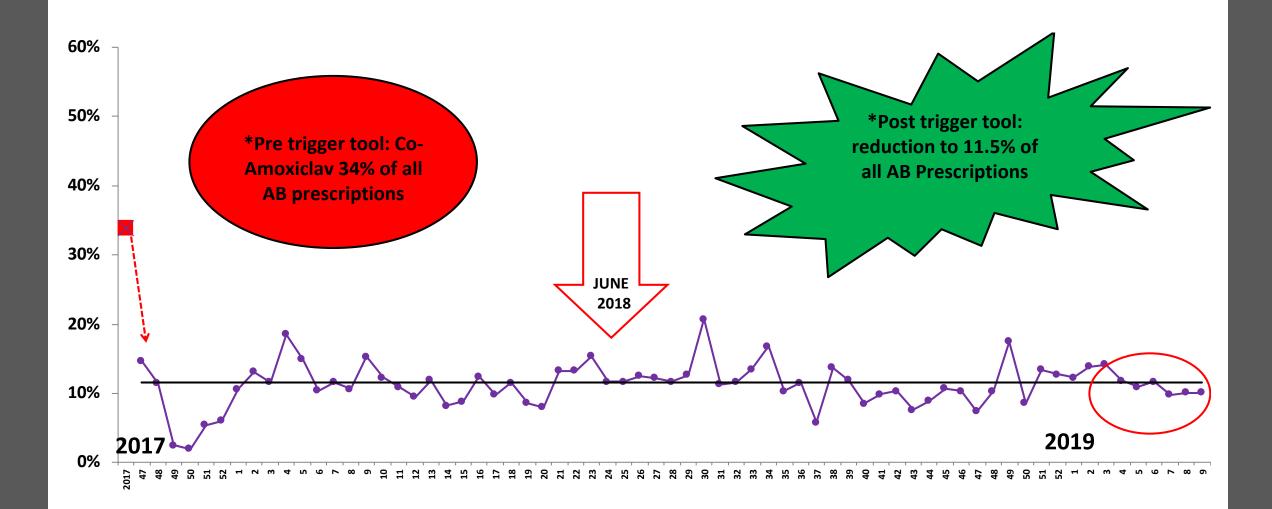


icgp 🚓

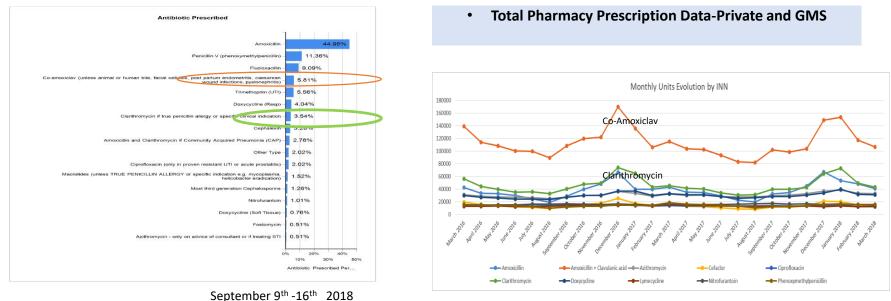
Prime the patient that they might not need an antibiotic

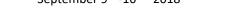
Antimicrobial Resistance and Infection Control Team











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 \odot
- 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



