



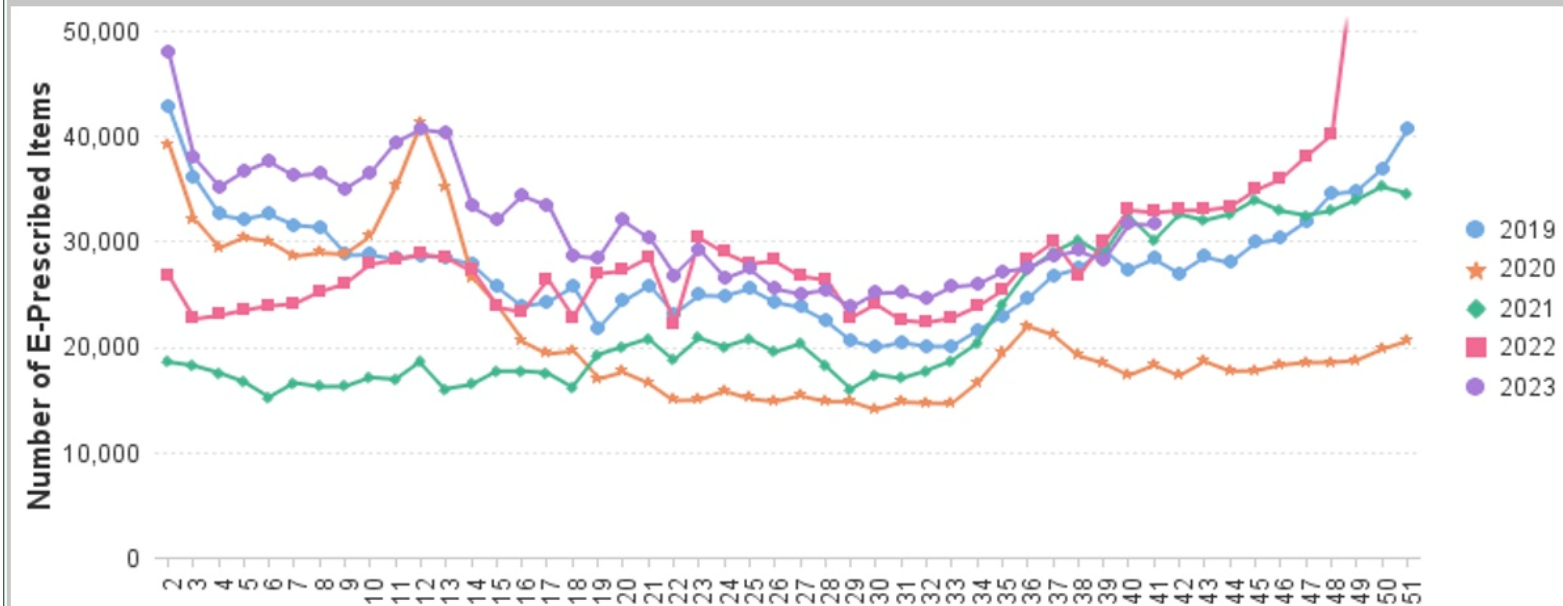
Remote and Interface Working post COVID

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Data

E-Prescribing Data: Antibiotics Commonly Used In Respiratory Tract Infection

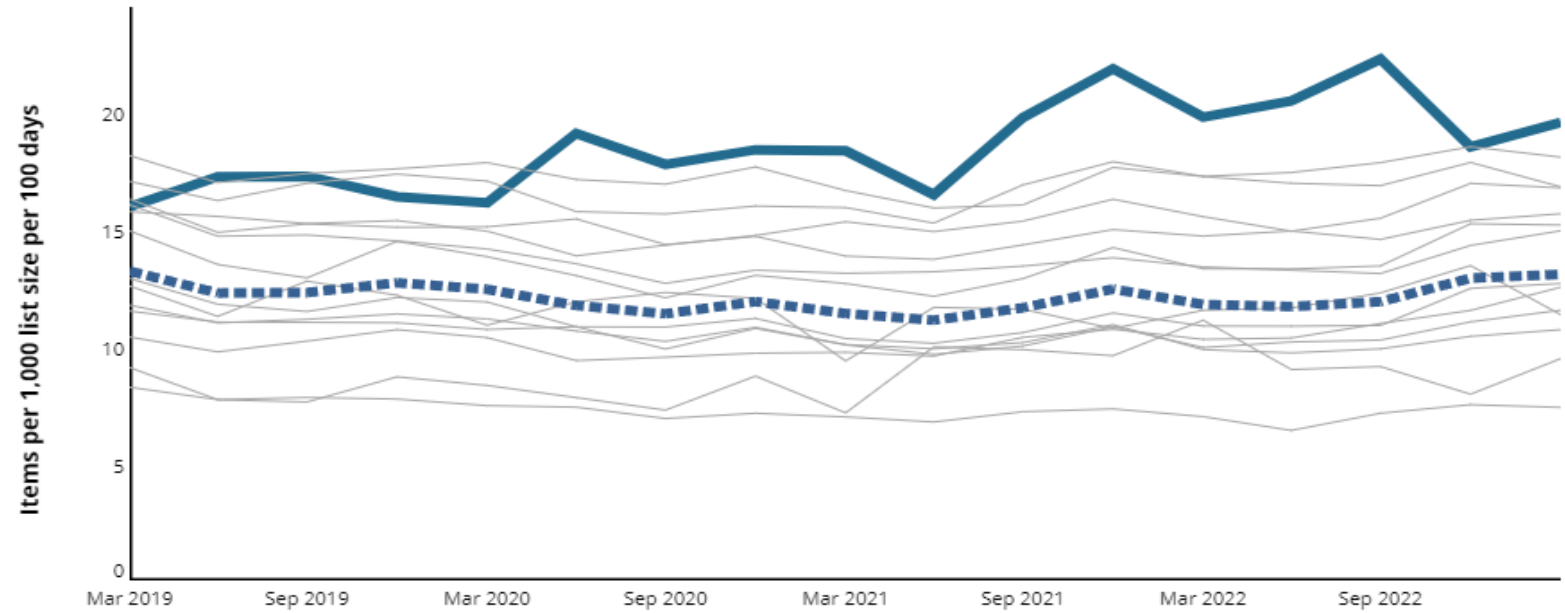
Amoxicillin, Clarithromycin, Co- Amoxiclav, Co-Trimoxazole, Doxycycline, and Phenoxyethylpenicillin



Shiny Apps

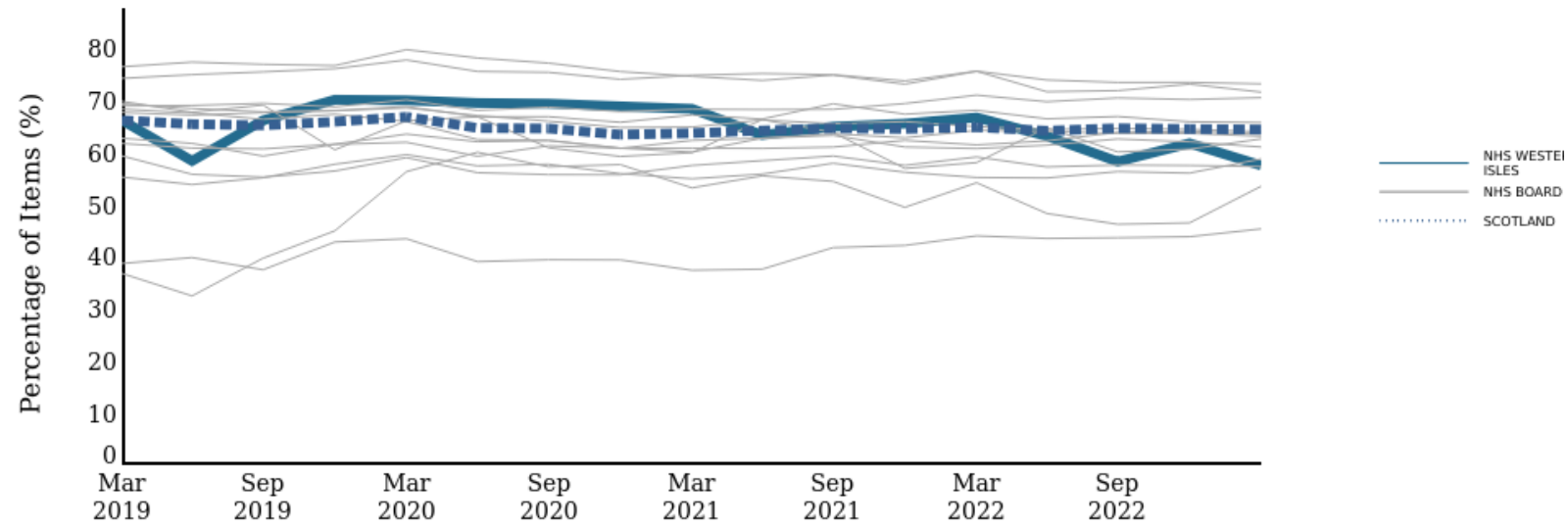
<https://scotland.shinyapps.io/nhs-prescribing-nti/>

Antibiotics: 4C antibiotics script items per 1,000 list size per 100 days



Shiny apps: UTI

Antibiotics: number of 3-day course of acute UTI antibiotics prescribed to women as a percentage of all acute UTI antibiotic courses prescribed to women



Source: Prescribing Information System Scotland, PHS, NSS.

Pre to post
pandemic: a
rapid journey



F2F

Examination
Reassurance



Near Me/Telephone

VC Cumbersome
Telephone familiar



Efficiencies

Capacity-physical
Capacity/Demand
Bad Habits stick

Remote Consultation Tools

Visual summary

Covid-19: remote consultations

A quick guide to assessing patients by video or voice call

Version 1.3
25 Mar 2020

This graphic, intended for use in a primary care setting, is based on data available in March 2020, much of which is from hospital settings in China. It will be revised as more relevant data emerges.

1 Set up
Prepare yourself and decide how to connect

Have current 'stay at home' covid-19 guidance on hand

UK government advice: <http://bit.ly/ukgovisol>

Video is useful for:

- Severe illness
- Anxious patients
- Comorbidities
- Hard of hearing

Scan medical record for risk factors such as:

- Diabetes
- Pregnancy
- Smoking
- Chronic kidney or liver disease
- COPD
- Steroids or other immunosuppressants
- Cardiovascular disease
- Asthma

2 Connect
Make video link if possible, otherwise call on the phone

Check video and audio

Can you hear/see me?

Confirm the patient's identity

Name

Date of birth

Check where patient is

Where are you right now?

Note patient's phone number in case connection fails

If possible, ensure the patient has privacy

3 Get started
Quickly assess whether sick or less sick

Rapid assessment

If they sound or look very sick, such as too breathless to talk, go direct to key clinical questions

Establish what the patient wants out of the consultation, such as:

Clinical assessment Referral Certificate

Reassurance Advice on self isolation

4 History
Adapt questions to patient's own medical history

Contacts

- Close contact with known covid-19 case
- Immediate family member unwell
- Occupational risk group

History of current illness

Date of first symptoms

Most common presentation

Cough Fatigue Fever Short of breath

Cough is usually dry but sputum is not uncommon

Up to 50% of patients do not have fever at presentation

5 Examination
Assess physical and mental function as best as you can

Over phone, ask carer or patient to describe:

State of breathing

Colour of face and lips

Over video, look for:

General demeanour

Skin colour

Check respiratory function - inability to talk in full sentences is common in severe illness

How is your breathing?

Is it worse today than yesterday?

What does your breathlessness prevent you doing?

Patient may be able to take their own measurements if they have instruments at home

Interpret self monitoring results with caution and in the context of your wider assessment

6 Decision and action
Advise and arrange follow-up, taking account of local capacity

Which pneumonia patients to send to hospital?

Clinical concern, such as:

- Temperature > 38°C
- Respiratory rate > 20*
- Heart rate > 100† with new confusion
- Oxygen saturation ≤ 94%‡

Likely covid-19 but well, with mild symptoms

Self management: fluids, paracetamol

Likely covid-19, unwell, deteriorating

Arrange follow up by video. Monitor closely if you suspect pneumonia

Relevant comorbidities

Proactive, whole patient care

Unwell and needs admission

Ambulance protocol (999)

Reduce spread of virus - follow current government 'stay at home' advice

Safety netting

If living alone, someone to check on them

Maintain fluid intake - 6 to 8 glasses per day

Seek immediate medical help for red flag symptoms

Clinical characteristics
Based on 1099 hospitalised patients in Wuhan, China

- 69% Cough
- 22% Temperature 37.5-38°C
- 22% Temperature >38°C
- 38% Fatigue
- 34% Sputum
- 19% Shortness of breath
- 15% Muscle aches
- 14% Sore throat
- 14% Headache
- 12% Chills
- 5% Nasal congestion
- 5% Nausea or vomiting
- 4% Diarrhoea
- 24% Any comorbidity

Red flags

Covid-19:

- Severe shortness of breath at rest
- Difficulty breathing
- Pain or pressure in the chest
- Cold, clammy, or pale and mottled skin
- New confusion
- Becoming difficult to rouse
- Blue lips or face
- Little or no urine output
- Coughing up blood

Other conditions, such as:

- Neck stiffness
- Non-blanching rash

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Evidence and guidance: COVID

High level principles for good practice in remote consultations and prescribing (GMC, GOC, GDC, GPC, NMC etc.-11/19)

- Make patient safety the first priority
- Explain that its not safe (to prescribe) if they don't have sufficient information about the patients health or if remote care is unsuitable to meet their needs

Antibiotic prescribing in remote versus face-to-face consultations for acute respiratory infections in English primary care: An observational study (E.Vestesson et al 2023)

- In adults there was a 23% increase in prescribing antibiotics in remote compared to F2F consultations (no difference in children in this study. (data 2021-2022)

Evidence and Guidance: current

NICE QS210: “Acute Respiratory Infection in over 16’s: Initial assessment and management including virtual wards”

- QS1: “Adults presenting with suspected acute respiratory infection have a documented assessment of symptoms and signs”
- QS2: “Adults ...are not routinely prescribed antimicrobials based only on remote assessment”

NICE CKS: Acute Bronchitis (update 7/23)

- Do not routinely offer an antibiotic to treat an acute cough Acute bronchitis is usually a self-limiting illness and the cough usually lasts about three to four weeks)
- If a C-reactive protein (CRP) test has been carried out, use the results to guide antibiotic prescribing as follows:
 - CRP less than 20 mg/L — do not routinely offer antibiotics.
 - CRP 20–100 mg/L — consider a delayed antibiotic prescription.
 - CRP greater than 100 mg/L — offer antibiotic therapy.

Remote Consultation

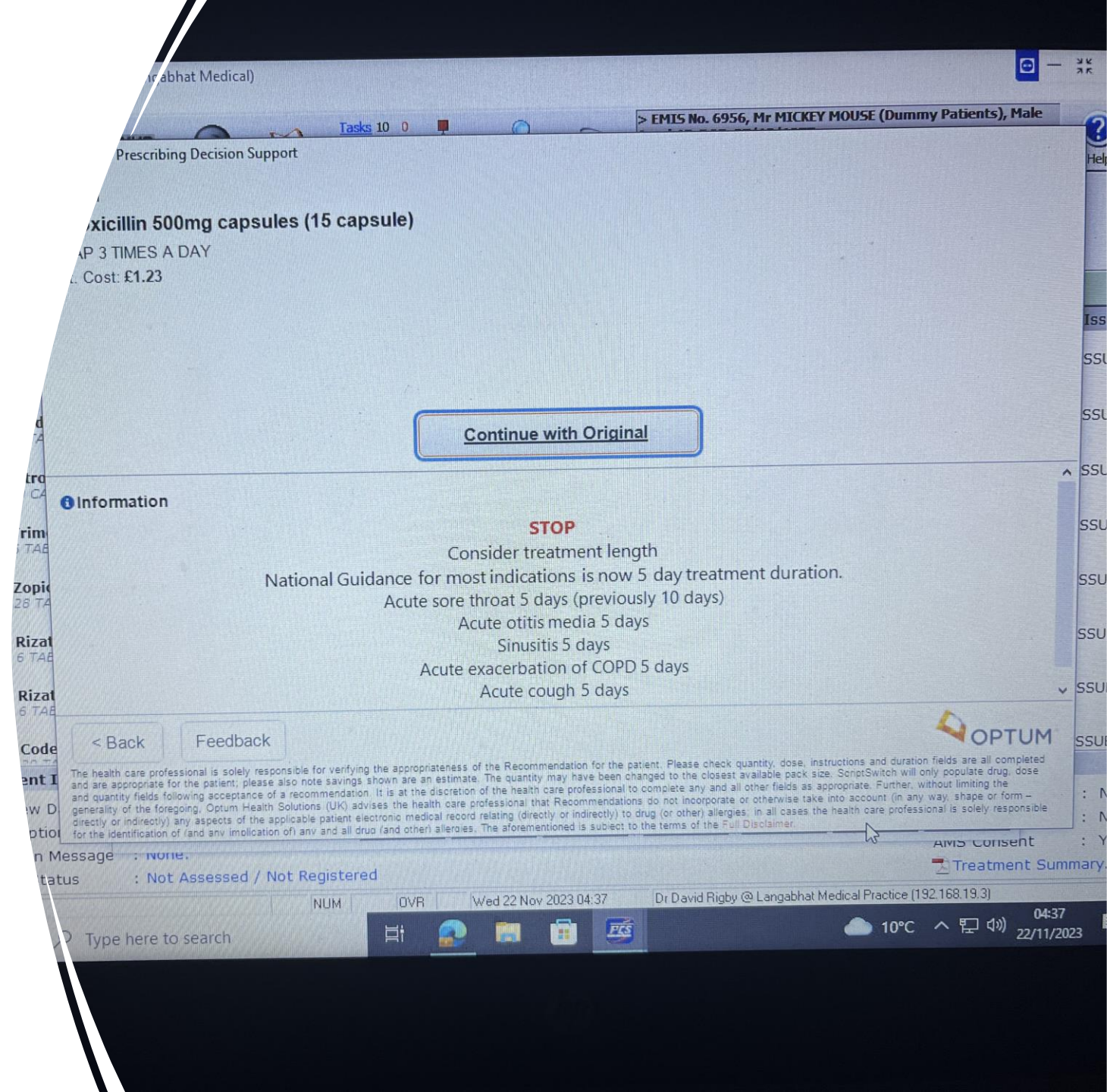
- Pulse Ox
- Electronic BP machines
- Thermometer



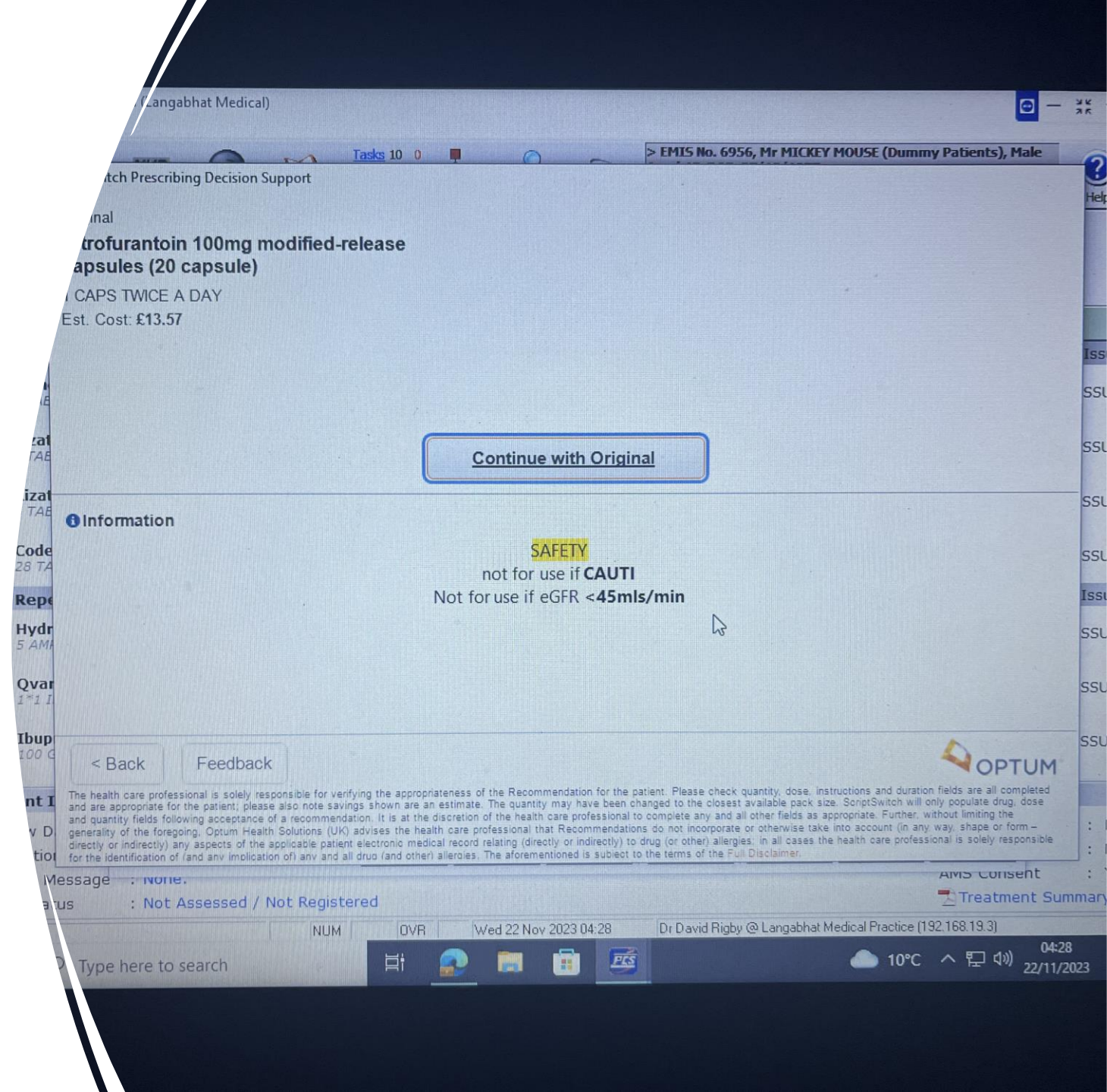
What helps? Scriptswitch

- Set at HB level
- Local adaptation
- National guidance
- Easy to stop start for effect

- Avoid overload
- Cost or Quality



What Helps? Scriptswitch



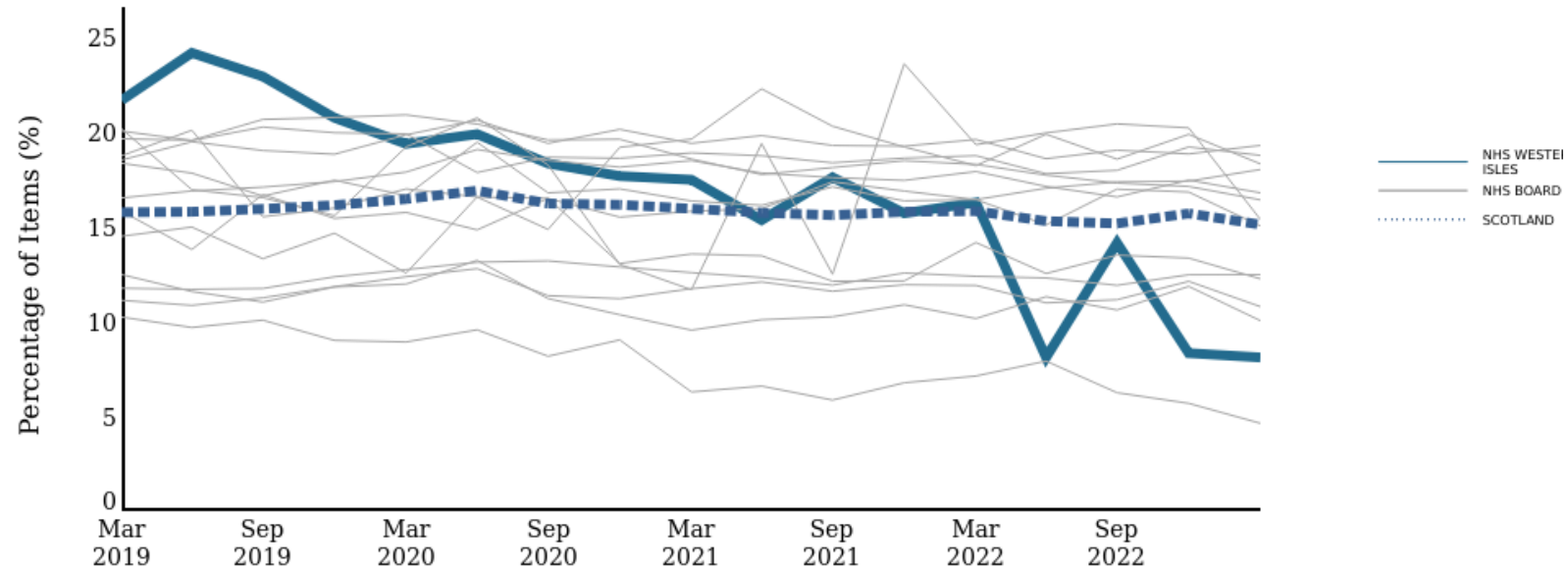
What helps? HB formulary

Indications for Co-Amoxiclav and Ciprofloxacin

Condition	Indication	Co-Amox	Cipro	Clinical Notes
Respiratory	Acute Cough Bronchitis	N	N	Often nil needed: If CRP available- nil if <20 for 24 hrs, delayed if 20-100, treat if >100 (Amox 500tds or Doxy 200 stat then 100 od 5/7)
	Acute Rhinosinusitis	N*	N	Usually no treatment. NNT 15 or 8 if purulent nasal discharge. If Rx use Pen V 500qid, Amox 500-1g tds, or Doxy 200mg stat then 100. *Co-amox 625mg tds if severe/worsening
	Sore Throat	N	N	Avoid as 90% self-resolve in a week. If decision to treat use Pen V 500qid or Clarithromycin 500bd (if Penicillin allergy)
	Aspiration Pneumonia	N	N	If indicated (mild/moderate) use Metronidazole 400mg tds and Amoxicillin 500mg tds (if Penicillin allergy use Metronidazole 400mg tds and Clarithromycin 500mg bd). If severe needs IV metronidazole/gent/amox- admit
	Community Acquired Pneumonia	N	N	For mild/moderate use Amoxicillin 500mg tds (if Penicillin allergy use Doxycycline 200mg stat then 100mg od). For moderate use Amoxicillin 500mg tds AND Doxycycline 100mg bd)
	COPD exacerbation	N*	N	If purulent spit use Amoxicillin 500mg tds or Doxycycline 200mg stat then 100mg od, or Clarithromycin 500mg bd. Only if severe/not responding, use Co-Amoxiclav 625 tds
GU/UTI	Epididymitis/Prostatitis	N	Y	Epididymitis: <35(check SIT) Doxycycline 100mg bd 14/7, >35 Cefalexin 500mgtds, or Trimethoprim 200mg bd, or Ciprofloxacin 500mg bd 14/7 . Prostatitis: Trimethoprim 200mg bd or Ciprofloxacin 500mg bd 14/7
	Upper UTI and Catheterised Patients	Y	Y	Catheterised: Send sample if for treatment with symptoms (rigors/central low back tenderness, new confusion), commence treatment only if clinically unwell and then change catheter. Don't use dipstick results in catheterised patients. Co-Amoxiclav 625 tds or Ciprofloxacin 500mg bd 7/7 .
	Lower	N	N	Treat 3 days in women, 7 days in men. Many options in women if want to trial non antibiotic methods. Trimethoprim 200mg bd, or Nitrofurantoin MR 100mg bd, or Cefalexin 500mg tds
Skin and Soft Tissue	Cellulitis	N	N	Mild to Moderate use Flucloxacillin 500mg-1g qid for 7-14/7. If Penicillin allergy use Doxycycline 100mg bd for 7-14/7. If penetrating/dirty wound add Metronidazole 400mg tds.
	Bites	Y	N	Co-amoxiclav 625 tds 7/7 , if Penicillin allergy use Metronidazole 400mg tds AND Doxycycline 100mg bd 7/7
	Diabetic Foot	N	N	Mild use Flucloxacillin 1g qid 7/7 or if Penicillin allergy use Doxycycline 100mg bd 7/7. Add Metronidazole if Moderate. Clindamycin 600mg tds is an alternative in Moderate (Caution 'C' drug) . All other degrees seek help
Dental	Abscess	N	N	Refer dental if pus/concern: Pen V 500mg-1g qid 5/7 (or Amoxicillin 500mg tds if compliance concern), or if Penicillin allergy Clarithromycin 500mg bd. Add Metronidazole if spreading infection.

What helps? HB
Formulary/Centralisation

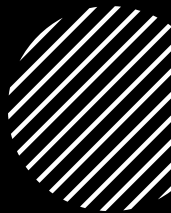
Antimicrobial Wound Products: Antimicrobial wound products as percentage of total wound products (items)



Source: Prescribing Information System Scotland, PHS, NSS.



What helps? Summary



LOTS OF THINGS IN THE
RIGHT
QUANTITY/PLACE/TIME

Scriptswitch

Targeted Data

POC

Audit

Cluster QI work

Etc.....



Thank you.