



# HEPMA and Antimicrobial Stewardship in NHS Ayrshire and Arran

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# Identifying patients for review

- Daily automated reporting
  - Protected antimicrobials
    - Ward rounds
    - Verified/unverified status
  - Gentamicin and vancomycin prescriptions
    - Gentamicin Rxd > 4 days
    - Unverified Rx
- Ad hoc reporting in response to trends
  - Meropenem/taz surge in resp wards
  - Assessing inappropriate use of Co-amoxiclav- ?chest/?urine
- Doxycycline/quinolones + cation-containing products
  - remote assessment, mini PPS, regular monitoring and raising awareness

# Prioritising patients for review

- PHEW report
  - In house developed prioritisation tool
  - IV Abx score high
- Dr Helper tool- red/amber/green warning
  - At a glance info on Abx Rxing
  - Duration
  - Stop dates
  - QI work

# Dr Helper Tool

STATION 14-AYR      Prototype FY1 ePrescribing Helper  
 feedback/requested developments to richard.cottrell@aaaht.scot.nhs.uk

Location not found

Anonymised (CHI Number) #716?

S14 ROOM 343

Anonymised (CHI Number) 43 mL/min (32) #716?

Anonymised (CHI Number) CO-AMOXICLAV 250/62 mg in 5ml Oral Sugar Free Suspension 27/03/18 31/03/18

CRP	27/03	28/03	29/03
WCC	7.0	8.0	42.0
Hb	122.0	122.0	8.8
K	4.0	3.8	17.0

Anonymised (CHI Number) 53 mL/min (22) CO-AMOXICLAV 500/125 Tablets 27/03/18 31/03/18

CRP	27/03	28/03	29/03	30/03	22/03
WCC	8.4	9.0	7.4	10.2	11.2
Hb	124.0	122.0	122.0	122.0	122.0
K	4.2	4.2	4.2	3.2	3.2

Anonymised (CHI Number) LEVOFLOXACIN 500 mg Tablets 27/03/18 30/03/18

CRP	27/03	28/03	29/03	23/03
WCC	18.0	20.0	22.0	106.0
Hb	122.0	122.0	122.0	7.5
K	3.1	3.2	3.2	3.2

Anonymised (CHI Number) PIPERACILLIN/TAZOBACTAM 4G/0.5G (4.5 g) Injection 28/03/18

CRP	27/03	28/03	29/03	30/03
WCC	8.8	8.8	8.2	2.4
Hb	122.0	122.0	122.0	121.0
K	3.2	4.2	3.8	4.0

S14 ROOM 344

Anonymised (CHI Number) 50 mL/min (22)

CRP	27/03	28/03
WCC	7.0	8.0
Hb	116.0	120.0
K	4.2	4.2

Anonymised (CHI Number) 39 mL/min (22)

CRP	27/03	28/03
WCC	9.2	10.1
Hb	124.0	122.0
K	3.2	3.2

Anonymised (CHI Number) NITROFURANTOIN 50 mg Tablets 24/03/18 30/03/18

CRP	27/03	28/03	29/03
WCC	7.4	12.0	8.8
Hb	115.0	111.0	121.0
K	-	3.0	-

Anonymised (CHI Number) 50 mL/min (24)

CRP	27/03	28/03	29/03
WCC	8.2	12.2	25.0
Hb	122.0	122.0	122.0
K	-	4.2	4.2

S14 ROOM 345

Anonymised (CHI Number) TRIMETHOPRIM 200 mg Tablets 23/03/18 28/03/18

CRP	23/03	24/03
WCC	8.2	8.2
Hb	122.0	122.0
K	3.4	3.8

Anonymised (CHI Number) 30 mL/min (21) #716?

CRP	27/03	28/03	29/03
WCC	17.0	15.0	25.0
Hb	120.0	121.0	121.0
K	4.2	4.4	5.1

# Antimicrobial use reports (1)

- Automated monthly emails
- Prevalence of antimicrobial use by proportion of patients treated- hospital
  - Ward level
  - Hospital level
  - Compare over time and with PPS 2016



## High level overview of antimicrobial usage by hospital\_ for September/2020.

Shows distinct number of pts to receive antimicrobial in relation to number of pts to receive any medicine over date range concerned.

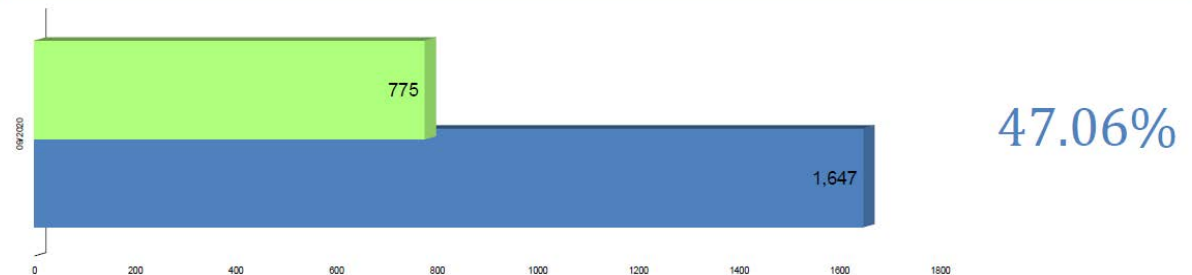
*Note Gentamicin and Vancomycin are not accurately recorded on HEPMA as per use of paper charts.*

### STATION 15 HDU

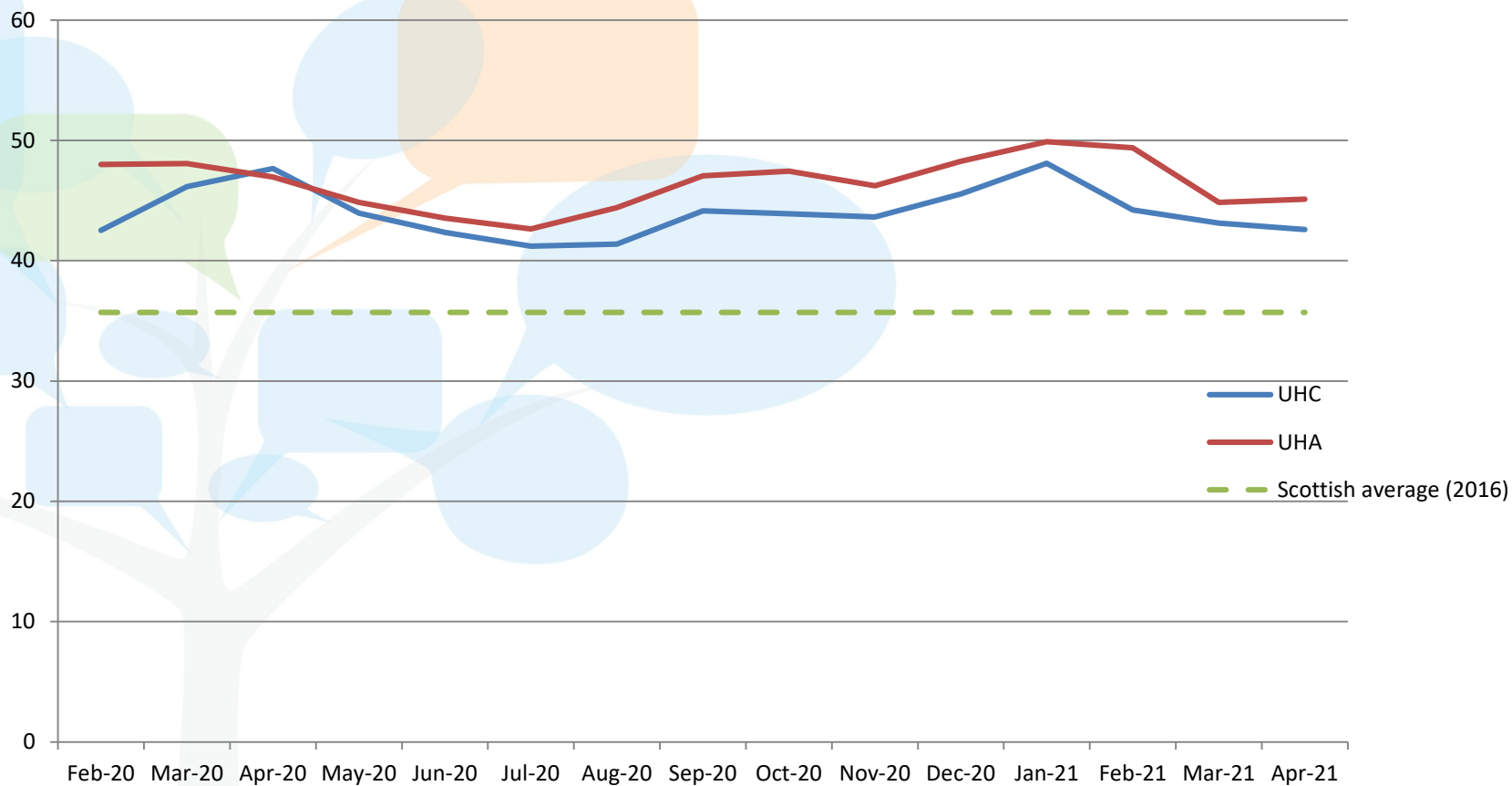


### [HEPMA-WARD:HOSPITAL GROUPING] UNIVERSITY HOSPITAL Ayr

Distinct count of patients administered antibiotics versus distinct count of patients administered any medicine



## Percentage of patients administered antibiotics of all patients administered any medicine in UHA and UHC



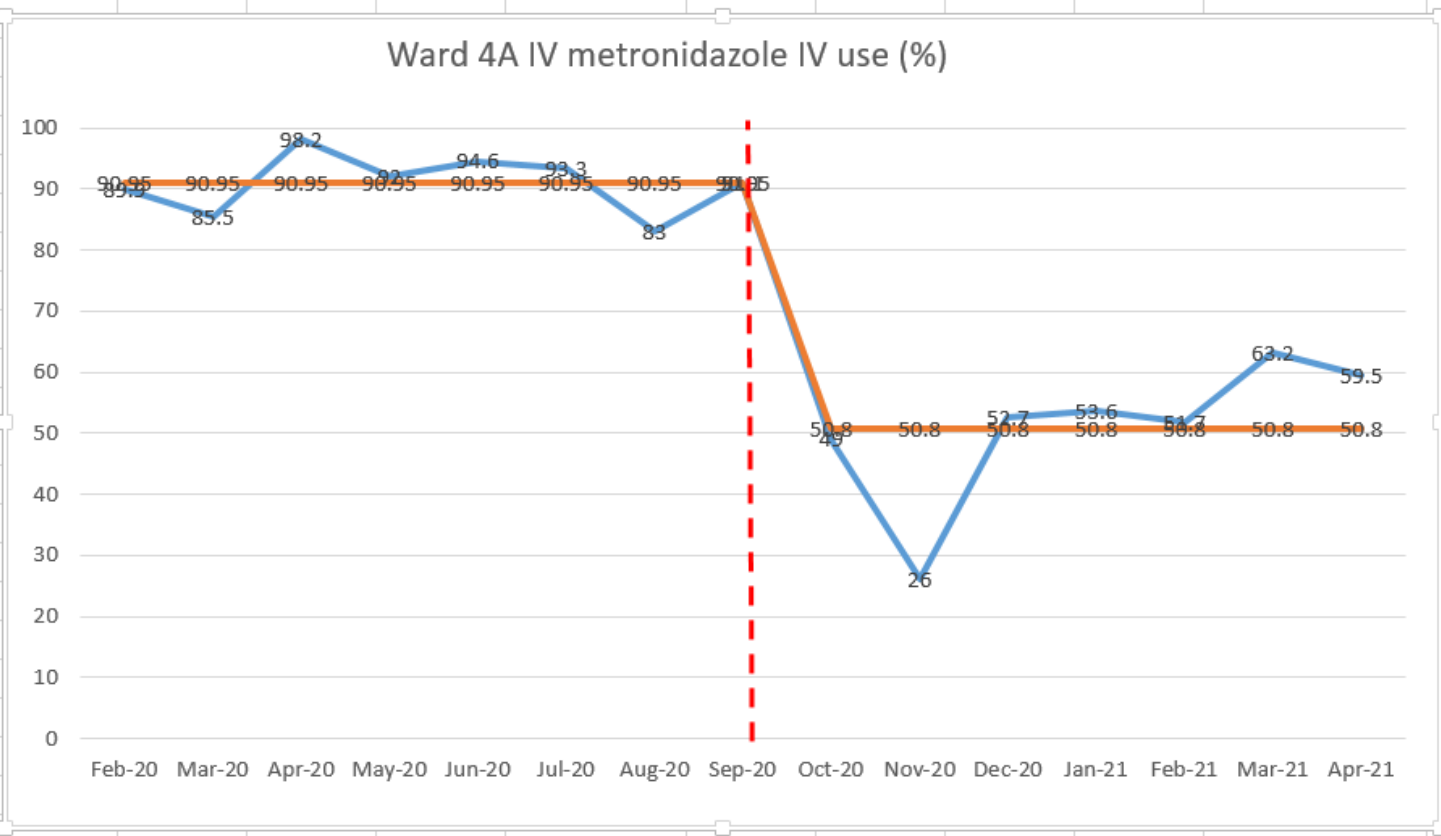
# Antimicrobial use reports (2)

- Medicines administration patterns by antimicrobial type
  - IV vs PO



ALL SELECTED WARDS

	ACAU AMBULATORY	ACAU INFANT	ACAU PRE-ADMIT	ACAU RAPID ASSE
ACICLOVIR	1	53	9	0
AMBISOME	0	1	27	2
AMOXICILLIN	89	757	104	15
ATOVAQUONE	0	53	542	99
ATRIPLA	0	0	0	0
AZITHROMYCIN	2	7	1	0



ACAU AMBULATORY	Total
0	2819
0	1390
0	1429
0	103
0	0
0	103
37	29
16	29
7	0
0	0
0	2
0	18
0	0
0	18
0	15
0	15
0	0

# Improving the supply of Protected Antimicrobials

- July 2020- New RxSelect prompt launched  
System used by technicians to supply meds against HEPMA prescriptions
- Review of protected Abx stocked on wards
  - Pip/taz, ceftriaxone
- Improved number of protected Abx verified before supply by 10%
- Data collected on when not supplied
  - 3 x temocillin 1 x ceftriaxone stopped-inappropriate use
  - Error in prescribing ceftriaxone in orthopaedic ward- cefuroxime intended
- Work ongoing to further improve verification/supply process

This medicine is a protected antimicrobial and must be verified by a pharmacist prior to supply.

If the protected antimicrobial is not verified on HEPMA, please contact the clinical pharmacist responsible for the area/duty pharmacist or discuss with the antimicrobial pharmacist\*



# Future plans

- New web-based system, making this work for Abx prescribing
- Retrospective reporting/tracking of stop dates
  - Implement HARP and observe change
- Use HEPMA Rxing reports to provide prescriber feed back
  - Review habits/patterns