

## **Audit of the following two antimicrobial policies:**

### **Antimicrobial 7(seven)-day Stop / Review Policy (17/12/2007)**

### **Intravenous Versus Oral Antibiotics (December 2007)**

#### **Methodology**

Between the 28th of February and the fourth of March 2008, ward pharmacists visited the acute wards (excluding maternity, ITUs and paediatrics) to administer a questionnaire designed to extract information on the compliance on the above two policies.

The technique used was a point prevalence survey where each bed was visited once. If the patient, their notes or prescription charts were absent, no attempt was made to collect information. The data collection for each ward was completed within one working day and included a review of prescription charts and notes. Surveyors recorded the information on an optical mark readable (OMR) form (appendix 1). They completed a single form for each prescribed antimicrobial. In addition they recorded the number of beds on the ward and a number of patients that they surveyed on a separate form.

OMR forms were scanned using Remark Office OMR and the data stored in a two-dimensional database.

#### **Results**

During the study period pharmacists visited 14 wards (297 beds) and collected information from 293 patients (98.7% of beds). Eighty patients were receiving an antimicrobial at the time of survey (27.3% of patients surveyed), resulting in 93 antimicrobials being prescribed (figure 1).

The tabulated results from the OMR forms is given in appendix 2, 53.8% of prescriptions were in medicine, 18.3% in the care of the elderly and 16.1% in general surgery and urology patients. 39 prescriptions (41.9%) were administered for more than three days and for seven (7.5%) they had been given intravenously for more than three days. In all of these patients intravenous usage beyond three days was considered justified. In no cases was the intravenous to oral sticker used. The reasons given for not switching to oral therapy were, that it was justified by the diagnosis in four cases, they were unable to take orally in two and clinically unwell in one case.

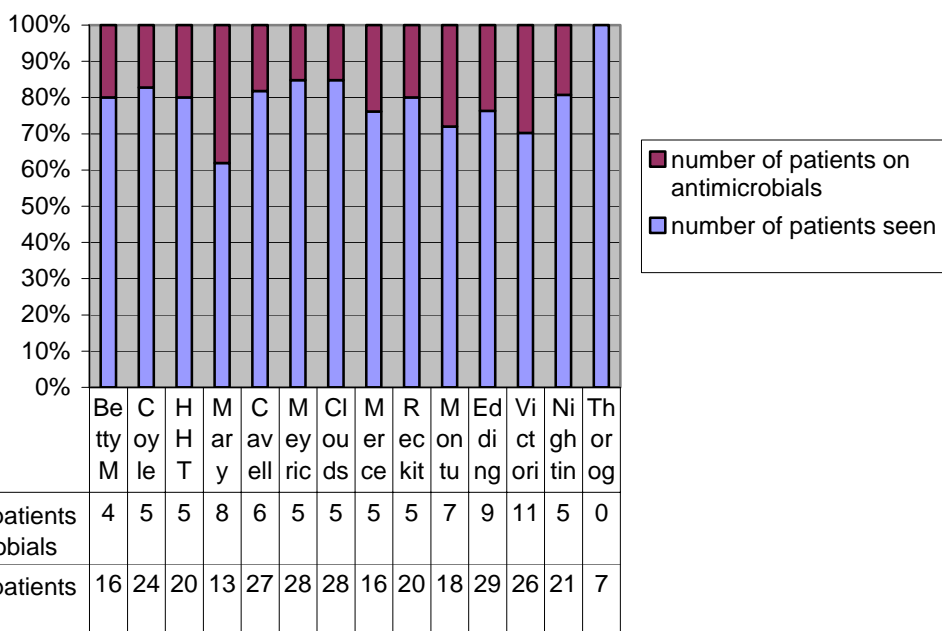
There were 11 prescriptions (11.8%) for antimicrobials, which exceeded the seven days stop, all these had been approved by microbiology. Where the administration had exceeded three days of therapy (39 prescriptions) 15 of the charts contained an indication as to when the prescription was to end (15/37, 40.4%, 2 missing data) and on only one occasion had a pharmacist used a stop sticker.

## Discussion

From the above prevalence data it would seem that the three-day IV to oral switch has found acceptance by clinical staff and that those cases where intravenous antimicrobials were administered past three days, all were justified.

Stickers have not needed to be used to prevent antimicrobials being administered past seven days as junior staff have been obtaining microbiology approval for difficult infections. There needs to be improvement in the early expression of treatment length on the prescription charts, this requires to be reinforced to the junior medical staff.

**Figure 1: Proportion of patients on antimicrobials**



12/03/2008

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# Appendix 1

Answer Selection: Correct = ● Incorrect = ✗ ✓ ⊖

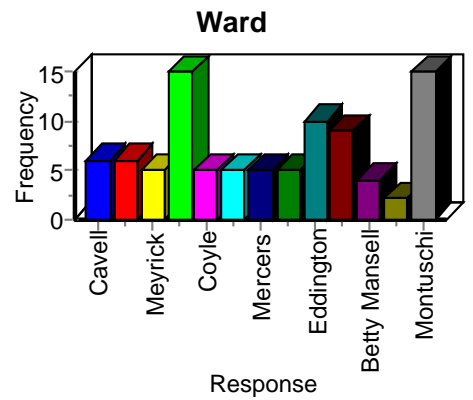
## IV to ORAL and 7-day Stop/Review Policy Audit – February 2008

<b>Consultant Speciality</b>			
Care of Elderly	(C)	Cavell	(W)
Medicine	(M)	Cloudsley	(W)
Gen Surgery	(S)	Meyrick	(W)
Orthopaedics	(B)	Victoria	(W)
Gynaecology	(G)	Coyle	(W)
Urology	(U)	Highgate TC	(W)
Other	(O)	Mercers	(W)
		Reckitt	(W)
		Eddington	(W)
		Mary Seacole	(W)
		Betty Mansell	(W)
		N'gale	(W)
		Montuschi	(W)
		Thorogood	(W)

Part 1 IV to ORAL and 7-day Stop/Review Policy Audit – Feb 2008			
1a	Has the antibiotic been given for > 3days	(Y) (N)	If the answer to 1a is Y, go to 1b. If no end of survey.
1b	Was it given IV for >3 days	(Y) (N)	If yes, proceed to the next question. If no, go straight to Part 2
1c	Was it justifiably given IV > 3 days?	(Y) (N)	If yes, go to question (e). If no, go to question (d).
1d	If <u>unjustifiably</u> given IV > 3 days		
	Was the 'IV to PO sticker' used?	(Y) (N)	If yes, continue on to next part of question (d). If no, state reason overleaf and proceed on to Part 2
	Was the 'IV to PO sticker' actioned by Drs?	(Y) (N)	Leave blank if not applicable. Proceed on to Part 2
1e	If <u>justifiable</u> given IV > 3 days, reason(s) for prolonged IV:  <i>Proceed on to Part 2</i>	(A) (B) (C) (D) (E)	a. Prolonged IV justified by diagnosis b. Clinically unwell c. Unable to take orally d. No oral alternative e. Others (please state) -----
Part 2			
2f	Was the Abx given > 7 days	(Y) (N)	Continue on to question (g).
2g	Was the intended duration of treatment or stop date endorsed on the drug chart?	(Y) (N)	Continue on to question (h).
2h	If > 7 days, was it Micro approved (incl. Micro approved indication i.e. long-term prophylaxis)?	(Y) (N)	If no, proceed to question (i). If yes, disregard the last two questions.
2i	If > 7 days but NOT been approved by Micro		
	Was the '7-day Stop/Review sticker' used?	(Y) (N)	If yes, continue on to the next part of question (i). If no, state reason overleaf and disregard the last question.
	Was the '7day Stop/Review sticker' actioned by Drs?	(Y) (N)	Proceed on to the next Abx.

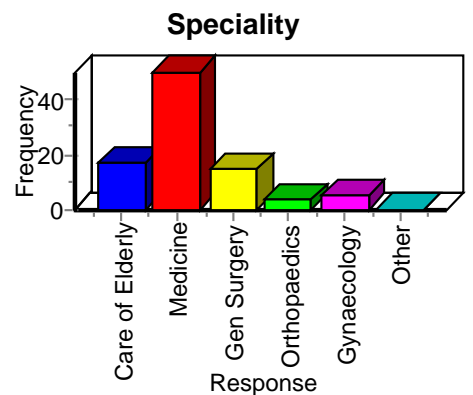
### Item Analysis: What ward was the patient on?

Label	Value	Frequency	Percent
Cavell	1	6	6.5
Cloudsley	2	6	6.5
Meyrick	3	5	5.4
Victoria	4	15	16.1
Coyle	5	5	5.4
Highgate TC	6	5	5.4
Mercers	7	5	5.4
Reckit	8	5	5.4
Eddington	9	10	10.8
Mary Seacole	10	9	9.7
Betty Mansell	11	4	4.3
Nightingale	12	2	2.2
Montuschi	13	15	16.1
Total Valid		92	98.9
Total Missing	-1	1	1.1
Total		93	100.0



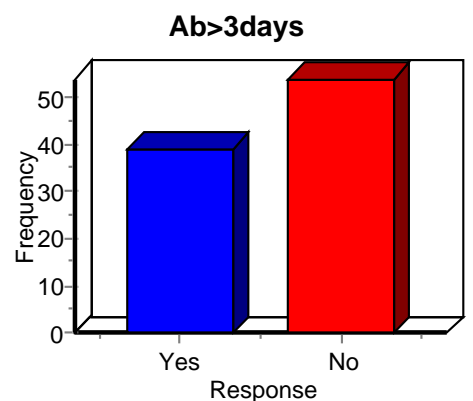
### Item Analysis: What speciality?

Label	Value	Frequency	Percent
Care of Elderly	1	17	18.3
Medicine	2	50	53.8
Gen Surgery	3	15	16.1
Orthopaedics	4	4	4.3
Gynaecology	5	5	5.4
Other	6	0	0.0
Total Valid		91	97.8
Total Missing	-1	2	2.2
Total		93	100.0



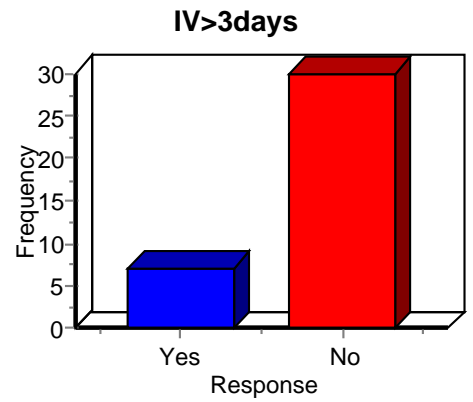
### Item Analysis: Have they received more than 3 days of antibiotic?

Label	Value	Frequency	Percent
Yes	1	39	41.9
No	2	54	58.1
Total Valid		93	100.0



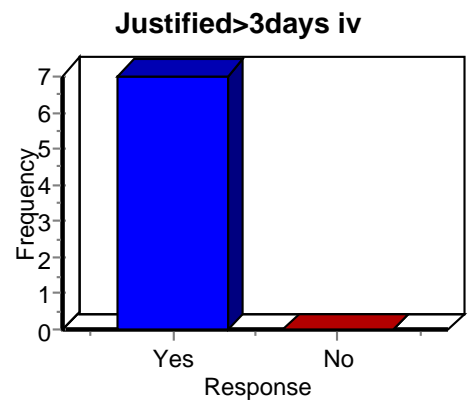
### Item Analysis: Have the received more than 3 days IV antibiotics?

Label	Value	Frequency	Percent
Yes	1	7	7.5
No	2	30	32.3
Total Valid		37	39.8
Total Missing	-1	56	60.2
Total		93	100.0



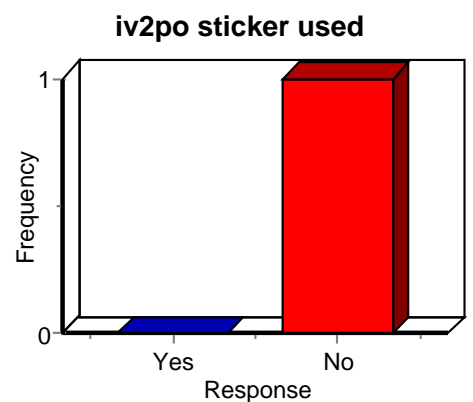
### Item Analysis: If more than 3 days IV, was it justified?

Label	Value	Frequency	Percent
Yes	1	7	7.5
No	2	0	0.0
Total Valid		7	7.5
Total Missing	-1	86	92.5
Total		93	100.0



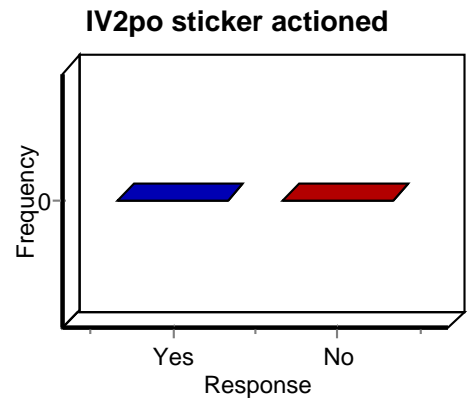
### Item Analysis: Was the IV to oral sticker used?

Label	Value	Frequency	Percent
Yes	1	0	0.0
No	2	1	1.1
Total Valid		1	1.1
Total Missing	-1	92	98.9
Total		93	100.0



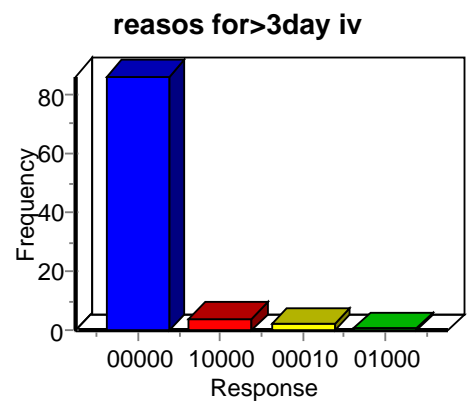
### Item Analysis: Was action taken when the IV to oral sticker was used?

Label	Value	Frequency	Percent
Yes	1	0	0.0
No	2	0	0.0
Total Valid		0	0.0
Total Missing	-1	93	100.0
Total		93	100.0



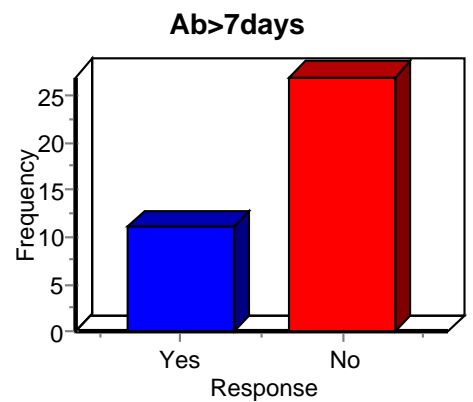
### Item Analysis: What were the reasons for not switching to oral from IV?

Label	Value	Frequency	Percent
00000	0	86	92.5
10000	10000	4	4.3
00010	10	2	2.2
01000	1000	1	1.1
Total Valid		93	100.0



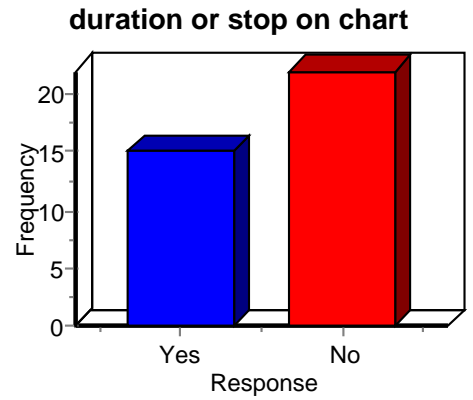
### Item Analysis: Have they received more than 7 days antibiotic?

Label	Value	Frequency	Percent
Yes	1	11	11.8
No	2	27	29.0
Total Valid		38	40.9
Total Missing	-1	55	59.1
Total		93	100.0



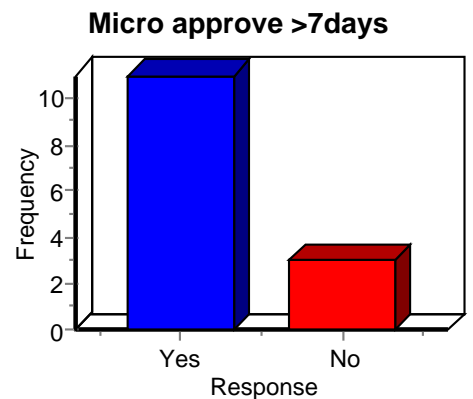
### Item Analysis: Was the duration of Rx or a stop on the chart?

Label	Value	Frequency	Percent
Yes	1	15	16.1
No	2	22	23.7
Total Valid		37	39.8
Total Missing	-1	56	60.2
Total		93	100.0



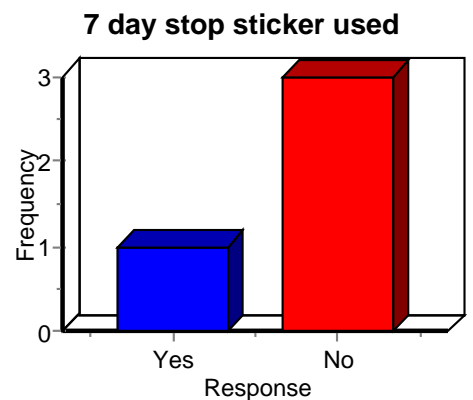
### Item Analysis: If given for > 7 days, had Micro approved it?

Label	Value	Frequency	Percent
Yes	1	11	11.8
No	2	3	3.2
Total Valid		14	15.1
Total Missing	-1	79	84.9
Total		93	100.0



### Item Analysis: Had the 7 day stop sticker been used?

Label	Value	Frequency	Percent
Yes	1	1	1.1
No	2	3	3.2
Total Valid		4	4.3
Total Missing	-1	89	95.7
Total		93	100.0



## Item Analysis: If the 7 day sticker was used, had the ward staff actioned it?

Label	Value	Frequency	Percent
Yes	1	0	0.0
No	2	0	0.0
Total Valid		0	0.0
Total Missing	-1	93	100.0
Total		93	100.0

