Pharmacist's role in the switching of intravenous-to-oral antibiotics: barriers to involvement and possible solutions

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Aim:

Determine if pharmacists are actively involved in antibiotic intravenous to oral switches (IVOS). If not, what barriers are preventing their involvement and what solutions can be put in place to improve this.

Background:

Implementation of an early switch has positive outcomes for both patients and the NHS [1]

- Reduced hospital stays by 3.4 days [2]
- Reduced course lengths by 33%
- Reduced overall cost of medication
- Reduced risk of cannula-associated infections [3]

Why Pharmacist's?

- Many are prescribers and in 5 years pharmacist will graduate as prescribers
- Expert knowledge of medication pharmacokinetics and formulation
- Clinical understanding of treatment of infections
- Presence on wards regularly reviewing patients [4]

Method:

A qualitative study was undertaken to identify perceived barriers which prevent pharmacist involvement in IVOS within a North East hospital trust and identify solutions to these barriers.

A two-stage questionnaire process was initiated in November 2020 and concluded in February 2021.

Questionnaire 1:

Open ended questions to generate and perceived barriers to IVOS involvement and any potential solutions

Responses collated from questionnaire 1, themes identified and standardised statements created.

Questionnaire 2:

Standardised statements fed back to pharmacists:

- Barriers – state level of agreement (Strongly agree to strongly disagree)
- Solutions – rank in order of impact solution would have (1 most impact – 5 least impact)

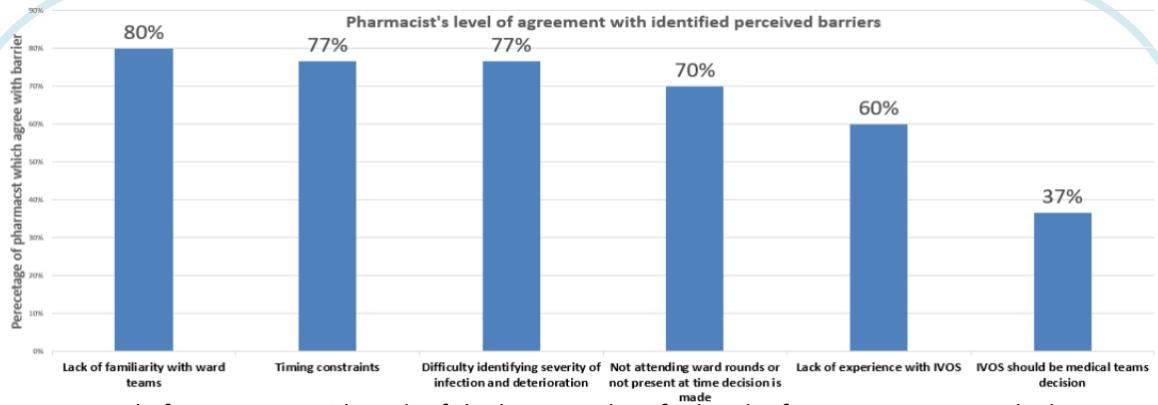

Figure 1: Level of agreement with each of the barriers identified in the first questionnaire which were presented to the 30 pharmacists during questionnaire 2. (strongly agree and agree responses were collated to calculate agreement score)

Ranked position	Solution	Mean Rank
1	Clearer guidelines around antibiotic IVOS which specify when a pharmacist can initiate a change	2.37
2	Increase pharmacist presence on the ward round	2.73
3	Gain experience of assessing clinical improvement and deterioration with infection	3.00
4	Additional training to identify when IVOS are appropriate and general antibiotic prescribing	3.17
5	Ability to view all patient currently on IV antibiotics and number of day on treatment easily	3.73

Figure 2: Mean ranked position of each of each solution according to pharmacists responses in questionnaire 2. (1 most impactful – 5 least impactful)

Results:

- Lack of familiarity with ward teams, timing constraints, concerns regarding patient deterioration if switched prematurely and lack of pharmacists' presence on ward rounds were the key identified barriers.
- Development of clearer guidelines, attending ward rounds and gaining experience of assessing clinical improvement were thought to be most impactful solutions.

Next Steps:

1. Pharmacist cover has increased, work flow can be managed better to allow pharmacist on WR
2. Provide teaching session around IVOS led by experts in field
3. Develop guidelines to better support pharmacist carrying out IVOS

References

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