A Comparison of Clinical Pharmacy Activity Between Two Methods of Clinical Pharmacy Service Delivery in an Acute Psychiatric Hospital

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Background

Clinical Pharmacists at Beaumont Hospital have traditionally worked independently of medical teams. All patient MPARs (Medicine Prescription and Administration Records) are checked every day. This can be time consuming and may not best utilise pharmacist time, particularly in a long-stay unit such as the psychiatric hospital.

MDT (multidisciplinary team) meetings involving pharmacists in care homes have proven successful internationally.[1] They have also been shown to improve overall prescribing in units.[1]

The Psychiatric Unit at Beaumont Hospital consists of 44 patients divided into 9 sectors. Each sector conducts a weekly MDT. The Pharmacist attends 4 of the 9 sectors weekly MDT meetings while reviewing all patient MPARs over the course of one week.

This service evaluation seeks to determine if it is more beneficial working within psychiatry teams and participating in weekly MDT meetings than the traditional practice. It will allow the Pharmacy Department determine the most effective use of available resources.

Aim and Objectives

To evaluate the impact of two methods of Pharmacy Service delivery – working independently versus working within the MDT.

Objectives

1. To determine the number of pharmacy interventions for each service.
2. To record the time taken for each pharmacy service.
3. To explore the severity of interventions for each pharmacy service.

Study Design and Methodology

This was a quantitative study investigating pharmacist interventions resulting from two methods of pharmacy service – MDT input Vs No-MDT input.

A software programme was developed using "SharePoint". This enabled recording and documentation of pharmacist interventions. The Psychiatry Pharmacist recorded interventions from MDT and non-MDT services for 4 weeks between January and March 2018.

On the days that there was an MDT meeting the pharmacist would attend and clinically review and advise on the respective patients from this sector. Patients from sectors with no pharmacist MDT input were reviewed using the traditional pharmacy service. Therefore all patients were seen at least once weekly.

References

1. Loganathan, M et al; Interventions to optimise prescribing in care homes: systematic review; *Age and Ageing;* 40:2; pp 150 – 162. (2011)

2. National Institute for Health and Clinical Excellence; Medicines optimisation: the safe and effective use of medicines to enable the best possible outcomes; NICE Guideline (NG5). (2015)

3. Bosma L et al; Evaluation of pharmacist clinical interventions in a Dutch hospital Setting; *Pharmacy World and Science*; 30:1; pp 31 – 38. (2008)

Results

Table 1 –
Interventions, Time Taken and Interventions Actioned:

	No MDT	MDT
Total # MPARS	617	33*
Average # MPARs Reviewed per Day	30	4
Average # Interventions Recorded per Day	5	4
Intervention Rate per Patient	0.16	1.00
Time Taken per Day	128 minutes	92 minutes
Interventions Actioned per Patient (within 24 hours)	31.7 %	88 %
Interventions Actioned per Patient (at any time)	56.4 %	100 %
Time Spend per Day	128 minutes	92 minutes
Average Time Spend per Intervention	25.7 minutes	22.5 minutes

* Patients were seen once weekly for "MDT" group and daily for "no-MDT" group

Table 2 –
Interaction Severity between Groups:

	Major	Moderate	Minor
Non-MDT	9%	57%	34%
MDT	3%	78%	19%

Conclusion and Implications for Practice

A significantly higher rate of interventions per patient in the MDT group (0.97 versus 0.16) demonstrates clearly that working within multidisciplinary teams is a more valuable and effective use of pharmacist's resources than working independently. The reduced time spend – both per day and per intervention (92 and 22.5 minutes for MDT versus 128 and 25.7 minutes for non-MDT) highlights the time saving (36 minutes per day) and productivity benefits of MDT working.

While severity of interventions was higher in the non-MDT group (major rate of 9% vs 3%), worryingly the non-MDT group were much less likely to have interventions acted upon promptly, if at all (56.4% actioned for non-MDT group versus 100% actioned for MDT group). MDT working thus does result in better implementation of interventions, meaning that the pharmacist's advice and recommendations are acknowledged and utilised for enhancing patient care. These findings are consistent with the literature which finds strong evidence for pharmacist involvement in multidisciplinary teams.[1,2] Team working contributes to medication rationalisation, medication safety and enhanced patient care.[1,2,3] Given this data our psychiatry pharmacist resources are now moving towards working within MDT teams and away from our traditional clinical service practice.

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