



Introducing a Clinical Pharmacist to a Care of the Elderly Day Hospital

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INTRODUCTION

Older patients are more likely to have multiple co-morbid diseases that require multiple drug treatments. The ability to tolerate medications declines due to age-related changes in drug handling, often heading along a path which leads to frailty.

In 2015, a hospital improvement plan was developed to enhance the Care of the Elderly (CoTE) service in Beaumont Hospital. This led to the provision of additional Allied Health Professional and Pharmacist resources, and the opportunity to develop and implement a new clinically-focused pharmacy CoTE service.¹

Medication review is an essential part of comprehensive geriatric care, and is a primary function of the Clinical Pharmacist (CP). A new CP service has been established in a COE Day Hospital which centres on medication review and patient education.

AIM

To develop a clinical pharmacy service in the day hospital to improve the quality of pharmaceutical care provided to care of the elderly patients.

METHODS

A new clinical pharmacy service to the Day hospital was established in January 2016, providing medication review to elderly patients in the community, who are attending the day hospital for medical review.

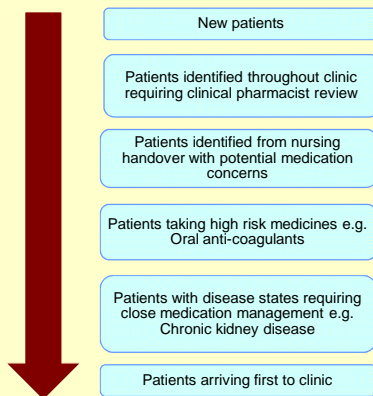


Figure 1: Prioritisation of Day Hospital patients for review by the clinical pharmacist

Figure 2: Pharmaceutical care plan

Data from the first three months of the service were collected prospectively to measure the quantity, type and quality of CP interventions.

A validated visual analogue score for determining the severity of medication errors which does not require knowledge of patient outcomes was used to assess the quality of the CP interventions. The continued use of the current medication without intervention was assessed for the potential clinical outcome by the day hospital CP and a Gerontology Specialist Registrar (SpR) and assigned a clinical significance score 0-10 (0 representing no potential effect and 10 representing death).²

The frequency with which advised changes were acted upon by the treating doctor was also recorded.

RESULTS

195 patients (mean 81 years, age range 58-98 years) were reviewed during 33 clinic days. A current medication list was obtained for all patients and an average of 1.8 pharmaceutical care interventions were identified per patient.

Of these 340 interventions, the medical team or patient agreed with 54%, 39% were not accepted and 7% had an unknown outcome.

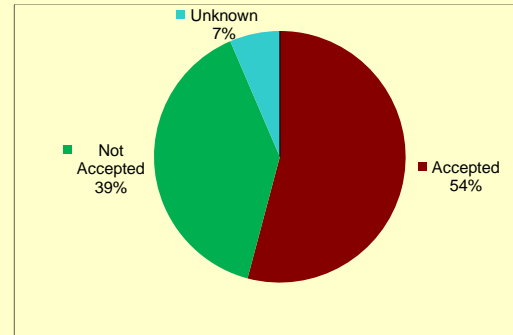


Figure 3: Acceptance rates of clinical pharmacist recommendations

The interventions were classified according to type as follows: 18% actual or potential adverse reaction, 14% each for supratherapeutic dose and untreated indication, 11% subtherapeutic dose and 10% each for improper administration, drug without indication and education provided to the patient.

The clinical significance mean scores were categorised as potentially leading to minor harm (score of < 3) = 10%, moderate harm (score of 3 - 7) = 89% and severe harm (score > 7) = 1%. Good agreement was observed between the two assessors (Pearson correlation coefficient = 0.97).

SAMPLE CLINICAL PHARMACIST ACTIVITY

82 year old female reviewed by Clinical Pharmacist and then by SHO and Consultant. 11 medicines daily.

Pharmacist Recommendation	Outcome	Pharmacist Score	SpR Score	Clinical Significance Score
DEXA showed Osteoporosis. Not on treatment, for review	Denosumab prescribed	5	6	
Last folic acid >25 ug / L, HB 13.1 g / dL	Folic Acid stopped	1	2	
Previously on atorvastatin 20mg od. Not on last prescription, community pharmacist and family unsure why not. Last total cholesterol 6.26 mmol / L	Atorvastatin prescribed	2	4	
Non compliant with inhalers for COPD	Patient counselled on inhaler use	4	5	

Figure 4: Sample Clinical Pharmacist Activity in Day Hospital

CONCLUSION

Clinical Pharmacist medication usage review in the day hospital has resulted in a positive contribution to the care of elderly patients as the majority (89%) of interventions were classified as being of moderate significance.

FUTURE PLANS

Opportunities to increase utilisation of the service are being explored including moving from a paper based system to use of the electronic Elderly Patient Record.

The clinical pharmacy service will continue to be reviewed to examine the expected impact on other parameters e.g. recurrent hospital admissions due to medication issues.

REFERENCES

- National Clinical Programme for Older People. Specialist Geriatric Services Model of Care. Part 1: Acute Service Provision. July 2012
- Dean BS, Barber ND. A validated, reliable method of scoring the severity of medication errors. Am J Health Syst Pharm 1999; 56: 57-62

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