

Time motion study for pharmacists' activities in a geriatric hospital

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BACKGROUND

Certain elements of the pharmaceutical service, such as dispensing and manufacturing, are relatively easily quantified. The role of the clinical pharmacist is less easily quantified.¹

OBJECTIVE

To identify and quantify activities undertaken by clinical pharmacists in a geriatric hospital.

SETTING

Zammit Clapp Hospital, Malta - a hospital specialising in geriatric medicine.

MAIN OUTCOME MEASURES

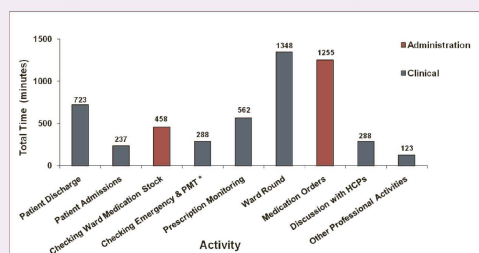
Comparison of time dedicated to activities carried out by pharmacists.

RESULTS

The time dedicated to each activity was: 'Clinical' 3569 minutes (59.5%), 'Administration' 1713 minutes (28.5%) and 'Others' 718 minutes (12%).

When considering total time for 'Clinical' and 'Administration' activities, ward rounds (1348 minutes), medication orders (1255 minutes) and patient discharge (723 minutes) occupied most of the clinical pharmacists' time - Figure 1.

Figure 1: Total time for clinical and administration activities (n=6000 minutes)



* PMT = Patient Medication Trolleys

DESIGN

A data collection form was developed to document the observations during a time motion study. The form was classified into 3 categories (Clinical, Administration, Others).

Sub-categories:

'Clinical' activities - patient admissions, patient discharge, prescription monitoring, ward rounds, discussion with health care professionals (HCPs), checking of emergency trolley and patient medication trolleys and other professional activities.

'Administration' activities - checking medication stock on ward and medication orders.

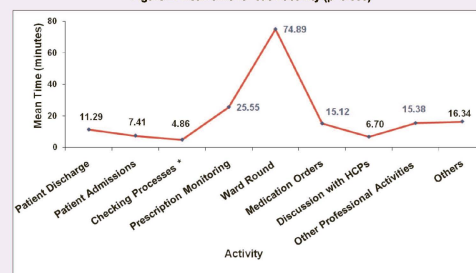
'Others' - break time and inactive time.

Observers conducted 6000 minutes of observation on 18 days and observed the work activities of 3 clinical pharmacists on 3 different wards.

Data was analysed using Microsoft Excel 2007 and SPSS version 16.0. The One-Way ANOVA Test was adopted.

When analysing mean time for each activity, ward rounds (74.89 minutes), prescription monitoring (25.55 minutes), other professional activities such as student demonstrations and teaching (15.38 minutes), and medication orders (15.12 minutes) were predominant [p value=0.000] - Figure 2.

Figure 2: Mean time for each activity (p=0.000)



* Including checking of Emergency Trolley and Patient Medication Trolleys

Ward round activities were subdivided into three: actual ward round (mean time 133.60 minutes), conference (mean time 67.50 minutes) and profiling (mean time 49.55 minutes) [p value=0.001].

CONCLUSION

For optimal utilisation of pharmacist expertise, administrative tasks should take up a minimum of the pharmacist's time and clinical tasks should be performed as efficiently as possible. This time motion study indicated that the pharmacists' time is mainly allocated to clinical pharmacy activities particularly ward rounds, prescription monitoring and patient discharge. However, there is still a large proportion of time taken up by administrative activities such as medication orders which can be conducted by non-pharmacist personnel, allowing more time to be directed to patient care.

REFERENCE

1. Hubbard CN, Alder G. Interventions during prescription checking on ward rounds. Pharm J 1992; 162:163.