Introduction

A number of medication prescription errors are committed by prescribers in their endeavor to ‘clear’ the long queues of clients in HIV/AIDS treatment centres in resource limited settings. The magnitude of these errors varies across facilities and many go unnoticed resulting into dire effects.

For this reason, we instituted an Error Detection Unit in the dispensary comprised of two pharmacists. This study aimed at quantifying prescription errors averted by an Error Detection Unit in a busy HIV/AIDS treatment centre in Kampala (Baylor Clinic).

Materials and Methods

This cross sectional study was conducted from January 2011 to December 2011. Prescription review, recording and assessment were used to detect errors.

In the dispensary, prescribed drugs are entered into the Electronic medical record; two copies of the prescriptions are printed and filled wbefore a client is served at the exit window.

There was verification of the preceding activity at each stage and at the exit window, the second prescription copy was sent to the Error Detection Unit for assessment and recording on the subsequent day; as indicated in the pictorial below.

Medication errors were classified on the basis of the severity of expected drug outcome on patient’s wellbeing (minor, moderate or major).

Identification of a major or moderate medication error in a reviewed prescription resulted into an immediate recall of a client using his or her telephone contacts for rectification.

Operational definitions: A minor medication error is committed when a patient is prescribed less pills to last till the next appointment day; moderate medication error is that error committed by prescribing a lower dose than what he or she ought to get and a major medication error is that error committed when a patient is either prescribed a high dose or a wrong drug.

Table 1: Comparison of Errors against Cadre levels

<table>
<thead>
<tr>
<th></th>
<th>Doctors</th>
<th>Low cadre staff</th>
<th>P-value</th>
<th>Cadre missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor errors</td>
<td>04(8.7%)</td>
<td>06(8.8%)</td>
<td>0.969</td>
<td>02</td>
</tr>
<tr>
<td>Moderate errors</td>
<td>38(82.7%)</td>
<td>57(83.8%)</td>
<td>0.893</td>
<td>02</td>
</tr>
<tr>
<td>Major errors</td>
<td>04(8.7%)</td>
<td>05(7.4%)</td>
<td>0.586</td>
<td>02</td>
</tr>
<tr>
<td>TOTAL</td>
<td>46</td>
<td>68</td>
<td>0.000</td>
<td>06</td>
</tr>
</tbody>
</table>

Results

81% (97/120) of the prescription errors averted were moderate and these were significantly higher than minor errors 10% (12/120), P< 0.001 and major errors 9% (11/120), P< 0.001. Moderate errors committed by doctors (82.7%) were not significantly different from those committed by low cadre personnel (83.8%), P=0.893.

Conclusions

An error detection unit is required in dispensaries of HIV treatment centres for improving the quality of health service delivery. Also, occurrence of moderate errors is not associated to cadre level.

Acknowledgments

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Figure 1. Illustration of flow of activities from entering of the patient’s prescription in the EMR, filling of the prescription, dispensing of prescribed drugs and review of patient’s prescriptions in the Error Detection Unit.