

INTISARI

Latar Belakang: *Dispensing error* merupakan permasalahan yang tidak jarang terjadi dalam proses pengobatan. Otomatisasi pelayanan farmasi rawat jalan menurunkan kejadian *dispensing error* disamping meningkatkan efisiensi dalam proses pengambilan, pengemasan dan labeling. Sejak bulan Agustus 2014 di farmasi rawat jalan Instalasi Farmasi Rumah Sakit Bethesda mulai diterapkan *automated dispensing machine* yang diintegrasikan dengan peresepan elektronik dan system informasi rumah sakit.

Tujuan: Penelitian ini mengevaluasi khususnya dampak penerapan *automated dispensing machine* terhadap kejadian *dispensing error* di farmasi rawat jalan.

Metode: merupakan penelitian eksperimental semu, mengevaluasi kejadian *dispensing error* sebelum dan sesudah penerapan *automated dispensing machine*.

Hasil dan Pembahasan: Cakupan item obat yang dilayani *automated dispensing machine* pada bulan ke-tiga dan ke-enam adalah 46% dan 59% dari semua permintaan yang masuk. Dilakukannya FMEA (*failure mode and effect analysis*) sebelum penerapan, integrasi alat dengan peresepan elektronik dan sistem informasi rumah sakit disamping pengembangan *smart pack* menjadi faktor keberhasilan cakupan. Rerata jumlah item obat yang dilayani di farmasi rawat jalan per bulan setelah penerapan *automated dispensing machine* ($37.915,33 \pm 3.160,122$) lebih tinggi dari pada sebelum penerapan *automated dispensing machine* ($36.812,67 \pm 2.890,812$), tetapi tidak beda bermakna. Rerata kejadian *dispensing error* per bulan setelah penerapan *automated dispensing machine* ($15,67 \pm 6,282$) menurun secara bermakna ($p < 0,05$) dibandingkan dengan sebelum penerapan *automated dispensing* ($50,33 \pm 34,477$). Jenis *dispensing error* yang paling banyak terjadi adalah salah jumlah, kemudian salah obat dan salah dosis.

Kesimpulan dan Saran: Penerapan *automated dispensing machine* menurunkan kejadian *dispensing error* secara bermakna. Perlu dilakukan penelitian lebih lanjut untuk mengetahui berapa kejadian *dispensing error* pada proses *dispensing* oleh alat dan manual serta faktor-faktor yang mempengaruhi kejadian tersebut.

Key words : *automated dispensing machine*, *dispensing error*, safe

ABSTRACT

Background: *Dispensing error is not uncommon in the medication process. Otomatisation of outpatient pharmacy services decrease the incidence of dispensing error, as well as improving the efficiency of picking, packing and labeling process. Since August 2014 an automated dispensing machine was installed in outpatient pharmacy Bethesda Hospital Yogyakarta, integrated with electronic prescribing and hospital information system.*

Objective: *to evaluate the impact of automated dispensing machine on the dispensing error at outpatient pharmacy services*

Method: *before and after study*

Result and Discussion: *the percentage of drugs delivered by automated dispensing machine at the third and sixth month of implementation was 46% and 59%. Failure mode and effect analysis of dispensing process done before the implementation, and the integration with electronic prescription and hospital information system, as well as the development of smart pack is the key of success. The average of medications picked after the implementation of automated dispensing machine was $(37.915,33 \pm 3.160,122)$, higher than before implementation $(36.812,67 \pm 2.890,812)$, but not significant. The average of dispensing error after implementation $(15,67 \pm 6,282)$ was reduced significantly ($p < 0,05$) than before $(50,33 \pm 34,477)$. The most frequent type of dispensing error were wrong quantity dispensed, wrong drug dispensed and wrong strength dispensed.*

Conclusion and Suggestion: *The implementation of automated dispensing machine significantly reduce the incidence of dispensing error. Further investigation needed to know the incidence of dispensing error cause by the machine and manual and factors that influenced.*

Key words : *automated dispensing machine, dispensing error*