DESCRIPTION OF PATIENT FLOW IN AN INDONESIAN EMERGENCY DEPARTMENT OF A MAJOR TEACHING HOSPITAL

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SIGNED STATEMENT

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26th November, 2015

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ABSTRACT

Patients in Sanglah Hospital Emergency Department (SHED) may experience delays for a variety of reasons. However, it is difficult to identify the exact factors that contribute to delays or how much delays contribute to waiting time. The main purpose of this study is to form complete descriptions of patients' journeys through the emergency department (ED) in order to identify delays that contribute to crowding in the SHED.

This is a descriptive study using prospective patient flow analysis (PFA). Data was collected on 12 patients (approximately 10per cent[1]) per day for eight days. Patients who presented between 12 midday and 8 pm were enrolled. This study capture period was chosen as it is the peak period in the ED. Steps of the patients journey in the SHED were separately timed. Multiple regression was used to examine the association between independent variables and dependent variables of time at each point and total ED LOS time.

There were 96 patients observed and a complete set of data points were collected from these participants. There were significant differences in the mean (log_{10}) of length of stay (LOS) time according to triage level, arrival modes, arrival types, case types, cubicle areas, decision to admit, waiting for bed availability, discharge/admitted, turnaround time for consultation to other specialisation, imaging turnaround time, laboratory turnaround time and ED bed to nurse ($p<0.05$). However, a multiple regression analysis determined that only pathology requests had a statistically significant effect and unique contribution to ED LOS (Beta=-0.227, $p = 0.009$).

In the SHED, laboratory turnaround time is associated with delay that contributes to ED crowding. Improving laboratory turnaround time during the pre-analytic and post analytic phase may reduce ED LOS, which in turn should reduce ED crowding.

[1] 44997 patients presented in 2014, a mean of 122 patients per day.