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Emergency department bed coordination
Burden and pitfalls.

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Introduction:

Improving patient flow from emergency department (ED) to in-hospital bed admission is an everyday challenge. Implementation of an ED bed manager (BM) who monitors hospital beds availability daily has been advocated to reduce boarding time for admitted patient. However, little is known on the actual burden and pitfalls of ED bed coordination. Indeed, overcrowded hospitals often lead to inappropriate transfer from ED to less adapted hospital unit or unit with lower level of care. In 2014, a BM was implemented in the University Hospital Centre of Liege, as a result of a quality improvement program.
We design the present study to evaluate the occurrence of such step-down units transfer.

Method:

This prospective study was conducted in a tertiary care academic hospital accounting for 622 licensed beds and an ED census of 45000/year.
Data were extracted from a 20-days random observation period, or a total of 231 patients administered by the BM.

Conclusion:

These results emphasize the complexity of ED flow coordination.
Whether or not such coordination is effective on ED overcrowding or patients' LOS, this preliminary study identifies the frequent use of short stay and under-adapted units instead of optimal bed location. Besides, further research should clarify the impact of these hospitalisations' pathways on the quality of care.
Finally, these observations indicate the urgent need for early determination of patients who could actually be safely transferred to such units.

Results:

Mean ED census: 131 ± 12 patients /day, of which 20.6 % hospital admission.

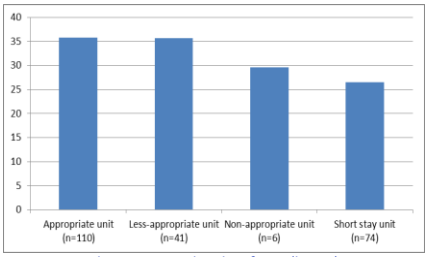
BM administered 12 ± 3 of these patients daily.

Patients were transferred :

- 47.6 % to an appropriate unit
- 32.1 % to a short stay unit
- 17.7 % to less-appropriate units
- 2.6 % to non-appropriate units

Average ED length of stay (LOS) before transfer (Graph 1):

- Mean global LOS was 32.6 ± 25,1 hours
- LOS of patients transferred to a non-appropriate unit (29.5 ± 15.7 hours) is shorter than those transferred in more appropriate units (35.76 ± 26.31 hours)



Graph 1: Mean ED lenght of stay (hours)

Communication strategy used by the BM

- face-to-face talk almost half of the cases (n=93)
- phone calls for the other half (n=115).

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