

Improving service in an emergency department by designing the health production flow

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Abstract

Background

Most emergency departments have overcapacity with poor service measured by length of stay. We hypothesized that a formal design of the emergency department production flows will improve service. Thus, we propose a methodology that was tested in a large hospital, including new flow implementation.

Results

We implemented new workflows during June to July 2017. A comparison of the patients' average length of stay from June to September shows a decrease of 26%. Additionally, a comparison with 2016 shows a decrease of 50%. Direct evaluation of the value generated reveals an emergency department admissions increase of 540 monthly, equivalent of a savings of approximately US\$250.000 annually. This savings is a very conservative estimate because the most significant value of this work is fast service that diminishes the patients' risks.

Conclusions

Production design is an important problem in health services in terms of potential service improvements, executable with a formal, systemic, replicable method founded on several disciplines. Thus, we are replicating the approach at other hospitals with extensions to other services.

Palabras clave

Palabras clave de autor: [care management](#); [design framework](#); [emergency department design](#); [emergency service improvement](#); [health flow design](#)

KeyWords Plus: [PATIENT FLOW](#); [MODULARITY](#); [MODEL](#)

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Editorial

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