

POSTER PRESENTATION

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# Process driven patient tracks in FAM

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## Background

The Danish hospital reform requires that in future all acute patients be admitted to one common emergency ward (FAM) at hospitals specially designated for receiving them. At these hospitals they will undergo instant treatment irrespective of time of admittance 24/7/365.

The challenges the designated acute hospitals face is how to plan the FAM in respect to both medical and physical resources, so that instant initial treatment 24/7/365 can be effected, and subsequently determine all the consequences for the rest of the wards.

## Methods

The method we have used in solving this problem is through use of process driven patient tracks and simulation. In consultation with the specialist wards, we have obtained consensus on six process driven patient tracks that are expected to cover all types of acute patients. For each track we start by determine the medical processes the patient has to go through. Next the necessary types of medical staff and physical resources for each of the medical processes are determined, together with the estimated process time. It is during the initial common process, the visitation/triage, that it is determined which of the six tracks the acute patient falls under.

## Results

Using the simulation program Flexsim(TM) we are able to quantify the interactions between patients, medical staff and physical facilities hourly during 0-24, given the forecasted future number of acute patients, distributed according to the six patient tracks and their expected hourly 0-24 admittance. Using simulation we can detect and eliminate bottlenecks in an iterative way, and we are consequently able to dimension FAM in regard to

both staff and physical requirements. In doing this we have taken into consideration the average time we will allow an acute patient to remain in FAM, including waiting time. This time limit has a major impact on the actual choice of processes and the overall dimensioning of FAM, as well as on the number of the various types of medical and auxiliary staff required to be present hourly 0-24.

## Conclusion

Introducing process driven patient tracks and using simulation will prove to be important tools for efficient planning and functioning of FAM.

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