

# The Integrative Real Time Monitoring Bundle: Enhancing patient safety using a combination of an outcome monitoring tool and patient chart analysis on a hospital wide level

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## Context

The Albert Schweitzer Hospital is a large 1000-beds teaching hospital located in Dordrecht, the Netherlands.

## Problem

The incidence of adverse events experienced by hospital patients in the Netherlands is 5,7 percent. Of these, more than 40 percent are potentially preventable<sup>1</sup>. Adverse events can lead to excess length of stay, readmission or mortality.

## Assessment of problem and analysis of its causes

To analyze which system-wide interventions should be started in order to avoid (serious) adverse events and possible deaths, we implemented an integrated bundle of different adverse event analysis and (H)SMR monitoring tools. This was coordinated by a dedicated group of medical consultants, medical administrators, nurses and a patient safety manager.

## Strategy for change

Our strategy is focussed on structural adverse event study and analysis of patient charts using the IHI Global Trigger Tool<sup>2</sup>, in combination with Real Time Monitoring (RTM)<sup>3</sup>. RTM is an instrument for early warning and detection of areas with high priority for improvement.

## Focus: "Frail and elderly patients"

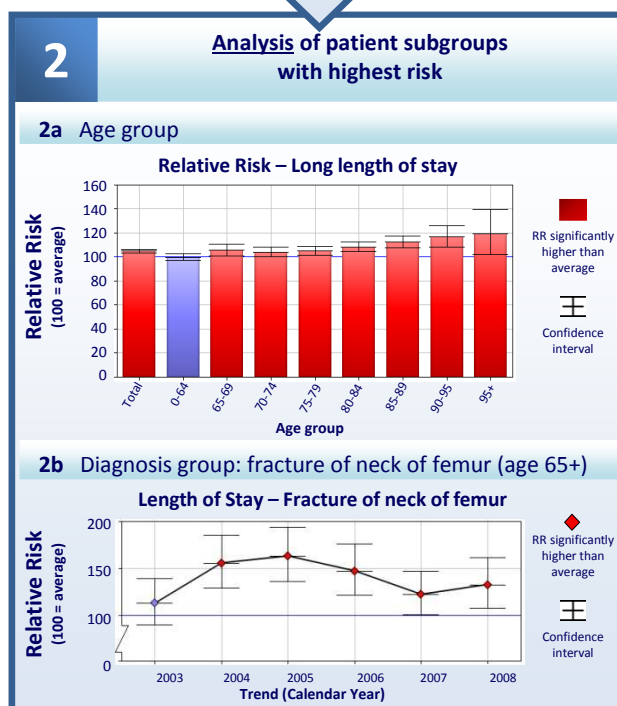
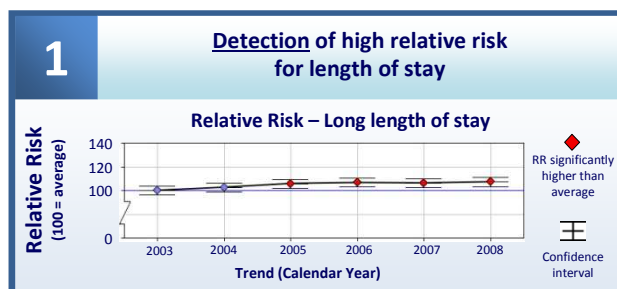
This strategy is illustrated by analyzing the length of stay of the frail and elderly patients in our hospital [2003-2007].

## Lessons learnt

The use of a combination of an outcome monitoring tool and patient chart adverse event analysis can enhance patient safety on a hospital wide level. Other hospitals should be aware that they can use their existing medical registry data for this purpose.

## References

1. Bruijne MC de, Zegers M, Hoonhout LHF, Wagner C. Onbedoelde schade in Nederlandse ziekenhuizen: dossieronderzoek van ziekenhuisopnames in 2004. Utrecht/Amsterdam: NIVEL/EMGO Instituut VUmc, 2007.
2. Griffin FA, Resar RK. IHI Global Trigger Tool for Measuring Adverse Events. IHI Innovation Series white paper. Cambridge, MA: Institute for Healthcare Improvement, 2007.
3. www.drfoosterintelligence.co.uk or www.hsmr.nl



**3** Selection of patients with lowest prior individual risk where adverse outcome occurred

Sex	Age	Urgency	Risk	Admission Date	Discharge	LoS	Diagnosis Group	Long LoS
F	65	Urgent	12.1	30-aug-07	6-sep-07	8	Fracture of neck of femur (hip)	No
M	69	Urgent	12.1	27-jun-08	22-jul-08	26	Fracture of neck of femur (hip)	Yes
F	68	Urgent	12.3	13-sep-07	03-oct-07	21	Fracture of neck of femur (hip)	Yes
F	68	Urgent	14	7-jan-07	15-jan-07	9	Fracture of neck of femur (hip)	No
F	68	Urgent	14	23-feb-07	02-mar-07	8	Fracture of neck of femur (hip)	No
F	69	Urgent	14.2	26-feb-08	19-may-08	84	Fracture of neck of femur (hip)	Yes



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