Towards Safety-II in hospital care using the available Safety-I environment

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The Dutch vs. the water
Dutch nautical proverbs
Dutch nautical proverbs

“Turn the ship’s wheel!”

“Row with the oars available”

CHANGE COURSE drastically!

make do with what you’ve got
What we’ve got: ‘stickiness’ of Safety-1 in the field
What we’ve got: within hospitals

- Hosp. incident reporting ('08)
- Dept. adverse event registry ('97)
- Patient complaints handling
What we’ve got: within hospitals
A first, pragmatic step towards S-2

- Connecting data at the patient level: 1 comprehensive dataset
  incl. admission registries, adverse event/incident reporting, patient complaints

- To reveal bigger picture & allow for interpretation in relation to each other, rather than in isolation
Methods and definitions

- For all inpatients of an surgical academic department [2008-2014] patient-level linkage: admission, adverse event (AE), incident, complaints

AE

Inc

Event with patient harm or requiring treatment regardless of causes

‘Suboptimal’ process regardless of consequences
For all inpatients of an surgical academic department [2008-2014] patient-level linkage: admission, adverse event (AE), incident, complaints
Bigger picture: incidents in context of harm

- Adverse Event (AE)
  - Near miss?
  - Underreporting?
  - Enacted resilience?

Inpatient admissions
N=26,383

- 78.3% no harm
- 18.3% incidents
- 2.8% adverse events
- 6.1% complaints

1599 cases with incidents, but 54% cases no harm (AE)
Bigger picture: other side of the coin

Inpatient admissions
N=26,383

- More often:
  - younger age
  - female gender
  - no/elective surgery
  - lower risk (ASA) (P<.05)
inpatient admissions
N=26,383

- 78.3% More often:
  - younger age
  - female gender
  - no/elective surgery
  - lower risk (ASA) (P<.05)

- 20% above 70yrs

- 70% received surgery: of which 28% emergency surgery and/or ASA≥3

Bigger picture: other side of the coin
Bigger picture: high risk cases

Patients aged >70, ASA ≥ 3 and emergency surgery (n = 300)

ca. 1 in 3 (36%)
‘positive outcome’

inpatient admissions
N = 26,383

78.3%

adverse event
18.3%

incident
2.8%

complaint
0.1%
Bigger picture: high risk cases

- Underreporting?
- Enacted resilience?

inpatient admissions
N=26,383

78.3%

adverse event
18.3%

incident
2.8%

complaint
0.1%

Patients aged>70, ASA≥3 and emergency/elective surgery (n=965)

c. 1 in 2 (51%)
‘positive outcomes’

Patients aged>70, ASA≥3 and emergency surgery (n=300)

c. 1 in 3 (36%)
‘positive outcome’
inpatient admissions
N=26,383

78.3%

Patient accidents (e.g. falls, burns, cath/tubes removal) n=84
of which 30 patients (36%) also had delirium (=AE)

18.3%

6.1%

0.1%

Bigger picture: target groups
Bigger picture: target groups

inpatient admissions
N=26,383

Patient accidents (e.g. falls, burns, removing lines/tubes)
n=84

of which 30 patients (36%) also had delirium (=AE)

however, there were another 411 patients with delirium, but without accidents
(411 of 441, 93%)
Reflection / practical implications

- Safety paradox, diagnosis ‘per exclusionem’: cases **without unsafe** events
- Pragmatic approach: bigger picture through linkage of available data

Could this serve as a **first step** towards a wider perspective on safety?
Reflection / practical implications

- Safety paradox, diagnosis ‘per exclusionem’: cases without unsafe events
- Pragmatic approach: bigger picture through linkage of available data

Could this serve as a **first step** towards a wider perspective on safety?

- Resilience constantly present, where to start? comprehensive dataset to target these settings/processes/patients for further study of enacted resilience, e.g. where things went well, despite certain circumstances.

- More realistic use of data
  Data reported by clinicians in busy practice, until now only used to focus on ‘wrongdoing’ (CSI style); this would help to appreciate successful performance (adjustments).
- Weekly quality meeting with surgeons, residents, (nurses)

- To discuss all patients discharged last week: +/- AEs, incidents, (complaints) and all patients planned for next week

**Staff**
- feel more informed, motivated
- value this reflection on both things* that went well/less well, soon after + according to frequency of occurrence

*incl. processes & outcomes in hindsight double loop learning: why did we do that?
Could this serve as a **first step** towards a wider perspective on safety?