Experience from the Danish reporting system

Nordic Patient Safety Conference

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Interests declared

Current contract work for National Board of Health assisting with defining and testing new classification system for DPSD2 (Danish Patient Safety Database version 2)

Also:

Healthcare Management, Quality and Design Group at DTU (chairman)

Research Network for Patient Safety and Quality in Healthcare (chairman)

Background before introduction (1:4)

Late 1990's the patient safety debate has gained momentum

1999: "To Err is Human" from Inst. of Medicine appears (98,000)

2000 March: Theme issue in BMJ on patient safety (front page crashed aircraft) with several papers on reporting

2000, Sept. *An Organization with a Memory: A Report of an Expert Group on Learning from Adverse Events in the NHS Chaired by the Chief Medical Officer.* London

Landmark publications in the US and Australia on adverse events (Harvard Med.Pract.Study I, II).

IOM report figure of 98,000 patient death in the American hospital system each year as a result of errors and adverse events: Transposed to Dk, this corresponds to 5,000 mortalities a year in Danish hospitals.

Background before introduction (2:4)

Conference on patient safety in Denmark in 2001 with participation of minister of health, officials, international safety experts. Speakers recommend some kind of confidential and non-punitive reporting to enhance safety

Intense debate about non-punitive reporting for air traffic controllers and pilots –on national TV news ATC controllers state they may loose their job if they report air incidents. Called “sissies” in newspaper leaders. Minister against changing punitive system.

More debate and pressure, new minister ….

So, in 2001 - new law on air incident reporting: the reporting pilot or ATCO exempt from punishment if reporting errors that otherwise are punishable. And reports are confidential - reporter’s identity protected.

Background before introduction (3:4)

Ugeskr Læger 2001;163(39):5370

Forekomsten af utilsigtede hændelser på sygehuse
En retrospektiv gennemgang af journaler

ORIGINAL MEDDELELSE

Thomas Schiøler, Henriette Lipczak, Beth Lilja Pedersen,Torben S. Mogensen, Karine B. Bech,cand.scient. Anders Stockmarr,cand.rer.soc. Anders Rud Svenning & Anne Frølich

Resumé

Introduktion: I det seneste årti er der publiceret en række udenlandske undersøgelser, der med struktureret journalgennemgang har estimeret forekomsten af utilsigtede hændelser og forebyggeligheden af disse. Da der ikke findes tilsvarende danske undersøgelser, gik Hovedstadens Sygehusfællesskab (H:S), Sønderjyllands, Århus og Viborg Amter og DSI Institut for Sundhedsvæsen sammen om at gennemføre en sammenlignelig undersøgelse på somatiske sygehuse i de deltagende amter/H:S.
Materiale og metoder: En stikprøve på 1.097 somatiske indlæggelser blev ved struktureret skriftlig journalaudit, gennemgået for tilstedeværelse af en eller flere utilsigtede hændelser. De udtrukne journaler var proportionalt fordelt på 17 **Summary**
Thomas Schiøler, Henriette Lipczak,Beth Lilja Pedersen, Torben S. Mogensen,Karine B. Bech, Anders Stockmarr,Anders Rud Svenning & Anne Frølich:
Incidence of adverse events in hospitalized patients. The Danish Adverse Event Study (DAES).
Ugeskr Læger 2001; 163: 5370-8.
Introduction: Over the past decade a number of studies on the incidence and preventability of adverse events in the health care have been published in the US, Australia and the UK. So far no similar study has been performed in Denmark. In order to determine whether foreign findings could be generalised to Danish health care, a pilot study on adverse events was carried out in Danish acute care hospitals.
Method: Chart reviews were carried out on 1.097 acute care hospital admissions, sampled from the central Danish National Patient Register. The sample was truly proportional with no over-sampling of high-risks groups. Chart reviews was done in 17 different acute care hospitals, reviewing between 20 and 204 admissions per hospital. Adverse events was identified using a three-step procedure: 1) Nurse screening by 18 criteria identifying high-risk groups. 2) Independent reviews by pairs of consultants. 3) In case of disagreement between second step consultants, two additional independent reviews was performed by new consultants (internist and surgeon) followed by conference. All chart reviews were performed independent of medical speciality. All nurses and doctors were senior and experienced clinicians.
Results: In 114 admissions 176 Adverse Events (AEs) were identified. The Incidence of admissions with adverse events were 9.0% of all admissions. Preventability of adverse events was found in 46 of admissions (40,4% of AEs). The adverse events caused on average a 7.0 days prolonged hospital stay. Most adverse events resulted in minor, transient disabilities. Permanent disability or death in relation to adverse event were recorded in 30 admissions.
Discussion: The findings from the Danish Adverse Event Study are similar to the results found in Australia, United Kingdom and the United States. It is therefore recommended that further Danish research, is directed towards high-risk groups focussing on narratives and intervention and towards research in primary health care.

- In Sept. 2001 prospective study “The Incidence of Adverse Events in Hospitals”.
- Review of 1,097 patient records: 9% of patients admitted to hospital involved in an adverse event. Of these, 40% deemed preventable, remaining 60% classified as complications
- So: Danish patient safety problems comparable to those found abroad
- **A few months later: Danish Society for Patient Safety is launched: A non-profit society that is going to be a very influential and highly acclaimed voice in the public debate**

Background before introduction (2:2)

Risø-R-1369(DA)

Rekommandationer for rapportering af utilsigtede hændelser på sygehuse

Hovedrapport fra projekt om krav til et registreringssystem for utilsigtede hændelser på sygehuse

Niels Hermann, Henning Boje Andersen, Thomas Schiøler, Marlene Dyrløv Madsen, Doris Østergaard

DSI Institut for Sundhedsvæsen
Forskningscenter Risø
Dansk Institut for Medicinsk Simulation

Forskningscenter Risø, Roskilde
September 2002

A project is initiated early 2001
- sponsored by the Ministry of Health – aimed at:

surveying attitudes of doctors and nurses to reporting schemes

describing reporting schemes in other countries and sectors

developing recommendations for a Danish model for reporting

Asking with great diffidence

"Which scheme of reporting do you prefer?"	
Anonymity (reporter unknown)	Name and identity unknown to everybody
Strict confidentiality. (reporter known only by receiver)	Receiver knows the identity of reporter but shall not disclose this
Limited confiden-tiality: (confidentiality may be breached if gross negligence)	Receiver knows the identity of reporter -may be disclosed to regulators if and only if violation of criminal law or law on medical practice.

Not being able to foresee responses

"Which scheme of reporting do you prefer?"		Doctors (N=687)	Nurses (N=1283)
Anonymity (reporter unknown)	Name and identity unknown to everybody	18%	9%
Strict confidentiality. (reporter known only by receiver)	Receiver knows the identity of reporter but shall not disclose this	44%	38%
Limited confiden-tiality: (confidentiality may be breached if gross negligence)	Receiver knows the identity of reporter -may be disclosed to regulators if and only if violation of criminal law or law on medical practice.	34%	47%

The group recommends a system that...

- Is strictly confidential - so preserves the anonymity of the reporting staff member outside the local unit / appointed group of receivers
- Ensures an effective separation of reporting and learning from disciplinary and punitive functions
- Does not disclose the name of wards and departments that submit reports to the central authorities
- Supports data capture in anonymous format into a national database to provide analysis and dissemination of lessons learned

Act on Patient Safety

Jan., 2004: the first confidential, non-punitive and mandatory system for reporting adverse events launched

- Frontline personnel must report adverse events to a national reporting system at the local level
- Hospital owners must act on the reports
- The National Board of Health must collect and communicate learning nationally

"A frontline person who reports an adverse event cannot as a result of that report be subjected to investigation or disciplinary action from the employer, the Board of Health or the Court of Justice."

- Subsequently incorporated into the Danish Health Care Act, Jan. 2007.

Expanding to primary care, home care, patients and relatives etc.

March 2009, a new act passed in parliament: reporting system to include

- primary care, nursing homes, home healthcare, and patients and relatives.

The new act will be put into force when a new version of the Danish Patient Safety Database is available

WHO-classification

- International Classification for Patient Safety (ICPS)
  - Aims to define, harmonize and group patient safety concepts into an internationally agreed classification.
  - Represents a consensus of international experts
  - Is a conceptual framework

World Health Organization

- In the new version of the Danish Patient Safety Database (DPSD2) adverse events shall be classified in a taxonomy that has been adapted from the WHO classification.
- Alle reported events must be classified in 12 event types (+ ”other”) – one or two levels.
- A further, more detailed classification will be available as an option – to be used at the user’s discretion if there is learning to be had from further analysis and classfication

1. Administrative processer	
	Patientoverdragelse/vagtskifte/sektorskift/henvisning
	Aftale/indkaldelse
	Venteliste/ventetid/kontinuitetsbrud
	Indlæggelse/modtagelse
	Udskrivelse
	Patientidentifikation
	Informeret samtykke
	Andet / vides ikke
2. Kliniske processer inklusive behandling	
	Screening/forebyggelse/opfølgning
	Diagnose/udredning/vurdering
	Behandling/indgreb/monitorering
	Pleje/genoptræning
	Test/undersøgelse/prøver/prøveresultater
	Tilbageholdelse/fiksering
	Andet / vides ikke
3. Sundhedsfaglig kommunikation og dokumentation	
4. Medicinering	
5. Medicinsk udstyr	
6. Infektion	
7. Blod og blodkomponenter	
8. Gasser og luft til medicinsk anvendelse	
9. Selvskade, selvmordforsøg eller selvmord	
	Selvskade
	Selvmordsforsøg
	Selvmord
10. Patientuheld (marker mindst én)	
	Fald
	Andet
11. Bygninger og infrastruktur	
12. Resurser og organisation	
13. Anden utilsigtet hændelse	

Goals behind the taxonomy

Primarily: to support learning!

Derived goals are therefore

- to aid the analysis of individual events
- to support a quantitative recording of types of events, their associated (causally related) factors
- to support the collection of events that are ”similar”
- *to support a workflow that facilitates learning*

Supporting a workflow that facilitates learning – but how?

- Collecting, structuring intervention plans (by types of adverse event that spurs the plan, and by the type of planned intervention/change)
- Allowing/ encouraging users to

Types and causes

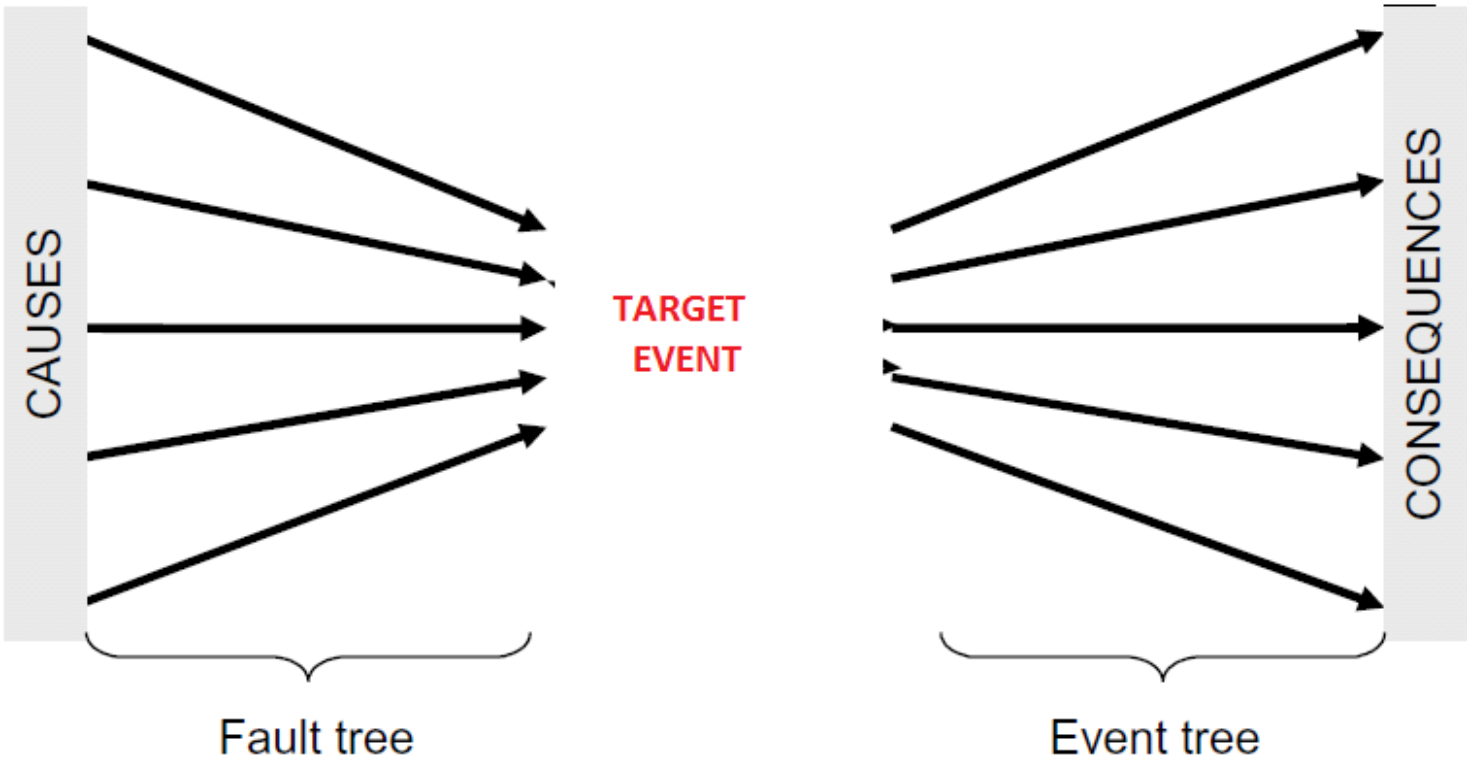
Background factors: Human / team Organization	Types of events:	Outcomes

Types and causes

Background factors Human / team Organization	Types of events:	Outcomes

Why a ”flat” classification?

A given factor – e.g. mediciation - may be a foreground factor in one event and a background factor in another



Summing up the impact

The law and the consequences of its implementation conjoined with the many activities of the dynamic and successful *Danish Society for Patient Safety* have **raised awareness of patient safety** to a high level.

Events reported have engendered analysis and important alerts from the national level

Events reported led to interventions and campaigs at the local level

However, no hard data that show reduction in mortality and morbidity

Staff impressions

Capital region survey 2006				
Question – Likert scale answers	Positive	Neutral	Negative	n
We speak up if we notice anything that may threaten patient safety	89,3%	8,5%	2,2%	10,288
We feel safe in reporting adverse events	84,4%	12,5%	3,1%	10,224
Improvements have been made because of adverse event reporting	48,9%	37,1%	14,1%	10,110

Lessons learned – a subjective view

1. Reporting by itself does not (of course) create learning
2. There is a danger that too many resources shall be spent on recording and classifying events
3. Consider whether some resources be more usefully and efficiently spent on extracting and disseminating learning from fewer events and other sources (interviews, staff meetings, HAZOPs)
4. Important use of the classification is to enable the collection of events that are ”similar” -> facilitating a subsequent qualitative analysis for any given area of attention

Recent examples Adverse events associated with patient handoffs/transitions; administration of cancer therapies; resuscitation /cardiac arrest; medical equipment events …..

5. Important to preserve the ”narrative” text of reports!

"Not everything that can be counted counts, and not everything that counts can be counted." [Einstein]