

The implementation of multiple guidelines simultaneously

The SAFE or SORRY? study

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Scientific Institute for
Quality of Healthcare

What is the problem

Adherence with hand hygiene prescriptions in less than 50%
off all relevant situations

(Pittet et al. - Lancet 2000)

Hospital wide campaign on pressure ulcer prevention led to
better mattresses, but not to more adequate nursing care

(De Laat et al. - Int J Qual Health Care 2006).

An effective intervention for smoking cessation is not or
incompletely offered to patients in cardiology wards

(Segaar et al. Res Nurs Health 2007)

So we have a problem....

- Gap between current insights and current practice in many areas
- “Suboptimal care” threatens patients’ health and the quality of health care
- Nurses’ professionalism can be questioned

Problems with implementation

- Many guidelines available
- Implementation is a time-consuming process
- Impossible to implement all relevant guidelines

The SAFE or SORRY? study

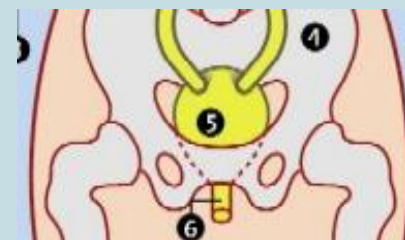
The SAFE or SORRY? study

AIM

- To develop and test a patient safety programme that addresses several adverse events simultaneously in hospitals and nursing homes

Three AEs

- Pressure ulcers
- Urinary tract infections
- Falls



Working in groups

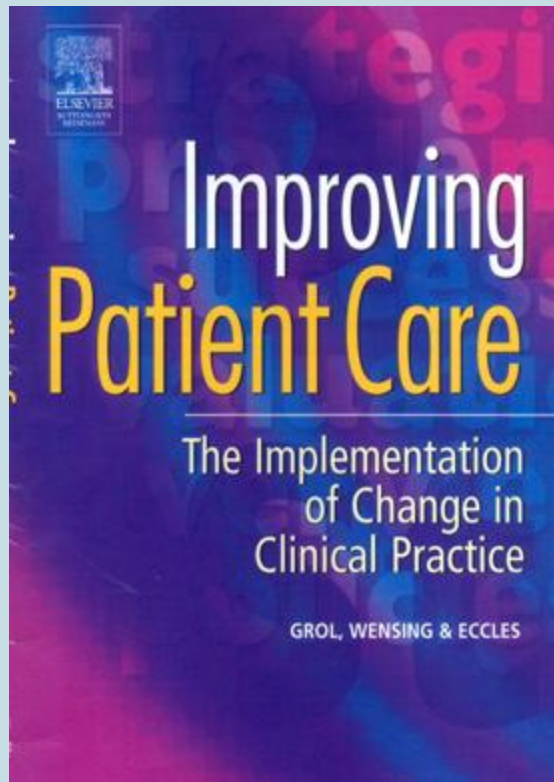
How would you



- develop the intervention: the patient safety programme
- select an implementation strategy / strategies and which strategy / strategies would you choose
- test the effectiveness of the patient safety programme

Development of the programme

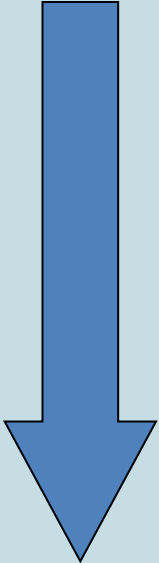

Comprehensive book on implementation science



Grol, Wensing & Eccles, 2006

Phase 1

Development: **SAFE** or **SORRY?** programme

- 
- Research findings/guidelines or best practices
MATCHING problems identified
 - Describing specific change targets
 - Analysis of target group, current practice & context
 - Development/selection of strategies
 - Development & execution implementation plan
 - Continuous evaluation & adapting plan
- 

(Grol & Wensing In: Grol *et al.* 2006 Improving patient care)

How would you develop the intervention

Development: the evidence based guidelines

- Guidelines are
 - Extensive
 - Unreadable
 - Unworkable
- Translate guideline to target group
 - Evidence based recommendations
 - Tuned to the target group
 - Most essential interventions
 - Process and outcome indicators



Experts

Phase 1

Development: describe specific change targets

Focus group meetings

- Two groups with nurses and a doctor from:
 - hospitals
 - nursing homes
- Discussion:
 - Current preventive care given by the nurses
 - Responsibility
 - Availability of preventive material



Analysing barriers and facilitators

Development: analysing focus group meetings

- “I can’t turn a patient during the night, I’m alone”
- “we haven’t got a cushion to elevate heels”
- “there is no time to fill out a risk assessment tool”
- “patients do not want to turn at night”
- “only a physiotherapist can order a specific mattress”
- “what’s the benefit of filling out a risk assessment tool”
- “patients don’t develop a pressure ulcer at our wards”
- “we do not use our risk assessment tool”
- “last year, we implemented a new PUs protocol”

Development: analysing focus group meetings

- “I **can't** turn a patient during the **night**, I'm **alone**”
- “we **haven't got** a **cushion** to elevate heels”
- “there is no **time** to fill out a **risk assessment tool**”
- “**patients** do not want to **turn** at night”
- “only a **physiotherapist** can **organise** a specific **mattress**”
- “what's the **benefit** of filling out a **risk assessment tool**”
- “patients **don't develop** a pressure ulcer at **our wards**”
- we **don't use** our risk assessment **tool**”
- “last year, we **implemented** a new PUs **protocol**”

hindering and facilitating

Development: analysing focus group meetings

Barriers and facilitators related to:

- Individual professionals: knowledge – skills
- Social context: patients and family – attitude colleague
- Organisational context: professionals equipment – logistic process

How would you select an implementation strategy / strategies

Which strategy / strategies would you choose in groups

Phase 1

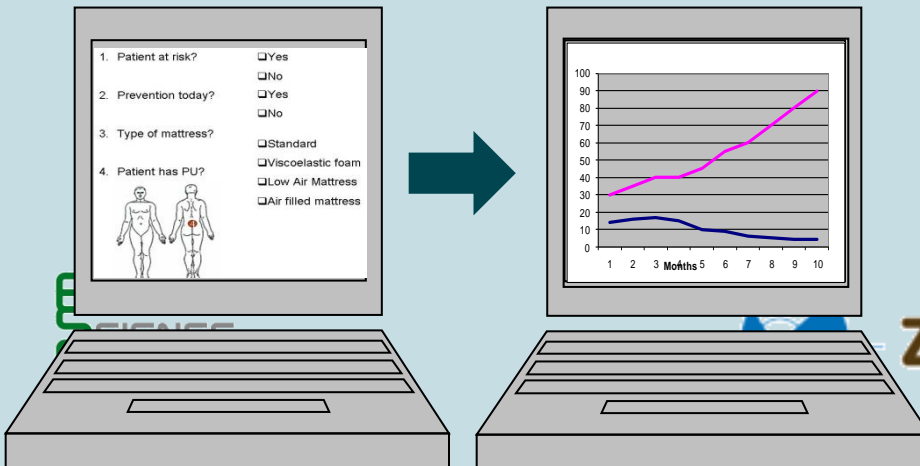
Development: multifaceted implementation strategy

Education: lessons, a CD-rom and case discussion



Patient: folders

Feedback: digital registration system



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Prevent Pressure ulcers

What can you do!



Prevent Falls

What can you do!

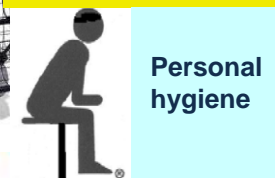


Prevent Urinary tract infections

What can you do!

Physical care

Sufficient intake



Personal hygiene

Regularly urinate

Development: tailored implementation plan

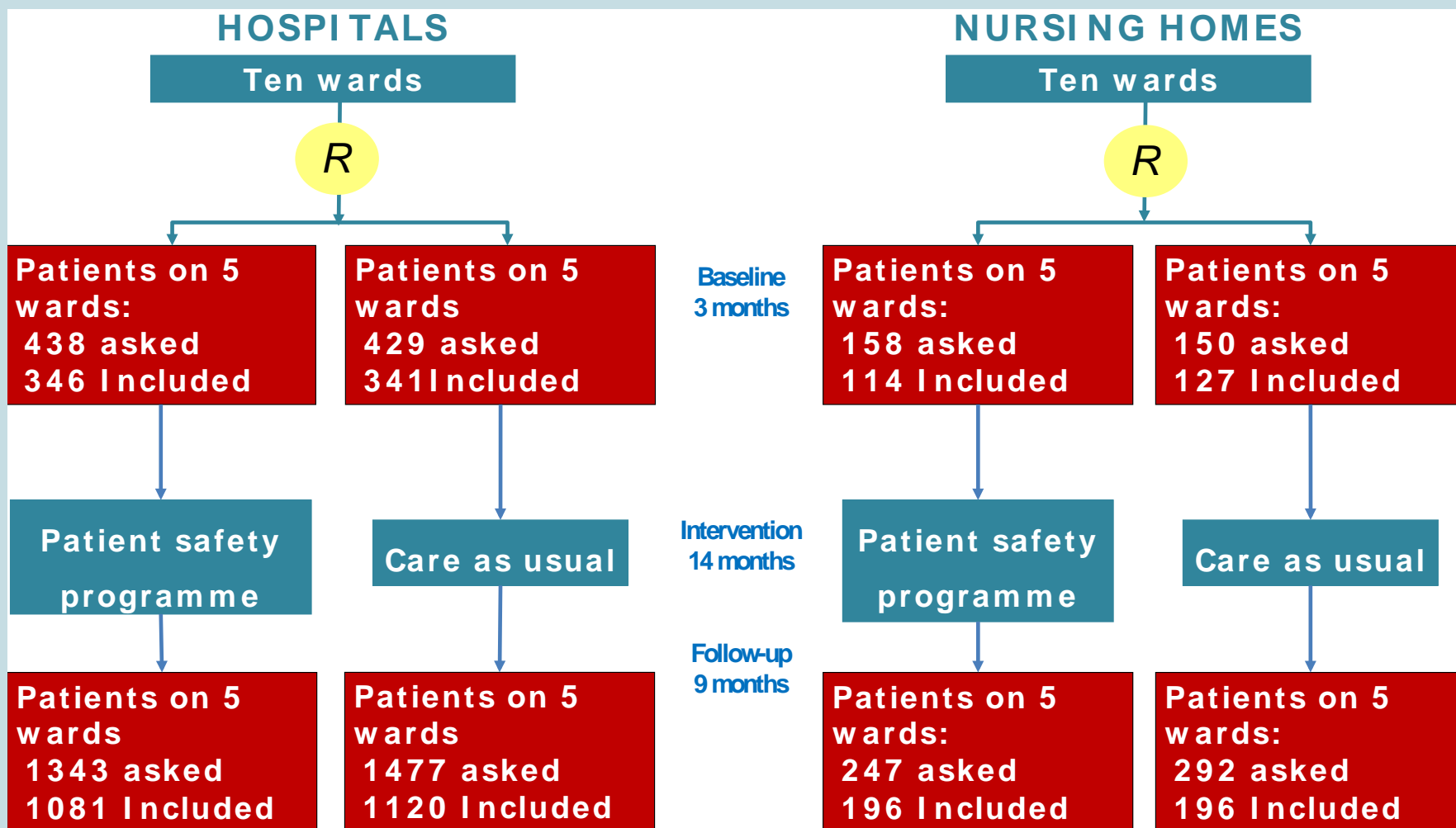
Nurse manager and two key nurses

- Responsible for the implementation
- Training in using the patient safety programme
- Discuss baseline results (phase 2)
- Plan and organise the educational activities
- Periodical contact

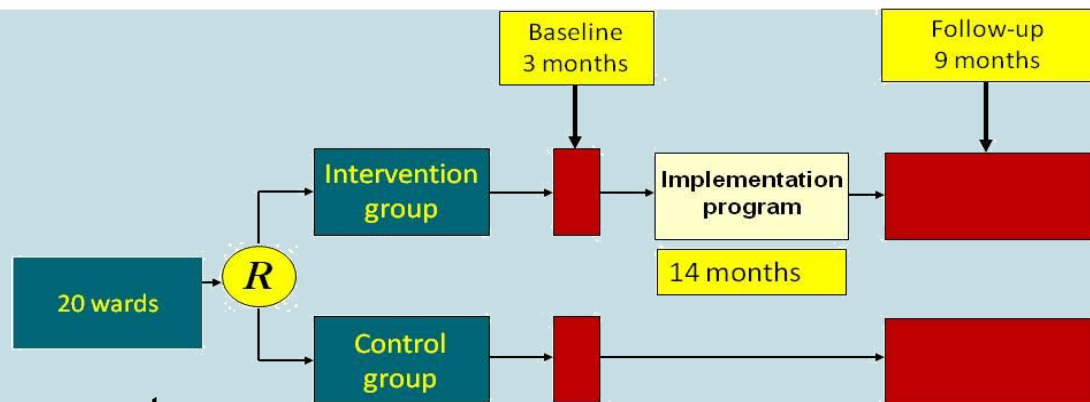
Test the effectiveness of the programme

Phase 2

Methods: Cluster randomised trial



Phase 2 Methods (2)



Outcome:

- Primary: incidence of adverse events
- Secondary: preventive care given to the patient at risk
- Participants: Patients ≥ 18 yr and an expected stay ≥ 5 days

Data collection

- Weekly visits: patients' file and observations
- 5-hours observation (3 on every ward)

Analyses

- Separate for hospitals and nursing homes
- Multilevel: difference between intervention and control group during follow-up

Phase 2 Results

Follow-up	Hospitals		Nursing homes	
	Intervention	Control	Intervention	Control
Patients included	1,081	1,120	196	196
Patient weeks	1,576	1,782	2,754	3,045
Mean age (SD)	66 (14.7)	67 (16.1)	80 (9.2)	79 (10.5)
Women(%)	570 (53%)	646 (58%)	131 (67%)	126 (64%)

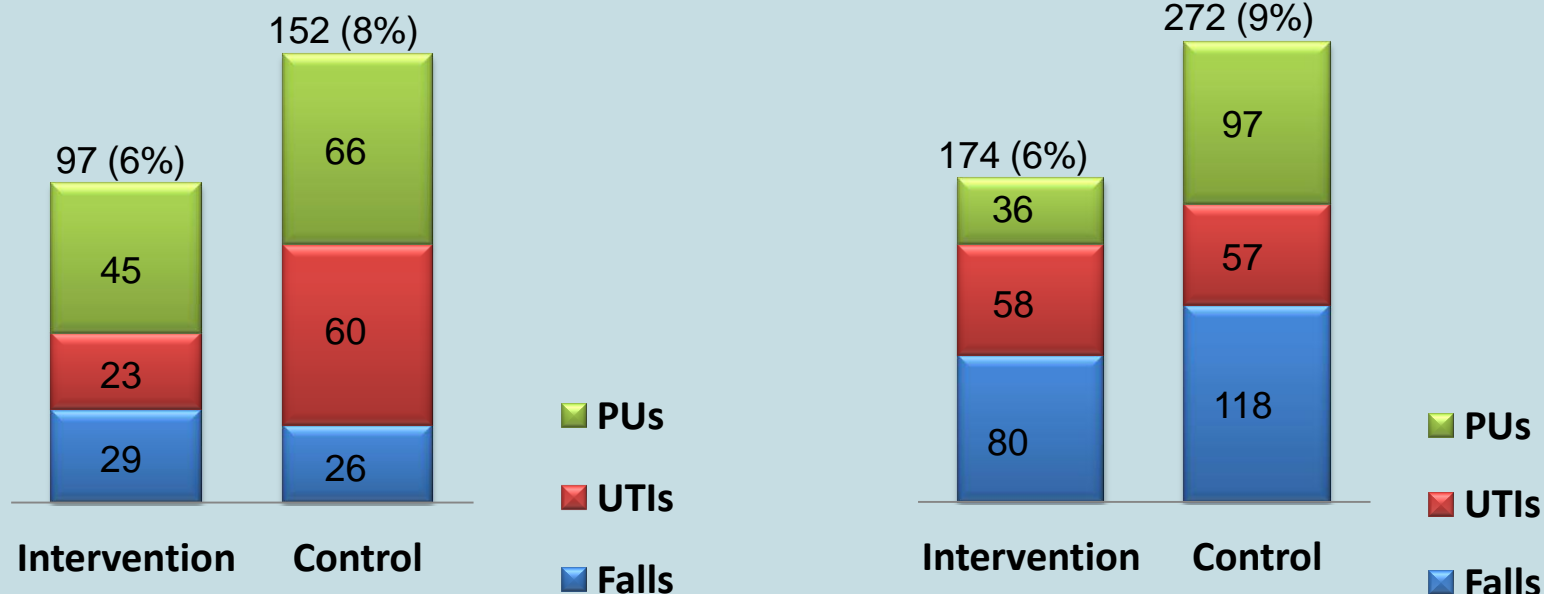
Phase 2

Results: incidence adverse events

Hospitals

Follow-up

Nursing Homes

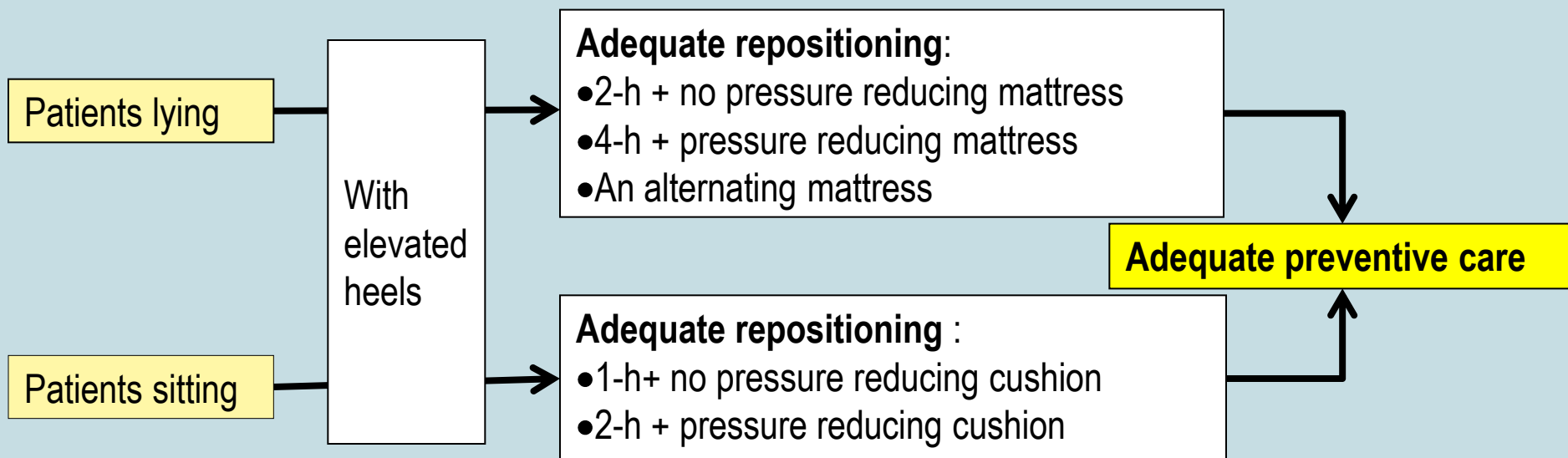


Analysis: Hospitals: 43% ↓ adverse events

Nursing homes: 33% ↓ adverse events

Phase 2

Results: preventive care PUs



Phase 2

Results: preventive care

Follow-up	Hospitals		Nursing homes	
	Intervention	Control	Intervention	Control
Pressure ulcers	27%	27%	19%	13%
Urinary tract infections	38%	47%	43%	41%
Falls	1%	<1%	1%	<1%

Analysis:

PU: no differences between intervention and control groups

UTI: hospitals– less patients received prevention

Falls: no analyses possible

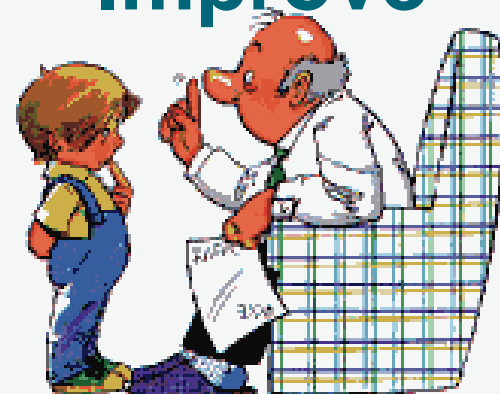
Discussion

- Less adverse events but no increase of preventive care in hospitals and nursing homes
- Effectiveness of guidelines with evidence based recommendations
- Validity of data
 - Measuring set standard of adequate preventive care
 - Collecting data on incidence and preventive care
 - Limited impression on preventive care

Conclusion

- Feasible to implement multiple guidelines: 43 % and 33% fewer adverse events in hospitals and nursing homes but no increase of preventive care
- More study necessary

**You can always
Improve**



Questions?

