HOSPITAL AT HOME FOR THE ELDERLY ACUTE MEDICAL PATIENT – SURVEYED BY TECHNIQUE

Who are we in Hospital at Home (HH)

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  - project doctor, Ph.D.-stud.
- Hannah C Schmidt/Gunilla F. Brockdorff
  - project nurses
- Charlotte Schytte,
  - project secretary
- Jens-Ulrik Rosholm,
  - project leader, consultant
- *Research unit, Dept. of Ger. Med., Odense University Hospital*
- Dunja Vergman + Martin Nitze
  - *Odense Municipality*
- Systematic, Anygroup, Lindpro
- Conny Heidtmann
  - *MMMI, P@H*
- Anne Lee
  - *SDU*
- Kristian Kidholm
  - CIMT
- + and others
- Steering committee, Safety committee

Financing:

- OUH
- Patient@Home
- Odense Municipality
- Velux-Foundation
- University of Southern Denmark

Total budget of about 4-5 mill. DKk

Statements:

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- It is not good for elderly people to be in hospital
  - infection, delirium, loss off skills
- Future super-hospitals will have fewer beds for, most likely, a higher number of elderly patients.
- We must treat the patients in outpatients-clinics; patients should not be in the hospital!

Part 1: Description of the elderly acute medical patient.

Who

Acute medical patients ≥65 years admitted to the acute ward, OUH.

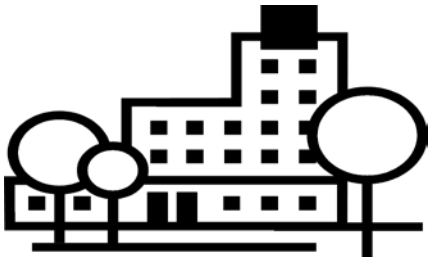
How

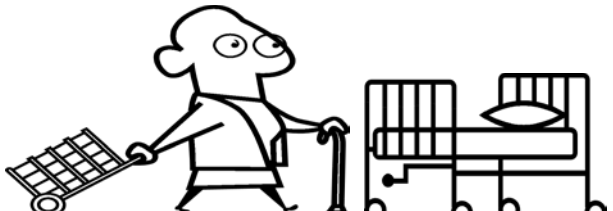
Patient files + contact with the patients + tests

Spin-off: HH

Will they and can they participate in HH?

Special focus on re-admissions





Part 2:
Method HH

- Admission of elderly acute medical patients at home:
  - From the acute-ward, OUH within 48 hours of admission
  - 1 patient at the time
- Plan:
  - 30 patients to HH (intervention group)
  - 45 patients to normal admission (control group)
- We only included 7 patients: 4 pilot and 3 ”real”

Who

- Geriatric patients (multi-morbidity, polypharmacy, frail etc.)
- In need of admission
- But stable and not cognitive impaired
- Conditions at home acceptable
- Willing to participate
- Standard treatments

Method

- When patients were found suitable:
  - Pt. is brought back to own home
  - Installed by project nurse
  - Technique installed by Lindpro
    - Fast-in – Fast-out
  - Sitter the first 8 hours
  - Information of homecare

- The patients are still officially admitted at OUH

Method

- Municipality caregivers do the nursing
- Daily ward-round by project nurse and doctor from the Dept. of Ger. Med., OUH
- Physiotherapist on demand
- The patient can be admitted around the clock
- A G-doctor available around the clock
- The patient is surveyed
- Call-center at G
  - response to alarms
  - eventually tell the municipality caregivers to attend to the pt.

Method

- When ready – discharge:
  - Go back to their GP
  - Eventually follow up in G outpatient clinic
- GP not involved during project
- In case of a crises -> admittance to G

Starting point: What do we – the doctors/nurses – want from the technique?

- Correct order of factors :
  - problem → solution
  - take care not to be seduced by smart gadgets
- But of course you should be open to good ideas
- ”HH is more organization than technique” Kevin Dean

Technique – what do we want?

- What is dangerous?
  - Falls
  - Fire
  - Leaving home
  - In need of help
- Communication
  - Call-center
  - Measuring of vital figures
  - Camera
  - Emergency call
  - Keycard/door-lock

Devellopment of technique

- Problem ⟹ solution

- What do we want to monitor?
- Scenarios played together with companies
  - What happens if…..?

- ”Off-the-shelf”-equipment
- Connected in new ways
  - For instance: How to get web-cam pictures safely from the patient to the call-center

Planning of the organization

- again using scenarios
- lots of emails and meetings

- large complexity – for instance:
  - sandwich for the patient on the first night home?
  - law-stuff: What if the patient dies at home?

- enthusiasts vs. killers

NEW ROUTINES FOR THE NURSE ON THE ROAD

You move the hospital out to the patient Or?

We are guests in the patients home!

The level of service is low in HH!

There is a big difference between being a home nurse for primary sector patients, and being nurse for a secondary sector admitted patient! *Project nurse*

Doctor in HH

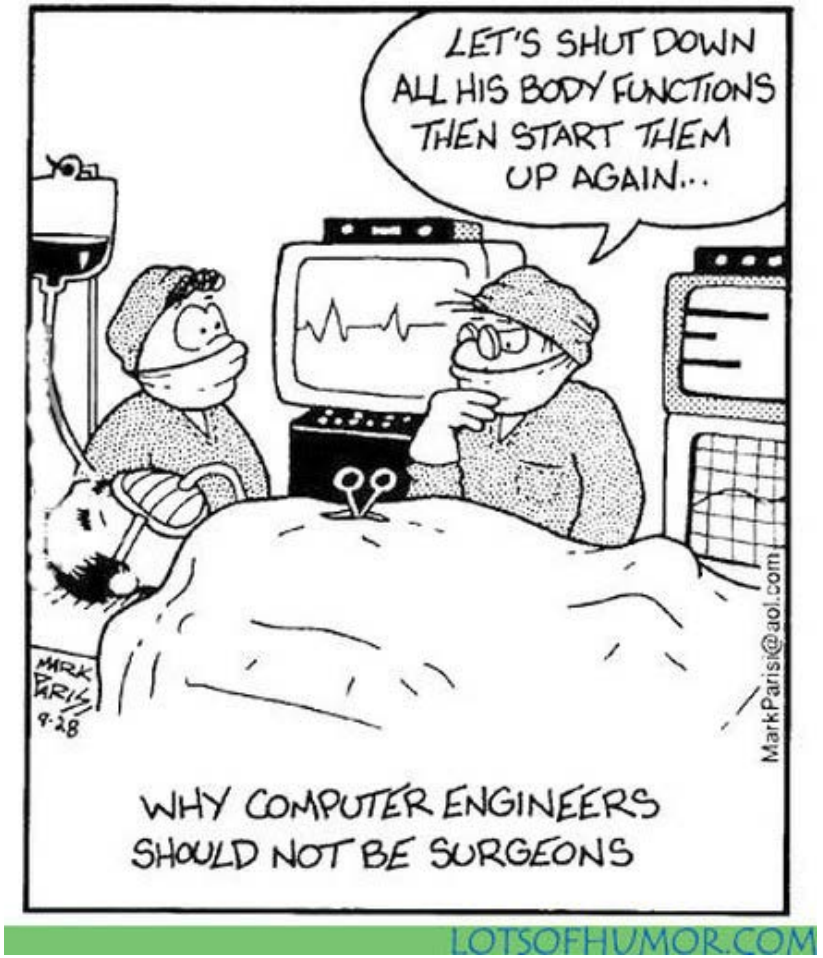
- the patient is not here
- is everything OK?
- working with unusual partners
- practical obstacles

- the technique is a tool!

Crossing borders between

- Departments
- Sectors
- Professional groups

- Common understanding
  - who are these patients?
    - what is delirium ?
  - safety is no 1
  - nothing must fail



Analysis: MAST

The use of MAST model is a multidisciplinary process involving different scientific research methods to evaluate the medical, social, economic and ethical aspects of using technology solutions in healthcare.

Analyse Feasability study

- In principle a pilot-study

- there is a need to *select*, adapt, and evaluate intervention studies.
- Such selection relies, in part, on making judgments about *the feasibility of possible interventions* and determining whether *comprehensive and multilevel evaluations are justified*.
- Bowen DJ, Am J Prev Med. 2009

- In HH: A catastrophe if we had settled for a RCT
- Numerous adjustments needed

And how did it go, 1?

- 4 pilot patients at home before summer 2015
- 3 patients home during autumn 2015
- inclusion ended before Christmas

Reasons for non-participation

- >500 pt. screened during 2015

- Not resident in Odense
- Resident in nursing homes
- Discharged <48 hours

- Unstable, triage
- Cognitive impaired (dementia, delirium (OMC-test))
- Treatment not available at home
- Home not suitable
- Not willing to participate
- Relatives not willing

And how did it go, 2

- Problems:
  - technique – sensors have caused troubles
  - organizational
    - call-center staffing
  - not enough patients
    - most G-pt. in too poor a condition
    - solution :
      - inclusion of all geriatric patients
      - expansion of criteria for inclusion
      - case-study

Because of the few pt. it was difficult to obtain and maintain routines.

Scenarios

- Success => large-scale RCT - expensive
- Success => political/administrative decision on implementation
- Failure
  - too expensive
  - too complicated
  - too many ”episodes”
  - dissatisfaction amongst participants

Take-home-message

- HH for geriatric patients is difficult and expensive
- Technical surveillance can improve safety
- The organizational obstacles are numerous

- *If you like to sleep well at night – don't chose HH for acute elderly medical patients!!*