

*Seminar in cooperation
with University of
Tartu, University of
Southern Denmark,
WHO PATH CC
Krakow
and Estonian Health
Insurance Fund*

Quality of Health Care

Tallinn, 28-30 August 2013

The Danish clinical registry for hip fracture

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the danish
clinical registers

a national quality improvement programme

The Danish Registry for Hip fracture – A typical quality registry

- Clear pathway and pathogenesis: Fall – fracture – operation – rehabilitation
- Limited number of core treatment modalities (osteosynthesis – half prosthesis)
- Episode of care: Maximum 30 days
- Well defined outcomes: Case fatality/ complications, reoperation



Hip fracture project group

- Multidisciplinary team of health care professionals involved in the treatment of hip fracture patients
- The 13 members are appointed by the relevant scientific associations
- Represent different geographical areas and types of hospitals
- Two chairpersons (Ortopedic surgeon, Head Nurse)
- The project manager
- The documentalist
- The clinical epidemiological expertise



The chairpersons duties

- An external function
 - Contact with the professional and research associations
 - Contact person for the press

- An internal function
 - Time schedules and project plans
 - The relevant manuals
 - Development of clinical indicators
 - Interpretation and evaluation of results
 - Assisting regarding the appointment of the members of the project group



The documentalist duties

- Provide an overview of existing knowledge from the scientific literature and practice for potential clinical indicators and standards, as well as prognostic factors
- Write a documentalist report providing the grade of scientific evidence and project group clinical background for choosing the certain clinical indicators



The clinical epidemiologist duties

- Identification of prognostic factors
- Epidemiological analyses
- Design the clinical indicators
- Algorithm specifications
- Data definition
- Data validity assessment

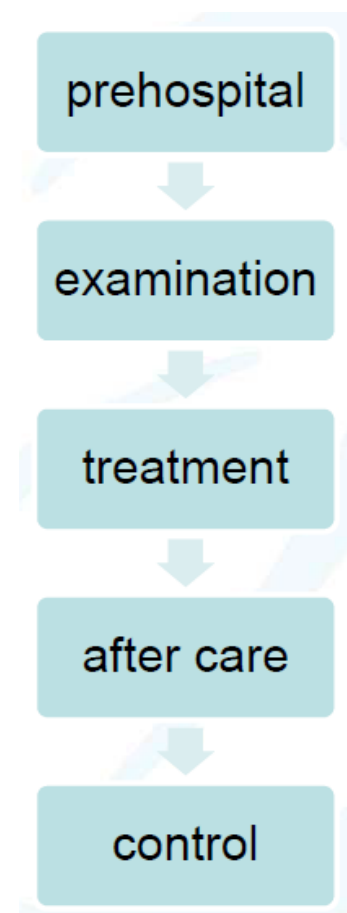


Selection of potential indicators for hip fracture

- Describe a standardised patient pathway for hip fracture
- Inclusion criteria
- Bruttolist of indicators
- Selection of preliminary indicator set



12-13 weeks



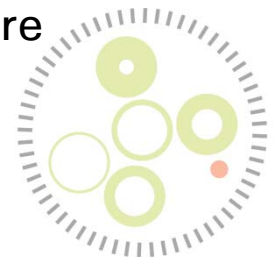
Indicator set for hip fracture from 2009

- **Process indicators**

1. Pain
2. Early mobilisation
3. Basis mobility
4. Rehabilitation
5. Osteoporosis prophylaxis
6. Fall prophylaxis

- **Outcome indicators**

1. Survival
2. Reoperation- osteosynthesis medial hip fractures
3. Reoperation- osteosynthesis per/subtrochanther fracture
4. Reoperation- hemi/total arthroplasty
5. Reoperation- deep infection



An example of a clinical indicator for hip fracture

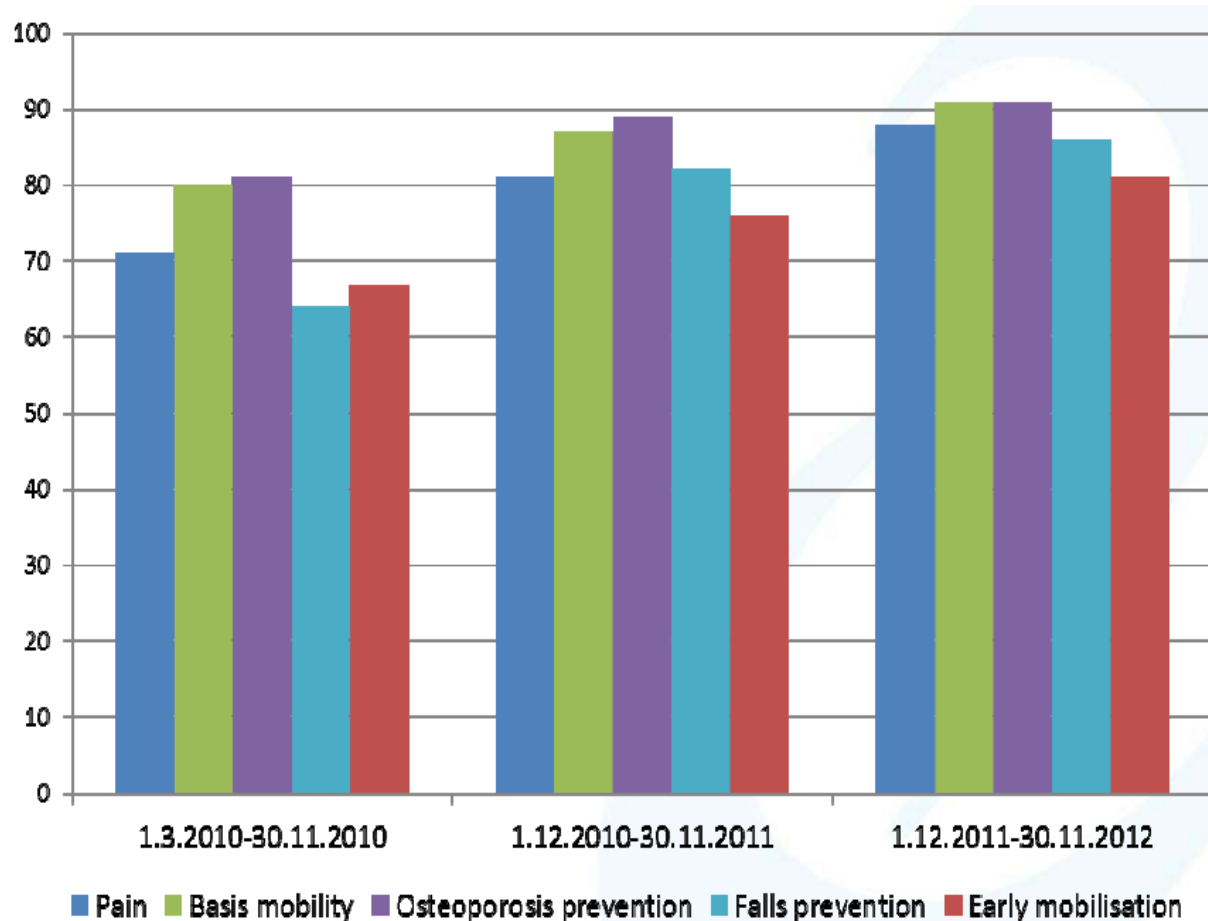
Indicator-concept	Indicator	Type	Standard
Pain	Proportion of patients who receive systematic pain assessment at rest and during mobilisation using a pain scale	Proces	>= 90%
Early mobilisation	Proportion of patients who are mobilised within 24 hours of the operation	Proces	>= 80%
Osteoporosis prophylaxis	Proportion of patients who were evaluated for pharmacological osteoporosis treatment	Proces	>=90%
Survival	Proportion of patients who are alive 30 days after admission	Outcome	>=90%
Reoperation	Proportion of patients with a hemi- or total alloplasty who are reoperated within 2 years	Outcome	<=10%

Selected explanatory variables- prognostic factors for hip fracture

- Alcohol consumption
- Smoking
- Body Mass Index
- Marital status
- Housing
- Comorbidity before hip fracture
- Basis mobility prior to hip fracture
- Hip fracture position
- Delay of surgery



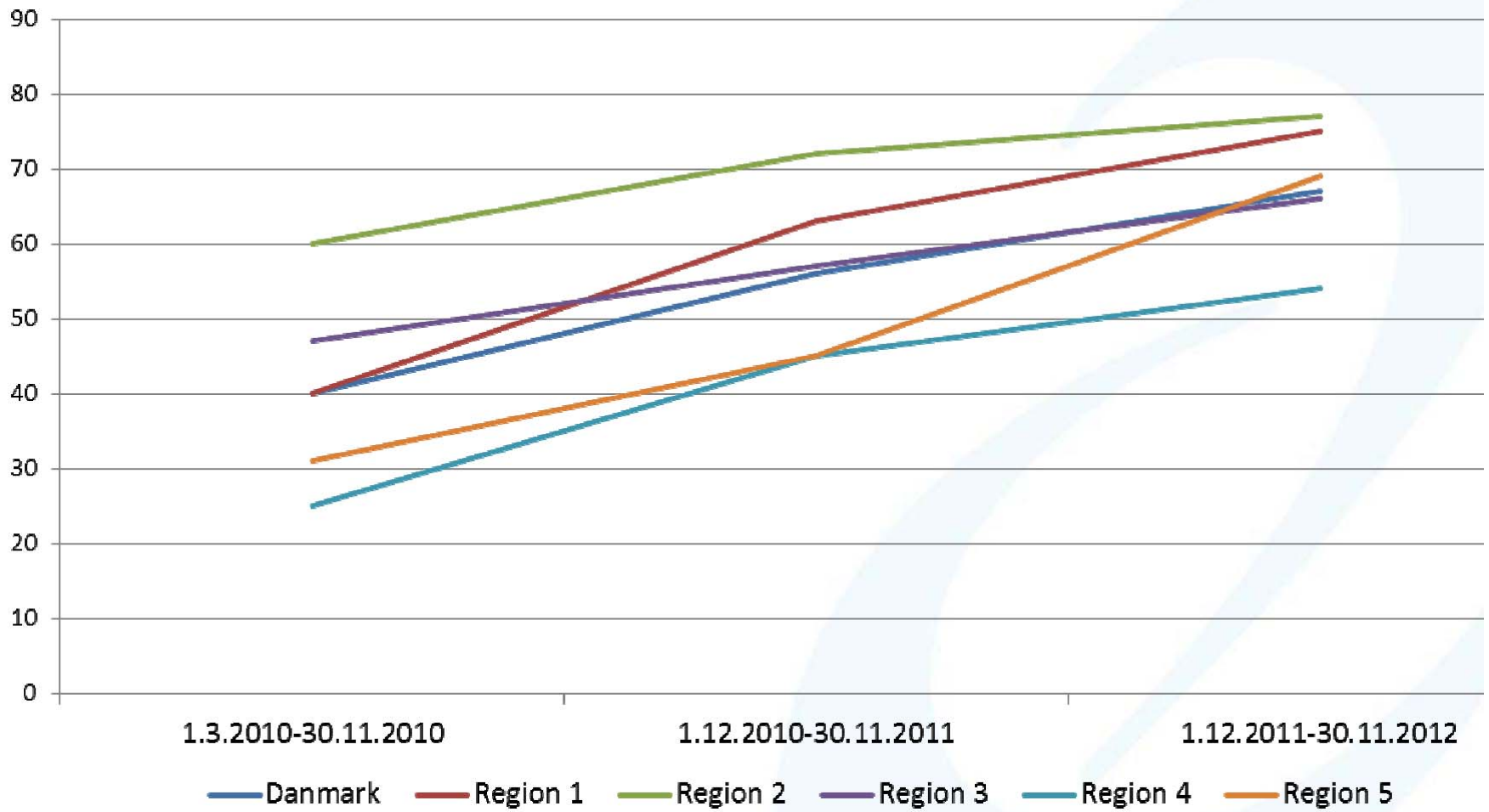
Results and trend: Hip fracture DK 2010 - 12



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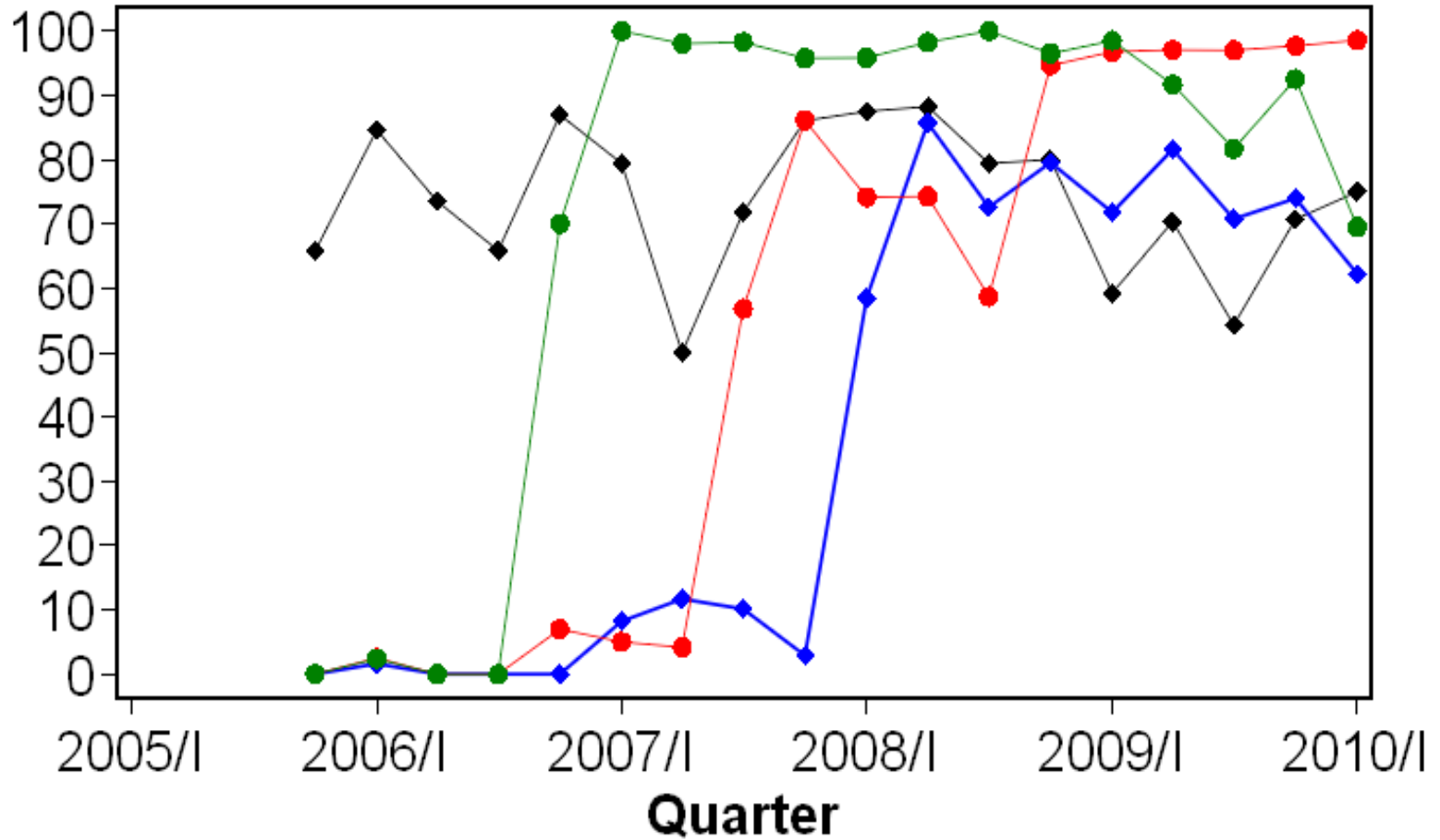


All-or-None clinical indicators- hip fracture

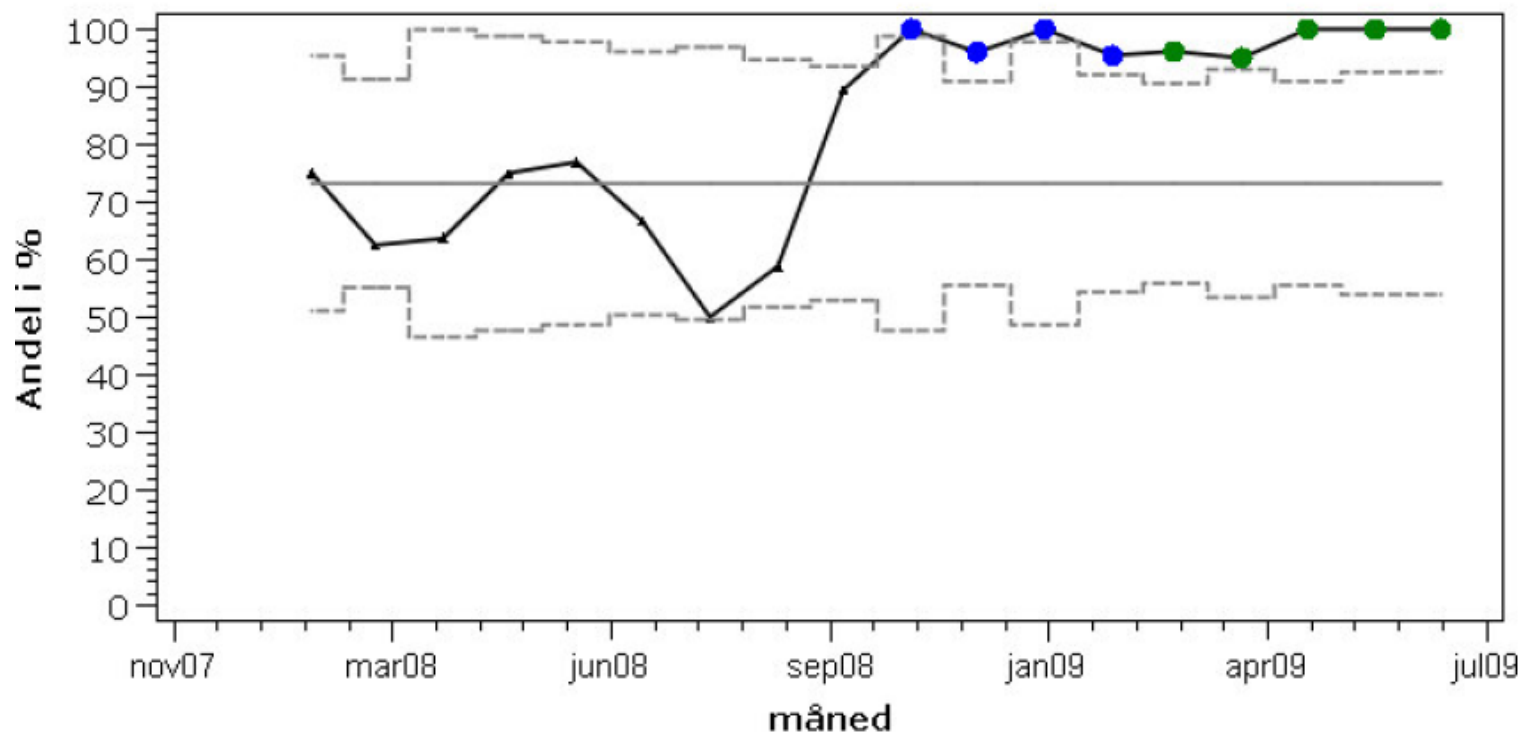


Structural change hip fracture treatment

Hip fracture, Percentage of patients receiving all relevant interventions(All-or-None)



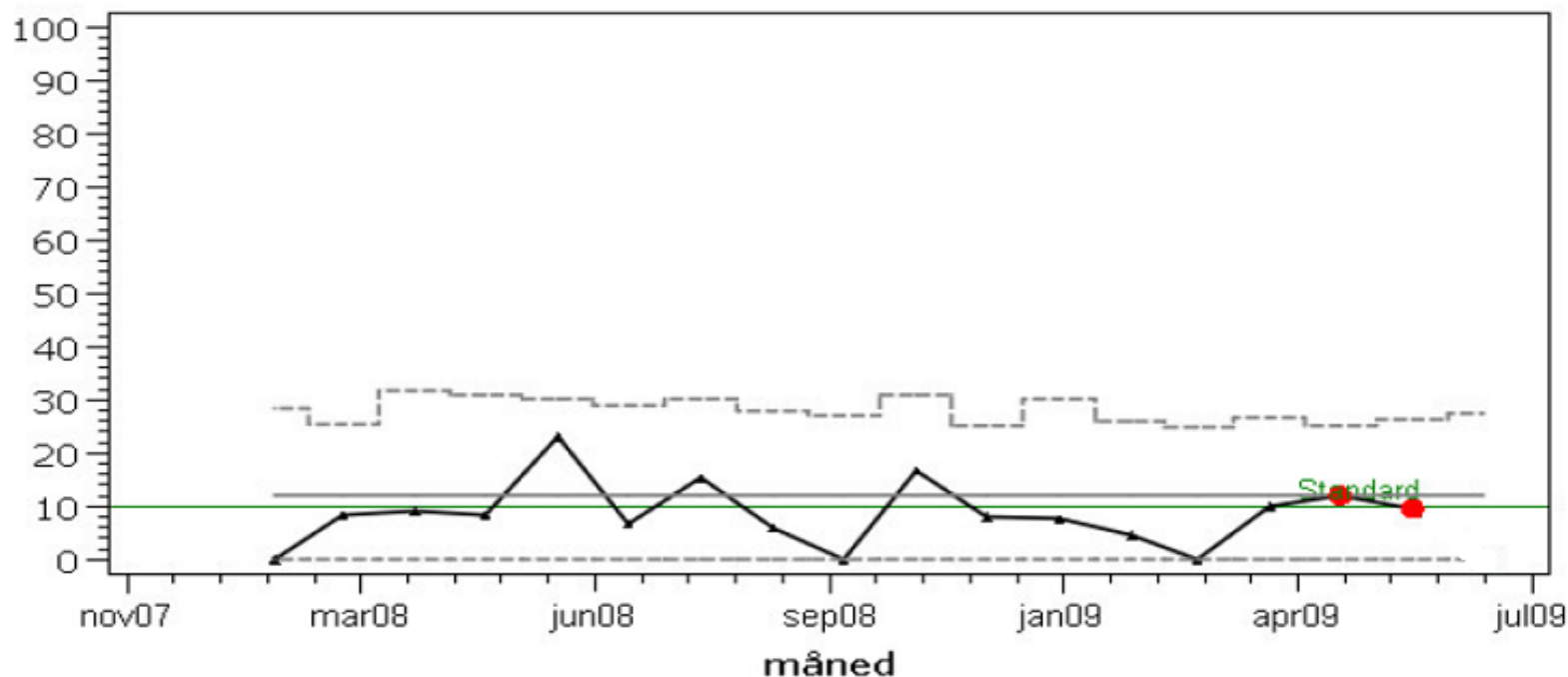
Det Nationale Indikatorprojekt - Hoftenære frakturer
All-or-None
Holstebro Ort.kir.afd., RMIDT



- ▲ Løbende indikatorresultat
- Indikatorresultat, gennemsnit seneste afsluttede auditperiode (aug. 2007 - aug. 2008)
- Øvre CI grænse (95 %)
- Nedre CI grænse (95 %)
- Signifikant over gennemsnittet for sidste auditperiode (mindst 5 i træk over)
- Signifikant over gennemsnittet for sidste auditperiode (resultat over øvre grænse for 95 CI)
- Signifikant under gennemsnittet for sidste auditperiode (mindst 5 i træk under)
- Signifikant under gennemsnittet for sidste auditperiode (resultat under nedre grænse for 95 CI)



Det Nationale Indikatorprojekt - Hoftenære frakturer
VII. 30 dages mortalitet
Holstebro Ort.kir.afd., RMIDT

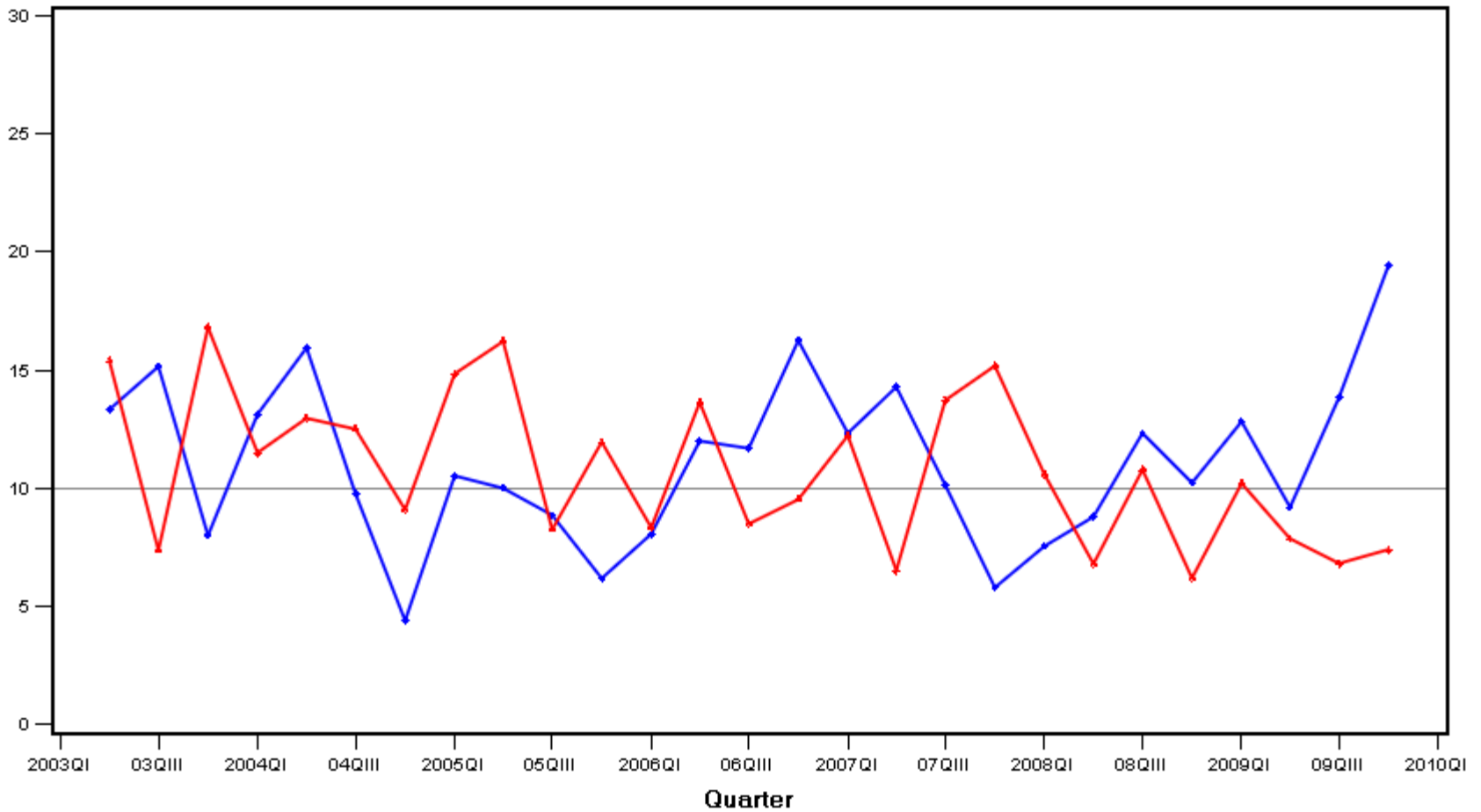


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30 days mortality, hip fracture unit level

30 day mortality (percentage)



Conclusion after 10 years – not so clear as believed when we started

- Pathogenesis: 'Patients with a medical condition – stranded in the orthopedic department
- Treatment/diagnosis has to be amended 'orthogeriatrics'
- Information needed about primary care before
And after

