

Modelling Health Systems

Care for older people

Policy evaluation

Simulation study

Process mapping

Delivering Care to Older People with Hip Fracture

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The Investigation

Objectives

- To describe the activities involved in the care for older people presenting with symptoms of fractured neck of femur to Kingston Hospital.
- To develop requirements for simulation models of the flow of older patients with fractured neck of femur through the care process.

Plan

For process mapping we will

- collect information by conducting structured interviews and organising meetings with care givers and health managers,
- store and present the results in a systematic and computerised manner.

For developing model requirements we will employ UML diagrams to

- represent the activities involved in the care process,
- describe the behaviour of the identified actors (e.g. patients, surgeons, physicians etc).

Clinical partner

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Mentor

Prof Peter Millard, MD PhD FRCP
Emeritus Professor of Geriatric Medicine
Formerly of St George's Hospital Medical School

References

Roberts SE et al. Time trends and demography of mortality after fractured neck of femur in an English population, 1968-98: database study. *BMJ* 2003;327(7418):771-775.
Harel D. Statecharts: A Visual Formalism for Complex Systems. *Science of Comp Progr* 1987;8:231-74.
Vasilakis C, Sobolev B et al. A simulation study of scheduling clinic appointments in surgical care: individual-surgeon versus pooled lists. *JORS* (advanced online pre-publication).

Potential Benefits

For older people

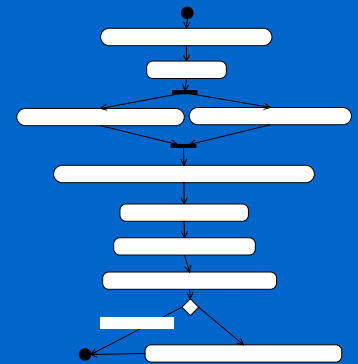
Fractured neck of femur, or hip fracture, is associated with osteoporosis and thus the incident rate is significantly higher in older people.

In the UK, the care for older patients with hip fracture has been identified as an area with the highest potential for improving the quality and value of clinical care through changes in the organisation of care delivery.

The knowledge gained from this research will help guide best practice in preparing an effective integrated care pathway in the collaborating NHS hospital. It may also lead to improvements in patient outcomes and satisfaction, such as the potential for survival, recovery and independence after the fracture.



Caring for an older patient with hip fracture



UML activity diagram of the care process (sample)



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