Haemophilia, ageing and physiotherapy

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Hemophilia

- Rare
- Inherited
- Sex linked
- Higher risk for bleeds
- Clinical picture: intra articular and intramuscular bleeds
Ageing

- Oxford dictionary
- The process of growing old
- Process
Physiotherapy

• Oxford dictionary
• The treatment of disease, injury, or deformity by physical methods such as massage, heat treatment, and exercise rather than by drugs or surgery
• Treatment ????
WFH and physiotherapy

‘Physiotherapists should be part of the core haemophilia team. Their involvement with patients and their families should begin at the time of diagnosis, and they remain important to the patient throughout their lifespan’.

From: Guidelines for the management of haemophilia, 2013
Ageing and hemophilia and evidence

• The Dutch Health Care Institute Package constrained a “list of chronic conditions”
• Lack of evidence for long-term physical therapy in chronic situations justified this decision.
• A second argument was that it was not in accordance with the legal requirement of ‘state of science and practice’
International Classification of Functioning

Health Condition (disorder or disease)

BODY  INDIVIDUAL  SOCIETY

Environmental Factors  Personal Factors

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Multiple Joint Procedures

Any combination of Total Hip, Total Knee or Ankle Arthrodesis Performed during one in hospital stay (one session or staged)
Clinical Rehabilitation -guidelines-

1 knee, 2 ankles
1 knee, 1 hip (hetero)
1 knee, 1 hip (homo)
2 knees, 2 ankles
2 knees, 1 ankle
2 knees
2 ankles

Week 1 Week 2 Week 3 Week 4 Week 5

Bedrest, no mobilisation
Mobilisation, no weight bearing
Operation date 1
Operation date 2
Start hydrotherapy

1 Operation date 1
2 Operation date 2
3 Start hydrotherapy

1 knee, 2 ankles
2 knees, 2 ankles
2 knees, 1 ankle
1 knee, 1 hip (hetero)
1 knee, 1 hip (homo)
1 hip, 1 ankle (hetero)
1 knee, 1 ankle (het)
1 knee, 1 ankle (homo)
2 knees
2 ankles

n=7
n=10
n=1
n=2
n=5
n=2
n=5
n=10
n=9

* Mobilisation, weight bearing only in hydrotherapy with use of splints
** Major complication, median based on 1 patient only
Clinical Rehabilitation

Example: 2 knees 2 ankles

Week 1  Week 2  Week 3  Week 4  Week 5

Operations date 1
Operation date 2
Start hydrotherapy

2 knees, 2 ankles

Bedrest, no mobilisation
Mobilisation, no weight bearing

UMCUtrecht, the Netherlands, Dept of Rehabilitation, Nursing Science and Sports, Dept of Hematology (Van Creveldkliniek)
The role of the physiotherapist in haemophilia
Haemophilia, ageing and consults

• A national questionnaire (Hemofilie in Nederland 5, 2001) revealed that the haemophilia specialist was consulted by 703 PWH out of 919 (76%) of PWH, with an average of 6 times per year.
• The physical therapist, however, was visited by 173 PWH out of 919 (19%).
• But with an average frequency of sessions of 30 annually, this results in a total number of sessions of 5190.
• The major part of these sessions were consumed by a limited population of elderly PWH.
Cost - effectiveness

- Total annual costs - clotting factor concentrates are 95% of total costs - are estimated on 100 till 120 billion Euro
- If a consultant based physical therapist should be available in every HTC in the Netherlands (seven adults and seven children centres), the costs would be less than 500.000 Euro annually.
- Physical therapy sessions (effectuated by colleagues of the first line) is three times higher than in 2001 estimated annual costs will not exceed 500.000 Euro
- In this very ideal situation optimal implementation of physical therapy in haemophilia care the Netherlands would cost 1 billion Euro

- This is less than 1% of the total costs!
The future in ageing, haemophilia and physiotherapy

- Functional recovery after every bleed
- Needs a network of qualified HTCs, inclusive physiotherapy
- Available guidelines and protocols for all ages
- Research (effect studies)
- Cost-effectiveness