Role of Physical Therapists in a Multidisciplinary Hip Fracture Team

Ortogeriatrisk Vårmøte, Oslo, Plaza 9. mai

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Physio assignments in Norwegian guidelines

Norwegian guidelines for multidisciplinary treatment after hip fracture – 2018

Hip fractures among the elderly-
Early rehabilitation – 2015

Appendix 1

Role of Physical Therapists

Preoperative

Postoperative

At discharge

After discharge
**Pre – (Postoperative) assignments**

- Information to patients and relatives
- Falls assessment / prevention
- **Goals** for recovery & plan for discharge (destination) together with nurses and doctors
- Assess **prefracture function** – *New Mobility Score*

Walking:

- Indoor
- Outdoor
- During Shopping

(NMS, 0-9 points; 9 points = independent function)

*Parker and Palmer 1993, Kristensen et al 2008 (reliability) Kristensen and Kehlet 2012 (updated version)

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**Postoperative assignments**

- Assess **basic mobility daily** – *Cumulated Ambulation Score*

  1-day CAS-score from 0-6 points
  6 = independent

- Mobilize out of bed / standing / walking < 24 hours

- Offer daily physiotherapy training / mobilisation / gait re-training to all patients

- Instruct patients in transfer and weight bearing exercises
- Evaluate and progress need of assistive devices - daily

At discharge

- Assess function - Short Physical Performance Battery (SPPB) or modified sit-to-stand & 4 meter gait speed
- Motivate for further rehabilitation
- Provide discharge summary of pre- & postoperative findings

After discharge

- Assess function with SPPB, Timed Up & Go and continue with CAS (until independence)
- Progressive strength training 2-3 times weekly
- Multimodal training including walking, functions, static and dynamic balance
- Follow-up on results from fracture liaison service
“Physio” Goals - Be realistic!

• **First step** - Focus on individual short-term achievable mobility goals to enhance confidence and motivation of each patient.

Short-term goal:
Recovery of CAS points has been suggested *

Physiotherapy following fragility fractures*

Monica R. Perracini¹,², Morten Tange Kristensen², Caitriona Cunningham³, Cathie Sherrington⁴


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**Basic mobility – Cumulated Ambulation Score (CAS, 0-6 points)**

0-2 points

0-2 points

0-2 points

Updated CAS manual available soon!
Why focus on recovery of basic mobility?

Strong association between early ambulatory status and mortality

Postoperative Day 1-3 CAS-score, 0-18 points


Recovery of CAS at discharge (yes/no) and 30-day post-discharge mortality (2015 national cohort)

Kristensen MT et al. Age and Ageing 2019
Recovery of CAS at discharge (yes/no) and 30-day post-discharge mortality (2015 national cohort)

*Adjusted risk for 30-day post-discharge mortality was 2.8 times higher if CAS was not regained

Kristensen MT et al. Age and Ageing 2019

30-day post-discharge mortality and 1-6 CAS points lost

Regaining pre-fracture basic mobility status after hip fracture and association with post-discharge mortality and readmission—a nationwide register study in Denmark

Kristensen MT et al. Age and Ageing 2019; 0: 1–7

Nationwide Danish Multidisciplinary Hip Fracture Database
Other Physio assignments!

- Patients differ in their pre-fracture mobility, residential status, speed and extent of recovery – Therefore:
- Physios should be familiar with important factors that influence recovery and encourage patients to:
  - Progress from one mobility level to the next &
  - Engage in whatever level of activity they manage.
- Also, Physios should provide guidance to multidisciplinary team, patients and family members for assistive device and assistance level for transfers and ambulation to enhance physical activity 24/7.

Wilson H. Best practice & Research Clinical Rheumatology 2013

What matters towards early acute hospital CAS recovery?

A pre-fracture New Mobility Score < 7 points was a strong predictor of patients not recovering the 3 CAS activities.

Other strong predictors:
- Older age
- Trochanteric fracture
- Hemoglobin < 6 mmol/L
- Early planned physiotherapy not completed
- Surgery ≥ 36 hours
- Fracture caused by indoor fall

Reference:
Wilson H. Best practice & Research Clinical Rheumatology 2013
Hip fracture-related pain!

- Daily pain assessments is a key assignment for Physios in a multidisciplinary team &

Important: Pain should be assessed during activity

- “Physios should be in close communication with the medical and nursing staff to ensure that the patient is receiving appropriate analgesia as a key to early mobilization”*

* Wilson H. Best practice & Research Clinical Rheumatology 2013

Pain scoring: VAS or NRS vs. Verbal Rating Scale

Verbal Rating Scale (VRS, 0-4 points)
- uses categories instead of points for communication about pain

0 = No pain
1 = Slight pain
2 = Moderate pain
3 = Severe pain
4 = Unbearable

The Verbal Rating Scale Is Reliable for Assessment of Postoperative Pain in Hip Fracture Patients

Pain Research and Treatment, Volume 2015, Article ID 676212,
Rune Dueholm Bech,1,2 Jens Lauritsen,1,2,5 Ole Ovesen,1,2 and Søren Overgaard1,2
Any pain at rest early Postopr. assessed by Physios

Why assess pain during activity?

Postoperative pain after hip fracture is procedure specific

N. B. Foss¹ ², M. T. Kristensen³ ³, H. Palm³ and H. Kehlet⁴

Moderate to unbearable pain during walking

Postoperative pain after hip fracture is procedure specific

N. B. Foss¹ ², M. T. Kristensen³ ³, H. Palm³ and H. Kehlet⁴
80% had trochanteric fractures

Fatigue & Pain are the main limiting factors
Factors limiting participation in early physical therapy

Pain – Fatigue - Habitual cognition and Acute health status

Summery – Role of PT’s in Multidisciplinary Team

• Together with ward staff - ensure that patients are mobilized as soon as possible after surgery and whenever possible thereafter.
• Offer daily physical therapy training
• Get familiar with important factors influencing recovery
• Focus on short-term individual and achievable basic mobility goals
• Assess pain during activity and communicate findings to nurses and doctors for adjustments whenever needed
• Train ward staff and relatives in safe techniques and mobility to enhance physical activity
Summery – Role of PT’s in Multidisciplinary Team

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WAKE UP AND GET OUT OF BED

Summery – Role of PT’s in Multidisciplinary Team
So is the Fragility Fracture Network Physiotherapy Special Interest Group (Physio SIG) – Please join us at:

https://www.linkedin.com/groups/8678492/

https://twitter.com/FFN_PT_SIG

And, also in Oxford at the Pre-day workshop, Aug. 27, arranged by the Physio SIG group.