

# Identification of indicators to assess the variation in Fragile Hip Fracture Recovery: A European Pathway Association study.

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## Background

Fragile hip fractures (FHF) have a devastating impact on the elderly, are regarded as a major public health concern and remain to be associated with excessive short- and long-term mortality. Almost two decades ago, McGlynn's landmark study showed that only 22.8% of recommended care was given to hip fracture patients [1]. Surprisingly, there remains to be heterogeneity in adherence to clinical guidelines within and between hospitals, resulting in suboptimal patient care [2] and patient outcomes throughout Europe even though it has been shown that optimal FHF care can result in improved patient outcomes and cost-savings. In addition, tailored multi-disciplinary clinical pathways and programmes can improve patient outcomes. Nonetheless its potential to improve outcomes and adherence to guidelines, it remains unclear why improved compliance to evidence based key interventions does not always lead to improved patient outcomes [3]. Moreover, timing of care procedures impacts length of stay (LOS) and is related to the postoperative clinical condition of the patient. Balancing quality and timeliness of care in order to reduce LOS and improve patient outcomes is challenging and sometimes even leads to worsened patient outcomes. Therefore, this study aims to assess the variation within and between European organizations of FHF care processes that are actionable interventions sensitive to change and relevant to improve FHF patient related outcomes.

## Aim

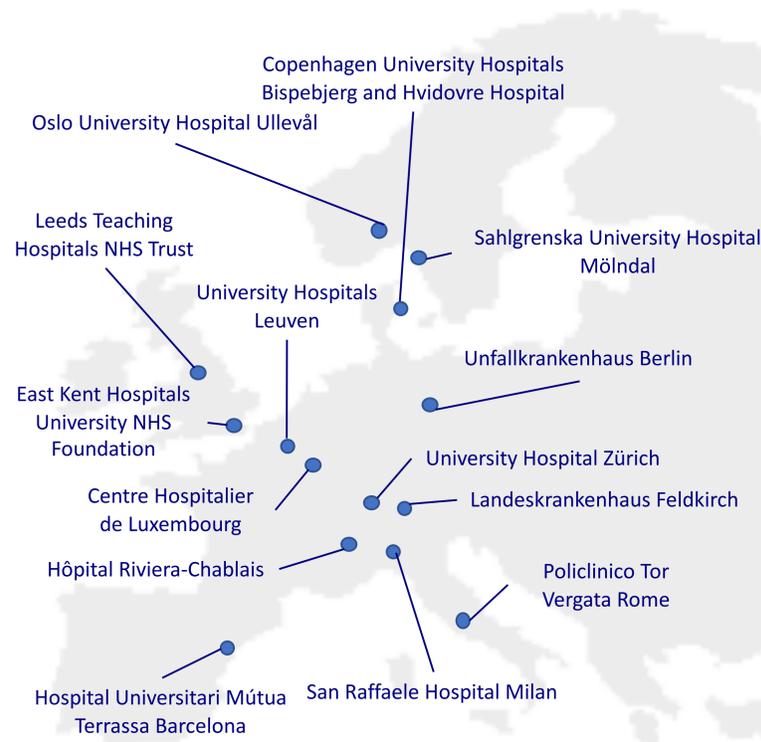
To map the variation of vital care processes relevant for rapid recovery of fragile hip fracture patients within and between fracture care centres in Europe.

## Methods

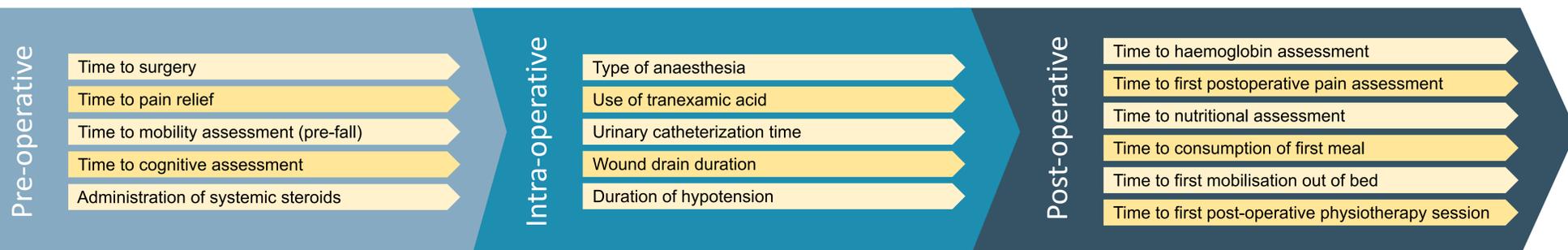
A multimethod design was used by 15 European hospitals involved in FHF care, to develop a set of FHF care pathway indicators. The development process is supervised by the European Pathway Association.

## Results

A literature review [4] was performed and presented during a 2-day expert panel in May 2019. The outcome of this consensus meeting was a set of 19 process and 8 structure indicators. These indicators will help the centres in understanding, benchmarking and enhancing the rapid recovery pathway for FHF. The next step is a retrospective analysis of 450 patient records (30 in each of the 15 participating centres). This analysis will provide the necessary data to benchmark the organization of care within and between these 15 European trauma centres. Based on the feedback report the trauma centres will be able to further improve their organization of care.



European centres (15) to assess variation of fragile hip fracture care



Care pathway process indicators (16) identified as crucial for rapid recovery.



Discharge planning process indicators (3) identified as crucial for rapid recovery.

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## References

1. McGlynn, E.A., et al., *The quality of health care delivered to adults in the United States*. N Engl J Med, 2003. **348**(26): p. 2635-45.
2. Seys, D., et al., *Recommended care received by geriatric hip fracture patients: where are we now and where are we heading?* Arch Orthop Trauma Surg, 2018. **138**(8): p. 1077-1087.
3. Panella, M., et al., *Minimal impact of a care pathway for geriatric hip fracture patients*. Injury, 2018. **49**(8): p. 1581-1586.
4. Nijs, S. *Rapid recovery fragility fracture: hip. Evidence-based recommendations summary update*. 2018. 67p.

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