

Original Article —Orthopaedic Rehabilitation

**Validation on Efficiency Pattern Analysis for Geriatric Hip Fractures Rehabilitation
驗證老年髖骨骨折患者康復效率模式的分析**

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Abstract

Seven hundred and sixty-three elderly patients with hip fractures were recruited in the study. The Functional Independence Measure (FIM) was used to measure their functional status on admission and upon discharge, and their difference was defined as functional change. An Efficiency Pattern Analysis Matrix was formed with Efficiency Pattern Analysis (EPA) and was used for in-depth matrix characteristics analysis. A validation study was also conducted with another group of patients (n = 455) so that the stability of EPA across time was affirmed. We found that 23.3% of patients are in “higher efficiency” group [higher motor-FIM gains with shorter length of stay (LOS)], 8.5% in “higher gain and longer stay” group (higher motor-FIM gains with longer LOS), 32.5% in “average efficiency” group, 12% in “lower gain and shorter stay” (lower motor-FIM gain and shorter LOS), and 23.7% of patients in “lower efficiency” group (intermediate motor-FIM gains with longer LOS). The demographic and functional characteristics among these groups would be also analysed.

中文摘要

763 位老年髖骨骨折患者被招募。透過功能獨立性評定 Functional Independence Measure (FIM) 的得分，去評定老年髖骨骨折患者功能獨立性的改變。功能獨立性的改變是指在入院時及出院後 FIM 得分的差別。透過效率模式 EPA 分析(Efficiency Pattern Analysis) 的處理，並且後來產生的效率模式分析基體(Efficiency Pattern Analysis Matrix)，使我們可以詳細分析老年髖骨骨折患者的康復特性。我們再透過引用另一群為數 455 位的老年髖骨骨折患者病患，再去進一步驗證這效率模式分析基體的穩定性時。顯示效率模式 EPA 分析可提供可靠及穩定的康復分析。我們發現有 23.3% 的老年髖骨骨折患者處於“高效率的康復組別(高增長的功能獨立性改變及短的住院日數)”；8.5% 的老年髖骨骨折患者處於“高增長的功能獨立性改變，但較長的住院日數”；32.5% 的患者處於“中度效率的康復組別”；12% 的老年髖骨骨

折患者處於“較低效率的康復組別(較低增長的功能獨立性改變及較長的住院日數)”；23.7%的老年髖骨骨折患者處於“低效率的康復組別(低增長的功能獨立性改變及長的住院日數)”。這些組別中的人口統計和其功能的分析，將會詳細分析。

Keywords: efficiency pattern analysis, hip, fractures