International Centre for Allied Health Evidence

Journal Club Details

Date of submission	Feb 2011
Journal Club location	Lyell McEwin Hospital
JC Facilitator	Kathy Learhinan
JC Discipline	OT

Clinical Scenario

How does the FIM (Functional Independence Measure) compare to other tools in relation to measuring patient outcomes when used within the acute care setting?

Review Question/PICO/PACO

P   Patients in Acute care

I   FIM (Functional Independence Measure)

C   Other tools (if applicable)

O   Patient/Client outcomes

Article/Paper

Chumney D, Nollinger K, Shesko K, Skop K, Spencer M & Newton R (2010) Ability of Functional Independence Measure to accurately predict functional outcome of stroke-specific population: Systematic review, *Journal of Rehabilitation Research & Development*, 47(1);17-30.

Please note: due to copyright regulations CAHE is unable to supply a copy of the critically appraised paper/article. If you are an employee of the South Australian government you can obtain a copy of articles from the <u>DOHSA librarian</u>*.*

Article Methodology:	Systematic Review
Returned JC on:	2010
By CAHE staff member:	Olivia Thorpe

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Ques No.	Yes	Can't Tell	No	Comments
1	✓			**Did the review ask a clearly-focused question?** The study has a clearly focused question. *Population*: Civilian and veteran patients posthemorrhagic and ischemic stroke with an average age of 50 years or older; participated in an inpatient rehabilitation program. *Intervention (Exposure)*: use of FIM at admission and discharge *Outcome*: ability of FIM to predict functional outcomes
2	✓			**Did the review include the right type of study?** Most of the studies included were level 1b or 2b studies, which include cohort studies (longitudinal) and randomized controlled trials (RCTs). **Is it worth continuing?** YES
3		✓		**Did the reviewers try to identify all relevant studies?** The reviewers searched MEDLINE, Ovid, CINAHL, and EBSCO using the search terms: FIM or Functional Independence Measure, stroke or CVA or cerebrovascular accident, outcomes, and veteran or military. In addition, the following restrictions were applied: English-language articles; only full text The authors did not include articles which are not readily available in full-text online form. This could have resulted to exclusion of studies which are relevant to the review.
4				**Did the reviewers assess the quality of the included studies?** The methodological quality of the included articles was assessed by three reviewers, using the Physiotherapy Evidence Database (PEDro) scale. This quality appraisal tool is appropriate only for experimental types of study, and it is not clear why the authors have used the same tool for the cohort studies that they've included.
5				**If the results of the studies have been combined, was it reasonable to do so?** A synopsis of each study included in the review was provided. In addition, tables outlining key findings (i.e. reliability and validity data, sensitivity and specificity, predictors of FIM score) from each study were also included. There was no meta-analysis performed because of the heterogeneity of outcomes examined by the studies.

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6				**How are the results presented and what is the main result?** Initially a narrative summary is presented for all the studies included in the review. A table was also included in the results section. *Bottom Line Result:* Although limited, evidence exists that FIM scores can be used as an accurate predictor of outcomes in post-stroke patients.
7				**How precise are these results?** Precision of results could not be determined based on the analysis done in this systematic review.
8				**Can the results be applied to the local population?** Discuss during Journal Club meeting
9	✓			**Were all important outcomes considered?** The authors have looked at the following outcomes: reliability and validity of FIM, sensitivity and specificity of FIM, and predictors of functional outcome as scored in the FIM. Validity: provides evidence that an outcome instrument measures what it is supposed to measure (Andresen 2000, Bowling 1997). Reliability: the extent to which a test or any measuring procedure yields the same results on repeated trials. [http://writing.colostate.edu/guides/research/relval/pop2a.cfm] Sensitivity: refers to the proportion of people with disease (e.g. stroke) who have a positive test result (e.g. on FIM score). [http://ktclearinghouse.ca/cebm/glossary/specsen] Specificity: refers to the proportion of people without the disease (e.g. stroke) who have a negative test result (e.g. on FIM score). [http://ktclearinghouse.ca/cebm/glossary/specsen]
10				**Should policy or practice change as a result of the evidence contained in this review?** Discuss during Journal Club meeting