

Physiotherapy Outpatients

Evidence Update

August 2017

(Quarterly)



Respecting everyone
Embracing change
Recognising success
Working together
Our hospitals.



Training Calendar 2017

All sessions are one hour

August (12.00-13.00)

15th (Tues) Interpreting Statistics

24th (Thurs) Critical Appraisal

September (13.00-14.00)

Fri 1st Literature Searching

Mon 4th Critical Appraisal

Tue 12th Interpreting Statistics

Wed 20th Literature Searching

Thu 28th Critical Appraisal

October (12.00-13.00)

Fri 6th Interpreting Statistics

Mon 9th Literature Searching

Tue 17th Critical Appraisal

Wed 25th Interpreting Statistics



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Contents

The Latest Evidence	4
NICE National Institute for Health and Care Excellence	4
	4
	4
Journal Tables of Contents.....	5
Musculoskeletal Science and Practice	5
Physiotherapy	5
BMJ.....	5
Spine.....	5
British Journal of Sports Medicine	5
Database Articles.....	7-10

Librarians on demand!

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The Latest Evidence

NICE National Institute for
Health and Care Excellence

[Musculoskeletal conditions](#)

Everything NICE has said on musculoskeletal conditions in an interactive flowchart

NICE Pathway Published December 2013 Last updated August 2017



[Kinesiotaping for rotator cuff disease](#)

Silvia Gianola, Anita Andreano, Greta Castellini, Linda C Li, Lorenzo Moja, Maria Grazia Valsecchi

Online Publication Date: July 2017

UpToDate[®]

OpenAthens login required. Register here: <https://openathens.nice.org.uk/>

[Physiotherapy Outpatients](#)

Journal Tables of Contents

Click on the hyperlinked title (+Ctrl) for the current contents of key journals.
If you would like any of the papers in full text then please email the library:
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[Musculoskeletal Science and Practice](#)

October 2017, Volume 31

[Physiotherapy](#)

September 2017 Volume 103, Issue 3

[BMJ](#)

August 2017

[Spine](#)

August 15, 2017, Volume 42, Issue 16

[British Journal of Sports Medicine](#)

August 2017, Volume 51, Issue 16



KnowledgeShare

What is KnowledgeShare?

Provides regular, targeted, personalised evidence updates to staff, based on their specific professional interests. Subject-specific bulletins can also be produced.

Targeted evidence updates

These are individualised, based on a staff member's interest in particular conditions or lifestyle factors, age groups, settings of care, interventions and management topics.

Collaboration and knowledge sharing

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Database Articles

Below is a selection of articles recently added to the healthcare databases, grouped into the following categories:

Achilles Tendon Rupture
Anterior Cruciate Ligament Repair
Cervical Spine Disc
Shoulder Impingement and Dislocation

If you would like any of the following articles in full text, or if you would like a more focused search on your own topic, then get in touch:

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[Cost-minimization Analysis of the Management of Acute Achilles Tendon Rupture.](#)

Author(s) Truntzer, Jeremy N; Triana, Brian; Harris, Alex H S; Baker, Laurence; Chou, Loretta [et al.](#)

Source The Journal of the American Academy of Orthopaedic Surgeons; Jun 2017; vol. 25 (no. 6); p. 449-457

Hide Abstract

BACKGROUNDOutcomes of nonsurgical management of acute Achilles tendon rupture have been demonstrated to be noninferior to those of surgical management. We performed a cost-minimization analysis of surgical and nonsurgical management of acute Achilles tendon rupture.**METHODS**We used a claims database to identify patients who underwent surgical (n = 1,979) and nonsurgical (n = 3,065) management of acute Achilles tendon rupture and compared overall costs of treatment (surgical procedure, follow-up care, physical therapy, and management of complications). Complication rates were also calculated. Patients were followed for 1 year after injury.**RESULTS**Average treatment costs in the year after initial diagnosis were higher for patients who underwent initial surgical treatment than for patients who underwent nonsurgical treatment (\$4,292 for surgical treatment versus \$2,432 for nonsurgical treatment; P < 0.001). However, surgical treatment required fewer office visits (4.52 versus 10.98; P < 0.001) and less spending on physical therapy (\$595 versus \$928; P < 0.001). Rates of rerupture requiring subsequent treatment (2.1% versus 2.4%; P = 0.34) and additional costs (\$2,950 versus \$2,515; P = 0.34) were not significantly different regardless whether initial treatment was surgical or nonsurgical. In both cohorts, management of complications contributed to approximately 5% of the total cost.**CONCLUSION**From the payer's perspective, the overall costs of nonsurgical management of acute Achilles tendon rupture were significantly lower than the overall costs of surgical management.**LEVEL OF EVIDENCE**III, Economic Decision Analysis.

1. Incorporating a Cognitive Strategy Approach into an Outpatient Stroke Physiotherapy Programme: Case Report.

Author(s): McEwen, Sara; Cirone, Dianne; Lee, Betty

Source: Physiotherapy Canada; Jun 2017; vol. 69 (no. 3); p. 193-196

Abstract: Purpose: Cognitive Orientation to daily Occupational Performance (CO-OP) has demonstrated an effect on skill performance, compared with the usual outpatient rehabilitation, in people living with stroke when implemented by occupational therapists. This study explored refining CO-OP for delivery by both occupational therapists and physiotherapists. Client Description: Two cases were recruited and treated using the CO-OP approach, which augments task-specific training with cognitive strategies and guided discovery. Intervention: Case 1 was a 79-year-old woman, 31 days after parietal stroke, and Case 2 was a 45-year-old man, 62 days after bilateral brain stem stroke. Case 1 withdrew from the study for medical reasons. Outcome measures applied were the Canadian Occupational Performance Measure, the Stroke Impact Scale (SIS), the Self-Efficacy Gauge, the Berg Balance Scale, the Box and Block Test, and the 2-minute walk test. Measures and Outcomes: After 10 sessions, Case 2 made gains in most measures, including a 22-point gain in the SIS mobility domain. Implications: The therapists reported that the combined delivery required additional communication with the patients but was feasible. Case 2 reported physical and mobility gains larger than the mean changes seen in past CO-OP research. Although these results cannot be generalized, findings suggest that the inter-professional application of CO-OP warrants further investigation.

2. Comparison of group-based outpatient physiotherapy with usual care after total knee replacement: a feasibility study for a randomized controlled trial.

Author(s): Artz, Neil; Dixon, Samantha; Wylde, Vikki; Marques, Elsa; Beswick, Andrew D.; Lenguerrand, Erik; Blom, Ashley W.; Gooberman-Hill, Rachael

Source: Clinical Rehabilitation; Apr 2017; vol. 31 (no. 4); p. 487-499

Abstract: Objective: To evaluate the feasibility of conducting a randomized controlled trial comparing group-based outpatient physiotherapy with usual care in patients following total knee replacement. Design: A feasibility study for a randomized controlled trial. Setting: One secondary-care hospital orthopaedic centre, Bristol, UK. Participants: A total of 46 participants undergoing primary total knee replacement. Interventions: The intervention group were offered six group-based exercise sessions after surgery. The usual care group received standard postoperative care. Participants were not blinded to group allocation. Outcome measures: Feasibility was assessed by recruitment, reasons for non-participation, attendance, and completion rates of study questionnaires that included the Lower Extremity Functional Scale and Knee Injury and Osteoarthritis Outcome Score. Results: Recruitment rate was 37%. Five patients withdrew or were no longer eligible to participate. Intervention attendance was high (73%) and 84% of group participants reported they were 'very satisfied' with the exercises. Return of study questionnaires at six months was lower in the usual care (75%) than in the intervention group (100%). Mean (standard deviation) Lower Extremity Functional Scale scores at six months were 45.0 (20.8) in the usual care and 57.8 (15.2) in the intervention groups. Conclusion: Recruitment and retention of participants in this feasibility study was good. Group-based physiotherapy was acceptable to participants. Questionnaire return rates were lower in the usual care group, but might be enhanced by telephone follow-up. The Lower Extremity Functional Scale had high responsiveness and completion rates. Using this outcome measure, 256 participants would be required in a full-scale randomized controlled trial.

3. Quality-Based Procedures for Knee Replacement, Hip Replacement, and Hip Fracture: Physiotherapists' Perceptions of Adherence, Barriers, and Facilitators.

Author(s): Reinikka, Kirsti J. E.; Taylor, Denise; Daniel, Sylvia; Burns-Hogan, Stacey; DePass, Brittany; McGill, Laura; McLeod, Michael; Safadi, Susan; Veit, Sandy

Source: Physiotherapy Canada; Mar 2017; vol. 69 (no. 2); p. 133-141

Abstract: Purpose: This mixed-methods study examined the perceived barriers to and facilitators of implementing best-practice guidelines (BPGs) and adhering to provincial Quality-Based Procedures (QBPs) by Ontario physiotherapists working with patients after total knee replacement (TKR), total hip replacement (THR), and hip fracture (HF). Method: Using snowball sampling, 93 hospital and home care physiotherapists working with patients after TKR, THR, or HF completed a Web-based survey. A subset of these participated in follow-up semi-structured telephone interviews. Results: The perception of QBP adherence varied, with self-reported adherence rates across identified practice standards for TKR, THR, and HF reported as 62%, 69%, and 60%, respectively. Physiotherapists generally believed that BPGs improved outcomes; however, they identified clinical experience as their primary guide to practice. Only 66% perceived that their institutions met provincial standards. Barriers to BPG implementation and QBP adherence included insufficient time, lack of access to QBPs, and limited awareness of current BPGs. Qualitative themes included awareness and knowledge, flexibility and funding, communication, and availability of and equitable access to outpatient and community-based physiotherapy services. Conclusions: Physiotherapists reported that they primarily used clinical experience to inform care after TKR, THR, and HF, but they were also supportive of BPGs and QBPs. The results suggest that increased access to and education about QBPs, as well as supportive resources, could increase their integration into clinical practice.

Database: CINAHL

4. Scottish government highlights role physios could play in outpatient care.

Author(s): Clews, Graham

Source: Frontline (20454910); Jan 2017; vol. 23 (no. 2); p. 8-9

Database: CINAHL

5. Improving community ambulation after hip fracture: protocol for a randomised, controlled trial.

Author(s): Orwig, D; Mangione, KK; Baumgarten, M; Terrin, M; Fortinsky, R; Kenny, AM; Gruber-Baldini, AL; Beamer, B; Tosteson, ANA; Shardell, M; Magder, L; Binder, E; Koval, K; Resnick, B; Craik, RL; Magaziner, J

Source: Journal of Physiotherapy (Elsevier); Jan 2017; vol. 63 (no. 1); p. 45-46

Abstract: Introduction After a hip fracture in older persons, significant disability often remains; dependency in functional activities commonly persists beyond 3 months after surgery. Endurance, dynamic balance, quadriceps strength, and function are compromised, and contribute to an inability to walk independently in the community. In the United States, people aged 65 years and older are eligible to receive Medicare funding for physiotherapy for a limited time after a hip fracture. A goal of outpatient physiotherapy is independent and safe household ambulation 2 to 3 months after surgery. Current Medicare-reimbursed post-hip-fracture rehabilitation fails to return many patients to pre-fracture levels of function. Interventions delivered in the home after usual hip fracture physiotherapy has ended could promote higher levels of functional independence in these frail and older adult patients. Primary objective To evaluate the effect of a specific multi-component physiotherapy intervention (PUSH), compared with a non-specific multi-component control physiotherapy intervention (PULSE), on the ability to ambulate independently in the community 16

weeks after randomisation. Design Parallel, two-group randomised multicentre trial of 210 older adults with a hip fracture assessed at baseline and 16 weeks after randomisation, and at 40 weeks after randomisation for a subset of approximately 150 participants. Participants and setting A total of 210 hip fracture patients are being enrolled at three clinical sites and randomised up to 26 weeks after admission. Study inclusion criteria are: closed, non-pathologic, minimal trauma hip fracture with surgical fixation; aged ≥ 60 years at the time of randomisation; community residing at the time of fracture and randomisation; ambulating without human assistance 2 months prior to fracture; and being unable to walk at least 300 m in 6 minutes at baseline. Participants are ineligible if the interventions are deemed to be unsafe or unfeasible, or if the participant has low potential to benefit from the interventions. Interventions Participants are randomly assigned to one of two multi-component treatment groups: PUSH or PULSE. PUSH is based on aerobic conditioning, specificity of training, and muscle overload, while PULSE includes transcutaneous electrical nerve stimulation, flexibility activities, and active range of motion exercises. Participants in both groups receive 32 visits in their place of residence from a study physiotherapist (two visits per week on non-consecutive days for 16 weeks). The physiotherapists' adherence to the treatment protocol, and the participants' receipt of the prescribed activities are assessed. Participants also receive counselling from a registered dietician and vitamin D, calcium and multivitamin supplements during the 16-week intervention period. Measurements The primary outcome (community ambulation) is the ability to walk 300 m or more in 6 minutes, as assessed by the 6-minute walk test, at 16 weeks after randomisation. Other measures at 16 and 40 weeks include cost-effectiveness, endurance, dynamic balance, walking speed, quadriceps strength, lower extremity function, activities of daily living, balance confidence, quality of life, physical activity, depressive symptoms, increase of ≥ 50 m in distance walked in 6 minutes, cognitive status, and nutritional status. Analysis Analyses for all aims will be performed according to the intention-to-treat paradigm. Except for testing of the primary hypothesis, all statistical tests will be two-sided and not adjusted for multiple comparisons. The test of the primary hypothesis (comparing groups on the proportion who are community ambulators at 16 weeks after randomisation) will be based on a one-sided 0.025-level hypothesis test using a procedure consisting of four interim analyses and one final analysis with critical values chosen by a Hwang-Shih-Decani alpha-spending function. Analyses will be performed to test group differences on other outcome measures and to examine the differential impact of PUSH relative to PULSE in subgroups defined by pre-selected participant characteristics. Generalised estimating equations will be used to explore possible delayed or sustained effects in a subset of participants by comparing the difference between PUSH and PULSE in the proportion of community ambulators at 16 weeks with the difference at 40 weeks. Discussion This multicentre randomised study will be the first to test whether a home-based multi-component physiotherapy intervention targeting specific precursors of community ambulation (PUSH) is more likely to lead to community ambulation than a home-based non-specific multi-component physiotherapy intervention (PULSE) in older adults after hip fracture. The study will also estimate the potential economic value of the interventions.



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Helen Pullen

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