Online Journal Club Template

Purpose:

There is a need for physical therapists (PT) to be skilled consumers of scientific literature that can affect their examination and selection of interventions with patients. One method of improving practitioner application of evidence into clinical care is to promote the use of journal clubs in PT clinics. Therapists often practice in fast-paced settings and lack time to effectively search the literature. Additionally, there may be a lack of knowledge of how to synthesize findings from an article, determine clinical relevance, or how to apply results of a study to a given practice environment. The development of an online journal club would provide practitioners with pre-selected articles and their respective summaries to increase implementation of journal clubs in clinical settings.

Procedures:

1. The Practice Committee of the Neurology Section will solicit interested individuals who will select articles and complete a summary using the template noted below.
2. Articles and summaries will be posted on the Neurology Section website under the tab "Healthcare Professionals" (sub-tab "Resources")
3. Links to selected articles in PubMed and article summaries will be posted six times per year. Article topics will vary in subject population and content to match interests of the Neurology Section Special Interest Groups (SIG's).
4. Clinicians who implement a journal club can have their colleagues read a selected article and provide them with a blank template that they would use to review the article. Journal club facilitators would have the answers (posted in the online journal club) that they would use to guide discussion.
5. Members of the Neurology Section Practice Committee will contact article reviewers to ensure the articles are being selected/summarized/posted in a timely manner. Article reviewers may be chosen from interested SIG members or interest may be solicited from the NeuroPT listserv.
6. Article reviewers should select high quality articles that examine the use of a clinical application with use of best available evidence. Selection of more recent publications (within the last five years) is encouraged.

9.12.12

Background/Overview	
Article Citation	Harvey L, Ristev D, Ben M, et al. Training unsupported sitting does not improve ability to sit in people with recently acquired paraplegia: a randomized trial. *Journal Of Physiotherapy*. 2011;57(2):83-90.
Study Objective/Purpose (hypothesis)	Determine if people with recently acquired paraplegia benefit from a six-week motor retraining program aimed at improving their ability to sit unsupported.
Brief Background (why issue is important; summary of previous literature)	People with paraplegia perform most of their daily activities in a seated position, physical therapists devote a lot of time to improving sitting ability. One study determined that patients with SCI receive 33 minutes of active therapy a day during their initial rehabilitation. A study done by Boswell-Ruys et al found small changes in patients with chronic paraplegia to sit unsupported after an intensive motor training program.
Methods	
Study Design (type of trial, randomization, blinding, controls, study groups, length of study, follow-up)	Type of trial: Randomized controlled trial Randomization: Computer-generated random allocation schedule was compiled before commencement by a person not involved in the recruitment of participants. Once a participant qualified for the study, an envelope was opened and allocation revealed. Blinding: Concealed allocation, assessor blinding Study groups: Control participants (n=16) received standard inpatient rehabilitation. Experimental participants (n=16) received standard inpatient rehabilitation plus three additional 30-minute sessions per week of motor training directed at improving their ability to sit unsupported. Length of study: 6 weeks Follow-up: None
Target Population (dx, acuity, inclusion/exclusion critieria)	Inclusion criteria: • Over 18

	• Complete or incomplete spinal cord injury below T1
	• Sustained spinal cord injury less than 6 months prior
	• Receiving physiotherapy and occupational therapy as part of a comprehensive in-patient rehabilitation program
	• Limited ability to sit unsupported as verified by a score of 5/7 or less on the unsupported sitting item of the Clinical Outcomes Variable Scale
	Exclusion criteria
	• Unlikely to comply
	• Tetraplegia
	• Clinical Outcomes Variable Scale >5
	• <18 years old
	• Pressure area preventing sitting
	• Medical complications
	• Declined
	• >6 months since injury
Interventions (if applicable): (specificity of interventions, ability to replicate, frequency, duration)	Three 30-minute sessions per week of task-specific training directed at improving ability to sit unsupported. A stopwatch was used to guarantee that 30 minutes of activity was achieved. There were 84 different exercises with three levels of difficulty, for a total of 252 exercises. Control participants did not practice any of these exercises.
Outcome Measures (relevant to purpose of the study; reliable, valid, clinical utility)	Primary outcome measures: the Maximal Lean Test (also called the Maximal Balance Range), the Maximal Sideward Reach Test, and the Performance Item of the Canadian Occupational Performance Measure (COPM). Secondary outcome measures: the Satisfaction Item of the COPM, the T-shirt Test, Participants' Impressions of Change, Clinicians' Impressions of Change, and Spinal Cord Injury Falls Concern Scale.
Statistical Analysis (statistics used, appropriate application)	The Maximal Lean Test, Maximal Sideward Reach Test, T-shirt Test, and Spinal Cord Injury Falls Concern Scale were analyzed with a factorial analysis of covariance using a linear regression approach.

	Participants' Impressions of Change and Clinicians' Impressions of Change were analyzed using the 'cendif' routing in State software to derive the 95% CIs for median between group difference. Significance was set a $p<0.05$. All data was interpreted with respect to pre-determined clinically meaningful change.
Results	
Enrollment/Subject Characteristics (sample size, gender, age, functional level; were groups similar on important variables prior to application of the intervention)	Sample size: Experimental group- n=16, Control group- n=16, Total- n=32 Gender (male:female): Experimental- 14:2, Control- 16:0 Age: Experimental- 26, Control 27 Functional level: • T1 to T4: Experimental- 4, Control- 1 • T5 to T8: Experimental- 3, Control- 4 • T9 to L1: Experimental- 9, Control- 11 Groups were similar at baseline according to the article
Summary of Primary and Secondary Outcomes (include aggregate and sub-group findings if reported); note results that were statistically significant; How many reached a level of clinical significance (exceed MCID if known); Was there retention of changes following intervention (if studied)	• Maximal Lean Test: mean between-group difference= -20mm (95% CI -64 to 24) • Maximal Sideward Reach: mean between-group difference= 5% of arm length (o5% CI -3 to 13) • Performance item of the COPM: mean between-group difference= 0.5 (-0.5 to 1.5) • None of these findings were statistically significant • Secondary outcomes did not differ significantly between groups
Authors' Discussion and Conclusions	
Brief Summary of Authors' Main Discussion Points; Authors' Conclusion	No added benefit from a 6-week training program specifically targeting unsupported sitting. Without a control group one may think the training program provided a significant change in participants. Patients learn appropriate strategies on their own in sitting to master activities of daily living.
Reviewer's Discussion and Conclusion	
Study Strengths	Using a control group, similar patient characteristics, length of the study, randomization, blinding
Study Limitations and Potential for Bias	The level of spinal injury for each patient. If they were all the same level this may improve the results. Size of control and experimental group- more participants may help show a difference
Applicability: • Types of patients (dx) that results apply to	• Patients with paraplegia who are learning to sit unsupported

• Types of settings or patient acuity that the results apply to • Can interventions be reproduced? Can results be applied to other pt populations?	• Acute care, Inpatient rehab, outpatient rehab • Yes, therapists can reproduce the interventions.
How will study results impact PT management of this patient population?; List suggestions for how to implement changes in your clinic/department to integrate study findings into patient care	Therapists will not focus on just unsupported sitting. They can incorporate functional activities of daily living into their treatment to help patients improve their sitting balance. This will not only help their sitting balance, but also their ability to do activities on their own and become more independent.