



International Ergonomics Association

Webinar Series



Musculoskeletal Disorders (MSD) Technical Committee Journal Club

Date and Time: March 4, 2022
8pm to 9pm UTC (GMT)

Duration: 60 mins

The goal of this on-line journal club style webinar is to discuss 2 recent papers that are relevant to the understanding and prevention of work-related musculoskeletal disorders. The presenting authors will make a very brief presentation of methods and findings of their studies and then the moderator will lead a deeper discussion into methods, findings, a comparison to other studies, and practical applications. Questions and comments from attendees will be welcome. The two papers are not open access; if needed, please contact a presenting author for a copy.

Program Chair: David Rempel, MD, MPH
University of California, Berkeley, USA.

Presenters:

- First Paper Authors: Suyoung Kwon, PhD., University of Washington, USA & Stephen Bao, PhD, Washington State Department of Labor and Industries, USA (BAOS235@LNI.WA.GOV)
- Second Paper Author: Judith Green-McKenzie, MD, MPH, Johns Hopkins University, USA. (jmckenz2@jhmi.edu)

Reference papers

Kwon S, Soo-Jeong L, de Castro AB, Herting JR, Bao S, Johnson K.

Identifying an optimal cut-off point for musculoskeletal pain in the upper extremities to prevent lowered work performance.

J Occup Environ Med 2021; 63(11):985-991.

Objective: This study identified when musculoskeletal pain (MSP) in the upper extremities

indicates lowered work performance to gauge when secondary prevention of musculoskeletal disorders is needed.

Methods: 733 subjects from 12 manufacturing or healthcare facilities in Washington state participated. Work performance was measured by the Disabilities of the Arm, Shoulder and Hand work module (DASH-Work). Each DASH-Work score was compared to the mean among U.S.A workers to determine if workers had lowered work performance. ROC curve analysis was conducted to find the cut-off in a composite MSP index (summing MSP intensities in shoulders, elbows/forearms, and hands/wrists; range 0 to 24) to detect lowered work performance.

Results: The MSP index score of 2 achieved the best balance between sensitivity (0.79) and specificity (0.69) in detecting lowered work performance.

Conclusions: To prevent reduced work performance, moderate or multisite pain may require proper management.

Mansfield B, Shofer FS, Green-McKenzie JG.

The effect of introduction of motorized stretchers on hospital-based patient transporter injuries and resultant workers' compensation costs.

J Occup Environ Med 2021; 63:1078-1080.

Manual stretchers cause more injuries than hydraulic stretchers in workers who transport patients.

Objective: To evaluate the impact of introducing motorized stretchers on transporter injuries and resultant workers' compensation costs.

Methods: The number of transporters who sustained injuries related to stretcher manipulation, and associated workers' compensation costs, before and after the introduction of motorized stretchers, was determined. The Wilcoxon Rank Sum test was used to examine costs and lost and restricted workdays.

Results: The number of injuries and restricted workdays decreased after motorized stretchers were introduced. Transporters incurred less lost workdays (median 24.5 vs 7 days, $P=0.050$).

Conclusions: Motorized stretchers were associated with decreased injuries and lost workdays.

Zoom link for registration. Registration is free to all interested people. The webinar will be recorded and published on YouTube. Registration permits live interaction with the presenters.