

## Research Plus February/March 2011

### Upper-limb disorders – evidence review

A systematic review of workplace management of ULDs finds limited evidence that modified keyboards reduce carpal tunnel and tenosynovitis symptoms, limited but high-quality evidence that multidisciplinary rehabilitation reduces non-specific arm pain, but no high-quality evidence on the workplace management of lateral epicondylitis. Just four papers were of sufficient methodological quality for inclusion.

- *Occupational Medicine* 2010; online first: doi: 10.1093/occmed/kqq174.
- <http://occmed.oxfordjournals.org/content/early/2010/12/02/occmed.kqq174.abstract>

### Return to work after cancer

A prospective cohort study of 5,234 workers absent from work due to cancer finds that return-to-work (RTW) times are mostly dependant on occupational factors – especially employer size – rather than demographic factors. Time to partial RTW varies from skin cancer (median 55 days) to breast cancer (271 days) and lung cancer (377 days). RTW times were lower among younger workers, but were not significantly affected by gender, socioeconomic class or residential region. People in larger companies (>5,000 workers) returned much earlier (113 days) than those in small firms (<75 people; 217 days).

- *Journal of Occupational Rehabilitation* 2011; online first: doi: 10.1007/s10926-010-9274-0.
- <http://www.springerlink.com/content/f4730w8008507252/>

### Nursing errors

A cross-sectional study of 454 nurses working in two Japanese general hospitals identifies significant relationships between shiftwork, mental health and self-reported medical errors. Shift system (odds ratio 2.1) and General Health Questionnaire score (OR 1.1) remained significant predictors of medical errors on multivariate analysis, although the impact of the latter was relatively weak.

- *Industrial Health* 2010, 48, 811–817.
- [www.jstage.jst.go.jp/article/indhealth/48/6/48\\_811/\\_article](http://www.jstage.jst.go.jp/article/indhealth/48/6/48_811/_article)

### Does past absence predict future absence?

Days' absence in the past year predicts only 4%–15% of future days' absence, according to a study of 551 hospital employees (using employer-registered absence data). Episodes of absence over the past two years predicted future absence spells. Periods of absence were more strongly correlated than absence duration, though both were statistically significant.

- *Occupational Medicine* 2010; online first: doi:10.1093/occmed/kqq181.
- <http://occmed.oxfordjournals.org/content/early/2010/12/20/occmed.kqq181.abstract>

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### Economic benefits of integrated care

A randomised controlled trial of workers off sick with chronic back pain demonstrates substantial economic benefits of an integrated care (IC) approach consisting of workplace-based participatory ergonomics and graded activity. Trial results published in 2010<sup>2</sup> showed significant reductions in absence (see *Research Plus* April/May 2010 [http://www.atworkpartnership.co.uk/occupationalhealthatwork/research\\_plus\\_2010-04.php](http://www.atworkpartnership.co.uk/occupationalhealthatwork/research_plus_2010-04.php)). This economic analysis shows that after 12 months the mean total cost in the IC group – comprising productivity losses (around 90% of the total), direct and non-direct healthcare costs – was £13,165 per worker, significantly lower than the £18,475 per worker with usual care. Every £1 invested in IC returns £26 in benefits to employers, society and the individual.

1 *British Medical Journal* 2010; 341: c6414.

➤ [www.bmj.com/content/341/bmj.c6414.abstract](http://www.bmj.com/content/341/bmj.c6414.abstract)

2 *British Medical Journal* 2010; 340: c1035.

➤ <http://www.bmj.com/content/340/bmj.c1035>

### Pre-employment medicals

A Cochrane systematic review (nine studies) finds only very low quality evidence that pre-employment health examinations, specific to certain jobs or health problems, cut occupational disease, injury or absence. One low-quality study showed that a general medical examination did not cut absence in administration workers; while another (also low quality) showed that a task-focused examination did reduce absence compared with a general examination. There was contradictory evidence on the benefits of functional capacity evaluation. Candidate rejection rates varied from 2% to 35%.

➤ *Cochrane Database of Systematic Reviews* 2010; 12: CD008881. doi:

10.1002/14651858.CD008881

➤ <http://www2.cochrane.org/reviews/en/ab008881.html>

### Supervisor training in mental health at work

Training managers in mental health awareness is an increasingly popular response to improving workplace health (see *OH at Work* 2010; 7(3): 20–23 and 7(2): 24–27). But does it work? Interventions covered in this systematic review included online learning, lectures, role-play and training. Supervisor training had a 'favourable effect, at least in the short term' on workers' mental health, insomnia, and job performance, though the impact of education on supervisor knowledge and behaviour tends to be lost after six months, and there is no evidence of long-term benefit.

➤ *Journal of Occupational Health* 2010; online first: doi: 10.1539/joh.R10002

➤ [http://www.jstage.jst.go.jp/article/joh/advpub/0/advpub\\_1011050158/\\_article](http://www.jstage.jst.go.jp/article/joh/advpub/0/advpub_1011050158/_article)

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### Management stress training RCT

A randomised controlled trial found only moderate benefits of stress management training designed to improve awareness and dealing with stressful situations, such as work overload and conflict. Training improved stress reactivity scores and reduced  $\alpha$ -amylase (a stress biomarker) after 12 months, but there were no significant effects on cortisol (another biomarker), effort–reward imbalance or depression/anxiety.

- *Occupational and Environmental Medicine* 2011; 68: 126–133.
- <http://oem.bmj.com/content/early/2010/09/07/oem.2009.054148.abstract>

### Work–family conflict

Role conflict between work and family responsibilities was only a weak predictor of future long-term absence (>14 days) in this Swedish cohort study. Work-to-family conflict was more common than family-to-work interference and more often reported by women.

- *European Journal of Public Health* 2010; 20(6): 676–681.
- <http://eurpub.oxfordjournals.org/content/20/6/676.abstract>

### Memory training for older workers?

A Cochrane systematic review found no specific effects from cognitive training interventions in people over 60. Training can improve immediate and delayed verbal recall compared with no-treatment controls (in healthy older adults and in those with mild cognitive impairment) but the effects were no bigger than in the ‘active controls’. In other words, alternative interventions, such as group discussions and physical training, do just as well.

- *Cochrane Database of Systematic Reviews* 2011; 1: CD006220. doi: 10.1002/14651858.CD006220.pub2.
- <http://onlinelibrary.wiley.com/o/cochrane/clsysrev/articles/CD006220/frame.html>

### Long-term neurological conditions

A literature review and recommendations for vocational rehabilitation and best practice for people with long-term neurological conditions covers four specific disorders: spinal cord injury, epilepsy, multiple sclerosis and cerebral palsy. It notes the employment disadvantages faced by individuals and that successful vocational rehabilitation addresses work and workplace factors rather than treatment.

- *Vocational assessment and rehabilitation for people with long-term neurological conditions.* British Society of Rehabilitation Medicine, 2010.
- [www.bsrm.co.uk/Publications/VR4LTnCv45fl.pdf](http://www.bsrm.co.uk/Publications/VR4LTnCv45fl.pdf)

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### Blood lead and pregnancy

Evidence-based guidance from the US Centers for Disease Control on the identification and management of lead exposure in pregnant women recommends follow-up and interventions for women whose blood lead level exceeds 5 µg/dL (around one in 100 women of childbearing age have levels above this figure). Public health departments should identify at-risk populations and provide community-based risk factors for clinicians. These include occupational exposures as well as nutritional status, recent immigration and use of alternative remedies.

- *Guidelines for the identification and management of lead exposure in pregnant and lactating women. Atlanta, GA: CDC, 2010.*
- [www.cdc.gov/nceh/lead/publications/LeadandPregnancy2010.pdf](http://www.cdc.gov/nceh/lead/publications/LeadandPregnancy2010.pdf)