

Back injury link to daily patient transfers

A prospective cohort study of 5,017 female eldercare healthcare workers (HCWs) in Denmark identified an increased risk of back injury associated with daily patient transfer. Using an assistive lifting device reduced the risk. The study followed nurses in 36 municipalities, with baseline data collected in 2004–05 and follow-up data in 2006–07. Information on low back pain at baseline, patient handling, use of assistive devices and back injury at work in the previous 12 months was gathered by questionnaire (78%–80% response). Around 4.0% of HCWs reported a back injury in the 12 months before follow-up (0.5% recurrent cases, 3.4% new incidents) – the figure was higher (5.0%) among those doing daily patient handling. The estimated population attributable fraction (ie the proportion of back injuries caused by daily patient transfer) was 36%. Frequent and very frequent use of assistive devices reduced risk in those doing daily patient transfer: odds ratios = 0.59 (95% confidence interval (CI) 0.36–0.98) and 0.62 (CI 0.38–1.00) respectively.

- *Scandinavian Journal of Work Environment and Health* 2014; 40(1): 74–81
- http://www.sjweh.fi/show_abstract.php?abstract_id=3382

Modifiable risk factors for sciatica

A systematic review finds both modifiable and non-modifiable risk factors for new-onset sciatica. Eight papers met inclusion criteria, seven of which were from Finland. Incidence rates range from 0.64%–4.1%, when restricted to hospitalised cases, and 5.7%–37% when sciatica is defined as referred pain in the leg. Identified modifiable risk factors are smoking status (in four of the eight studies), obesity/overweight (two studies) and working in a manual occupation (four studies). Non-modifiable risk factors are age and history of back pain. Evidence quality is generally good or moderate, with low risk of bias in two papers and moderate in five. The authors advise caution in interpreting the results because the identified modifiable risk factors are also associated with other potential contributory factors, such as lower socioeconomic status and unhealthy lifestyle choices.

- *Physiotherapy Research International* 2013; online first; doi: 10.1002/pri.1572
- <http://onlinelibrary.wiley.com/doi/10.1002/pri.1572/abstract>

Back pain absence variability

A systematic review (45 included papers) and meta-analysis (34 papers) of research evidence on low back pain and sickness absence in different working populations and settings finds that around one in three (32%) affected workers remain absent after one month, but that the ratio falls to one in 14 (7%) after six months. Methodological differences between the various studies are important in explaining much of the variation in reported return to work (RTW) outcomes. Notably, participation bias (a measure of how representative the studies are of the actual populations under investigation) is significantly associated with the pooled RTW estimate. For example, studies with a low risk of bias had a pooled estimate of 59% RTW (CI 46%–70%) after one month, whereas those with a moderate risk of bias had a pooled estimate of 90% RTW at one month (CI 57%–98%). Methods of data collection and study setting also explain some of the variation, with higher RTW rates found in studies using electronic compared to self-reported data, and in those using insurance databases or workplace settings rather than healthcare locations.

- *Occupational Environmental Medicine* 2013; online first; doi: 10.1136/oemed-2013-101571
- <http://oem.bmj.com/content/early/2013/11/01/oemed-2013-101571.abstract>

Feeling poorly predicts employment exit

A systematic review of 44 studies finds that a perception of being in poor health is predictive of becoming unemployed, retiring early or going on disability benefits. Self-perceived poor health is a significant risk factor of leaving work through: unemployment in 14 out of 17 studies (pooled relative risk (RR) = 1.44; CI 1.26–1.65); disability pension in 13 out of 13 studies (RR = 3.61; CI 2.44–5.35); and early retirement in six out of nine studies (RR = 1.27; CI 1.17–1.38). The estimated population attributable fractions (ie the proportion leaving the labour market due to self-perceived poor health) are 36.9%, 7.0% and 4.7%, respectively for disability pension, unemployment and early retirement. Workers with mental health problems are at increased risk of leaving through unemployment (RR = 1.61; CI 1.29–2.01) and disability pension (RR = 1.80; CI 1.41–2.31). No studies reported on possible associations between mental health and exiting via early retirement. Other significant associations are found for chronic disease and musculoskeletal disorders both with disability pension and unemployment; and for respiratory conditions with disability pension.

- *Occupational Environmental Medicine* 2013; online first; doi: 10.1136/oemed-2013-101591
- <http://oem.bmj.com/content/early/2013/11/11/oemed-2013-101591.abstract>

Trainee nurses' wet work risks hand eczema

Wet work is a significant risk factor for new hand eczema, according to this Dutch prospective cohort study involving 533 trainee nurses followed up for one to three years. Participants completed baseline health questionnaires, as well as pocket diary cards charting occupational wet work and skin symptoms. Those reporting symptoms were seen by an occupational physician specialising in dermatology. A total of 81 new cases of hand eczema were identified, mostly in the first year of training. Frequent hand washing (more than eight times per shift) was associated with hand eczema (odds ratio (OR) = 1.5; CI 1.02–2.25). However, frequent hand washing at home (OR = 2.3; CI 1.5–3.7) and having a job 'on the side' involving wet work, such as healthcare not associated with their training, bar or restaurant work (OR 1.6; 1.0–2.4), were independent risk factors.

- *Contact Dermatitis* 2014, 70(1), 44–55
- <http://onlinelibrary.wiley.com/doi/10.1111/cod.12131/abstract>

Head injury increases PTSD risk in military personnel

Traumatic brain injury (TBI) during an individual's most recent military deployment is the most significant predictor of post-traumatic stress disorder (PTSD), even when accounting for pre-deployment symptoms, previous TBI and combat intensity, a longitudinal study of 1,648 US marine and navy personnel finds. The study was carried out between 2008 and 2012 with personnel deployed to Iraq or Afghanistan, with data analysed one week before deployment and at one-week and three-month follow-up. PTSD symptoms were assessed using the Clinician-Administered PTSD Scale (CAPS). TBIs included any head injury resulting in self-reported loss of consciousness or altered mental state (dazed, seeing stars etc). Forty participants (2.3%) had CAPS scores over 65 (indicative of PTSD) at three months follow-up; 295 individuals (17.9%) reported a TBI during their deployment. PTSD risk was highest for participants with severe pre-deployment psychiatric symptoms, high combat intensity, and deployment-related TBI. Mild TBI raised the predicted CAPS score by 23% ($p < 0.001$; OR = 1.23; CI, 1.11–1.36), and moderate/severe TBI raised it by 71% ($p < 0.001$; OR = 1.71; CI, 1.37–2.12).

- *JAMA Psychiatry* 2013; online first; doi: 10.1001/jamapsychiatry.2013.3080
- <http://archpsyc.jamanetwork.com/article.aspx?articleid=1785175#Abstract>

Return to work after injury

Patients' own assessments of the severity of an accident and their ability to cope with their injury strongly predicts how much time they will take off before returning to work, according to this prospective follow-up study from a Swiss hospital department of trauma surgery. A total of 221 working-age participants hospitalised for a minimum of two consecutive nights with an unintentional injury (traffic, home or work accident) were assessed using the Injury Severity Score (ISS) and the Glasgow Coma Score (those with a GCS below 9 were excluded). Socioeconomic characteristics were assessed by semi-structured interview; self-perceived injury severity and ability to cope were measured on five-point Likert scales, ranging from very poor to very good; and post-traumatic psychological symptoms were evaluated using the Impact of Event Scale (IES). Sickness absence was measured at six months, and varied from six to 183 days (mean = 96 days). Regression analysis revealed that ISS, sex, age, type of accident and IES intrusion scores together predicted about 25% of the variance in the time off work at six months ($p < 0.001$), with the individual's perception of their injury severity and ability to cope together accounting for an additional 9% ($p < 0.001$). Patients who perceived their accident severity as higher and their coping skills as lower had twice as many days off compared with those who rated their accident severity as lower and coping skills as higher – mean difference = 68 days ($p < 0.001$). The authors suggest two simple questions would yield useful prognostic information: 'How severe do you think your accident was?'; and 'How well do you think you will be able to handle the consequences of the accident with regard to return to work?'

- *BMJ Open* 2013; 3:e003635
- <http://bmjopen.bmj.com/content/3/12/e003635.abstract>

Work-related upper limb disorders

There is no consistent evidence that conservative therapies (rather than clinical interventions) provide any benefit for work-related disorders of the neck, arm or shoulder, according to this Cochrane systematic review. It includes 62 papers covering 44 studies with a combined total of 6,580 participants, and assesses 25 different interventions, including exercise, ergonomics, behavioural therapies (eg relaxation, cognitive strategies, biofeedback), massage, electrical therapy and manual therapy. There is very low quality evidence that exercise does not affect pain, sick leave, disability or recovery. There is low quality evidence that ergonomic interventions do not decrease short-term pain, but can improve it in the long term. There is no evidence for any consistent effects of behavioural or other interventions. Thirty-five of the studies are assessed as having a high risk of bias, for example due to a lack of randomisation or non-blinded trial participants – though nine studies are rated as high quality.

- *Cochrane Database of Systematic Reviews* 2013; 12: CD008742
- <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD008742.pub2/abstract;jsessionid=C6E3C44DDA0D7B8AAF1F096D81C0802F.f04t01>

Occupational asthmagens

A huge systematic review and evidence grading covering 865 papers, provides the first evidence-based list of substances as well as worksites causing allergic occupational asthma. The selected papers were rated for quality using the Scottish Intercollegiate Guideline Network (SIGN) grading system, with the evidence strength for each causative agent subsequently graded according to the modified Royal College of General Practitioners three-star classification. The strongest evidence (three stars) was found for co-exposure to various laboratory animals; with 18 agents or worksites given a moderate (two-star) rating, including reactive dyes, flour and latex. A further 78 agents were variously rated as having very weak to moderate supporting evidence, with 275 agents,

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worksites or professions having no scientific evidence. The authors propose their list as the basis for health surveillance of exposed workers and application of secondary preventative measures.

- *International Archives of Occupational Environmental Health* 2013; online first: doi: 10.1007/s00420-013-0866-9
- <http://link.springer.com/article/10.1007/s00420-013-0866-9>

No lung cancer link in baking industry

Male bakers are not at increased risk of lung cancer, according to this international research project. Data were drawn from the SYNERGY study of occupational cancers being carried out in 16 countries. The analysis involved 974 individuals – 852 men and 122 women – doing baking jobs (bakers, pastry cooks etc). For male bakery workers, there was no increased risk of lung cancer (OR = 1.01; CI 0.86– 1.18). There was an increased risk in women (OR = 1.87; CI 1.02–3.42), but the reported raised risks were down to a single study from Italy, which the authors put down to a 'chance finding'.

- *Occupational Environmental Medicine* 2013 70(11): 810–814
- <http://oem.bmj.com/content/70/11/810.abstract>