

Voici les documents repérés en avril et mai portant sur la santé et la sécurité au travail dans le secteur des affaires sociales. Ils sont regroupés selon les grands dossiers de l'ASSTSAS, avec des sous-catégories selon les tendances dans les publications.

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## AGRESSIONS / VIOLENCE

### [Aggression in mental health residential facilities: A systematic review and meta-analysis.](#)

 Source : *Aggression and Violent Behavior, Prépublication, 2018.*

<https://doi.org/10.1016/j.avb.2018.06.002>

This systematic review aims to estimate the prevalence of aggression exhibited by patients living in community residential facilities and to identify risk factors for such aggression. Studies reporting the number of patients who perpetrated aggressive behavior in residential facilities were included. Methodological quality, publication bias, and the role of moderators were assessed. Ten studies met the inclusion criteria, for a total sample of 3760 patients. The pooled prevalence of aggression in residential facilities was 29% (95% CI 0.17–0.42) with a high heterogeneity and variability among studies. History of violence, personality disorders, lifetime substance and alcohol misuse were found significantly associated with aggression. Authors conclude that aggression in residential care services is common, and that certain individual factors are associated to an increased risk for such aggression.

### [Organisation des services d'urgences hospitalières pour la clientèle nécessitant des soins psychiatriques : modèles et interventions visant à réduire la durée de séjour et les temps d'attente - Plan de réalisation.](#)

Source : Québec: UETMISSS, CIUSSS Capitale Nationale, 2018.

Depuis novembre 2015, la Direction des programmes Santé mentale et Dépendances (DSMD) du CIUSSS de la Capitale - Nationale est devenue responsable de l'ensemble des activités de psychiatrie de la région. Cette nouvelle responsabilité représente une occasion de revoir l'organisation des services en psychiatrie dans la région. La DSMD a ainsi planifié, pour les prochaines années, une série de projets de transformation qui s'appuient sur le Plan d'action en santé mentale 2015-2020 et sur le Plan stratégique 2015-2020 du MSSS, mettant notamment en priorité la réorganisation des services de psychiatrie d'urgence. Parmi les objectifs de cette réorganisation figurent l'amélioration du délai de prise en charge des usagers qui séjournent aux urgences hospitalières pour un état de crise de nature psychiatrique, de même que la réduction du nombre de ces usagers qui seront hospitalisés. Pour appuyer ses décisions sur les données probantes, la DSMD a fait appel à l'Unité d'évaluation des technologies et des modes d'intervention en santé et services sociaux. La présente ETMI a pour but d'identifier à partir de la littérature : 1) les interventions et les modèles d'organisation des services de psychiatrie d'urgence intra-hospitaliers implantés ailleurs au Canada et dans des pays comparables qui ont visé à réduire la durée de séjour et les temps d'attente pour la clientèle ambulatoire et sur civière, et 2) les étapes de la trajectoire de services lors d'un séjour à l'urgence pour chacune de ces interventions et modèles d'organisation de services identifiés.

### [Reducing restrictive practice in adult services: not only an issue for mental health professionals.](#)

Source : *British Journal of Nursing, 27(9), 479-485, 2018.*

<https://doi.org/10.12968/bjon.2018.27.9.479>

Reducing 'restrictive practices' is an issue of national importance, yet there is poor awareness of the issue in mainstream adult services. This article seeks to raise awareness of restrictive practices and suggest the way forward. It highlights the importance of good de-escalation skills, which, if adopted early in therapeutic relationships, may help reduce the occurrence of challenging behaviours and situations. Behavioural support plans that adopt a biopsychopharmacosocial approach (BPPS) detail a range of interventions for managing challenging behaviours. Tailored support that follows a BPPS approach could reduce incidents of challenging behaviour, reduce costly observation, improve the patient experience and protect the patient's liberty.

[Réunion d'experts sur la violence contre les femmes et les hommes dans le monde du travail: Rapport soumis pour discussion à la Réunion d'experts sur la violence contre les femmes et les hommes dans le monde du travail \(Genève, 3-6 octobre 2016\).](#)

Source : Genève: Bureau international du travail, Département des conditions de travail et de l'égalité.

L'Organisation mondiale du Travail a attiré l'attention sur la nécessité d'inscrire la lutte contre la violence dans le monde du travail dans un cadre international. Préparé en vue de la Conférence internationale du Travail de juin 2018, ce rapport présente le cadre conceptuel de la violence au travail, ainsi qu'une sélection de dispositions réglementaires et d'instruments normatifs conçus pour contrer ce phénomène dans différentes régions du monde. En outre, le rapport examine les aspects relatifs à l'indemnisation des lésions attribuables à la violence en milieu de travail.

[Taking Action Against Acts of Workplace Violence. EHS Today, 17 juin 2018.](#)

With active shooting incidents permeating media, how can companies prepare?

[Verbal Abuse Is Still Violence, Joint Commission Says.](#)

Source : *ONS Voice*. (2018, juin 20).

Healthcare workers, especially nurses, are less likely to report incidents of workplace violence, including verbal abuse from patients, families, and coworkers, according to a sentinel event alert the Joint Commission released in April.



## DÉPLACEMENT DE PERSONNES

[Principes pour le déplacement sécuritaire des bénéficiaires : pourquoi est-ce difficile de les appliquer?](#)

Source : Bilodeau, M. (2018). *Prévention au travail*, 31(2), 24-25.

L'organisation et le rythme de travail des préposés aux bénéficiaires, ainsi que l'environnement dans lequel ils l'exercent, rendent difficile l'application de certains principes de santé et de sécurité (SST) de base qu'on leur a enseignés.



# ERGONOMIE, AMÉNAGEMENT ET ORGANISATION DU TRAVAIL

## Ergonomie de bureau

### [Blood Pressure Response to Interrupting Workplace Sitting Time With Non-Exercise Physical Activity: Results of a 12-month Cohort Study](#)

📄 Source : *Journal of Occupational and Environmental Medicine* Prépublication, juin 2018

This study evaluated the blood pressure (BP) effects of a yearlong e-health solution designed to interrupt prolonged occupational sitting time. BP data of 228 desk-based employees ( $45.1 \pm 10.5$  years) were analyzed at baseline, 3, 6, 9, and 12 months. Participants used the e-health solution  $5.5 \pm 2.0$  times/day in the first 3 months which reduced to  $4.2 \pm 2.5$  times/day by the end of the study ( $P < 0.05$ ). Authors conclude that the e-health solution designed to increase non-exercise physical activity by interrupting sitting time in the workplace is feasible and produced long-term reductions in blood pressure.

### [Visual and psychological stress during computer work in healthy, young females—physiological responses](#)

Source : *International Archives of Occupational and Environmental Health* Prépublication, mai 2018

Among computer workers, visual complaints, and neck pain are highly prevalent. This study explores how occupational simulated stressors during computer work, like glare and psychosocial stress, affect physiological responses in young females with normal vision. The study was a within-subject laboratory experiment with a counterbalanced, repeated design. Forty-three females performed four 10-min computer-work sessions with different stress exposures: (1) minimal stress; (2) visual stress (direct glare); (3) psychological stress; and (4) combined visual and psychological stress. Psychological stress induced a transient increase in trapezius muscle activity and a more forward-bent posture. Bending forward towards the computer screen was correlated with higher productivity (reading speed), indicating a concentration or stress response. Forward bent posture was also associated with changes in fixation disparity. Furthermore, during computer work per se, trapezius muscle activity and blood flow, orbicularis oculi muscle blood flow, and heart rate were increased compared to rest. Exposure to glare and psychological stress during computer work were shown to influence the trapezius muscle, posture, and blink rate in young, healthy females with normal binocular vision, but in different ways. Accordingly, both visual and psychological factors must be taken into account when optimizing computer workstations to reduce physiological responses that may cause excessive eyestrain and musculoskeletal load.

### [Effects of standing on typing task performance and upper limb discomfort, vascular and muscular indicators](#)

Source : *Applied Ergonomics* 72, octobre 2018

Standing is a popular alternative to traditionally seated computer work. However, no studies have described how standing impacts both upper body muscular and vascular outcomes during a

computer typing task. Twenty healthy adults completed two 90-min simulated work sessions, seated or standing. Upper limb discomfort, electromyography (EMG) from eight upper body muscles, typing performance and neck/shoulder and forearm blood flow were collected. Results showed significantly less upper body discomfort and higher typing speed during standing. Lower Trapezius EMG amplitude was higher during standing, but this postural difference decreased with time (interaction effect), and its variability was 68% higher during standing compared to sitting. There were no effects on blood flow. Results suggest that standing computer work may engage shoulder girdle stabilizers while reducing discomfort and improving performance. Studies are needed to identify how standing affects more complex computer tasks over longer work bouts in symptomatic workers.

### [Workplace interventions for reducing sitting at work](#)

 Source : *Cochrane Database of Systematic Reviews* Prépublication, juin 2018

Time spent sitting and being physically inactive at work has increased in recent decades. Long periods of sitting may increase the risk of obesity, heart disease, and premature death. It is unclear whether interventions that aim to reduce sitting at workplaces are effective. This review aimed to find out the effects of interventions aimed at reducing sitting time at work. We searched the literature in various databases up to 9 August 2017. We found 34 studies conducted with a total of 3,397 employees from high-income countries. They tested physical changes in the workplace design and environment, changes in workplace policies, information and counselling interventions, and multi-category interventions. At present there is low-quality evidence that sit-stand desks may reduce sitting at work in the first year of their use. However, the effects are likely to reduce with time. There is generally insufficient evidence to draw conclusions about such effects for other types of interventions and for the effectiveness of reducing workplace sitting over periods longer than one year. More research is needed to assess the effectiveness of different types of interventions for reducing sitting at workplaces, particularly over longer periods.

### Exosquelettes

#### [The effect of a passive trunk exoskeleton on functional performance in healthy individuals](#)

Source : *Applied Ergonomics* 72, octobre 2018

The objective of this study was to assess the effect of a passive trunk exoskeleton on functional performance for various work related tasks in healthy individuals. 18 healthy men performed 12 tasks. Wearing the exoskeleton tended to increase objective performance in static forward bending, but decreased performance in tasks, such as walking, carrying and ladder climbing. A significant decrease was found in perceived task difficulty and local discomfort in the back in static forward bending, but a significant increase of perceived difficulty in several other tasks, like walking, squatting and wide standing. Especially tasks that involved hip flexion were perceived more difficult with the exoskeleton. Design improvements should include provisions to allow full range of motion of hips and trunk to increase versatility and user acceptance.

#### [Elongation of the surface of the spine during lifting and lowering, and implications for design of an upper body industrial exoskeleton](#)

Source : *Applied Ergonomics* 72, octobre 2018

The aim of this study was to assess the elongation of the skin surface of the spine for simulated industrial lifting and lowering tasks to aid the design of industrial exoskeletons worn on the back. Eighteen male participants lifted and lowered a box of varying loads using three techniques. Motion capture sensors attached to the spine from C7 to S1 measured movement. Stoop lifting involved significantly more elongation than squat lifting. Load and Task (lift vs. lower) did not have a significant effect on elongation. Elongation of the skin surface of the lumbar spine was greater than for the thoracic spine. These data detail example levels of elongation of the skin surface of the spine, which should be considered in upper body wearable industrial exoskeleton design. Further, exoskeleton design should take into account that the skin surface of the lumbar spine involves greater elongation than the skin surface of the thoracic spine during deep lifting.

## Manutention de charges

### [How does the biomechanical exposure of the upper body in manual box handling differ from exposure in other tasks in the real industrial context?](#)

Source : *International Journal of Industrial Ergonomics* 68, novembre 2018

The assessment of biomechanical exposure during handling tasks in relation to other activities that are performed in industrial settings can be crucial to understand the biomechanical demands of manual box handling for the upper limbs. This study aims to evaluate the representativeness of the handling task to the upper body in comparison with the other tasks in a real setting, compare the biomechanical exposure between tasks, and identify the differences in exposure during manual box handling from job exposure. Twelve workers had biomechanical exposure assessed through trapezius muscle activity and posture recordings (upper back and upper arms) during 4h of a regular working day. Handling tasks demonstrated the highest biomechanical demand to the upper body, particularly for peak loads of the upper trapezius activation and upper back forward flexion postures. However, handling tasks were also associated with a high exposure variation. Interventions aiming to decrease loads in handling tasks can be relevant to decreasing peak loads and avoiding musculoskeletal disorders on the upper limbs.

### [Surface electromyography for risk assessment in work activities designed using the “revised NIOSH lifting equation”](#)

Source : *International Journal of Industrial Ergonomics* 68, novembre 2018

The aims of this study were: to identify surface electromyography (sEMG)-based indices of trunk muscles acquired during the execution of lifting tasks designed using the revised NIOSH lifting equation and featuring a progressively increasing lifting index (LI); to study changes of these indices in relation to the LI; to evaluate the relationship between the identified indices and forces (  $F_{L5-S1}$  ) and moments (  $M_{L5-S1}$  ) at the L5-S1 joint. sEMG, kinematic and kinetic data of 20 male workers were recorded in three conditions. We computed the average rectified value (ARV), root mean square (RMS) and maximum value (Max) of twelve trunk muscles and the muscle co-activation. We also estimated  $F_{L5-S1}$  and  $M_{L5-S1}$ . One-way repeated-measures ANOVA and post-hoc analysis showed that sEMG-based indices values increased with LI increment of 1 (LI = 1, 2 and 3). sEMG and kinetic parameters were linearly correlated. Findings suggest a promising use of wearable sEMG sensors in developing instrumental-based risk assessment tools in either the laboratory or workplace. In fact, some indices discriminate the investigated risk levels and correlate with the variables that generate the damage.

## Organisation des tâches et du temps de travail

### [Association between shiftwork and the risk of colorectal cancer in females: a population-based case-control study](#)

Source : *Occup Environ Med* 75(5), mai 2018

Research indicates that shiftwork may be associated with increased risks of adverse health outcomes, including some cancers. However, the evidence of an association between shiftwork and colorectal cancer risk is limited and inconclusive. We investigated the association between two types of shiftwork (graveyard shiftwork and early-morning shiftwork) and six mechanistic shiftwork variables (including light at night and phase shift) and the risk of colorectal cancer among females in an Australian population-based case-control study. No evidence of an increased risk of colorectal cancer among females who had worked in occupations involving shiftwork was observed in this study.

### [Night shift work and breast cancer risk: what do the meta-analyses tell us?](#)

Source : *Scandinavian Journal of Work, Environment & Health* Prépublication, mai 2018

This short communication examines the collective results from several recently published meta-analyses of night shift work and breast cancer risk. By summarizing and assessing the quality of these studies, opportunities for future epidemiologic research were identified along with the possible implications of meta-analyses on further evaluations of shift work with respect to breast cancer risk.

### [Mortalité prématurée par maladies cardiovasculaires chez les femmes selon la catégorie sociale et le secteur d'activité : synthèse](#)

Source : Santé publique France, juin 2018

Les maladies cardiovasculaires (MCV) sont moins bien documentées chez les femmes que chez les hommes. Les principaux déterminants socioprofessionnels établis dans la littérature scientifique sont les risques psychosociaux, le travail de nuit, le travail posté, les horaires atypiques, et les bruits nocifs. La mortalité prématurée par maladies cardiovasculaires diminue entre 1976 et 2002 et présente un gradient social croissant des cadres vers les ouvrières et de différences selon les secteurs. Les secteurs professionnels les plus à risque, notamment l'hôtellerie-restauration et l'industrie manufacturière, pourraient être particulièrement ciblés par les actions de prévention, avec une attention encore plus grande aux catégories les plus défavorisées.

### [Nursing overtime : should it be regulated?](#)

Source : *AOHP Journal* 38(2), juin 2018

Nursing overtime is common in health care to accommodate staffing needs despite evidence that it increases the incidence of patient and nurse adverse events. Some states have been successful in implementing overtime regulation; however, attempts at the federal level remain unsuccessful.

### [Effects of night-time on-call work on heart rate variability before bed and sleep quality in visiting nurses](#)



Source : *International Archives of Occupational and Environmental Health* Prépublication, juin 2018

In Japan, many visiting nurses work carrying cell phones to respond to calls from users even at night (on-call work). This study investigated whether on-call work affected heart rate variability (HRV) before bed and decreased sleep quality in visiting nurses even if their sleep was not interrupted due to actual calls. Nurses were asked to record their 2.5-min resting HRV before bed, and to undergo one-channel sleep electroencephalography (EEG) and subjective sleep evaluations upon waking at home for 4–5 consecutive days, including both on-call and non-on-call days. The study found no differences in HRV measures and objective sleep EEG variables. A significant increase in “sleepiness on rising” and a decrease in “feeling refreshed” were observed on on-call days, and younger subjects demonstrated a significant reduction in “sleepiness on rising”. Authors conclude that adverse effects of on-call work on sleep quality in most visiting nurses are thought to be subjective, and relatively young nurses tend to notice a decrease in sleep quality. On-call work itself does not appear to be a substantial stressor that could affect HRV and sleep structure.

#### [The influence of job rotation and task order on muscle responses in females](#)

Source : *International Journal of Industrial Ergonomics* 68, juin 2018

Job rotation aims to reduce muscle fatigue by switching between functionally different tasks to theoretically lessen the risk of site-specific fatigue and work-related musculoskeletal disorders (WMSDs). Rotating between two functionally different tasks, continuing a single task, and varying task order were assessed in the present study for influence on muscle fatigue indicators in a female population. Indications of fatigue were limited in the results. Forward flexion and internal rotation maximum voluntary force declined in all task combinations while ratings of perceived exertion (RPE) increased; non-rotating task combinations had the greatest declines in force and increases in RPE. Changes in aEMG were, however, too small to distinguish an order effect. The EMG results suggest muscular demand overlap between the two tasks, despite being functionally different. The effectiveness of job rotation is partially dependent on selecting tasks that engage distinct muscle groups.



## ORGANISATION DE LA SST

### Communication en SST

#### [Better Safety Conversations](#)

Source : OSHA, 2018

The core elements of an effective safety and health program — management leadership, worker participation, and a proactive approach to finding and fixing hazards — depend on good communication skills, real listening, clear speech, and well-run meetings. This is where effective safety conversations come in - and where your role as a supervisor is key. The example you set, and the way you talk to workers about safety, has a huge impact on the company's safety and health program, safety culture, and ability to reduce injury and illness. In this document, you will learn: The basics of good safety conversations; Tips for holding different types of safety

conversations and making them more effective; Ways to overcome common reasons people avoid safety conversations; The power of stories to enhance your safety conversations; The importance of leading by example—“walking the walk” when it comes to workplace safety and health.

### [La communication des risques à la santé](#)

#### [La communication des risques à la santé - résumé](#)

Source : INSPQ, mai 2018

Le document sur La communication des risques à la santé (INSPQ, 2018) s'appuie sur des ouvrages phares en communication des risques à la santé, mais aussi sur l'expérience et l'expertise d'acteurs de santé publique. Il s'adresse principalement aux professionnels, aux médecins et aux gestionnaires qui évaluent et gèrent des risques en santé environnementale, santé au travail et maladies infectieuses. L'outil traite des risques significatifs à la santé, qu'ils se manifestent par des effets aigus ou chroniques. En collaboration avec les services de communication, les acteurs de santé publique jouent un rôle déterminant pour communiquer le risque aux partenaires et à la population. Communiquer l'information juste et pertinente au moment opportun, comprendre les différences de perceptions, établir une communication bidirectionnelle respectueuse et basée sur la confiance, ainsi qu'adapter la stratégie de communication aux publics cibles et à la situation sont autant de principes à intégrer dans l'évaluation et la gestion des risques. Notons que la communication s'exerce tout au long du processus d'évaluation et de gestion des risques.

### Formation en SST

#### [Essential Skills and OHS Training : a guide to embedding an essential skills curriculum within an OHS training program](#)

Source : Institute for Work & Health, avril 2018

This guide provides an overview of the process involved in modifying the curriculum of an existing occupational health and safety (OHS) training program in order to address gaps in essential skills among worker trainees. Essential skills are the foundation for learning all other skills, and include reading, writing, numeracy, document use and more. The guide is designed to be used by OHS organizations that deliver training programs to groups with relatively low levels of essential skills. Applicable across a range of industries and training organizations of all sizes, the guide may be helpful to instructional designers, subject-matter experts and instructors involved in the design and delivery of OHS training programs. The guide includes a 12-step process for embedding an essential skills curriculum into an existing program. It includes practical tips and suggestions for going beyond.


#### [Exploring the potential of a multi-level approach to improve capability for continuous organizational improvement and learning in a Swedish healthcare region](#)

Source : *BMC Health Services Research* 18, mai 2018

Eldercare and care of people with functional impairments is organized by the municipalities in Sweden. Improving care in these areas is complex, with multiple stakeholders and organizations. Appropriate strategies to develop capability for continuing organizational improvement and learning (COIL) are needed. The purpose of our study was to develop and pilot-test a flexible,

multilevel approach for COIL capability building and to identify what it takes to achieve changes in key actors' approaches to COIL. The approach, named "Sustainable Improvement and Development through Strategic and Systematic Approaches" (SIDSSA), was applied through an action-research and action-learning intervention.

#### [Knowledge and practice of waste management among hospital cleaners](#)

 Source : *Occupational Medicine*, juin 2018

This study aimed to assess private hospital cleaners' knowledge and practice of hospital waste management and the association with training. A structured questionnaire, designed to assess knowledge, self-reported practice and training, was administered to private hospital cleaners in Etiosa in Nigeria. 81% reported that they had received training. 49% had good knowledge, while 90% self-reported good practice. Statistical analysis showed a significant negative association between training and knowledge. This may be related to the nature of training. The study found a knowledge gap, exposing these hospital cleaners to occupational risks which appropriate training has the potential to prevent. Collaboration to produce effective training programmes is recommended.

#### [The effect of active and passive occupational health and safety \(OHS\) training on OHS awareness and empowerment to participate in injury prevention among workers in Ontario and British Columbia \(Canada\)](#)

Source : *Safety Science* 108, octobre 2018

This study investigated whether differences in methods of Occupational Health and Safety (OHS) awareness training result in differences in worker awareness of rights and responsibilities and worker empowerment to participate in injury prevention. Exposure to OHS awareness training is associated with higher OHS awareness among workers in a broad range of occupations. Mode of training is important, with more active training associated with stronger impacts on awareness than passive training methods.

#### [The integration of safety and health into education : an empirical study of good-practice examples on \[www.enetosh.net\]\(http://www.enetosh.net\)](#)

Source : Deutsche Gesetzliche Unfallversicherung e. V. (DGUV), avril 2018

Cette étude contribue à montrer comment s'effectue dans la pratique l'intégration des enjeux de la sécurité et de la santé dans les processus d'éducation et d'apprentissage aux différents niveaux du système éducatif (éducation préscolaire/scolaire, formation professionnelle initiale, enseignement supérieur et éducation et formation dans le milieu professionnel). L'étude facilite l'accès aux exemples de bonne pratique, identifie les bons modèles et donne des conseils pour l'action future des praticiens, des multiplicateurs et des décideurs.

### Gestion du changement

#### [Conceptual frameworks for the workplace change adoption process: elements integration from decision making and learning cycle process](#)

Source : *Ergonomics*, Prépublication, mai 2018

Adoption and acceptance of workplace changes may be facilitated through sound implementation strategies. This manuscript explores several principles of sense-making and

decision-making processes that can potentially be used by industrial practitioners to inform the design and development of implementation strategies for interventions that improve workplace ergonomics and safety.

## Gestion et leadership

### [Human health and social work: care provision for adults and children, dental and other clinical provision, and provision of training and activities](#)

Source : *Safety and health in micro and small enterprises in the EU: the view from the workplace: European risk observatory report* Publications Office of the European Union, 2018

Ce chapitre présente 19 études de cas réalisées dans le secteur de la santé et des services sociaux, dans le cadre d'une étude plus large sur la compréhension et des expériences en matière de SST de petites entreprises et de micro-entreprises dans 9 pays de l'UE. Les entreprises participantes provenaient de différents sous-secteurs : soins de jour aux enfants ou aux adultes, cliniques dentaire ou médical, centre d'activités ou de formation. L'orientation axé sur les clients dans ce secteur se reflète à la fois dans la gestion de la SST et sur la nature des risques (violence, implication émotionnelle, horaires de travail). Le contrôle des risques était fortement tributaire des structures financière et de gestion des entreprises et du propriétaire-gestionnaire. Plusieurs propriétaires avaient développé des compétences qui leur permettaient d'écouter leurs employés et de détecter des risques psychosociaux. Enfin, la principale leçon à apprendre dans ce secteur est de prendre appui sur la conscience et l'attention porté sur la sécurité et le bien-être des patients et de l'élargir pour comprendre les dispositifs pour la sécurité, la santé et le bien-être des travailleurs.

### [Perspectives in healthcare safety](#)

Source : *AOHP Journal* 38(2), 2018

High-reliability organizations are those who strive to create the safest and most effective operations. They then constantly re-assess these operations for any semblance of the possibility of failure so that concerns can be resolved before an incident occurs, including near-miss events. This article presents the concept of high-reliability, in principle and in practice.

## Participation et consultation du milieu

### [Protecting workers in the home care industry: workers' experienced job demands, resource gaps, and benefits following a socially supportive intervention](#)

 Source : *Home Health Care Services Quarterly*, mai 2018

The Community of Practice and Safety Support (COMPASS) program is a peer-led group intervention for home care workers. In a randomized controlled trial, COMPASS significantly improved workers' professional support networks and safety and health behaviors. However, quantitative findings failed to capture workers' complex emotional, physical, and social experiences with job demands, resource limitations, and the intervention itself. Therefore, we conducted qualitative follow-up interviews with a sample of participants (n = 28) in the program. Results provided examples of unique physical and psychological demands, revealed stressful resource limitations (e.g., safety equipment access), and elucidated COMPASS's role as a valuable resource.

## Politiques, pratiques et procédures

### [Advancing a strong safety culture in Newfoundland and Labrador: A Workplace Injury Prevention Strategy 2018-2022](#)

Source : WorkplaceNL; OHS Division, 2018

This prevention strategy, developed in consultation with injury prevention partners and stakeholders, represents an opportunity for everyone to help protect workers from hazards in the workplace. WorkplaceNL and the OHS Division share the common philosophy that all workplace injuries and illnesses can be prevented—and that every worker has the right to go home safely at the end of the day. Priorities include musculoskeletal injuries; occupational disease and illness; falls; serious injuries; young workers; workplace violence; traffic control; psychological health and safety.

### [The relationship between organizational policies and practices and work limitations among hospital patient care workers](#)

 Source : *American Journal of Industrial Medicine*, Prépublication, mai 2018

We examined relationships between organizational policies and practices (OPPs) (safety practices, ergonomic practices, and people-oriented culture) and work limitations in a sample of hospital workers. As the unit-average ergonomic practice score increased by one, the odds of a worker reporting work limitations decreased by approximately 39%, adjusted for job title, age, and body mass index. A similar relationship existed for people-oriented culture. The association between safety practices and work limitations was similar, but not statistically significant. This study demonstrated the importance of workplace OPPs. OPPs that promote positive and supportive environments and that foster improvements in ergonomics may help reduce work limitations.

## Statistiques et outils d'analyse

### [2018 Report on work fatality and injury rates in Canada](#)

Source : University of Regina, avril 2018

Canadian workers compensation boards reported that 904 workers died due to work-related causes in 2016. This report provides a jurisdictional comparison of work-related fatality rates in Canada between 2011 to 2016 using data from the Association of Workers' Compensation Boards of Canada (AWCBC). A comparison of fatality rates is important for identifying trends over time both within and between provinces and territories. Job-related fatalities are classified as injury (e.g., death due to job-related electrocution) or occupational disease related (e.g., death from mesothelioma due to work-related exposure to asbestos).


### [Characteristics and determinants of recurrent occupational accidents](#)

Source : *Safety Science* 108, octobre 2018

Recurrent occupational accidents provide valuable information for prevention purposes. Characteristics of recurrent occupational accidents were studied using a dataset of a Finnish insurance company. Working process and characteristics of the first accident affected the reoccurrence. In services, the violence-related accidents reoccurred for every second subject but losing control of machine only for every eighth subject. Moreover, the latter accidents were more severe than the former accidents. On average, two times more days were lost in the second than

in the first accident. Compared to age-matched controls with only one occupational accident, the subjects with at least two accidents were 3.2 times more likely to exercise less frequently, 3.2 times more likely to have relatives with diabetes and 2.6 times more likely to have symptoms of health problems. The substantial reoccurrence of occupational accidents emphasizes the importance of assessing the prevention policies after each accident. Occupational accidents are related to work conditions and organizational practices but analysis of more in-depth data e.g. questionnaires may promote the means to improve prevention policies.

### [Design and construction of an Unintentional Injury Risk Index \(UIRI\) to measure frequency and severity of accidental injuries in Europe](#)

 Source : *International Journal of Injury Control and Safety Promotion*, Prépublication, mai 2018

To design coherent programmes aimed at reducing risk of accidental injury, it is necessary to measure the magnitude of this phenomenon with its changing meaning –from random misfortune to foreseeable and preventable risk. In order to calculate the total volume of accidental injuries in Europe, we have designed an adequate measurement instrument: the Unintentional Injury Risk Index (UIRI) counts both the probability (incidence) and the consequences (severity) of injuries. The index calculated for EU countries in 2009 revealed that accidents caused injuries and suffering equivalent to 96.4 deaths per 100,000 population. Based on the index, other specific indices can be calculated, such as personal proneness, country risk or site hazard indices, useful for deepening knowledge on the risk factors for unintentional injuries.

### [Development of a Coding and Crosswalk Tool for Occupations and Industries](#)

 Source : *Annals of Work Exposures and Health*, 2018

Job coding into a standard occupation or industry classification is commonly performed in occupational epidemiology and occupational health. Sometimes, it is necessary to code jobs into multiple classifications or to convert job codes from one classification to another. We developed a generic tool, called CAPS-Canada (<http://www.caps-canada.ca/>), that combines a computer-assisted coding tool covering seven International, Canadian and US occupation and industry classifications and an assistant facilitating crosswalks from one classification to another. The objectives of this paper are to present the different functions of the CAPS-Canada tool and to assess their contribution through an inter-rater reliability study.

### [Development of and Selected Performance Characteristics of CANJEM, a General Population Job-Exposure Matrix Based on Past Expert Assessments of Exposure](#)

 Source : *Annals of Work Exposures and Health*, juin 2018

We developed a job-exposure matrix called CANJEM using data generated in population-based case-control studies of cancer. This article describes some of the decisions in developing CANJEM, and some of its performance characteristics. CANJEM provides good coverage of the Canadian working population and possibly that of several other countries. Available in several occupation classification systems and including 258 agents, CANJEM can be used to support exposure assessment efforts in epidemiology and prevention of occupational diseases.

### [Enhancing the detection of injuries and near-misses among patient care staff in a large pediatric hospital](#)

Source : *Scandinavian Journal of Work, Environment & Health*, Prépublication, 2018

Compared to other industries, healthcare has one of the highest rates of non-fatal occupational injury/illness. Evidence indicates these rates are underestimated, highlighting the need for improved injury surveillance. This study aims to demonstrate the feasibility of integrating active data collection in a passive injury surveillance system to improve detection of injuries in a healthcare establishment. Injuries reported using DVR during two-week intervals from February 2014 to July 2015 were 40.7 times more frequent than what would be expected on the basis of the usual ISS reports. Psychological injuries (eg, stress, conflict) and near-misses were also better captured, and a majority of participants preferred using DVR either as an alternative or complement to the existing ISS. This study showed that it is feasible to improve injury surveillance by integrating active data collection. Enhanced surveillance provides richer information that can guide the development of effective injury prevention strategies.

#### [Interventions Developed with the Intervention Mapping Protocol in Work Disability Prevention: A Systematic Review of the Literature](#)

Source : *Journal of Occupational Rehabilitation*, juin 2018

Purposes Intervention mapping (IM) is a protocol for developing effective behavior change interventions. It has been used for 10 years to develop work disability prevention (WDP) interventions, but it is not known to what extent and with what success. The main objective of this study was to review the effectiveness of these interventions. Secondary objectives were to review their fidelity to the IM protocol, their theoretical frameworks and their content. Results of a systematic review of the literature show that the IM protocol has been used in WDP since 2007. The participative dimension appears underused. Few theoretical frameworks were used. Implications are to better consider the stakeholders involvement, and mobilize theoretical frameworks with greater attempts to intervene on the work environment.

#### [Safety climate and safety outcomes: A meta-analytic comparison of universal vs. industry-specific safety climate predictive validity](#)

Source : *Work & Stress*, Prépublication, avril 2018

Safety climate is known to be a robust predictor of safety-related outcomes. However, there is little consensus about the optimal strategy to measure safety climate. One of the main issues has been whether safety climate measures should be universal or industry-specific. As such, this study was designed to examine the criterion-related validity of universal and industry-specific safety climate measures by conducting a meta-analytic comparison of their relationships with a variety of safety-related outcomes (i.e. safety behaviour, risk perceptions, accidents and injuries, and other adverse events). With 120 independent samples (N = 81,213), we found that the industry-specific safety climate measures displayed better predictive power when predicting safety behaviour and risk perceptions than the universal safety climate measures. On the other hand, the universal safety climate measures displayed better predictive power when predicting other adverse events (but not accidents and injuries) than the industry-specific safety climate measures. We discuss these findings in light of the intended use of organisational safety climate surveys.



# RISQUES BIOLOGIQUES

## Accidents d'exposition au sang

### [Les accidents d'exposition au sang dans un centre hospitalo-universitaire Tunisien : étude sur 11 ans](#)

Source : *Archives des Maladies Professionnelles et de l'Environnement* 79(3), mai 2018

Cette étude avait pour objectif d'identifier la prévalence des accidents d'exposition au sang (AES) parmi le personnel soignant du CHU de Mahdia en Tunisie, d'identifier les facteurs de risque et d'évaluer la qualité de leurs prises en charge. Une étude rétrospective exhaustive sur 11 ans des AES déclarés au service de médecine de travail et de pathologies professionnelles a relevé 380 cas. Les victimes étaient paramédicaux (40,8 %), médecins (38,4 %) et ouvriers (20,8 %). Les services les plus concernés étaient les urgences, la gynécologie/obstétrique et la réanimation. L'AES était secondaire à une piqûre par aiguille dans 87,3 % des cas et de recapuchonnage des aiguilles dans 43,3 % des cas. La conduite immédiate après AES n'était conforme aux recommandations universelles que dans 35 % des cas. Le suivi sérologique post-accident a été incomplet (sérologie initiale récupérée dans 31% des cas, 3e mois dans 5% des cas et du 6e mois dans un seul cas) et l'immunisation des victimes contre l'hépatite B n'a été suivie correctement que dans 68% des cas. Des actions préventives ont été initiées et portées sur les cycles de formation, le renforcement de mise à disponibilité des moyens de protection individuelle et la convocation systématique et obligatoire du personnel pour la surveillance biologique.

### [Les causes de la sous-déclaration des accidents d'expositions au sang](#)

Source : *Archives des Maladies Professionnelles et de l'Environnement* 79(3), mai 2018

Cette étude avait pour objectif de chercher les causes expliquant la réticence à la déclaration et au suivi des accidents d'exposition au sang. Un questionnaire portant sur les antécédents d'exposition au sang ainsi que la conduite ultérieure à ces accidents a permis de rejoindre 94 personnels (taux de réponse de 62,6%), dont 46,8% avaient vécu en moyen 3,2±5 AES pendant la vie professionnelle. Selon 31,9% des répondants, ces accidents n'étaient pas toujours suivis d'une déclaration, en raison de la non-perception de risque réel de contamination (16 %), la longueur des procédures et la non-disponibilité de temps suffisant (10,6 %). La couverture vaccinale pour l'hépatite B et l'évaluation du statut vaccinal étaient assurées pour tous les participants à l'embauche et leur profil sérologique était connu par 70,2 %. Les auteurs affirment qu'une bonne information des personnels de soins reste un travail primordial des médecins du travail. Cette information doit être continue et renouvelée à chaque visite médicale.

## Bactéries résistantes

### [Surveillance de laboratoire des souches d'entérobactéries résistantes aux carbapénèmes isolées au Québec en 2017](#)

Source : Institut national de santé publique du Québec, 2018

Une surveillance prospective de la résistance aux carbapénèmes chez les entérobactéries a été instaurée en août 2010. Les objectifs étaient d'évaluer l'ampleur du problème au Québec et de proposer une approche diagnostique efficace pour la détection des souches résistantes aux carbapénèmes. Dans ce rapport, nous présentons d'abord un court résumé des mécanismes de



résistance, ensuite les résultats de la surveillance provinciale et enfin une proposition d'algorithme de surveillance basé sur les résultats obtenus.

## Hygiène et salubrité

### [Clinical, operational, and financial impact of an ultraviolet-C terminal disinfection intervention at a community hospital](#)

 Source : *American Journal of Infection Control* Prépublication, juin 2018

Hospital-acquired infections (HAIs) are a significant contributor to adverse patient outcomes and excess cost of inpatient care. Adjunct ultraviolet-C (UV-C) disinfection may be a viable strategy for reducing HAIs. This study aimed to measure the clinical, operational, and financial impact of a UV-C terminal disinfection intervention in a community hospital setting. Using a pre-post study design, we compared the HAI rates of 5 multidrug-resistant bacteria from 6 culture sites before and after a 12-month facility-wide UV-C intervention. Overall, observed HAIs incidence during the 12-month intervention period was 19.2% lower than the preintervention period. The intervention did not adversely impact emergency department admissions and generated a direct cost savings of \$1,219,878 over a 12-month period. Conclusions The UV-C disinfection intervention was associated with a statistically significant facility-wide reduction of multidrug-resistant HAIs and generated substantial direct cost savings without adversely impacting hospital operations.

### [Efficacy and safety of a novel skin cleansing formulation versus chlorhexidine gluconate](#)

 Source : *American Journal of Infection Control* Prépublication, juin 2018

This study evaluated whether a multi-ingredient surfactant colloidal silver technology was noninferior to a 4% chlorhexidine gluconate (CHG) antiseptic on immediate and persistent antimicrobial activity. The colloidal silver-based product was noninferior to the 4% CHG product at 10 minutes and 6 hours postapplication.

### [Identifying and eradicating biofilm : steps to eliminate an age-old hazard from the health care environment](#)

Source : *Health facilities management* , juin 2018

To eradicate and remove bacteria and biofilm from the health care environment, a multidisciplinary and multimodal approach is essential. Teams must identify potential sites for targeting, and facilities professionals should be trained and educated regarding why they should look for it, what to look for and how to eradicate and remove biofilm once located.

### [Using UV disinfection for biofilm](#)

Source : *Health facilities management* , juin 2018

With the widespread introduction of ultraviolet (UV) disinfecting robots and other generators in health care and the acknowledgment that UV is effective in destroying bacteria, there may be a tendency to rely solely on the intervention of UV in eradicating biofilm. However, eradication of biofilm must incorporate a multimodal approach: UV-C must be part of a process that includes the physical removal of biofilm.

## Norme en développement

### [Contamination des habitations par les moisissures \(norme en cours d'élaboration\)](#)

 Source : Bureau de normalisation du Québec, janvier 2019

La nouvelle norme BNQ 3009-600 encadrera l'inspection, le diagnostic et les mesures de décontamination appropriées lorsqu'il y a prolifération de moisissures dans les bâtiments résidentiels. Élaboré par un comité de normalisation équilibré représentant les parties prenantes concernées, le contenu de la norme sera le fruit d'un consensus.

## Risque infectieux

### [High-risk Staphylococcus aureus transmission in the operating room: A call for widespread improvements in perioperative hand hygiene and patient decolonization practices](#)

 Source : *American Journal of Infection Control* Prépublication, juin 2018

Intraoperative Staphylococcus aureus multilocus sequence type 5 is hypertransmissible and pathogenic. Intraoperative provider hands and patient skin surfaces are confirmed sources of sequence type 5 transmission. Improved compliance with hand hygiene and patient decolonization may help to control the spread of these dangerous pathogens.

### [Long-sleeved medical workers' coats and their microbiota](#)

 Source : *American Journal of Infection Control* Prépublication, mai 2018

In this study we aimed to assess the contamination rate of long-sleeved medical workers' coats (N = 100) in a point-prevalence study. Ninety-one percent of the coats were contaminated with normal human flora, but only the minority (9%) showed presence of pathogenic non-multiresistant bacteria. The data of this study may implicate that long-sleeved coats harbor low risk for the treated patients to be contaminated with pathogenic bacteria during medical consultation.

### [Prévention du risque infectieux pour les personnels de la petite enfance](#)

Source : *Archives des Maladies Professionnelles et de l'Environnement* 79(3), mai 2018

L'objectif de cette étude est d'évaluer le risque infectieux pour les personnels de la petite enfance travaillant au sein de diverses structures d'accueil collectif et de proposer au décours de cette évaluation des actions de prévention tant collectives qu'individuelles. Les auteurs ont constaté l'absence de protocole concernant la conduite à tenir autour de la survenue de maladies infectieuses, des conditions de travail qui intègrent peu la prévention du risque infectieux et un niveau d'information hétérogène mais limité sur les risques professionnels. Devant ce qui semble être une prévention insuffisante du risque infectieux pour les personnels de la petite enfance, les auteurs proposent plusieurs pistes d'action : informer l'employeur et les professionnels concernés sur le risque infectieux, conseiller un suivi de médecine préventive périodique et obligatoire en début de grossesse, établir des protocoles d'alerte autour de cas de maladies infectieuses et améliorer l'organisation du travail au sein des structures pour prévenir le risque infectieux.

### [The occupational risk of Helicobacter pylori infection: a systematic review](#)

Source : *International Archives of Occupational and Environmental Health* , mai 2018

The aim of this systematic review was to describe the prevalence of Helicobacter pylori infection in specific occupational groups and to compare them with the general population. A total of 98 studies addressing the prevalence of H. pylori infection in occupational groups were included in the systematic review. Overall, health professionals showed a significantly higher prevalence of H. pylori infection than the general population, especially among those working at

gastrointestinal units. Similar results were found in subjects involved in agricultural, forestry and fishery, as well as in sewage workers, miners, and workers at institutions for the intellectually disabled, although differences were less pronounced. Our results show an occupational risk of H. pylori infection supporting the role of oral–oral, fecal–oral, and zoonotic transmission. Studies comparing specific occupational groups with adequate comparators may contribute to better identify groups at higher risk of infection. The recognition of this infection as an occupational disease would result in early detection and treatment, as well as prevention and control of its transmission in workplaces.



## RISQUES CHIMIQUES

### Amiante

[Amiante : fiche toxicologique no 145](#)

Source : INRS, mai 2018

L'INRS a actualisé sa fiche toxicologique « Amiante », dont les informations ont été revues au regard de l'évolution des connaissances en toxicologie, des données d'exposition et de la réglementation. L'ensemble des fiches toxicologiques est désormais regroupé dans une base de données, qui permet une grande souplesse de consultation sur les différents supports de lecture (tablette, smartphone...). Une sélection par chapitre est possible pour permettre aux préventeurs d'accéder directement à celles qui les intéressent.

[ASTM D7712-18: Standard terminology for sampling and analysis of asbestos](#)

 Source : ASTM International, 2018

This terminology standard is a collective vocabulary relating to sampling and analysis of asbestos. As a convenience to general interest, it contains most of the standard terms, definitions, and nomenclature under the jurisdiction of Committee D22.

### Cancérogènes


[NIOSH Chemical Carcinogen Policy](#)

Source : NIOSH, 2017

Le National Institute for Occupational Safety and Health (NIOSH) a mis à jour sa politique sur la classification des agents cancérogènes et les limites d'exposition des travailleurs à ces substances. Les modifications apportées à la politique sur les agents cancérogènes se basent sur la prémisse qu'il n'existe aucun seuil sûr connu d'exposition à des agents cancérogènes. Par conséquent, l'élimination, la substitution ou la réduction de l'exposition des travailleurs sont les principaux moyens de pré - venir les cancers professionnels. Dorénavant, les limites d'exposition seront désignées sous le terme « limites de gestion des risques pour les cancérogènes » afin d'indiquer que ces limites sont des points de départ raisonnables pour contrôler l'exposition aux agents cancérogènes.

## Évaluation des expositions professionnelles

### [Occupational exposures and cancer: a review of agents and relative risk estimates](#)

 Source : *Occup Environ Med* , mai 2018

This paper reviews occupational carcinogens, and presents the most relevant risk relations to cancer in high-income countries using France as an example, to provide a framework for national estimation of cancer burden attributable to occupational exposure. Occupational exposures that should be included in cancer burden studies were evaluated using multiple criteria: classified as carcinogenic or probably carcinogenic by the International Agency for Research on Cancer (IARC) Monographs volumes 1–114, being a primary occupational exposure, historical and current presence of the exposure in France and the availability of exposure and risk relation data. Relative risk estimates were obtained from published systematic reviews and from the IARC Monographs. Of the 118 group 1 and 75 group 2A carcinogens, 37 exposures and 73 exposure-cancer site pairs were relevant. Lung cancer was associated with the most occupational carcinogenic exposures (namely, 18), followed by bladder cancer and non-Hodgkin's lymphoma. Ionising radiation was associated with the highest number of cancer sites (namely, 20), followed by asbestos and working in the rubber manufacturing industry. Asbestos, bis(chloromethyl)ether, nickel and wood dust had the strongest effect on cancer, with relative risks above 5. A large number of occupational exposures continues to impact the burden of cancer in high-income countries such as France. Information on types of exposures, affected jobs, industries and cancer sites affected is key for prioritising policy and prevention initiatives.

### [Development of a bar code-based exposure assessment method to evaluate occupational exposure to disinfectants and cleaning products: a pilot study](#)

 Source : *Occup Environ Med* , mai 2018

Healthcare workers are highly exposed to various types of disinfectants and cleaning products. Assessment of exposure to these products remains a challenge. We aimed to investigate the feasibility of a method, based on a smartphone application and bar codes, to improve occupational exposure assessment among hospital/cleaning workers in epidemiological studies. A database of disinfectants and cleaning products used in French hospitals, including their names, bar codes and composition, was developed using several sources and a smartphone application has been created to scan bar codes of products and fill a short questionnaire. The application was tested in a French hospital. The ease of use and the ability to record information through this new approach were estimated. A test in one French hospital showed that workers used mostly products with alcohol and quaternary ammonium compounds (>90% with weekly use), followed by hypochlorite bleach and hydrogen peroxide (28.6%). For most records, information was available on the name (93.7%) and bar code (77.0%). Information on product compounds was available for all products and recorded in the database. This innovative and easy-to-use method could help to improve the assessment of occupational exposure to disinfectants/cleaning products in epidemiological studies.

### [Identifying occupational carcinogens: an update from the IARC Monographs](#)

Source : *Occup Environ Med* , mai 2018

The recognition of occupational carcinogens is important for primary prevention, compensation and surveillance of exposed workers, as well as identifying causes of cancer in the general population. This study updates previously published lists of known occupational carcinogens

while providing additional information on cancer type, exposure scenarios and routes, and discussing trends in the identification of carcinogens over time. Data were extracted from International Agency for Research on Cancer (IARC) Monographs covering the years 1971–2017, using specific criteria to ensure occupational relevance and provide high confidence in the causality of observed exposure-disease associations. Selected agents were substances, mixtures or types of radiation classified in IARC Group 1 with ‘sufficient evidence of carcinogenicity’ in humans from studies of exposed workers and evidence of occupational exposure documented in the pertinent monograph. The number of known occupational carcinogens has increased over time: 47 agents were identified as known occupational carcinogens in 2017 compared with 28 in 2004. These estimates are conservative and likely underestimate the number of carcinogenic agents present in workplaces. Exposure to these agents causes a wide range of cancers; cancers of the lung and other respiratory sites, followed by skin, account for the largest proportion. The dominant routes of exposure are inhalation and dermal contact. Important progress has been made in identifying occupational carcinogens; nevertheless, there is an ongoing need for research on the causes of work-related cancer. Most workplace exposures have not been evaluated for their carcinogenic potential due to inadequate epidemiologic evidence and a paucity of quantitative exposure data.

#### [Multicenter study of environmental contamination with cyclophosphamide, ifosfamide, and methotrexate in 48 Canadian hospitals](#)

🔒 Source : *Journal of Oncology Pharmacy Practice: Official Publication of the International Society of Oncology Pharmacy Practitioners* 24(1), 2018

Oncology workers are occupationally exposed to antineoplastic drugs. This exposure can induce adverse health effects. In order to reduce their exposure, contamination on surfaces should be kept as low as possible. The objectives of this study were to monitor environmental contamination with cyclophosphamide, ifosfamide, and methotrexate in oncology pharmacy and patient care areas in Canadian hospitals and to describe the impact of some factors that may limit contamination. This descriptive study sampled 12 standardized sites were sampled in each participating center (six in the pharmacy and six in patient care areas). Samples were analyzed for the presence of cyclophosphamide, ifosfamide, and methotrexate by ultra-performance liquid chromatography tandem mass spectrometry technology. Overall, 34% of the samples were positive for cyclophosphamide, 8% for ifosfamide, and 6% for methotrexate. For ifosfamide and methotrexate, they were lower than the limit of detection. Centers who prepared more antineoplastic drugs per year and centers who used more cyclophosphamide per year showed significantly higher surface contamination. Over the years, we observed a reduction in surface contamination. Regular environmental monitoring is a good practice in order to maintain contamination as low as reasonably achievable.

#### [An Integrated Air Monitoring Approach for Assessment of Formaldehyde in the Workplace](#)

Source : *Safety and Health at Work* , mai 2018

The aim of this study is to validate an integrated air monitoring approach for assessing airborne formaldehyde (FA) in the workplace. An active sampling by silica gel impregnated with 2,4-dinitrophenylhydrazine, a passive solid phase microextraction technique using O-(2,3,4,5,6-pentafluorobenzyl)hydroxylamine as on-fiber derivatization reagent, an electrochemical direct-reading monitor, and an enzyme-based badge were evaluated and tested. All four methods were

suitable for evaluating airborne FA. Personal and area samplings in 12 anatomy pathology departments showed that the international occupational exposure limits in the GESTIS database were frequently exceeded. This monitoring approach would allow a fast, easy-to-use, and economical evaluation of both current work practices and eventual changes made to reduce FA vapor concentrations.

### [A Systematic Review of the Routes and Forms of Exposure to Engineered Nanomaterials](#)

Source : *Annals of Work Exposures and Health*, Prépublication, juin 2018

This literature review provides evidence that for engineered nanomaterials, as found for other materials, the likelihood of the exposure depends largely on the physical form of the substance as well as the applied process and operational conditions. These results can be used to provide first indications of the likelihood of exposure and guidance for exposure controls in workplaces. However, there is a clear lack of high-quality exposure data, in particular for downstream use and end-of-life scenarios and in low- and medium-income countries.

### [Exposures to Volatile Organic Compounds among Healthcare Workers: Modeling the Effects of Cleaning Tasks and Product Use](#)

Source : *Annals of Work Exposures and Health* , juin 2018

Use of cleaning and disinfecting products is associated with work-related asthma among healthcare workers, but the specific levels and factors that affect exposures remain unclear. The objective of this study was to evaluate the determinants of selected volatile organic compound (VOC) exposures in healthcare settings. Cluster analysis identified eight task/product-use clusters of which several were distributed across multiple occupations and hospital units. The patient/personal cleaning task using products containing chlorine was associated with elevated levels of personal chloroform and  $\alpha$ -pinene exposures. Tasks associated with instrument sterilizing and disinfecting were significantly associated with personal d-limonene and 2-propanol exposures. Surface and floor cleaning and stripping tasks were predominated by housekeepers and floor strippers/waxers, and use of chlorine-, alcohol-, ethanolamine-, and quaternary ammonium compounds-based products was associated with exposures to chloroform,  $\alpha$ -pinene, acetone, 2-propanol, or d-limonene. Authors conclude that healthcare workers are exposed to a variety of chemicals that vary with tasks and ingredients of products used during cleaning and disinfecting. The combination of product ingredients with cleaning and disinfecting tasks were associated with specific VOCs. Exposure modules for questionnaires used in epidemiologic studies might benefit from seeking information on products used within a task context.

## Fentanyl

### [Fentanyls and the safety of first responders: Science and recommendations](#)

 Source : *American Journal of Industrial Medicine*, Prépublication, juin 2018

Opioids have many beneficial uses in medicine, but, taken inappropriately, they can cause life-threatening health effects. The increasing use of physician-prescribed and illicit opioids, including highly potent fentanyl and its analogs, have contributed to a significant increase in opioid-related drug overdoses in the United States, leading to a public health emergency. There have been a number of reports describing adverse health effects experienced by police officers, fire-fighter emergency medical services providers, and private sector ambulance personnel when responding to drug overdose incidents. Several sets of exposure prevention recommendations for first

responders are available from government and the private sector. Understanding the scientific basis for these recommendations, increasing awareness by responders of the potential risks associated with opioid exposure during a response, and educating responders about safe work practices when exposure to opioids is suspected or confirmed are all critical prevention measures that can keep first responders safe.

## Gestion des produits chimiques

### [A Holistic Approach to On-Site Chemical Management](#)

Source : *Occupational Health & Safety*, mai 2018

EHS professionals are keenly aware of the risks that poor chemical management programs present to employees and the environment. Leveraging technology to centralize and standardize chemical management programs is a key component to successfully protecting employees, communities, and the environment from the unintended consequences of a chemical release. To safeguard against these risks, it is imperative that EHS teams have the right technologies to manage each program component, communicate with and train employees, measure and evaluate program value to make changes, and drive continuous improvement. With the help of mobile and IoT technologies, EHS teams are leading the way to a safer, greener future.

### [The Disharmony of SDS Management: The Real Business Impact](#)

Source : *Occupational Health & Safety*, mai 2018

The Globally Harmonized System for Classification and Labeling of Chemicals isn't actually that harmonized. This disharmony creates bigger challenges to managing SDSs and chemical data across the global supply chain.


### [Lieux de travail sains : maîtriser l'usage des substances dangereuses \(campagne 2018-19\)](#)

Source : *Lieux de travail sains*, juin 2018

La campagne européenne « Lieux de travail sains. Maîtriser l'usage des substances dangereuses » a été lancée le 24 avril. Destinée à sensibiliser à la nécessité de limiter l'exposition à ces substances, elle propose du matériel de communication en plusieurs langues. L'Agence européenne pour la sécurité et la santé au travail (EU-OSHA) a rassemblé ces différents outils et des exemples de bonnes pratiques en provenance de toute l'Europe.

## Protection de la peau

### [Evaluation of the antimicrobial efficacy and skin safety of a novel color additive in combination with chlorine disinfectants](#)

 Source : *American Journal of Infection Control*, mai 2018

A novel color additive colorizes chlorine disinfectants blue to improve visibility and enhance spray surface coverage, and it fades to colorless to indicate elapsed contact time. We investigated its interactions with 3 chlorine disinfectants to determine if the additive would adversely affect the disinfectants' antimicrobial efficacy or skin safety. Results showed equal efficacy, and all 3 chlorine disinfectants with color additive tested as negligible skin irritants. Authors conclude that the color additive can be combined with chlorine disinfectants without adversely affecting antimicrobial efficacy or skin safety.

### [Skin Protection Seminars to Prevent Occupational Skin Diseases: Results of a Prospective Longitudinal Study in Apprentices of High-risk Professions](#)

Source : *Safety and Health at Work* , mai 2018

Occupational skin diseases (OSDs) are frequent in professions with exposure to skin hazards. Thus, a health educational intervention for apprentices of high-risk professions was conducted. It was the aim of this study to gain insight into possible effects of this intervention. A one-time skin protection seminar was conducted in 140 apprentices of health-related and non-health-related professions. In addition, 134 apprentices of the same occupations were monitored. The OSD-specific knowledge increased in all cohorts from baseline to after 12 months, but we found a significantly higher knowledge in the trained cohort (TC) at 6 months and 12 months compared to the untrained cohort. Our results indicated a better skin condition of the hands in the TC of the health-related professions but not in the non-health-related professions. The study indicates that an educational intervention may positively influence the disease-specific knowledge and the prevalence of OSD in apprentices.

### [Influences on use of hand moisturizers in nurses](#)

 Source : *Occupational Medicine* 68(5), juin 2018

Nurses are at high risk of hand dermatitis. Regular hand moisturizing can prevent dermatitis, but nurses' use of hand moisturizers is suboptimal. This study used a questionnaire to investigate nurses' knowledge, beliefs and behaviours regarding hand dermatitis and use of hand moisturizers. Most (76%) participants agreed that applying hand moisturizers reduced the risk of dermatitis, and nearly all (96%) agreed that dermatitis increased the risk of skin carrying pathogenic organisms. Frequent moisturizer application was associated with beliefs that it was part of the nurse's role to apply hand creams, a belief that they had had training in the use of moisturizers and believing that patients approved of them moisturizing their hands. Enhancing these beliefs may improve hand moisturizer use by nurses.

## Sites et outils

### [Dangerous Substances e-tool](#)

Source : *European agency for safety and health at work* , mai 2018

The EU-OSHA e-tool on dangerous substances and chemical products aims to provide enterprises with the information and advice they need to assess and manage the related safety and health hazards. With a focus on small and medium-sized enterprises and companies without specific knowledge of dangerous substances, this interactive web-based guide provides tailored and easy-to-understand background and good practice information on risks, labelling, legislation, prevention measures and much more. Based on a questionnaire, it also generates a report adapted to each individual business situation on the management of dangerous substances, including recommendations for improvement. The e-tool is now available in English and country versions will follow later in the year.

### [EU nanomaterials website updated with two searchable databases - Safety and health at work - EU-OSHA](#)

Source : *European Union Observatory for Nanomaterial* , juin 2018

The European Union Observatory for Nanomaterials (EUON) website has been updated with new information about nanomaterials within the EU regulatory framework, how they are used in



different sectors, information on how to use nanomaterials safely at work. Dynamic content includes the latest news and articles on nanomaterials and nanotechnology from the web. Two searchable databases are now accessible in 23 EU languages through the EUON; NanoData , a knowledge base on nano science and technology, and the eNanoMapper , which helps you find safety information about nanomaterials. EUON page : <https://euon.echa.europa.eu/NanoData> : <https://nanodata.echa.europa.eu/eNanoMapper> : <https://euon.echa.europa.eu/enanomapper>

#### [New visual browse function for the National Library of Medicine Household products database](#)

Source : *National Library of Medicine Household Products Database* , juin 2018

The National Library of Medicine (NLM) Household Products Database (HPD) provides access to manufacturer developed Safety Data Sheets/SDS (formerly called Material Safety Data Sheets/MSDS) which describe the chemical properties of each product, physical data, health effects, first aid, reactivity, storage, handling, disposal, personal protection, and spill/leak procedures. As required by OSHA, information within each SDS is targeted to help those exposed to chemicals at work. Consumers may also find information that can help them safely use a product. Now you can visually explore the number and types of products in HPD. After choosing a category in the "Browse by category" menu, hover over data bubbles to see the number of products in each type, click on the bubbles (or the links to their right) to view, or double click on the bubbles/links to search HPD.

#### [Outils pratiques et orientations concernant les substances dangereuses](#)

Source : *Safety and health at work* , juillet 2018

Un certain nombre d'outils et de documents d'orientation ont été mis au point par les États membres, les institutions européennes, les associations d'entreprises, les partenaires sociaux et d'autres acteurs pour aider les entreprises à effectuer des analyses de risque complètes et efficaces. Ces outils illustrent une grande variété d'approches destinées à gérer efficacement les substances dangereuses. Ils couvrent souvent des opérations de travail spécifiques, telles que le remplissage ou le pompage de liquides, ou les procédés de soudure. D'autres sources donnent un aperçu complet de certains groupes de substances, comme les substances sensibilisantes, ou mettent en avant les risques typiques dans certains secteurs. En outre, en plus de contribuer à une évaluation des risques de haute qualité, la plupart de ces outils proposent de bonnes pratiques, expliquant comment réduire les risques dans des contextes professionnels courants comportant une exposition aux substances dangereuses. Il existe également des outils destinés à aider des acteurs spécifiques, comme les inspecteurs du travail, les petites et moyennes entreprises et les représentants des travailleurs, pour ne citer qu'eux. Il vaut donc vraiment la peine d'explorer le site pour découvrir l'aide à votre disposition.

### Toxicovigilance

#### [Données colligées par les coroners ou les médecins légistes comme source de données pour la vigie des intoxications aux agents chimiques : revue de la littérature](#)

Source : INSPQ, Direction de la santé environnementale et de la toxicologie, juin 2018

Cette revue de la littérature visait, dans un premier temps, à recenser des activités de toxicovigilance utilisant des données d'analyses toxicologiques effectuées chez des personnes décédées et colligées par des coroners ou des médecins légistes, afin d'inspirer et de guider

l'élaboration d'indicateurs de toxicovigilance pour le contexte québécois. Étant donné l'absence de littérature scientifique concernant de telles activités de toxicovigilance, l'objectif a été revu afin de recueillir de l'information sur les substances et les populations visées par des activités de surveillance similaire, soit en utilisant des données d'analyses toxicologiques effectuées chez des personnes décédées et colligées par des coroners ou des médecins légistes, au Canada et à l'international. Finalement, cette revue visait également à rapporter les principaux avantages et inconvénients liés à l'utilisation de données provenant de dossiers de coroners ou de médecins légistes en cours d'investigation, pour la toxicovigilance. Il a été possible d'identifier que la grande majorité des substances investiguées ou détectées dans les activités de surveillance ou dans les enquêtes populationnelles (relativement aux décès par intoxication) sont des drogues ou des médicaments. Ce constat doit cependant être nuancé par le fait que la plupart des analyses toxicologiques effectuées chez les personnes décédées ciblent prioritairement certaines de ces substances, aux dépens d'autres substances comme les pesticides ou les produits industriels. Malgré tout, au Québec, les drogues et les médicaments sont à l'origine, à eux seuls, d'une très grande proportion de décès par intoxication. Il est cependant important de garder à l'esprit qu'une vigie sanitaire doit s'intéresser également aux phénomènes rares ou inhabituels qui ne sont pas nécessairement détectés lors des activités de surveillance existantes.

### [Enquête auprès des coroners et des médecins légistes en chef concernant la vigie des intoxications aux agents chimiques](#)

Source : INSPQ, Direction de la santé environnementale et de la toxicologie, juin 2018

Une enquête a été menée auprès des coroners et des médecins légistes afin d'évaluer l'utilité de développer un programme de vigie des intoxications aux agents chimiques. Ils se montrent favorables à un tel programme. Le MSSS, en collaboration avec l'INSPQ et le Bureau du coroner du Québec, souhaite mettre en œuvre un programme provincial de toxicovigilance des intoxications par agents chimiques. Une revue de la littérature a été menée. La présente enquête visait à identifier des activités de toxicovigilance qui n'auraient pas fait l'objet de publications et consistait à sonder directement les coroners et les médecins légistes en chef du Canada, ainsi que d'autres bureaux de coroners ou d'organismes de santé publique ailleurs dans le monde. Cette enquête a également permis de récolter de l'information relativement aux opinions et perspectives des coroners et des médecins légistes en chef quant à l'utilité et à la pertinence d'utiliser des données d'analyses toxicologiques effectuées chez les personnes décédées pour la toxicovigilance.



## RISQUES LIÉS À LA SÉCURITÉ ET MÉCANIQUES

### Chutes et glissades

#### [6 Ways to Uncover Slip, Trip and Fall Hazards](#)

Source : *EHS Today*, juin 2018

Falls are no laughing matter. Here are six suggestions on how to ensure your workers are protected from falling down on the job.

### [Human errors and occupational injuries of older female workers in the residential healthcare facilities for the elderly](#)

Source : *International journal of occupational safety and ergonomics: JOSE* Prépublication, mai 2018

The study aimed to describe the characteristics of occupational injuries of female workers in the residential healthcare facilities for the elderly, and analyze human errors as causes of accidents. From the national industrial accident compensation data, 506 female injuries were analyzed by age and occupation. The results showed that medical service worker was the most prevalent (54.1%), followed by social welfare worker (20.4%). Among injuries, 55.7% were <1 year of work experience, and 37.9% were ≥60 years old. Slips/falls were the most common type of accident (42.7%), and proportion of injured by slips/falls increases with age. Among human errors, action errors were the primary reasons, followed by perception errors, and cognition errors. Besides, the ratios of injuries by perception errors and action errors increase with age, respectively. The findings of this study suggest that there is a need to design workplaces that accommodate the characteristics of older female workers.

### [The Associations between Falls, Fall Injuries and Labor Market Outcomes among U.S. Workers 65 Years and Older](#)

 Source : *Journal of Occupational and Environmental Medicine* Prépublication, juin 2018

This longitudinal cohort study followed older workers enrolled in the Health and Retirement Study in order to examine whether falls are associated with the subsequent ability to work among workers 65 years and older. Outcomes included time to health-related work limitation and to labor force exit. Falls, both non-injurious and injurious, are associated with subsequent health-related work limitation among workers 65 and older. Significant interactions suggest the relationship between falls and labor force exit depends on age, race and job demands. Fall prevention activities would benefit workers who want or need to keep working past age 65.

### [Travail en hauteur : éliminez les dangers !](#)

Source : CNESST, mars 2018

Cette publication explique comment utiliser une échelle de façon sécuritaire. Elle présente les règles de sécurité destinées aux personnes qui utilisent des échelles.

## Sécurité des machines

### [Safety of machinery in hospitals: An exploratory study in the province of Quebec, Canada](#)

Source : *Safety Science* 103, mars 2018

Safety of machinery is a major concern in the manufacturing sector, but machines are also present in many other fields of activities, including healthcare. With the importance of machine-related accidents, the risk management practices related to the safety of machinery in the manufacturing sector are well known and documented. However, there is very little knowledge about the importance of machinery-related risks and their management practices within the hospital sector. The exploratory study presented in this paper addresses (i) the context of safety of machinery in hospitals; (ii) the characteristics of the machines used and their inherent hazards; and (iii) the level of integration of risk management practices for the safety of machinery in hospitals, such as risk assessment, machine safeguarding, lockout/tagout, inspection, and

training. The results suggest that the hospital sector is generally aware of the best practices in machinery risk management, but that their level of implementation is lower than what can be observed in the industrial sector.



## RISQUES PHYSIQUES

### Bruit

#### [Revue de la littérature sur les liens entre la surdité professionnelle et la presbycusie](#)

Source : IRSST, juin 2018

Cette revue de la littérature a été réalisée pour répondre à une série de questions concernant le processus d'acquisition de la surdité professionnelle. L'objectif général du projet visait à documenter comment s'acquiert la surdité professionnelle en relation, plus particulièrement, avec la presbycusie. La revue de la littérature visait plus spécifiquement à 1) déterminer si l'exposition au bruit peut accélérer le processus de la presbycusie; 2) établir si l'utilisation de facteurs de correction peut permettre de discriminer la surdité professionnelle de la presbycusie; 3) évaluer comment évolue la surdité après l'arrêt de l'exposition à un bruit excessif au travail.

### Champs électromagnétiques

#### [Expositions aux champs électromagnétiques. Repères en santé au travail](#)

Source : *Références en santé au travail* (153), mars 2018

Omniprésents dans l'environnement quotidien et en milieu de travail, les champs électromagnétiques (CEM) suscitent des interrogations et parfois des inquiétudes quant aux risques qu'ils peuvent faire encourir aux personnes. Si les effets biophysiques avérés sur l'homme sont bien connus, il reste parfois difficile pour un non spécialiste de faire la part des choses entre les effets tels qu'ils peuvent être rapportés par les travailleurs et leur relation avec la présence de CEM. Ce texte se propose d'explicitier les différents effets connus des CEM et les limites d'exposition qui leur sont associées. Il présente également des repères permettant aux professionnels de la santé au travail de faire un lien entre le poste de travail et les effets potentiels associés, et inversement de vérifier si un effet tel qu'il est ressenti par un travailleur est bien en lien avec les CEM présents sur son poste de travail. Ces repères sont complétés par des tableaux qui recensent des exemples d'installations couramment rencontrées en milieu de travail et les effets possibles correspondants.

### Lumière

#### [Unrestricted evening use of light-emitting tablet computers delays self-selected bedtime and disrupts circadian timing and alertness](#)

Source : *Physiological Reports* 6(10), 2018

Evening exposure to light-emitting (LE) devices can adversely affect circadian timing, sleep, and alertness, even when participants maintain a fixed 8-hour sleep episode in darkness and the duration of evening LE-device exposure is limited. Here, we tested the effects of evening LE-device use when participants were allowed to self-select their bedtimes, with wake times fixed as on work/school days. Nine healthy adults participated in a randomized and counterbalanced study comparing five consecutive evenings of unrestricted LE-tablet computer use versus

evenings reading from printed materials. When using LE-tablets, participants' self-selected bedtimes were on average half an hour later, and they showed suppressed melatonin levels, delayed timing of melatonin secretion onset, and later sleep onset. When using LE-tablets, participants rated themselves as less sleepy in the evenings and less alert in the first hour after awakening on the following mornings. These findings demonstrate that evening use of LE-tablets can induce delays in self-selected bedtimes, suppress melatonin secretion, and impair next-morning alertness, which may impact the health, performance, and safety of users.

## Radiation

### [Applying human factors engineering methods for hazard identification and mitigation in the radiotherapy process](#)

Source : *Safety Science* 109, novembre 2018

The radiotherapy process is complex, and there is potential for inappropriate treatment delivery. Human Factors Engineering (HFE) studies interactions between people and systems to improve those relations. Therefore, by using HFE methods, this study analyzes the relations between radiotherapists and their work and limitations in a Brazilian hospital to contribute to hazard mitigation and safety. Results show safety hazards regarding usability and ergonomic issues such as discomfort, distraction, mental fatigue, protocol non-compliance, and errors. That may induce errors of treating the wrong patient, applying radiation to the wrong part of the patient's body and causing harm. The combination of HFE methods was fundamental to the identification of safety hazards as they involve precisely the multifactorial characteristics of the process, i.e., the relationship among human, technologies, organization, environment and tasks. Hence, safety hazard mitigation depends on everyone involved in the treatment delivery.

### [Expositions professionnelles à des agents cancérigènes respiratoires chez les salariés en 2010 / Occupational exposure to respiratory carcinogenic agents among salaried workers in 2010](#)

Source : *Bulletin épidémiologique hebdomadaire* 12(13), mai 2018

Les cancers respiratoires sont les plus fréquents des cancers professionnels, mais très peu de données sont disponibles pour quantifier l'exposition professionnelle aux cancérigènes respiratoires. L'objectif de ce travail était d'évaluer en France la proportion de salariés exposés à des agents cancérigènes respiratoires et d'identifier les groupes professionnels les plus exposés, à des fins de prévention. En France, en 2010, environ 2 millions de salariés ont été exposés à au moins un cancérigène de l'appareil respiratoire et 22% d'entre eux avaient au moins une double exposition. Si chez les hommes, les secteurs de la construction, de la réparation automobile et du transport et de l'entreposage sont prépondérants et impliquent essentiellement des agents chimiques, chez les femmes, l'exposition se concentre dans le secteur de la santé où sont présents les rayonnements ionisants en plus des agents chimiques.



SANTÉ PSYCHOLOGIQUE

## Adaptation aux changements

### [Dual impact of organisational change on subsequent exit from work unit and sickness absence: a longitudinal study among public healthcare employees](#)

Source : *Occup Environ Med* 75(7), juillet 2018

This study investigated work-unit exit, total and long-term sickness absence following organisational change among public healthcare employees. Reorganisation was associated with subsequent work-unit exit in the year after reorganisation. This association was specifically important for exposure to  $\geq 3$  types of changes, merger, demerger or change of management. Among the employees remaining in the work unit, reorganisation was also associated with more events of long-term sickness absence, which was particularly important for merger and employee layoff.

## Charge de travail et fatigue

### [The Association Between Nurse Shift Patterns and Nurse-Nurse and Nurse-Physician Collaboration in Acute Care Hospital Units](#)

Source : *Journal of Nursing Administration* 48(6), juin 2018

Collaboration between nurses and other healthcare providers is critical for ensuring quality patient care. Nurses perform collaboration during their shift work; thus, nurse shift patterns may influence collaboration. This cross-sectional study using data from 957 units in 168 acute care hospitals examined the impact of nurse shift patterns on nurses' collaboration with nurses and physicians in US acute care hospital units. Overtime (more nurses working overtime or longer overtime hours) was associated with lower collaboration at the unit level; however, shift length was not. Authors conclude that working overtime may negatively influence nurses' collaboration with other healthcare providers.

### [Bio-mathematical fatigue models predict sickness absence in hospital nurses: An 18 months retrospective cohort study](#)

Source : *Applied Ergonomics* 73, juin 2018

This study examined the associations between bio-mathematical fatigue-risk scores and sickness absence (SA) in hospital nurses over 18 months. Work schedules and SA data were extracted from the hospital's attendance system. Fatigue-risk scores were generated for work days using the Fatigue Audit InterDyne (FAID) and Fatigue Risk Index (FRI). Over the study period, 5.4% of the shifts were absence shifts. FAID-fatigue ranged from 7 to 154; scores for a standard 9–5 work schedule can range from 7 to 40. Nurses with high FAID-scores were more likely to be absent from work when compared to standard FAID-scores. FRI-fatigue ranged from 0.9 to 76.8. When FRI-scores were  $>60$ , nurses were at 1.58 times increased odds for SA compared to scores at or below 20. Nurse leaders can use these decision-support models to adjust high-risk schedules or the number of staff needed to cover anticipated absences from work.

### [Night work and risk of common mental disorders: analyzing observational data as a non-randomized pseudo trial](#)

Source : *Scandinavian Journal of Work, Environment & Health*, juin 2018

The aim of this study was to examine the status of night work as a risk factor for common mental disorders (CMD). A cohort study with three data waves was conducted on populations of social and healthcare employees for a duration of eight years (total N=46 010). Data were analyzed as a non-randomized pseudo trial to examine (i) whether moving from non-night work to night work

is associated with the development of CMD, (ii) the extent to which moving back to non-night work biases this association and (iii) whether moving from night to non-night work is associated with the recovery from CMD. Results According to logistic regression with generalized estimating equation and without bias-correction, changing to night work was not associated with the odds of acquiring CMD [odds ratio (OR) 1.03, 95% confidence interval (CI) 0.82-1.30]. However, night workers with CMD had higher odds of recovery from CMD when changing to non-night work compared to continuing night work (1.99, 95% CI 1.20-3.28). When night workers developed CMD, the odds of moving back to non-night work increased by 68%. In analyses corrected for this bias, changing from non-night to night work was associated with a 1.25-fold (95% CI 1.03-1.52) increased odds of acquiring CMD. Conclusions A change from non-night to night work may increase the risk of CMD, while moving back from night to non-night work increased recovery from CMD.

### [The impact of workload on the ability to localize audible alarms](#)

Source : *Applied Ergonomics* 72, juin 2018

Very little is known about people's ability to localize sound under varying workload conditions, though it would be expected that increasing workload should degrade performance. A set of eight auditory clinical alarms already known to have relatively high localizability (the ease with which their location is identified) when tested alone were tested in six conditions where workload was varied. Participants were required to indicate the location of a series of alarms emanating at random from one of eight speaker locations. They were also asked to read, carry out mental arithmetic tasks, be exposed to typical ICU noise, or carry out either the reading task or the mental arithmetic task in ICU noise. Performance in the localizability task was best in the control condition (no secondary task) and worst in those tasks which involved both a secondary task and noise. Performance in the control condition results in a missed alarm on one in ten occurrences, whereas performance in the heaviest workload conditions results in a missed alarm on every fourth occurrence. The data demonstrates the typical pattern of increasing workload affecting a primary task in an area where there is little data. This finding has implications for the understanding of both 'inattentive deafness' and 'alarm fatigue' in clinical environments.

### Épuisement professionnel

#### [Femmes et travail: le manque de latitude décisionnelle en mène plusieurs à l'épuisement professionnel](#)

Source : *udemnouvelles* , juin 2018

Cet article présente une étude en relations industrielles de l'UdeM démontre que les causes de l'épuisement professionnel sont différentes pour les hommes et les femmes. Voir aussi l'étude «Gendered Pathways to Burnout: Results from the SALVEO Study», *Annals of Work Exposures and Health*, 19 février 2018. (<https://academic.oup.com/annweh/advance-article/doi/10.1093/annweh/wxx114/4870017>)

#### [Do age and gender contribute to workers' burnout symptoms?](#)

Source : *Occupational Medicine* , juin 2018

This study aims to evaluate the relationship between age, gender and their interaction with burnout in a sample of Canadian workers. Data were collected in 2009–12 from a sample of 2073

Canadian workers from 63 workplaces in the province of Quebec. Age followed a non-linear relationship with emotional exhaustion and total burnout, while it was linearly related to cynicism and reduced professional efficacy. Burnout level reduced with increasing age in men, but the association was bimodal in women, with women aged between 20–35 and over 55 years showing the highest burnout level. These results suggest that burnout symptoms varied greatly according to different life stages of working men and women. Younger men, and women aged between 20–35 and 55 years and over are particularly susceptible and should be targeted for programmes to reduce risk of burnout.

### [Improvements of the working conditions for physicians and patient safety in emergency departments](#)

Source : *Journal of Hospital Administration* 7(4), juin 2018

High staff turn-over and crowding are common problems in emergency departments (EDs). These problems coexist with a gradual decrease in hospital beds per capita. Many emergency physicians report burnout and plan to resign. Therefore, mostly inexperienced physicians, early in their career, are responsible for front-line emergency care. Based on a literature review and analysis of work environment in EDs, structural and individual measures were proposed in order to optimize the work environment for physicians. Authors find that working conditions in the ED could be improved through modified back-up, checklists/algorithms, increased number of hospital beds, and optimal use of available beds, and a revision of the current shift organization. We hope that this analysis will prompt a debate that may lead to improvements in work satisfaction, resource utilization and quality of care.

### [Job burnout: The contribution of emotional stability and emotional self-efficacy beliefs](#)

Source : *Journal of Occupational and Organizational Psychology* Prépublication, juin 2018

This study presents a theoretical model positing emotional self-efficacy beliefs in managing negative emotions at work as a key mechanism that contributes to mediate the negative relationship between emotional stability – a trait highly associated with positive affect and mental health – and job burnout. Self-efficacy in managing negative emotions at work proved to be an important resource for workers in managing job-related stress: practitioners interested in reducing burnout symptoms in stressful working environments should take into account this variable. Self-efficacy beliefs in managing negative emotions at work are cognitive structures malleable to change. Literature on social cognitive theory offers several suggestions on how to promote individuals' positive beliefs on managing negative emotions and dysphoric affect. Hence, findings and literature reported in this study may be useful for practitioners aiming at strengthen workers' self-efficacy in managing negative emotions at work, through the development and application of coaching and training programmes.

## Gestion et leadership

### [Content and quality of workplace guidelines developed to prevent mental health problems: results from a systematic review](#)

Source : *Scandinavian Journal of Work, Environment & Health* , mai 2018

A wide range of guidelines have been developed to prevent work-related mental health problems (MHP), but little is known about the quality of such guidelines. We systematically reviewed the



content and quality of workplace guidelines aiming to prevent, detect, and/or manage work-related MHP. Of the seventeen guidelines which were quality assessed, four guidelines had developed recommendations of good quality, but the evidence of two guidelines was outdated and studies documenting the effect of implementation were not yet available. Few guidelines have been developed with sufficient rigor to help employers prevent or manage work-related MHP and evidence of their effectiveness remains scarce.

### [Effectiveness of training workplace managers to understand and support the mental health needs of employees: a systematic review and meta-analysis](#)

Source : *Occup Environ Med* 75(6), juin 2018

Managers are in an influential position to make decisions that can impact on the mental health and well-being of their employees. As a result, there is an increasing trend for organisations to provide managers with training in how to reduce work-based mental health risk factors for their employees. A systematic search of the literature was conducted to identify workplace interventions for managers with an emphasis on the mental health of employees reporting directing to them. Our meta-analysis indicates that training managers in workplace mental health can improve their knowledge, attitudes and self-reported behaviour in supporting employees experiencing mental health problems. At present, any findings regarding the impact of manager training on levels of psychological distress among employees remain preliminary as only a very limited amount of research evaluating employee outcomes is available. Our review suggests that in order to understand the effectiveness of manager training on employees, an increase in collection of employee level data is required.

### [How Can Supervisors Contribute to the Return to Work of Employees Who have Experienced Depression?](#)

Source : *Journal of Occupational Rehabilitation* 28(2), juin 2018

The goal of this study was to determine the types and prevalence of supervisor contributions during the different phases of the return-to-work (RTW) process (before and during the sick-leave absence, and during the RTW preparations) of employees diagnosed with depression. Moreover, we sought to determine which contributions actually facilitate employees' RTW, and to identify the work accommodations most frequently implemented by supervisors at the actual time of their employee's RTW. Cox regression analyses performed for the entire sample revealed that "the supervisors' intention to take measures to facilitate their employees' RTW" was the only significant predictor of the RTW at the time of the interview. Four of the most frequently implemented work accommodations were actions directly involving the supervisor (i.e. providing assistance, feedback, recognition, and emotional support to the employee).

### [Management of psychosocial risks in European workplaces - evidence from the second European survey of enterprises on new and emerging risks \(ESENER-2\)](#)

Source : European agency for safety and health at work (EU-OSHA), 2018

This report examines barriers to and drivers of workplace psychosocial risk management, and how this is influenced by different national and organisational contexts. The exposure of workers to psychosocial risks is increasing. However, the level of risk and the effectiveness of management vary across sectors and countries. Based on the findings of a quantitative analysis

of ESENER-2 data combined with other country-specific data, it shows that the national context — culture, economy and occupational safety and health initiatives by social partners — is related to the level of psychosocial risk management in the workplace. It also reveals that management commitment and worker involvement are likely to be most effective organisational drivers of managing psychosocial risks, regardless of the national context. The practical implications of these findings are also discussed.

### [Mission Critical: Nursing Leadership Support for Compassion to Sustain Staff Well-being](#)

Source : *Nursing Administration Quarterly* 42(3), septembre 2018

Increasingly, the fast pace and volume of care and documentation requirements diminish time with patients and families and hinder the enactment of compassion. These issues and other aspects of the work environment decrease the satisfaction and well-being of professional caregivers and are contributing to a rising tide of burnout. Research suggests that employee engagement emerges from their satisfaction and well-being; however, it is difficult for an individual to engage when she or he feels depleted and unsupported. Nursing leaders and managers can play a significant role in support of compassionate practices for staff and improvement of the work environment and staff well-being. This article describes an example of a compassion practice, Schwartz Rounds®, a program that has been implemented internationally to enhance staff caring and compassion, teamwork, and psychological well-being. Schwartz Rounds have been included as a component of organizational initiatives to enhance staff well-being and patient experience, and as an individual program. Nurse leaders and managers who wish to engage their staff can do so by supporting their compassion and well-being. Voir aussi <http://www.theschwartzcenter.org/supporting-caregivers/schwartz-center-rounds/>

### [New perspectives on psychosocial safety climate in healthcare: A mixed methods approach](#)

Source : *Safety Science* 109, novembre 2018

Psychosocial Safety Climate (PSC) theory may be applicable to a wide range of industries. This study looks at how PSC manifests in healthcare, noting that it plays a role in balancing conflicting pressures of safe work and patient care. Practical implications of the study include three methods by which management and Australian policy makers can mitigate psychosocial risks, enacting a positive change in safety climates that better value frontline worker psychological health.

### [Spiritual leadership as an emergent solution to transform the healthcare workplace](#)

Source : *Journal of Nursing Management* 26(4), mai 2018

A new approach to leading and managing is suggested to foster environments that nurture staff. There is also an emerging gap for research and education on the type of leadership that can effectively drive and harness the required attributes necessary in individuals or organisations to navigate this journey. Key emerging attributes are supporting, recognising and encouraging staff; relationship building and demonstrating compassion. Leaders need to connect with workers and the wider communities at an emotional and spiritual level. Consequently, a values based leadership model might be more useful to healthcare organisations and spiritual leadership is an emergent approach that warrants further research and exploration in this context.

## Intimidation et agression

### [‘First, Do No Harm’: The Role of Negative Emotions and Moral Disengagement in Understanding the Relationship Between Workplace Aggression and Misbehavior](#)

Source : *Frontiers in Psychology* 9, 2018

Workplace aggression is a critical phenomenon particularly in the healthcare sector, where nurses are especially at risk of bullying and third-party aggression. While workplace aggression has been frequently examined in relation to health problems, less is known about the possible negative impact such aggression may have on the (un)ethical behavior of victims. Our research aims to fill this gap. Drawing on literature on counterproductive work behavior and the social-cognitive literature on aggression, we investigated the role of negative emotions - in particular anger, fear, and sadness, - and of moral disengagement in the paths between workplace aggression, counterproductive work behavior and health symptoms. The focus on these relationships is rooted in two reasons. First, misbehavior at work is a pervasive phenomenon worldwide and second, little research has been conducted in the healthcare sector on this type of behavior despite the potential importance of the issue in this context. We empirically tested our hypotheses considering a specific form of workplace aggression in each study: workplace bullying or third-party aggression. Results confirm the hypotheses that being target of workplace aggression (bullying or third-party aggression) is not only associated with health symptoms but also with misbehavior. In addition, the results of structural equation modelling attest the importance of examining specific discrete negative emotions and moral disengagement for better understanding misbehavior at work. In particular, this research shows for the first time that anger, fear, and sadness, generally aggregated into a single dimension, are indeed differently associated with moral disengagement, misbehavior and health symptoms. Specifically, in line with the literature on discrete emotions, while sadness is only associated with health symptoms, anger and fear are related to both health and misbehavior.

### [Workplace aggression may be cyclical, study of nurses shows](#)

Source : *Safety & Health* , juin 2018

Frequent victims of workplace aggression and bullying may experience adverse health effects and, in turn, behave cruelly toward others, according to a new study from the University of East Anglia.

## Lésion morale et fatigue de compassion

### [Are medical students in prehospital care at risk of moral injury?](#)

Source : *Emerg Med J* Prépublication, juin 2018

Background The term ‘moral injury’ may be useful in conceptualising the negative psychological effects of delivering emergency and prehospital medicine as it provides a non-pathological framework for understanding these effects. This is in contrast to concepts such as burnout and post-traumatic stress disorder which suggest practitioners have reached a crisis point. We conducted an exploratory, pilot study to determine whether the concept of moral injury resonated with medical students working in emergency medicine and what might mitigate that injury for them. The term moral injury was useful in exploring the experience of medical students in emergency medicine. More effort should be made to ensure that students effectively access debrief and other support opportunities. It is hoped that future work will be undertaken with

different professional groups and explore the potential psychological and neuropsychological impact of witnessing trauma.

### [Assessing the Degree of Compassion Satisfaction and Compassion Fatigue Among Critical Care, Oncology, and Charge Nurses](#)

Source : *Journal of Nursing Administration* 48(6), juin 2018

Cumulative grief resulting from caring for critically/terminally ill patients may result in CF, leading to lower quality care and higher nurse attrition. The aim of this study was to assess the degree of compassion satisfaction and compassion fatigue (CF) among critical care, oncology and charge nurses. Charge nurses had higher secondary traumatic stress (STS) than direct care nurses. Nurses with less than 10 years of experience had lower CS than experienced nurses. Higher levels of burnout (BO) and STS were reported among charge nurses, whereas less direct care nurses had average to high BO and STS ratings. Previous studies focused on direct care nurses; our findings suggest that CF is prevalent among charge nurses as well. Interventions should be considered for clinical providers and charge nurses including debriefing, stress reduction, peer support, and team building.

## Promotion de la santé mentale au travail

### [Do Health Promotion Behaviors Affect Levels of Job Satisfaction and Job Stress for Nurses in an Acute Care Hospital?](#)

Source : *Journal of Nursing Administration* 48(6), juin 2018

The aim of this study was to explore the relationships between nurse-reported health-promoting behaviors (HPBs), job stress, and job satisfaction in a hospital setting. Results from a cross-sectional, 144-item survey was administered to nurses working in an acute care, community hospital in the southeastern United States showed that higher levels of HPB were associated with lower job stress and higher job satisfaction. Total HPB was associated with the competence subscale of job stress. Lower job stress was significantly associated with HPB subscales: spiritual growth, interpersonal relations, and stress management.

### [Promotion de la santé mentale au travail](#)

Source : Office des publications de l'Union européenne, mars 2018

La santé mentale et le bien-être de la main-d'œuvre européenne sont de plus en plus reconnus comme une question importante pour les parties prenantes du travail en Europe. Les objectifs spécifiques du document d'orientation sont les suivants: placer la prise en charge des problèmes de santé mentale au travail (prévention, promotion et retour au travail) dans le contexte de la directive-cadre ainsi que de la législation et des bonnes pratiques y afférentes; sensibiliser à l'importance de la prise en charge de la santé mentale et du bien-être au travail; fournir un aperçu des procédures nécessaires concernant la gestion des questions liées à la santé mentale au travail pour les employeurs, les syndicats, les employés, les décideurs politiques et les praticiens; fournir des exemples pratiques concernant la manière d'atteindre ces objectifs à l'aide d'études de cas; fournir des références à d'autres sources pertinentes d'orientation, de recherche et d'informations.

## Risques psychosociaux

### [Clustering of job strain, effort–reward imbalance, and organizational injustice and the risk of work disability: a cohort study](#)

Source : *Scandinavian Journal of Work, Environment & Health* , mai 2018

The aim of this study was to examine the association between co-occurring work stressors and risk of disability pension. The work stressors job strain, effort–reward imbalance (ERI), and organizational injustice were measured by a survey in 2008 of 41 862 employees linked to national records of all-cause and cause-specific disability pensions until 2011. Co-occurring work stressors were examined as risk factors of work disability using Cox regression marginal models. Data showed that work stressors tend to cluster in the same individuals. The highest risk of disability pension was observed among those with work stressor combinations strain+ERI or strain+ERI+injustice, rather than for those with single stressors.

### [Facteurs organisationnels et psychosociaux associés aux contraintes posturales en milieu professionnel : résultats à partir de l'enquête Sumer 2010](#)

Source : *Bulletin épidémiologique hebdomadaire* (43447), mai 2018

Parmi les contraintes biomécaniques associées aux troubles musculo-squelettiques (TMS), les contraintes posturales (CP) font partie des plus fréquemment observées chez les travailleurs. L'objectif de cette étude était d'évaluer les associations entre l'exposition à des facteurs organisationnels et psychosociaux et celle à au moins une CP  $\geq 10$  h par semaine dans la population salariée française. L'exposition à au moins une CP  $\geq 10$  h par semaine était relevée chez 14% des hommes et 12% des femmes. Les contraintes industrielles, les normes de production ainsi que le manque de flexibilité, la surveillance hiérarchique et la polyvalence des postes de travail étaient positivement associées à l'exposition à une CP, quel que soit le genre. De même, un environnement psychosocial délétère (faible soutien social, faibles utilisation et développement des compétences et forte demande psychologique) était associé à un risque accru d'exposition à une CP. Ces résultats suggèrent la nécessité de prendre en compte les dimensions organisationnelles et psychosociales, au-delà des facteurs biomécaniques et socioprofessionnels, dans la prévention des TMS en milieu professionnel.

### [Job strain and loss of healthy life years between ages 50 and 75 by sex and occupational position: analyses of 64 934 individuals from four prospective cohort studies](#)

Source : *Occup Environ Med* , mai 2018

This study aims to quantify the extent to which poor psychosocial working conditions reduce healthy or chronic disease-free life expectancy (HLE or CDFLE). Multistate life table models showed that job strain was consistently related to shorter healthy life expectancy, particularly among men and participants in lower occupational positions. Similar differences in HLE, although smaller, were observed among those in intermediate or high occupational positions. Job strain was additionally associated with shorter CDFLE, although this association was weaker and somewhat inconsistent. These findings suggest that individuals with job strain have a shorter health expectancy compared with those without job strain.

### [Mortalité prématurée par maladies cardiovasculaires chez les femmes selon la catégorie sociale et le secteur d'activité : synthèse](#)

Source : Santé publique France, juin 2018

Les maladies cardiovasculaires (MCV) sont moins bien documentées chez les femmes que chez les hommes. Les principaux déterminants socioprofessionnels établis dans la littérature scientifique sont les risques psychosociaux, le travail de nuit, le travail posté, les horaires atypiques, et les bruits nocifs. La mortalité prématurée par maladies cardiovasculaires diminue entre 1976 et 2002 et présente un gradient social croissant des cadres vers les ouvrières et de sdifférences selon les secteurs. Les secteurs professionnels les plus à risque, notamment l'hôtellerie-restauration et l'industrie manufacturière, pourraient être particulièrement ciblés par les actions de prévention, avec une attention encore plus grande aux catégories les plus défavorisées.



## TROUBLES MUSCULOQUELETTIQUES

### [Application des pratiques préventives par les infirmières et infirmiers : la perspective innovante de la capacité d'absorption](#)

Source : IRSST, juin 2018

Lors de cette conférence, Saliha Ziam, professeure à l'Université TÉLUQ, explique les facteurs qui influent sur le processus d'application des pratiques de prévention chez le personnel infirmier du réseau de la santé du Québec. Vous trouverez les diapositives et la vidéo de la présentation sur cette page.

D'autres contenus issus de la même recherche sont également accessibles, soit le [rapport de recherche](#), la [vidéo](#) et le [document de sensibilisation](#) intitulés « Personnel infirmier et troubles musculosquelettiques, Comment favoriser l'application des pratiques préventives dans le milieu de travail? » et l'article [TMS chez le personnel hospitalier : Qu'est-ce qui nuit à la prévention?](#) dans *Prévention au travail*.

### [Armrests and back support reduced biomechanical loading in the neck and upper extremities during mobile phone use](#)

Source : *Applied Ergonomics* 73, novembre 2018

Mobile phone use is known to be associated with musculoskeletal pain in the neck and upper extremities because of related physical risk factors, including awkward postures. A chair that provides adequate support (armrests and back support) may reduce biomechanical loading in the neck and shoulder regions. Therefore, we conducted a repeated-measures laboratory study with 20 participants to determine whether armrests and back support during mobile phone use reduced head/neck flexion, gravitational moment, and muscle activity in the neck and shoulder regions. The results showed that the chair support (armrests and back support) reduced head/neck flexion, gravitational moment, and muscle activity in the neck and shoulder regions significantly compared to no chair support. These results indicate that a chair with adequate support can be an effective intervention to reduce the biomechanical exposures and associated muscular pain in the neck and shoulders during mobile phone use.

### [Early Return to Work has Benefits for Relief of Back Pain and Functional Recovery after Controlling for Multiple Confounds](#)

Source : *Journal of Occupational and Environmental Medicine* Publish Ahead of Print, juin 2018

This study evaluated the effect on health outcomes of an early or immediate return-to-work (RTW) after acute low back pain (LBP), finding that pain and function improved more rapidly for workers with an immediate (30.7%) or early (1-7 days) RTW (36.8%). Eleven demographic, health, or workplace variables were identified as potential confounds, but controlling for these factors only partially attenuated the benefits of an early RTW. Conclusions: An early RTW improves acute LBP and functional recovery, and alternate confounding explanations only partially eclipse this therapeutic effect.

### [Facteurs organisationnels et psychosociaux associés aux contraintes posturales en milieu professionnel : résultats à partir de l'enquête Sumer 2010](#)

Source : *Bulletin épidémiologique hebdomadaire* (12/13/2018), mai 2018

Parmi les contraintes biomécaniques associées aux troubles musculo-squelettiques (TMS), les contraintes posturales (CP) font partie des plus fréquemment observées chez les travailleurs. L'objectif de cette étude était d'évaluer les associations entre l'exposition à des facteurs organisationnels et psychosociaux et celle à au moins une CP  $\geq 10$  h par semaine dans la population salariée française. L'exposition à au moins une CP  $\geq 10$  h par semaine était relevée chez 14% des hommes et 12% des femmes. Les contraintes industrielles, les normes de production ainsi que le manque de flexibilité, la surveillance hiérarchique et la polyvalence des postes de travail étaient positivement associées à l'exposition à une CP, quel que soit le genre. De même, un environnement psychosocial délétère (faible soutien social, faibles utilisation et développement des compétences et forte demande psychologique) était associé à un risque accru d'exposition à une CP. Ces résultats suggèrent la nécessité de prendre en compte les dimensions organisationnelles et psychosociales, au-delà des facteurs biomécaniques et socioprofessionnels, dans la prévention des TMS en milieu professionnel.

### [Hand forces exerted by long-term care staff when pushing wheelchairs on compliant and non-compliant flooring](#)

Source : *Applied Ergonomics* 71, septembre 2018

Purpose-designed compliant flooring and carpeting have been promoted as a means for reducing fall-related injuries in high-risk environments, such as long-term care. However, it is not known whether these surfaces influence the forces that long-term care staff exert when pushing residents in wheelchairs. We studied 14 direct-care staff who pushed a loaded wheelchair instrumented with a triaxial load cell to test the effects on hand force of flooring overlay (vinyl versus carpet) and flooring subfloor (concrete versus compliant rubber [brand: SmartCells]). During straight-line pushing, carpet overlay increased initial and sustained hand forces compared to vinyl overlay by 22–49% over a concrete subfloor and by 8–20% over a compliant subfloor. Compliant subflooring increased initial and sustained hand forces compared to concrete subflooring by 18–31% when under a vinyl overlay. In contrast, compliant flooring caused no change in initial or sustained hand forces compared to concrete subflooring when under a carpet overlay.

### [Visual and psychological stress during computer work in healthy, young females—physiological responses](#)

Source : *International Archives of Occupational and Environmental Health* , mai 2018

Among computer workers, visual complaints, and neck pain are highly prevalent. This study explores how occupational simulated stressors during computer work, like glare and psychosocial stress, affect physiological responses in young females with normal vision. The study was a within-subject laboratory experiment with a counterbalanced, repeated design. Forty-three females performed four 10-min computer-work sessions with different stress exposures: (1) minimal stress; (2) visual stress (direct glare); (3) psychological stress; and (4) combined visual and psychological stress. Psychological stress induced a transient increase in trapezius muscle activity and a more forward-bent posture. Bending forward towards the computer screen was correlated with higher productivity (reading speed), indicating a concentration or stress response. Forward bent posture was also associated with changes in fixation disparity. Furthermore, during computer work per se, trapezius muscle activity and blood flow, orbicularis oculi muscle blood flow, and heart rate were increased compared to rest. Exposure to glare and psychological stress during computer work were shown to influence the trapezius muscle, posture, and blink rate in young, healthy females with normal binocular vision, but in different ways. Accordingly, both visual and psychological factors must be taken into account when optimizing computer workstations to reduce physiological responses that may cause excessive eyestrain and musculoskeletal load.

#### [Work-related ill-health in radiographers](#)

 Source : *Occupational Medicine* , mai 2018

This study aims to analyse the medically reported incidence of WRIs among radiographers in the UK between 1989 and 2015. Incident cases reported by physicians to The Health and Occupation Research (THOR) network through its specialist schemes from 1989 to 2015 were analysed, using the Labour Force Survey as denominator where appropriate. Radiographers had a higher incidence of WRI compared to all other occupations. The most frequently reported WRI was skin conditions, followed by musculoskeletal. The observed increase in incidence is likely to be due to the increase in the number of radiographers over that time period, although there was no evidence that WRI within radiographers are declining.

#### [Work-related musculoskeletal injuries in Prosthetists and Orthotists in Australia](#)

 Source : *International journal of occupational safety and ergonomics: JOSE* , juin 2018

This study aims to determine the prevalence of work-related musculoskeletal disorders in prosthetists/orthotists working in Australia and to examine the relationship between work-related hazards and work-related musculoskeletal disorders. Results of a self-report survey show that prevalence of work-related musculoskeletal disorders was 80%. Gender, total weekly hours, Physical and Psychosocial hazards were all associated with reporting of work-related musculoskeletal disorders. Females reported higher levels of work-related musculoskeletal disorder discomfort than males in all body areas. With results showing high prevalence of work-related musculoskeletal disorders in prosthetists/orthotists, authors suggest that focus on work place injury prevention is required. Targeted prevention requires systematic identification and then control of all relevant workplace hazards.