

Appendix 5 – Characteristics of included studies

Table 1: Characteristics of included studies

Author, year	Risk of bias	Interventions	Outcomes
Prevention of musculoskeletal disorders			
<i>Multi-component interventions for musculoskeletal disorders</i>			
Aas et al. 2011 [22]	Low	Single-component and multi-component workplace interventions (includes, e.g. mental health education, physical education, workplace adjustments, relaxation breaks)	Pain severity, pain prevalence, sickness absence
Chen et al. 2018 [23]	Low	Exercise interventions, ergonomic interventions, breaks, cognitive behaviour therapy, education, myofeedback	Neck pain intensity
Goodman et al. 2012 [24]	Low	Forearm supports, ergonomic keyboards, ergonomic mice, ergonomic training, workout or rest breaks	Symptoms of cumulative trauma disorders of the upper extremity
Lowry et al. 2017 [25]	Low	Workplace exercise programmes, ergonomic interventions	Intensity of shoulder pain
Richardson et al. 2018 [26]	Low	Patient lift systems, patient handling training, cognitive behavioural interventions, unstable shoes	Musculoskeletal pain, injuries, sickness absence
<i>Exercises at the workplace</i>			
Kelly et al. 2018 [27]	Low	Exercise therapy	Pain and functionality in work-related diseases of the upper extremities
<i>Work organisational interventions (work organisation, work environment, job rotation) for musculoskeletal disorders</i>			
Stock et al. 2018 [28]	Low	Supplementary pauses, participatory ergonomic interventions, participatory organisational intervention, interventions to reduce patient lifting (safe lifting programmes and equipment), feedback about computer workstation setup and psychosocial aspects of work	Musculoskeletal symptom intensity, prevalence of various musculoskeletal pains
<i>Educational interventions for musculoskeletal disorders</i>			
Crawford et al. 2008 [29]	Low	Training in workstation adjustment and posture, Muscle Learning Therapy	Musculoskeletal symptoms
<i>Ergonomic interventions</i>			
Hoe et al. 2012 [30]	Low	Ergonomically designed equipment, such as a specially designed computer mouse or arm support; ergonomically designed work environment (including workplace and work design); ergonomic training; ergonomic training combined with ergonomic equipment	Frequency of neck/shoulder diseases or complaints, musculoskeletal disorders, diseases or complaints of the right upper extremity, wrist complaints
<i>Manual handling of loads</i>			
Freiberg et al. 2016 [31]	Low	Provision of small aids and intensive education on how to handle patients	Prevalence of low back pain, upper arm pain, shoulder pain
Hegewald et al. 2018 [32]	Low	Technical patient handling equipment, also in combination with education/training	Musculoskeletal injuries, back pain, repeated musculoskeletal injuries, cervical spine injuries, shoulder pain
Verbeek et al. 2011 [33]	Low	Training, professional education, video, use of a back belt, exercise, training plus lifting aids	Incidence, intensity of back pain

Author, year	Risk of bias	Interventions	Outcomes
Prevention of occupational injuries			
<i>Prevention of occupational injuries in the agricultural sector and the construction industry</i>			
Rautiainen et al. 2008 [34]	Low	Educational interventions, insurance premium discount programme, legislation banning Endosulfan pesticides, legislation on rollover protection structures or safety cabs for tractors	Injuries, poisoning
van der Molen et al. 2018 [35]	Low	Training programmes, health and safety laws (e.g. vertical fall arrest standard, trench and excavation standard) and inspections, subsidy for scaffolds, safety campaign, drug-free workplace programme	Fatal and non-fatal injuries
<i>Alcohol and drug screening of professional drivers</i>			
Cashman et al. 2009 [36]	Low	Mandatory random and for-cause alcohol tests, mandatory random drug tests	Injuries levels (immediate and long-term)
<i>Safety products and practices in the health sector</i>			
Mischke et al. 2014 [37]	Low	Increase in the number of glove layers, use of thick gloves or gloves manufactured with special protective materials, use of glove puncture indication systems to warn staff about glove perforations	Glove perforations, frequency of blood contamination
Parantainen et al. 2011 [38]	Low	Use of blunt suture needles compared to sharp needles	Glove perforations, number of self-reported needle stick injuries
Reddy et al. 2017 [39]	Low	Safety-engineered devices for blood collection, safe intravenous systems, safety-engineered devices for injection fluids, use of multiple safety devices, containers for collecting sharps, introduction of legislation	Needle stick injuries, blood splashes
Verbeek et al. 2016 [40]	Low	Comparison of types of personal protective equipment (PPE); procedures for the donning and doffing of PPE; training to improve PPE compliance	Contamination of skin or clothing, compliance
Prevention of skin and lung diseases			
Lunt et al. 2011 [41]	Low	Training for behavioural change	Exposure to occupational health hazards
Luong Thanh et al. 2016 [42]	Low	Behavioural interventions (education and training to improve the use of respiratory protective equipment)	Frequency and correctness of respiratory protective equipment use
Bauer et al. 2018 [43]	Low	Barrier creams, moisturisers, barrier creams plus moisturisers, skin protection education	Signs of occupational irritant hand dermatitis
Prevention of occupational hearing loss			
Tikka et al. 2017 [44]	Low	Hearing loss prevention programmes, exposure information, earmuff, earplugs, instructions for wearing hearing protection, legislation on hearing protection, combinations of the abovementioned interventions	Hearing loss, noise exposure/noise level reduction, noise attenuation
General occupational health and safety interventions			
Mischke et al. 2013 [45]	Low	Inspections of health and safety regulations with or without penalty	Fatal and non-fatal injuries, physical workload
van Vilsteren et al. 2015 [46]	Low	Workplace interventions to prevent work disability in workers on sick leave: changes to the workplace and equipment, changes of work design and organisations, changes to working conditions, changes to work environment, case management with the worker and employer (supervisor)	Time until first return-to-work, time until lasting return-to-work, cumulative duration of sickness absence, risk of recurrences of sick leave, functional status (Roland disability questionnaire), depression, pain