

Lettre d'information des kinésithérapeutes / physiothérapeutes

N°23 – Mars 2014

11 revues ont été sélectionnées qui concernent les domaines d'application de la physiothérapie suivants :

- Cardio Respiratoire (2)
- Ergonomie et santé du travail (0)
- Musculo squelettique (1)
- Neurologie (3)
- Oncologie (0)
- Orthopédie (1)
- Pédiatrie (1)
- Personnes âgées (0)
- Sports (0)
- Urologie et santé de la femme (0)
- Autres (3)

# La lettre n°23 présente la sélection des revues publiées en janvier et février 2014 dans la *Cochrane Library*.

Educational, supportive and behavioural interventions to improve usage of continuous positive airway pressure machines in adults with obstructive sleep apnoea

# **Objectives**

To assess the effectiveness of strategies that are educational, supportive or behavioural in encouraging people who have been prescribed CPAP to use their machines.

# **Authors' conclusions**

In CPAP-naive people with severe sleep apnoea, low-quality evidence indicates that supportive interventions that encourage people to continue to use their CPAP machines increase usage compared with usual care. Moderate-quality evidence shows that a short-term educational intervention results in a modest increase in CPAP usage. Low-quality evidence indicates that behavioural therapy leads to a large increase in CPAP machine usage. The impact of improved CPAP usage on daytime sleepiness, quality of life and long-term cardiovascular risks remains unclear. For outcomes reflecting machine usage, we downgraded for risk of bias and inconsistency. An additional limitation for daytime sleepiness and quality of life measures was imprecision. Trials in people who have struggled to persist with treatment are needed, as currently little evidence is available for this population. Optimal timing and duration and long-term effectiveness of interventions remain uncertain. The relationship between improved machine usage and effect on symptoms and quality of life requires further assessment. Studies addressing the choice of interventions that best match individual patient needs and therefore result in the most successful and cost-effective therapy are needed.

# discipline: Cardio Respiratoire

# Interventions for preventing critical illness polyneuropathy and critical illness myopathy

#### **Objectives**

To systematically review the evidence from RCTs concerning the ability of any intervention to reduce the incidence of CIP or CIM in critically ill individuals.

#### **Authors' conclusions**

There is moderate quality evidence from two large trials that intensive insulin therapy reduces CIP/CIM, and high quality evidence that it reduces duration of mechanical ventilation, ICU stay and 180-day mortality, at the expense of hypoglycaemia. Consequences and prevention of hypoglycaemia need further study. There is moderate quality evidence which suggests no effect of corticosteroids on CIP/CIM and high quality evidence that steroids do not affect secondary outcomes, except for fewer new shock episodes. Moderate quality evidence suggests a potential benefit of early rehabilitation on CIP/CIM which is accompanied by a shorter duration of mechanical ventilation but without an effect on ICU stay. Very low quality evidence suggests no effect of EMS, although data are prone to bias. Strict diagnostic criteria for CIP/CIM are urgently needed for research purposes. Large RCTs need to be conducted to further explore the role of early rehabilitation and EMS and to develop new preventive strategies.

#### discipline: Neurologie

# Self-management education programmes for osteoarthritis

#### **Objectives**

To assess the effectiveness of self-management education programmes for people with osteoarthritis.

#### **Authors' conclusions**

Low to moderate quality evidence indicates that self-management education programmes result in no or small benefits in people with osteoarthritis but are unlikely to cause harm.

Compared with attention control, these programmes probably do not improve self-management skills, pain, osteoarthritis symptoms, function or quality of life, and have unknown effects on positive and active engagement in life. Compared with usual care, they may slightly improve self-management skills, pain, function and symptoms, although these benefits are of unlikely clinical importance.

Further studies investigating the effects of self-management education programmes, as delivered in the trials in this review, are unlikely to change our conclusions substantially, as confounding from biases across studies would have likely favoured self-management. However, trials assessing other models of self-management education programme delivery may be warranted. These should adequately describe the intervention they deliver and consider the expanded PROGRESS-Plus framework and health literacy, to explore issues of health equity for recipients.

#### discipline: Musculo squelettique

## **Objectives**

The primary objectives were to determine the effect of SSC alone on pain from medical or nursing procedures in neonates undergoing painful procedures compared to no intervention, sucrose or other analgesics, or additions to simple SSC such as rocking; and the effects of the amount of SSC (duration in minutes) and the method of administration (who provided the SSC, positioning of caregiver and neonate pair).

The secondary objectives were to determine the incidence of untoward effects of SSC and to compare the SSC effect in different postmenstrual age subgroups of infants.

## Authors' conclusions

SSC appears to be effective, as measured by composite pain indicators and including both physiological and behavioural indicators, and safe for a single painful procedure such as a heel lance. Purely behavioural indicators tended to favour SSC but there remains questionable bias regarding behavioural indicators. Physiological indicators were typically not different between conditions. Only two studies compared mother providers to others, with non-significant results. There was more heterogeneity in the studies with behavioural or composite outcomes. There is a need for replication studies that use similar, clearly defined outcomes. New studies examining optimal duration of SSC, gestational age groups, repeated use, and long-term effects of SSC are needed.

## **Discipline : Pédiatrie**

# Treadmill training and body weight support for walking after stroke

## **Objectives**

To determine if treadmill training and body weight support, individually or in combination, improve walking ability, quality of life, activities of daily living, dependency or death, and institutionalisation or death, compared with other physiotherapy gait training interventions after stroke. The secondary objective was to determine the safety and acceptability of this method of gait training.

## **Authors' conclusions**

Overall, people after stroke who receive treadmill training with or without body weight support are not more likely to improve their ability to walk independently compared with people after stroke not receiving treadmill training, but walking speed and walking endurance may improve. Specifically, stroke patients who are able to walk (but not people who are not able to walk) appear to benefit most from this type of intervention. This review found that improvements in walking endurance in people able to walk may have persisting beneficial effects. Further research should specifically investigate the effects of different frequencies, durations or intensities (in terms of speed increments and inclination) of treadmill training, as well as the use of handrails, in ambulatory patients, but not in dependent walkers.

**Discipline: Neurologie** 

# Continuous passive motion following total knee arthroplasty in people with arthritis

## **Objectives**

To assess the benefits and harms of CPM and standard postoperative care versus similar postoperative care, with or without additional knee exercises, in people with knee arthroplasty. This review is an update of a 2003 and 2010 version of the same review.

## **Authors' conclusions**

CPM does not have clinically important effects on active knee flexion ROM, pain, function or quality of life to justify its routine use. It may reduce the risk of manipulation under anaesthesia and risk of developing adverse events although the quality of evidence supporting these findings are very low and low, respectively. The effects of CPM on other outcomes are unclear.

## **Discipline: Orthopédie**

# Incentive spirometry for prevention of postoperative pulmonary complications in upper abdominal surgery

## **Objectives**

Our primary objective was to assess the effect of incentive spirometry (IS), compared to no such therapy or other therapy, on postoperative pulmonary complications and mortality in adults undergoing upper abdominal surgery.

Our secondary objectives were to evaluate the effects of IS, compared to no therapy or other therapy, on other postoperative complications, adverse events, and spirometric parameters.

## **Authors' conclusions**

There is low quality evidence regarding the lack of effectiveness of incentive spirometry for prevention of postoperative pulmonary complications in patients after upper abdominal surgery. This review underlines the urgent need to conduct well-designed trials in this field. There is a case for large RCTs with high methodological rigour in order to define any benefit from the use of incentive spirometry regarding mortality.

## **Discipline: Cardio-respiratoire**

# Pressure-relieving devices for treating heel pressure ulcers

## **Objectives**

To determine the effects of pressure-relieving interventions for treating pressure ulcers on the heel.

## **Authors' conclusions**

This review identified one small study at moderate to high risk of bias which provided no evidence to inform practice. More research is needed.

#### **Discipline: Autre**

# Rehabilitation for improving automobile driving after stroke

## **Objectives**

To determine whether any intervention, with the specific aim of maximising driving skills, improves the driving performance of people after stroke.

## **Authors' conclusions**

There was insufficient evidence to reach conclusions about the use of rehabilitation to improve on-road driving skills after stroke. We found limited evidence that the use of a driving simulator may be beneficial in improving visuocognitive abilities, such as road sign recognition that are related to driving. Moreover, we were unable to find any RCTs that evaluated on-road driving lessons as an intervention. At present, it is unclear which impairments that influence driving ability after stroke are amenable to rehabilitation, and whether the contextual or remedial approaches, or a combination of both, are more efficacious.

## **Discipline: Neurologie**

#### **Objectives**

To determine whether using structured, systematic pressure ulcer risk assessment tools, in any health care setting, reduces the incidence of pressure ulcers.

#### Authors' conclusions

Two studies were identified which evaluated the effect of risk assessment on patient outcomes; In one study, there was no statistically significant difference in pressure ulcer incidence between people who were assessed using the Braden risk assessment tool compared with those receiving unstructured risk assessment. Methodological limitations of this study prevent firm conclusions being drawn. However, a further high quality RCT identified no statistical differences in pressure ulcer incidence when people were assessed using either the Waterlow risk assessment tool, the Ramstadius risk assessment tool, or using clinical judgement alone. There is no reliable evidence to suggest that the use of structured, systematic pressure ulcer risk assessment tools reduces the incidence of pressure ulcers.

**Discipline: Autre** 

# Transtheoretical model stages of change for dietary and physical exercise modification in weight loss management for overweight and obese adults

#### **Objectives**

To assess the effectiveness of dietary intervention or physical activity interventions, or both, and other interventions based on the transtheoretical model (TTM) stages of change (SOC) to produce sustainable (one year and longer) weight loss in overweight and obese adults.

#### **Authors' conclusions**

The evidence to support the use of TTM SOC in weight loss interventions is limited by risk of bias and imprecision, not allowing firm conclusions to be drawn. When combined with diet or physical activity, or both, and other interventions we found very low quality evidence that it might lead to better dietary and physical activity habits. This systematic review highlights the need for well-designed RCTs that apply the principles of the TTM SOC appropriately to produce conclusive evidence about the effect of TTM SOC lifestyle interventions on weight loss and other health outcomes.

#### **Discipline: Autre**

Désinscription : Si vous souhaitez ne plus recevoir ce document, veuillez-vous désabonner sur le site du Centre Cochrane Français

Cette sélection a été réalisée par un groupe indépendant de kinésithérapeutes / physiothérapeutes.

Le centre Cochrane français est le centre national de la collaboration Cochrane, organisation internationale, indépendante (ne recevant en particulier aucun financement de l'industrie pharmaceutique), à but non lucratif, dont l'objectif est de synthétiser les connaissances dans le domaine de la santé. Une de ces activités principales est la production de revues systématiques évaluant l'efficacité des interventions diagnostiques, thérapeutiques, préventives et organisationnelles dans le domaine de la santé. Ces revues sont accessibles dans la banque de données Cochrane.

Le centre Cochrane français est organisé sous la forme d'un Groupement d'intérêt scientifique (GIS) qui associe la Haute Autorité en Santé, l'INSERM, l'Ecole des Hautes Etudes en Santé Publique et l'Assistance Publique – Hôpitaux de Paris. Il est financé par le Ministère des Affaires sociales et de la Santé. Le centre Cochrane a mis en place un programme destiné à la traduction de l'ensemble des résumés des revues Cochrane. Ces traductions ont été rendues possibles grâce, outre à la contribution financière du ministère français des affaires sociales et de la santé, et à celle des organismes canadiens suivants (Instituts de recherche en santé du Canada, ministère de la Santé et des Services Sociaux du Québec, Fonds de recherche du Québec-Santé et Institut national d'excellence en santé et en services sociaux).