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Standard Treatments Effectivness in Rheumatology

Evaluation des traitements de référence en rhumatologie

1. Fibromyalgie / Fibromyalgia

Article connexe : - évaluation de l'acupuncture dans le fibromyalgie -

1.1. Amitriptyline

Moore RA, Derry S, Aldington D, Cole P, Wiffen PJ. Amitriptyline for fibromyalgia in adults. Cochrane Database Syst Rev. 2015 Jul 31;7:CD011824.

Objectifs	Evaluer l'efficacité analgésique de l'amitriptyline dans la fibromyalgie et les effets indésirables liés à son utilisation dans des essais cliniques.
Methodes	Nous avons recherché dans CENTRAL, MEDLINE et EMBASE de mars 2015, ainsi que des listes bibliographiques des documents récupérées, les précédentes revues systématiques et les autres commentaires et deux registres d'essais cliniques. Nous avons aussi utilisé notre propre base de données pour la recherche des études plus anciennes. Nous avons inclus des études randomisées, en double aveugle durant au moins quatre semaines comparant l'amitriptyline à un placebo ou un autre traitement actif dans la fibromyalgie. Nous avons extrait les données d'efficacité et les effets secondaires, et les deux auteurs de l'étude ont analysé la qualité des études indépendamment. Nous avons effectué l'analyse à l'aide de trois niveaux de preuve. Tout d'abord, le niveau de preuve dérivée de données répondant aux meilleures normes standards actuelles et soumis à un risque minimal de biais (réduction substantielle de l'intensité de la douleur, analyse en intention de traiter sans imputation des sorties d'études; au moins 200 participants, suivi de 8 à 12 semaines, groupe comparable). Un deuxième niveau de preuve qui n'a pas respecté un ou plusieurs de ces critères et qui a été considéré comme un risque de biais, mais avec un nombre suffisant dans le groupe comparable et un troisième niveau de preuve impliquant un petit nombre de participants dont les résultats étaient très probablement biaisés et d'utilité clinique limitée ou les deux. Pour l'efficacité, nous avons calculé le nombre de sujets à traiter (NNT), et pour les effets indésirables, nous avons calculé le nombre de sujets à traiter (NNH) pour les événements indésirables et les retraits. Nous avons utilisé un modèle à effet fixe pour la méta-analyse.

Résultats	Nous avons inclus sept études issues de la dernière revue et de deux nouvelles études **(neuf études, 649 participants)**, de suivie allant de 6 à 24 semaines, avec entre 22 et 208 participants ; aucun n'avait plus de 50 participants dans chaque groupe de traitement. Deux études utilisent un essai type “croisé”. La dose quotidienne d'amitriptyline était de 25 mg à 50 mg, et certaines études avaient une période de titration initiale. Il n'y avait aucune preuve de premier ou de deuxième niveau pour l'amitriptyline dans le traitement de la fibromyalgie. Utilisant les preuves de troisième niveau, le risque relatif (RR) pour au moins 50 % de soulagement de la douleur, ou l'équivalent, avec l'amitriptyline, comparativement au placebo était de 3,0 (intervalle de confiance 95 % (IC) 1,7 à 4,9), avec une NNT de 4.1 (2,9 à 6,7) (preuve de très mauvaise qualité). Il n'y a aucune différence consistante entre l'amitriptyline et le placebo ou d'autres comparateurs actifs pour le soulagement des symptômes tels que fatigue, troubles du sommeil, qualité de vie ou points douloureux. La plupart des participants ont connu au moins un événement indésirable avec amitriptyline (78 %) versus groupe placebo (47 %). Le risque relatif était de 1,5 (1,3 à 1,8) et le NNH était de 3,3 (2,5 à 4,9). Les effets indésirables et retraits de toutes causes n'étaient pas différents, mais le manque d'efficacité des retraits était plus fréquent dans le groupe placebo (12 % contre 5 % ; RR 0,42 (0,19 à 0,95)) (preuve de très mauvaise qualité).
Conclusion	L'Amitriptyline a été un traitement de première intention pour la fibromyalgie pendant de nombreuses années. **Le fait qu'il n'y a aucune preuve objective favorable pour un effet bénéfique est décevant,** mais doit être équilibré en fonction des années de succès du traitement chez de nombreux patients souffrant de fibromyalgie. **Il n'y a aucune bonne preuve d'un effet** ; notre préoccupation devrait plutôt être la surestimation de l'effet du traitement. L'Amitriptyline pourra être une option dans le traitement de la fibromyalgie, tout en reconnaissant que seule une minorité de patients obtiendront un soulagement satisfaisant de la douleur. Il est peu probable que de larges essais randomisés avec l' amitriptyline soient réalisés dans la fibromyalgie pour établir une efficacité statistique, ou mesurer la taille de l'effet.

2. Epicondylalgie / lateral elbow pain

Article connexe : - évaluation de l'acupuncture dans l'épicondylalgie -

2.1. Anti-inflammatoires non stéroïdiens / NSAIDs

Pattanittum P1, Turner T, Green S, Buchbinder R.Non-steroidal anti-inflammatory drugs (NSAIDs) for treating lateral elbow pain in adults. Cochrane Database Syst Rev. 2013 May 31;5:CD003686.

Objectifs	Evaluer les avantages et les inconvénients des AINS topiques et oraux pour le traitement des personnes souffrant de douleurs latérales du coude.
Methodes	Nous avons recherché dans le Cochrane Central Register of Controlled Trials, MEDLINE, CINAHL, EMBASE et SciSearch jusqu'au 11 octobre 2012. Aucune restriction de langue a été appliquée. CRITÈRES DE SÉLECTION : des études ont été incluses si elles étaient des essais comparatifs randomisés ou quasi-randomisés randomisés (ECR ou CPRST) qui comparent les AINS topiques ou oraux à un placebo ou une autre intervention, soit comparativement deux AINS chez les adultes souffrant de douleurs latérales du coude. Les résultats portaient sur la douleur, la fonction, la qualité de vie, la force de préhension sans douleur, le succès du traitement global, la perte du travail et les effets indésirables.

Résultats	**Quatorze essais** ont été inclus dans la revue. Peu d'essais ont utilisé une analyse de l'intention de traiter et la taille des échantillons de la majorité d'entre eux était limitée. Le suivi médian était de 2 semaines (de 1 à 12 semaines). Il a été prouvé que les AINS topiques sont significativement plus efficaces que le placebo en ce qui concerne la douleur [différence moyenne pondérée= -1,88, (intervalles de confiance de 95% entre -2,54 et -1,21)] et de satisfaction du participant [risque relatif 0,39, (intervalles de confiance de 95% entre 0,23 et 0,66)] à court terme. De plus, ce résultat est solide contre le possible biais introduit par l'inclusion d'essais sans assignation en aveugle et le biais de publication. Les effets indésirables rapportés ont été mineurs. Seuls deux essais inclus ont évalué l'effet des AINS oraux et ils n'ont pas pu être combinés. Il existe des preuves du bénéfice à court terme des AINS oraux concernant la douleur et la fonction, mais ce bénéfice ne s'est pas maintenu dans la durée. Significativement plus d'effets indésirables gastro-intestinaux ont été rapportés par les patients prenant des AINS oraux [risque relatif = 3,17, (intervalles de confiance de 95% entre 1,35 et 7,41)]. À court terme, l'injection de stéroïdes peut être plus bénéfique que les AINS oraux [risque relatif de la perception du patient du bénéfice = 3,06, (intervalles de confiance de 95% entre 1,55 et 6,06)], mais cela n'a pas été prouvé à long terme.
Conclusion	**Certains résultats soutiennent l'utilisation d'AINS topiques pour soulager la douleur latérale du coude au moins à court terme. Mais les preuves restent insuffisantes pour recommander ou déconseiller l'utilisation des AINS oraux, bien qu'il semble que l'injection soit plus efficace que les AINS oraux à court terme**. Une comparaison directe entre les AINS topiques et oraux n'a pas été effectuée et aucune conclusion ne peut donc être tirée concernant la meilleure méthode d'administration.

3. Epaule douloureuse / Shoulder Pain

3.1. Injections dans l'impingement syndrome

Van Der Sande R, Rinkel WD, Gebremariam L, Hay EM, Koes BW, Huisstede BM. Subacromial impingement syndrome: effectiveness of pharmaceutical interventions-nonsteroidal anti-inflammatory drugs, corticosteroid, or other injections: a systematic review. Arch Phys Med Rehabil. 2013. 94(5):961-76. [169928].

Objective	To present an evidence-based overview of the effectiveness of pharmaceutical interventions, including nonsteroidal anti-inflammatory drugs, corticosteroid injections, and other injections, used to treat the subacromial impingement syndrome (SIS). An overview can help physicians select the most appropriate pharmaceutical intervention, and it can identify gaps in scientific knowledge.
Methods	Data Sources: The Cochrane Library, PubMed, Embase, PEDro, and CINAHL databases. Study Selection: Two reviewers independently selected relevant reviews and randomized clinical trials. Data Extraction: Two reviewers independently extracted the data and assessed the methodologic quality.

Data Synthesis	A best evidence synthesis was used to summarize the results. Three reviews and 5 randomized clinical trials were included. Although we found limited evidence for effectiveness in favor of 2 sessions with corticosteroid injections versus 1 session, for the effectiveness of corticosteroid injections versus placebo, nonsteroidal anti-inflammatory drugs, or acupuncture, only conflicting and no evidence for effectiveness was found. Moderate evidence was found in favor of immediate release oral ibuprofen compared with sustained-released ibuprofen in the short-term. Also, moderate evidence for effectiveness was found in favor of glyceryltrinitrate patches versus placebo patches in the short-term and mid term. Furthermore, injections with disodium ethylene diamine tetraacetic acid plus ultrasound with ethylene diamine tetraacetic acid gel were more effective (moderate evidence) than was placebo treatment in the short- and long-term.
Conclusions	This article presents an overview of the effectiveness of pharmaceutical interventions for SIS. Some treatments seem to be promising (moderate evidence) to treat SIS, but more research is needed before firm conclusions can be drawn.

4. Lombalgies / Low Back Pain

Article connexe : - évaluation de l'acupuncture dans les lombalgies-

4.1. Anti-inflammatoires non-stéroïdiens / NSAIDs

Roelofs PD, Deyo RA, Koes BW, Scholten RJ, van Tulder MW. Non-steroidal anti-inflammatory drugs for low back pain. Cochrane Database Syst Rev. 2008 Jan 23;(1):CD000396.

Objectifs	L'objectif était d'évaluer les effets des AINS et des inhibiteurs de la COX-2 dans le traitement des lombalgies non-spécifiques et d'évaluer le type d'AINS le plus efficace.
Methodes	Nous avons effectué une recherche dans les bases de données MEDLINE et EMBASE et dans le registre Cochrane des essais contrôlés (CENTRAL) jusqu'à et incluant juin 2007 s'ils étaient rédigés en anglais, hollandais ou allemand. Nous avons également passé au crible les références bibliographiques données dans les revues pertinentes et les essais identifiés. Critères de sélection : Les essais contrôlés randomisés et les essais contrôlés en double aveugle portant sur les AINS dans les lombalgies non-spécifiques avec ou sans sciatique vertébrale commune ont été inclus. Recueil et analyse des données : Deux auteurs de la revue ont extrait indépendamment les données et évalué la qualité méthodologique. L'intérêt clinique de toutes les études a aussi été évalué, à partir duquel aucune autre interprétation ou conclusion n'a été tirée. Si les données étaient considérées cliniquement homogènes, une méta-analyse était effectuée. S'il manquait des données pour des essais cliniquement homogènes, une analyse qualitative était effectuée à l'aide d'un système d'évaluation à quatre niveaux de preuves (solides, modérées, limitées, pas de preuves).
Résultats	**Au total, 65 essais (nombre total de patients = 11 237)** ont été inclus dans cette revue. Vingt-huit essais (42 %) ont été considérés comme étant de grande qualité. Des effets statistiquement significatifs ont été constatés en faveur des AINS comparés au placebo, mais au prix d'effets secondaires statistiquement significatifs plus nombreux. Des preuves modérées indiquent que les AINS ne sont pas plus efficaces que le paracétamol pour le traitement des lombalgies aiguës, mais que le paracétamol avait moins d'effets secondaires. Des preuves modérées indiquent que les AINS ne sont pas plus efficaces que d'autres médicaments pour le traitement des lombalgies aiguës. Il existe de solides preuves indiquant que divers types de AINS, incluant les AINS de la COX-2, sont tout aussi efficaces pour le traitement des lombalgies aiguës. Les AINS de la COX-2 avaient des effets secondaires statistiquement significatifs moins nombreux que les AINS classiques.

Conclusion	**Les preuves issues des 65 essais inclus dans cette revue suggèrent que les AINS sont efficaces pour le soulagement symptomatique à court terme chez les patients souffrant de lombalgies aiguës et chroniques sans sciatique vertébrale commune. Toutefois, les tailles d'effet sont petites**. Par ailleurs, il ne semble pas qu'il existe un type spécifique de AINS qui soit nettement plus efficace que d'autres. Les inhibiteurs sélectifs de la COX-2 ont révélé moins d'effets secondaires comparés aux AINS classiques dans les ECR inclus dans cette revue. Toutefois, des études récentes ont montré que les inhibiteurs de la COX-2 sont associés à des risques cardiovasculaires accrus chez des populations de patients spécifiques.

4.2. Anti-dépresseurs / Antidepressants

Urquhart DM1, Hoving JL, Assendelft WW, Roland M, van Tulder MW.Antidepressants for non-specific low back pain. Cochrane Database Syst Rev. 2008 Jan 23;(1):CD001703.

Objectifs	Le but de cette revue était de déterminer si les antidépresseurs sont plus efficaces qu'un placebo pour le traitement des lombalgies non-spécifiques.
Methodes	Des essais contrôlés randomisés ont été identifiés dans MEDLINE, EMBASE et PsycINFO (jusqu'à novembre 2008), dans le registre Cochrane des essais contrôlés (CENTRAL) 2008, numéro 4, et les revues systématiques précédentes. Critères de sélection : Nous avons inclus des essais contrôlés randomisés ayant comparé un traitement par antidépresseurs et un placebo chez des patients souffrant de lombalgies non-spécifiques et nous avons utilisé au moins une mesure de critère de jugement cliniquement pertinente. Recueil et analyse des données : Deux auteurs de la revue, qui ont été mis en aveugle, ont extrait des données et évalué les risques de biais dans les essais de manière indépendante. Des méta-analyses ont été utilisées afin d'examiner l'effet des antidépresseurs sur la douleur, la dépression et la fonction, et l'effet du type d'antidépresseurs sur la douleur. Pour prendre en compte des études qui ne pouvaient pas être regroupées, des analyses qualitatives supplémentaires ont été réalisées à l'aide des niveaux de preuves recommandés par le Groupe thématique Cochrane sur le dos.
Résultats	**Dix essais** ayant comparé les antidépresseurs à un placebo ont été inclus dans cette revue. Les analyses groupées n'ont montré aucune différence dans le soulagement de la douleur (six essais (un essai ayant deux bras de traitement et un deuxième essai ayant trois bras de traitement) ; différence moyenne standardisée (DMS) -0,04 (intervalle de confiance (IC) à 95 % -0,25 à 0,17)) ou la dépression (deux essais ; DMS 0,06 (IC à 95 % -0,29 à 0,40)) entre les traitements par antidépresseurs et par placebo. Les analyses qualitatives ont trouvé des preuves contradictoires sur l'effet des antidépresseurs sur l'intensité de la douleur dans les lombalgies chroniques, et n'ont trouvé aucune preuve probante que les antidépresseurs réduisent l'état dépressif chez les patients souffrant de lombalgies chroniques. Deux analyses groupées n'ont montré aucune différence dans le Soulagement de la douleur entre les différents types d'antidépresseurs et un placebo. Nos conclusions n'ont pas été modifiées par les analyses de sensibilité, dans lesquelles le risque de biais autorisé pour l'inclusion dans les méta-analyses variait afin de permettre l'examen des données issues d'essais supplémentaires.
Conclusion	**Il n'existe aucune preuve probante que les antidépresseurs sont plus efficaces que le placebo dans la prise en charge des patients souffrant de lombalgies chroniques**. Ces conclusions n'impliquent pas que des patients présentant un état dépressif sévère souffrant de douleurs dorsales ne devraient pas être traités par des antidépresseurs ; en outre, il existe des preuves pour leur utilisation dans d'autres formes de douleurs chroniques.

5. Lombalgies aiguës

Article connexe : - évaluation de l'acupuncture dans les lombalgies aigues

5.1. Médicaments en vente libre et conseils

Abdel Shaheed C, Maher CG, Williams KA, McLachlan AJ.Interventions available over the counter and advice for acute low back pain: systematic review and meta-analysis. J Pain. 2014 Jan;15(1):2-15.

Objectifs	Cette revue systématique évalue à partir des essais contrôlés randomisés une enquête d'interventions disponibles et des conseils qui pourraient être fournis aux personnes atteintes de lombalgie aiguë.
Méthodes	Les recherches ont été menées sur Medline, Embase, Cochrane Database of Systematic Reviews, AMED, centrale et PsycINFO pour les essais contrôlés randomisés admissibles. Le critère de jugement principal était la douleur. Les groupes témoins admissibles incluent placebo, aucun traitement ou soins habituels. Deux auteurs ont extrait les données et évalué la qualité des études. Un modèle de randomisation a été utilisé pour mettre en commun les effets de l'essai avec la force globale de l'évidence en utilisant les critères de GRADE.
Résultats	**Treize essais contrôlés randomisés (2.847 participants)** évaluant des conseils pratiques, le repos au lit, les analgésiques simples (paracétamol, les anti-inflammatoires non stéroïdiens), l'application de chaleur, et un topique rubéfiante ont été inclus. Il y avait des preuves de faible qualité que le repos au lit est inefficace et des preuves de très faible qualité que les conseils sont inefficace à court, moyen et long terme. Il y avait des preuves de très faible qualité que les médicaments anti-inflammatoires non stéroïdiens (ibuprofène et le diclofénac “si nécessaire” dosage) fournit un effet analgésique immédiate (différences -10.9 moyenne [intervalle de confiance à 95% = -17,6 à -4,2] et -11,3 [95% intervalle de confiance = -17,8 à -4,9], respectivement). Il existe une très faible qualité de preuves que la chaleur locale et un rubéfiant à base de capsicum fournissent un effet analgésique immédiat (-13,5 différences [intervalle de confiance à 95% = -21.3 à -5.7] et de 17,5, P <0,001, respectivement moyenne), mais il n'y avait aucune information sur les résultats à plus long terme.
Conclusion	**Il y a peu de preuves que les médicaments anti-inflammatoires non stéroïdiens, la chaleur locale, et les topiques rubéfiants procurent un soulagement immédiat de la douleur pour les lombalgies aiguës et que le repos au lit et les conseils sont inefficaces**.

6. Sciatique

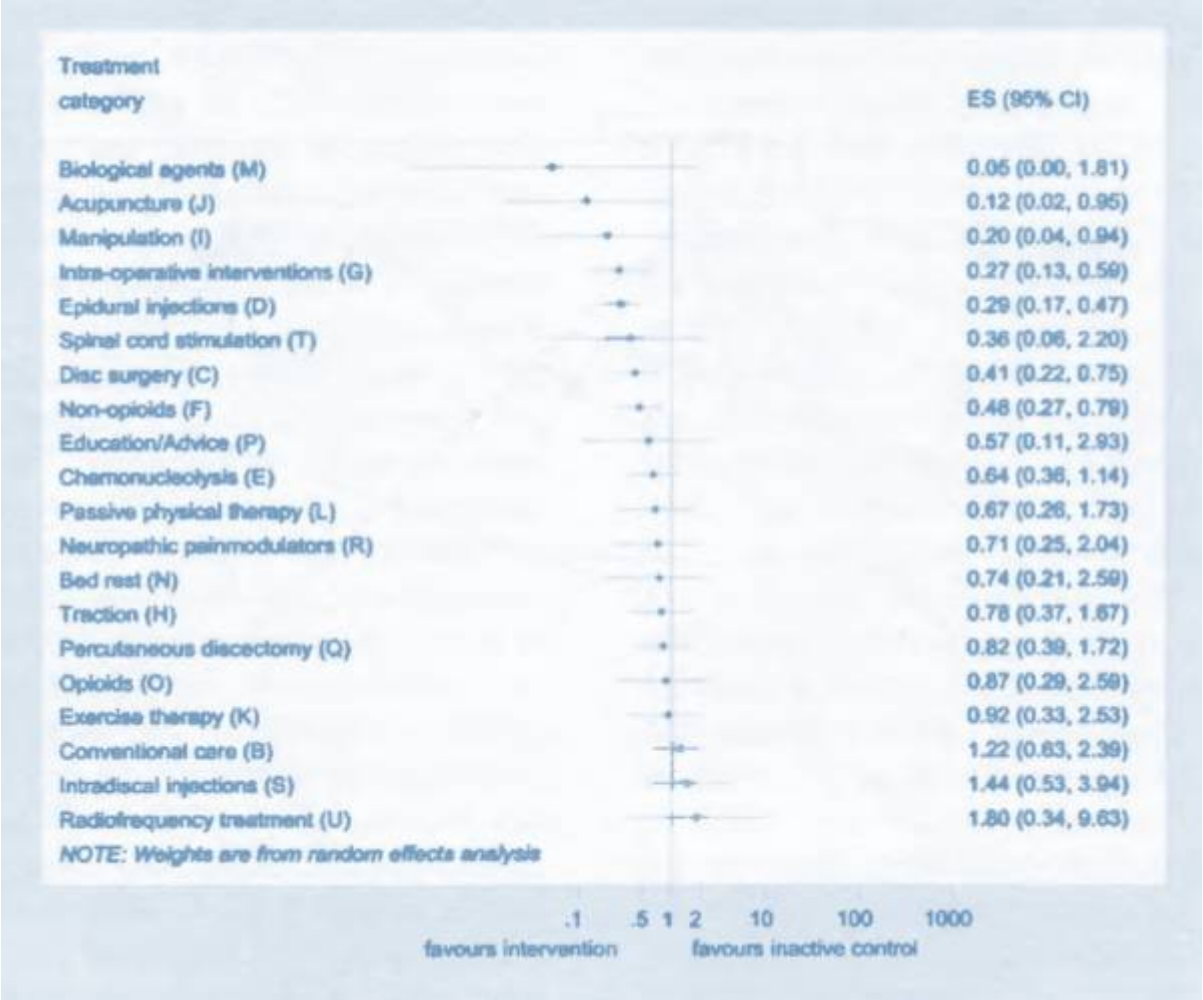
Article connexe : - évaluation de l'acupuncture dans la sciatique

6.1. Ensemble des thérapeutiques

Lewis RA, Williams NH, Sutton AJ, Burton K, Din NU, Matar HE, Hendry M, Phillips CJ, Nafees S, Fitzsimmons D, Rickard I, Wilkinson C. Comparative clinical effectiveness of management strategies for sciatica: systematic review and network meta-analyses. Spine J. 2015. [170143].

Objectifs	To compare the clinical effectiveness of different treatment strategies for sciatica simultaneously.

Méthodes	STUDY DESIGN: Systematic review and network meta-analysis. METHODS: We searched 28 electronic databases and online trial registries, along with bibliographies of previous reviews for comparative studies evaluating any intervention to treat sciatica in adults, with outcome data on global effect or pain intensity. Network meta-analysis methods were used to simultaneously compare all treatment strategies and allow indirect comparisons of treatments between studies. The study was funded by the UK National Institute for Health Research Health Technology Assessment program; there are no potential conflict of interests.
Résultats	We identified 122 relevant studies; 90 were randomized controlled trials (RCTs) or quasi-RCTs. Interventions were grouped into 21 treatment strategies. Internal and external validity of included studies was very low. For overall recovery as the outcome, compared with inactive control or conventional care, there was a statistically significant improvement following disc surgery, epidural injections, nonopioid analgesia, manipulation, and acupuncture. Traction, percutaneous discectomy, and exercise therapy were significantly inferior to epidural injections or surgery. For pain as the outcome, epidural injections and biological agents were significantly better than inactive control, but similar findings for disc surgery were not statistically significant. Biological agents were significantly better for pain reduction than bed rest, nonopioids, and opioids. Opioids, education/advice alone, bed rest, and percutaneous discectomy were inferior to most other treatment strategies; although these findings represented large effects, they were statistically equivocal.
Conclusions	For the first time, many different treatment strategies for sciatica have been compared in the same systematic review and meta-analysis. This approach has provided new data to assist shared decision-making. The findings support the effectiveness of nonopioid medication, epidural injections, and disc surgery. They also suggest that spinal manipulation, acupuncture, and experimental treatments, such as anti-inflammatory biological agents, may be considered. The findings do not provide support for the effectiveness of opioid analgesia, bed rest, exercise therapy, education/advice (when used alone), percutaneous discectomy, or traction. The issue of how best to estimate the effectiveness of treatment approaches according to their order within a sequential treatment pathway remains an important challenge.



Effet global des différentes stratégies thérapeutiques versus contrôle inerte (Lewis 2015)

6.2. Anti-inflammatoires non stéroïdiens /

Roncoroni C, Baillet A, Durand M, Gaudin P, Juvin R. Efficacy and tolerance of systemic steroids in sciatica: a systematic review and meta-analysis. Rheumatology (Oxford). 2011 Sep;50(9):1603-11.

Objectifs	Evaluer l'efficacité et la tolérance des anti-inflammatoires non-stéroïdiens dans la sciatique.
Méthodes	Une revue systématique de la littérature était recherchée dans MEDLINE, EMBASE et Cochrane database jusqu'à février 2010. Des études randomisées contre placébo évaluant l'efficacité et la tolérance des AINS dans la sciatique furent inclus. L'efficacité et la tolérance ont été évalués en utilisant le risque relatif (RR) et l'IC à 95% avec la méthode de variance inverse (RR> 1 signifie que l'événement est plus susceptible de se produire dans le groupe stéroïde). Nous avons exploré l'hétérogénéité entre les études utilisant l'analyse de sous-groupe.
Résultats	**Sept études (383 patients)** ont été inclus. La différence dans le taux de répondeurs entre les deux groupes n'était pas statistiquement significative (RR = 1,22, IC 95% 0,96, 1,56). Le taux d'événements indésirables a été de 13,3% pour les patients du groupe AINS et de 6,6% pour le groupe placebo (RR = 2,01, IC 95% 1,06, 3,80). Le nombre d'effets indésirables était de 20 (95% CI 10, ∞). Vingt (15,3%) des patients du groupe AINS et sept (5,7%) patients dans le groupe placebo ont subi une chirurgie. Une tendance vers une plus grande exigence pour la chirurgie de la colonne vertébrale a été observée dans le groupe AINS (RR = 1,14, IC 95% 0,74, 1,75). La qualité méthodologique a légèrement influencé les résultats. Nous n'avons pas trouvé de biais de publication.

Conclusion	**L'efficacité des AINS n'est pas supérieur au placebo dans la sciatique, mais ils ont plus d'effets secondaires. Le rapport efficacité/tolérance est contre l'utilisation des AINS systémiques dans la sciatique**.

7. Gonarthrose

Articles connexes : - évaluation de l'acupuncture dans le genou douloureux -

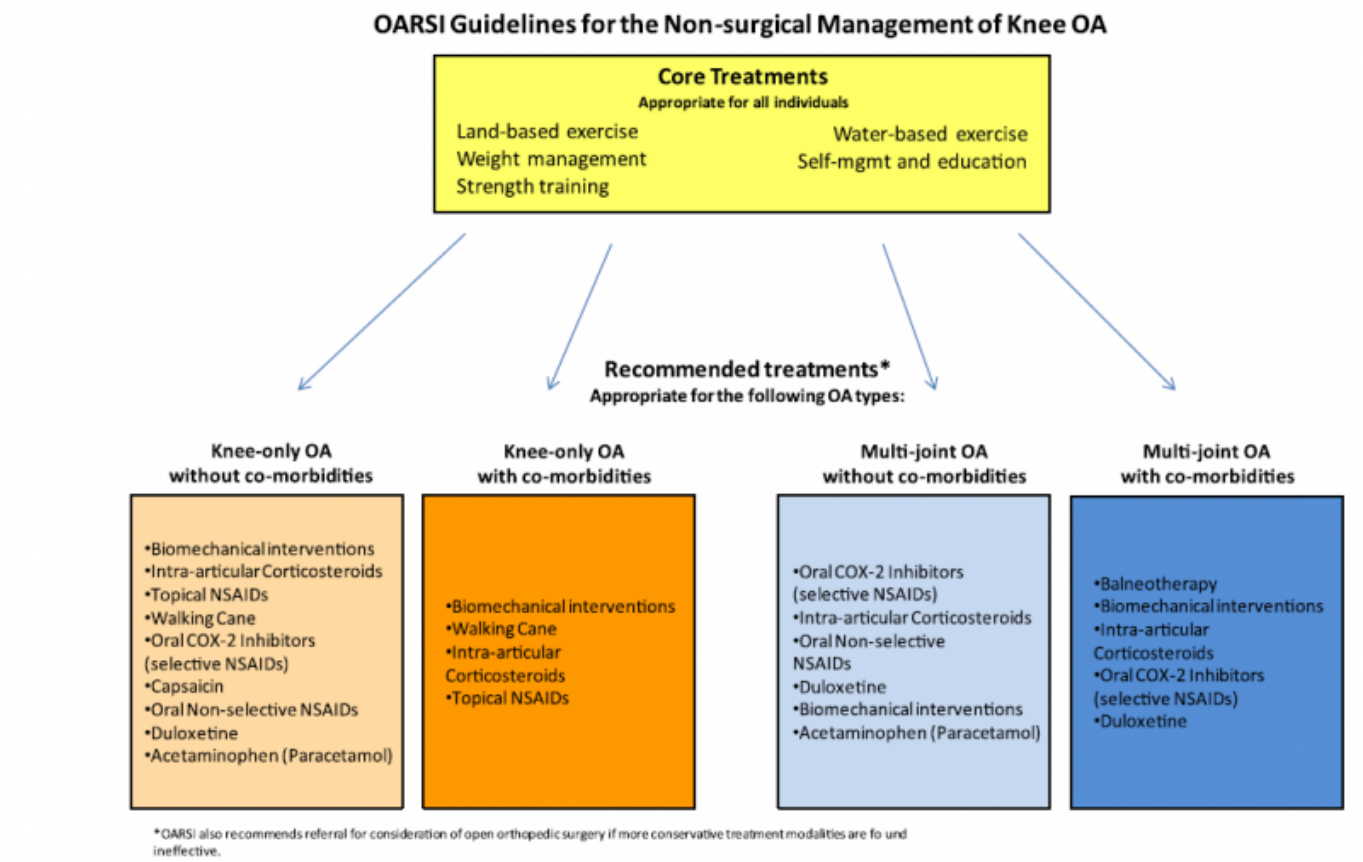


Fig. 1. Appropriate treatments summary.

OARSI (Mcalindon 2014)

Mcalindon TE, Bannuru RR, Sullivan MC, Arden NK, Berenbaum F, Bierma-Zeinstra SM, Hawker GA, Henrotin Y, Hunter DJ, Kawaguchi H, Kwoh K, Lohmander S, Rannou F, Roos EM, Underwood M. OARSI guidelines for the non-surgical management of knee osteoarthritis. Osteoarthritis Cartilage. 2014. 22(3):363-88. [171113].

7.1. Injection intra-articulaire de corticoïdes

7.1.1. Juni 2015

Jüni P, Hari R, Rutjes AWS, Fischer R, Silletta MG, Reichenbach S, da Costa BR. Joint corticosteroid injection for knee osteoarthritis. Cochrane Database Syst Rev. 2015 Oct 22;10:CD005328. [001]

Background	Knee osteoarthritis is a leading cause of chronic pain, disability, and decreased quality of life. Despite the long-standing use of intra-articular corticosteroids, there is an ongoing debate about their benefits and safety. This is an update of a Cochrane review first published in 2005.

Objectives	To determine the benefits and harms of intra-articular corticosteroids compared with sham or no intervention in people with knee osteoarthritis in terms of pain, physical function, quality of life, and safety.
Methods	Search strategy: We searched the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, and EMBASE (from inception to 3 February 2015), checked trial registers, conference proceedings, reference lists, and contacted authors. Selection criteria: We included randomised or quasi-randomised controlled trials that compared intra-articular corticosteroids with sham injection or no treatment in people with knee osteoarthritis. We applied no language restrictions. Data collection and analysis: We calculated standardised mean differences (SMDs) and 95% confidence intervals (CI) for pain, function, quality of life, joint space narrowing, and risk ratios (RRs) for safety outcomes. We combined trials using an inverse-variance random-effects meta-analysis.
Main results	We identified 27 trials (13 new studies) with 1767 participants in this update. We graded the quality of the evidence as 'low' for all outcomes because treatment effect estimates were inconsistent with great variation across trials, pooled estimates were imprecise and did not rule out relevant or irrelevant clinical effects, and because most trials had a high or unclear risk of bias. Intra-articular corticosteroids appeared to be more beneficial in pain reduction than control interventions (SMD -0.40, 95% CI -0.58 to -0.22), which corresponds to a difference in pain scores of 1.0 cm on a 10-cm visual analogue scale between corticosteroids and sham injection and translates into a number needed to treat for an additional beneficial outcome (NNTB) of 8 (95% CI 6 to 13). […] voir suite.
Authors' conclusions	Whether there are clinically important benefits of intra-articular corticosteroids after one to six weeks **remains unclear in view of the overall quality of the evidence**, considerable heterogeneity between trials, and evidence of small-study effects. **A single trial included in this review described adequate measures to minimise biases and did not find any benefit of intra-articular corticosteroids.** In this update of the systematic review and meta-analysis, **we found most of the identified trials that compared intra-articular corticosteroids with sham or non-intervention control small and hampered by low methodological quality.** An analysis of multiple time points suggested that effects decrease over time, and our analysis provided no evidence that an effect remains six months after a corticosteroid injection.

7.1.2. Bellamy 2005

Bellamy N, Campbell J, Robinson V, Gee T, Bourne R, Wells G. Intraarticular corticosteroid for treatment of osteoarthritis of the knee. Cochrane Database Syst Rev. 2005. CD005328. [001]

Background	Osteoarthritis (OA) is a common joint disorder. In the knee, injections of corticosteroids into the joint (intra-articular (IA)) may relieve inflammation, and reduce pain and disability.
Objectives	To evaluate the efficacy and safety of IA corticosteroids in treatment of OA of the knee.

Methods	Search strategy: We searched the Cochrane Central Register of Controlled Trials (CENTRAL) (Issue 2, 2003), MEDLINE, EMBASE, PREMEDLINE (all to July 2003), and Current Contents (Sept 2000). Specialised journals, trial reference lists and review articles were handsearched.Selection criteria: Randomised controlled trials of IA corticosteroids for patients with OA of the knee: single/double blind, placebo-based/comparative studies, reporting at least one core OMERACT III outcome measure. Data collection and analysis: Methodological quality of trials was assessed, and data were extracted in duplicate. Fixed effect and random effects models, giving weighted mean differences (WMD), were used for continuous variables. Dichotomous outcomes were analysed by relative risk (RR).
Main results	Twenty-six trials (1721 participants) comparing IA corticosteroid against placebo, against IA hyaluronan/hylan (HA products), against joint lavage, and against other IA corticosteroids, were included.IA corticosteroid was more effective than IA placebo for pain reduction (WMD -17.79; 95% confidence interval (CI) -25.02 to -10.55) and patient global assessment (the RR was 1.44 (95% CI 1.13 to 1.82)) at one week post injection with an NNT of 3 to 4 for both, based on n=185 for pain on 100 mm visual analogue scale (VAS) and n=158 for patient global assessment. Data on function were sparse at one week post injection and neither statistically significant nor clinically important differences were detected. There was evidence of pain reduction between two weeks (the RR was 1.81 (95% CI 1.09 to 3.00)) to three weeks (the RR was 3.11 (95% CI 1.61 to 6.01), but a lack of evidence for efficacy in functional improvement. At four to 24 weeks post injection, there was lack of evidence of effect on pain and function (small studies showed benefits which did not reach statistical or clinical importance, i.e. less than 20% risk difference). For patient global, there were three studies which consistently showed lack of effect longer than one week post injection. However, all were fairly small sample sizes (less than 50 patients per group). This was supported by another study which did not find statistically significant differences, at any time point, on a continuous measure of patient global assessment (100 mm VAS). In comparisons of corticosteroids and HA products, no statistically significant differences were in general detected at one to four weeks post injection. Between five and 13 weeks post injection, HA products were more effective than corticosteroids for one or more of the following variables: WOMAC OA Index, Lequesne Index, pain, range of motion (flexion), and number of responders. One study showed a difference in function between 14 to 26 weeks, but no differences in efficacy were detected at 45 to 52 weeks. In general, the onset of effect was similar with IA corticosteroids, but was less durable than with HA products. Comparisons of IA corticosteroids showed triamcinolone hexacetonide was superior to betamethasone for number of patients reporting pain reduction up to four weeks post injection (the RR was 2.00 (95% CI 1.10 to 3.63). Comparisons between IA corticosteroid and joint lavage showed no differences in any of the efficacy or safety outcome measures.
Authors' conclusions	The short-term benefit of IA corticosteroids in treatment of knee OA is well established, and few side effects have been reported. Longer term benefits have not been confirmed based on the RevMan analysis. The response to HA products appears more durable. In this review, some discrepancies were observed between the RevMan 4.1 analysis and the original publication. These are likely the result of using secondary rather than primary data and the statistical methods available in RevMan 4.1. Future trials should have standardised outcome measures and assessment times, run longer, investigate different patient subgroups, and clinical predictors of response (those associated with inflammation and structural damage).

7.2. Exercices aquatiques

Aquatic exercise for the treatment of knee and hip osteoarthritis. Bartels EM, Lund H, Hagen KB, Dagfinrud H, Christensen R, Danneskiold-Samsøe B. Cochrane Database Syst Rev. 2007 Oct 17;(4):CD005523.

Background	Clinical experience indicates that aquatic exercise may have advantages for osteoarthritis patients.
Objectives	To compare the effectiveness and safety of aquatic-exercise interventions in the treatment of knee and hip osteoarthritis.
Methods	Search methods. We searched MEDLINE from 1949, EMBASE from 1980, CENTRAL (Issue 2, 2006), CINAHL from 1982, Web of Science from 1945, all up to May 2006. There was no language restriction. Selection criteria: Randomised controlled trials or quasi-randomised clinical trials. Data collection and analysis : Two review authors independently selected trials for inclusion, assessed the internal validity of included trials and extracted data. Pooled results were analyzed using standardized mean differences (SMD).
Main results	There is a lack of high-quality studies in this area. In total, six trials (800 participants) were included. At the end of treatment for combined knee and hip osteoarthritis, there was a small-to-moderate effect on function (SMD 0.26, 95% confidence interval (CI) 0.11 to 0.42) and a small-to-moderate effect on quality of life (SMD 0.32, 95% CI 0.03 to 0.61). A minor effect of a 3% absolute reduction (0.6 fewer points on a 0 to 20 scale) and 6.6% relative reduction from baseline was found for pain. There was no evidence of effect on walking ability or stiffness immediately after end of treatment. No evidence of effect on pain, function or quality of life were observed on the one trial including participants with hip osteoarthritis alone. Only one trial was identified including knee osteoarthritis alone, comparing aquatic exercise with land-based exercise. Immediately after treatment, there was a large effect on pain (SMD 0.86, 95%CI 0.25 to 1.47; 22% relative percent improvement), but no evidence of effect on stiffness or walking ability. Only two studies reported adverse effects, that is, the interventions did not increase self-reported pain or symptom scores. No radiographic evaluation was performed in any of the included studies.
Authors' conclusions	Aquatic exercise appears to have some beneficial short-term effects for patients with hip and/or knee OA while no long-term effects have been documented. Based on this, one may consider using aquatic exercise as the first part of a longer exercise programme for osteoarthritis patients. The controlled and randomised studies in this area are still too few to give further recommendations on how to apply the therapy, and studies of clearly defined patient groups with long-term outcomes are needed to decide on the further use of this therapy in the treatment of osteoarthritis.

7.3. Réduction pondérale

Christensen R, Bartels EM, Astrup A, Bliddal H. Effect of weight reduction in obese patients diagnosed with knee osteoarthritis: a systematic review and meta-analysis. Ann Rheum Dis. 2007 ;66(4):433-9.001

Objectives	This review aims to assess by meta-analysis of randomised controlled trials (RCTs) changes in pain and function when overweight patients with knee osteoarthritis (OA) achieve a weight loss.
Methods	Systematic searches were performed and reference lists from the retrieved trials were searched. RCTs were enclosed in the systematic review if they explicitly stated diagnosis of knee OA and reported a weight change as the only difference in intervention from the control group. Outcome Measures for Arthritis Clinical Trials III outcome variables were considered for analysis. Effect size (ES) was calculated using RevMan, and meta-regression analyses were performed using weighted estimates from the random effects analyses.

Main results	Among 35 potential trials identified, four RCTs including five intervention/control groups met our inclusion criteria and provided data from 454 patients. Pooled ES for pain and physical disability were 0.20 (95% CI 0 to 0.39) and 0.23 (0.04 to 0.42) at a weight reduction of 6.1 kg (4.7 to 7.6 kg). Meta-regression analysis showed that disability could be significantly improved when weight was reduced over 5.1%, or at the rate of .0.24% reduction per week. Clinical efficacy on pain reduction was present, although not predictable after weight loss.
Authors' conclusions	Metaregression analysis indicated that physical disability of patients with knee OA and overweight diminished after a moderate weight reduction regime. The analysis supported that a weight loss of .5% should be achieved within a 20-week period—that is, 0.25% per week.

7.4. Orthèses

Raja K, Dewan N: Efficacy of knee braces and foot orthoses in conservative management of knee osteoarthritis: a systematic review. Am J Phys Med Rehabil. 2011;90(3):247-62. [001]

> A systematic analysis was conducted on the effectiveness of knee braces and foot orthoses in conservative management of knee osteoarthritis. The methodologic quality of the randomized clinical trials, controlled clinical trials, and observational studies were systematically reviewed using the Structured Effectiveness Quality Evaluation Scale. Twenty-five studies met the inclusion criteria. The orthoses used in the studies included Generation II osteoarthritis knee brace, valgus knee braces, functional off-loading knee braces, knee sleeves, lateral-wedged insoles with subtalar strapping, medial-wedged insoles, and specialized footwear. Results suggest that knee braces and foot orthoses are effective in decreasing pain, joint stiffness, and drug dosage. They also improve proprioception, balance, Kellgren/ Lawrence grading, and physical function scores in subjects with varus and valgus knee osteoarthritis. Knee braces and foot orthoses could be cautiously considered as conservative management for relief of pain and stiffness and improving physical function for persons with knee osteoarthritis. The conclusions of this review are limited by methodologic considerations like poor quality of trials and heterogeneity of interventions.

7.5. Duloxetine

Citrome L, Weiss-Citrome A. A systematic review of duloxetine for osteoarthritic pain: what is the number needed to treat, number needed to harm, and likelihood to be helped or harmed? Postgrad Med. 2012 ;124(1):83-93.

Objectives	To describe the efficacy, safety, and tolerability of duloxetine for the treatment of osteoarthritic pain.
Methods	Systematic review of all published double-blind randomized controlled trials of duloxetine for osteoarthritic pain, supplemented by information in clinical trial registries, product labeling, and regulatory documents. STUDY SELECTION: all available reports of studies were identified. DATA EXTRACTION: descriptions of the principal results and calculation of number needed to treat (NNT) for pain relief and other efficacy outcomes and number needed to harm (NNH) for relevant dichotomous adverse outcomes were extracted. Likelihood to be helped or harmed (LHH) was subsequently calculated.

Main results	US Food and Drug Administration approval for duloxetine for chronic pain associated with osteoarthritis (OA) was based on 2 randomized, double-blind, placebo-controlled clinical trials of 13 weeks' duration testing duloxetine 60 to 120 mg/d versus placebo. When study results were pooled, the proportion of patients experiencing clinically meaningful outcomes at study endpoint, such as a ≥ 30% or ≥ 50% reduction in pain scores, improvement in physical functioning, or subjective improvement, ranged from 42% to 67% for duloxetine, compared with 26% to 50% for placebo, depending on the specific measure; the NNT for these measures for duloxetine versus placebo was 7. The most commonly observed adverse reactions in duloxetine-treated patients were nausea (8.4% vs 2.0% for duloxetine and placebo, respectively), fatigue (6.7% vs 0.8%, respectively), and constipation (6.3% vs 0.8%, respectively), yielding NNH values of 16, 17, and 19, respectively. The LHH was consistently > 1.
Authors' conclusions	Duloxetine appears efficacious and tolerable for the treatment of chronic pain associated with OA. The NNT and NNH can be used to quantify efficacy and tolerability outcomes and help place duloxetine into clinical perspective. Likelihood to be helped or harmed can illustrate to the clinician and patient the trade-offs between obtaining potential benefits versus harms. Head-to-head comparisons of duloxetine with other interventions for OA, as well as controlled trials of duloxetine in combination with other therapies, would be desirable.

8. Entorse de la cheville

8.1. RICE (rest, ice, compression, and elevation)

van den Bekerom MP1, Struijs PA, Blankevoort L, Welling L, van Dijk CN, Kerkhoffs GM. What is the evidence for rest, ice, compression, and elevation therapy in the treatment of ankle sprains in adults? J Athl Train. 2012 Jul-Aug;47(4):435-43.

Purpose	To analyze the effectiveness of applying rest, ice, compression, and elevation (RICE) therapy begun within 72 hours after trauma for patients in the initial period after ankle sprain.
Methods	STUDY SELECTION: Eligible studies were published original randomized or quasi-randomized controlled trials concerning at least 1 of the 4 subtreatments of RICE therapy in the treatment of acute ankle sprains in adults. DATA SOURCES: MEDLINE, Cochrane Clinical Trial Register, CINAHL, and EMBASE. The lists of references of retrieved publications also were checked manually. DATA EXTRACTION: We extracted relevant data on treatment outcome (pain, swelling, ankle mobility or range of motion, return to sports, return to work, complications, and patient satisfaction) and assessed the quality of included studies. If feasible, the results of comparable studies were pooled using fixed- or random-effects models. DATA SYNTHESIS: After deduction of the overlaps among the different databases, evaluation of the abstracts, and contact with some authors, 24 potentially eligible trials remained. The full texts of these articles were retrieved and thoroughly assessed as described. This resulted in the inclusion of 11 trials involving 868 patients. The main reason for exclusion was that the authors did not describe a well-defined control group without the intervention of interest.
Conclusions	Insufficient evidence is available from randomized controlled trials to determine the relative effectiveness of RICE therapy for acute ankle sprains in adults. Treatment decisions must be made on an individual basis, carefully weighing the relative benefits and risks of each option, and must be based on expert opinions and national guidelines.

8.2. Anti-inflammatoires non stéroïdiens

van den Bekerom MP1, Sjer A, Somford MP, Bulstra GH, Struijs PA, Kerkhoffs GM. Non-steroidal anti-inflammatory drugs (NSAIDs) for treating acute ankle sprains in adults: benefits outweigh adverse events. Knee Surg Sports Traumatol Arthrosc. 2015;23(8):2390-9. [188565].

Purpose	In the recent clinical guideline for acute lateral ankle sprain, the current best evidence for diagnosis, treatment and prevention strategies was evaluated. Key findings for treatment included the use of ice and compression in the initial phase of treatment, in combination with rest and elevation. A short period of taking non-steroidal anti-inflammatory drugs (NSAIDs) may facilitate a rapid decrease in pain and swelling can also be helpful in the acute phase. The objective was to assess the effectiveness and safety of oral and topical NSAID in the treatment for acute ankle sprains.
Methods	Randomised controlled trials comparing oral or topic NSAID treatment with placebo or each other were included. Primary outcome measures were pain at rest or at mobilisation and adverse events. Trials were assessed using the Cochrane risk of bias tool.
Results	Twenty-eight studies were included, and 22 were available for meta-analysis. Superior results were reported for oral NSAIDs when compared with placebo, concerning pain on weight bearing on short term, pain at rest on the short term, and less swelling on short- and intermediate term. For topical NSAIDs, superior results compared with placebo were found for pain at rest (short term), persistent pain (intermediate term), pain on weight bearing (short- and intermediate term) and for swelling (short and intermediate term). No trials were included comparing oral with topic NSAIDs, so conclusions regarding this comparison are not realistic.
Conclusions	The current evidence is limited due to the low number of studies, lack of methodological quality of the included studies as well as the small sample size of the included studies. Nevertheless, the findings from this review support the use of NSAIDs for the initial treatment for acute ankle sprains.

Jones P, Dalziel SR, Lamdin R, Miles-Chan JL, Frampton C. Oral non-steroidal anti-inflammatory drugs versus other oral analgesic agents for acute soft tissue injury. Cochrane Database Syst Rev. 2015;(7):CD007789.pub2.[001]

Background	Acute soft tissue injuries are common and costly. The best drug treatment for such injuries is not certain, although non-steroidal anti-inflammatory drugs (NSAIDs) are often recommended.

Objectives	To assess the effects (benefits and harms) of NSAIDs compared with other oral analgesics for treating acute soft tissue injuries. SEARCH METHODS: We searched the Cochrane Bone, Joint and Muscle Trauma Group Specialised Register (12 September 2014), the Cochrane Central Register of Controlled Trials (The Cochrane Library, 2014 Issue 8), MEDLINE (1966 to September 2014), EMBASE (1980 to September 2014), CINAHL (1937 to November 2012), AMED (1985 to November 2012), International Pharmaceutical Abstracts (1970 to November 2012), PEDro (1929 to November 2012), and SPORTDiscus (1985 to November 2012), plus internet search engines, trial registries and other databases. We also searched reference lists of relevant articles and contacted authors of retrieved studies and pharmaceutical companies to obtain relevant unpublished data. SELECTION CRITERIA: We included randomised or quasi-randomised controlled trials involving people with acute soft tissue injury (sprain, strain or contusion of a joint, ligament, tendon or muscle occurring up to 48 hours prior to inclusion in the study) and comparing oral NSAID versus paracetamol (acetaminophen), opioid, paracetamol plus opioid, or complementary and alternative medicine. The outcomes were pain, swelling, function, adverse effects and early re-injury. DATA COLLECTION AND ANALYSIS: At least two review authors independently assessed studies for eligibility, extracted data and assessed risk of bias. We assessed the quality of the evidence using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology.

Results	We included 16 trials, with a total of 2144 participants. Two studies included children only. The other 14 studies included predominantly young adults, of whom over 60% were male. Seven studies recruited people with ankle sprains only. Most studies were at low or unclear risk of bias; however, two were at high risk of selection bias, three were at high risk of bias from lack of blinding, one was at high risk of bias due to incomplete outcome data, and four were at high risk of selective outcome reporting bias. The evidence was usually either low quality or very low quality, reflecting study limitations, indirectness such from as suboptimal dosing of single comparators, imprecision, or one or more of these. Thus we are either uncertain or very uncertain of the estimates.Nine studies, involving 991 participants, compared NSAIDs with paracetamol. While tending to favour paracetamol, there was a lack of clinically important differences between the two groups in pain at less than 24 hours (377 participants, 4 studies; moderate-quality evidence), at days 1 to 3 (431 participants, 4 studies; low quality), and at day 7 or over (467 participants, 4 studies; low quality). A similar lack of difference between the two groups applied to swelling at day 3 (86 participants, 1 study; very low quality) and at day 7 or over (77 participants, 1 study; low quality). There was little difference between the two groups in return to function at day 7 or over (316 participants, 3 studies; very low quality): based on an assumed recovery of function of 804 per 1000 participants in the paracetamol group, 8 fewer per 1000 recovered in the NSAID group (95% confidence interval (CI) 80 fewer to 73 more). There was low-quality evidence of a lower risk of gastrointestinal adverse events in the paracetamol group: based on an assumed risk of gastrointestinal adverse events of 16 per 1000 participants in the paracetamol group, 13 more participants per 1000 had a gastrointestinal adverse event in the NSAID group (95% CI 0 to 35 more).Four studies, involving 958 participants, compared NSAIDs with opioids. Since a study of a selective COX-2 inhibitor NSAID (valdecoxib) that was subsequently withdrawn from the market dominates the evidence for this comparison (706 participants included in the analyses for pain, function and gastrointestinal adverse events), the applicability of these results is in doubt and we give only a brief summary. There was low quality evidence for a lack of clinically important differences between the two groups regarding pain at less than 24 hours, at days 4 to 6, and at day 7. Evidence from single studies showed a similar lack of difference between the two groups for swelling at day 3 (68 participants) and day 10 (84 participants). Return to function at day 7 or over favoured the NSAID group (low-quality), and there were fewer gastrointestinal adverse events in the selective COX-2 inhibitor NSAID group (very low quality).Four studies, involving 240 participants, compared NSAIDs with the combination of paracetamol and an opioid. The applicability of findings from these studies is partly in question because the dextropropoxyphene combination analgesic agents used are no longer in general use. While the point estimates favoured NSAID, the very low-quality evidence did not show a difference between the two interventions in the numbers with little or no pain at day 1 (51 participants, 1 study), day 3 (149 participants, 2 studies), or day 7 (138 participants, 2 studies). Very low-quality evidence showed a similar lack of difference between the two groups applied to swelling at day 3 (reported in two studies) and at day 7 (reported in two studies), in return to function at day 7 (89 participants, 1 study), and in gastrointestinal adverse events (141 participants, 3 studies).No studies compared NSAIDs with complementary and alternative medicines, and no study reported re-injury rates.
Conclusions	There is generally low- or very low-quality but consistent evidence of no clinically important difference in analgesic efficacy between NSAIDs and other oral analgesics. There is low-quality evidence of more gastrointestinal adverse effects with non-selective NSAID compared with paracetamol. There is low- or very low-quality evidence of better function and fewer adverse events with NSAIDs compared with opioid-containing analgesics; however, one study dominated this evidence using a now unavailable COX-2 selective NSAID and is of uncertain applicability. Further research is required to determine whether there is any difference in return to function or adverse effects between both non-selective and COX-2 selective NSAIDs versus paracetamol.