

USARE LE REVISIONI SISTEMATICHE PER MIGLIORARE LA PRATICA ASSISTENZIALE

Alberto Dal Molin

Revisioni sistematiche

Una revisione sistematica cerca di raccogliere tutte le prove empiriche al fine di rispondere ad una domanda di ricerca specifica.

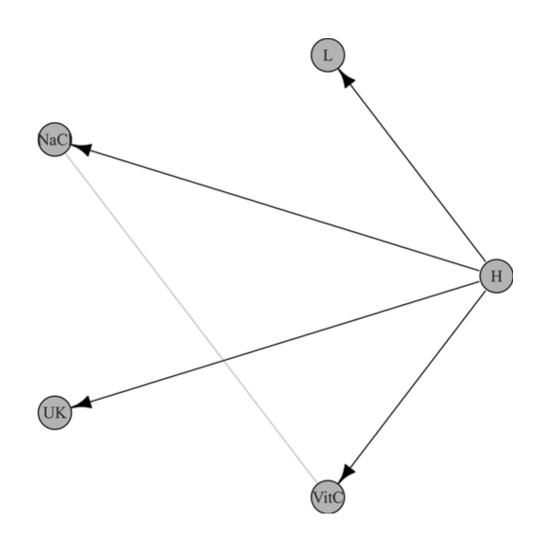
Le caratteristiche principali di una revisione sistematica sono:

- Chiara definizione degli obiettivi con criteri predefiniti di ammissibilità per gli studi;
- Metodologia esplicitata e riproducibile;
- Ricerca sistematica che tenta di identificare tutti gli studi che soddisfano i criteri di inclusione;
- Valutazione della validità dei risultati degli studi inclusi (valutazione del rischio di bias)
- Presentazione sistematica della caratteristiche e dei risultati degli studi inclusi

Molte revisioni sistematiche contengono meta-analisi.

[Higgins JPT, Green S (editors). *Cochrane Handbook for Systematic Reviews of Interventions* Version 5.1.0 [updated March 2011]. The Cochrane Collaboration, 2011. Available from www.cochrane-handbook.org.]

Network metanalisi ...

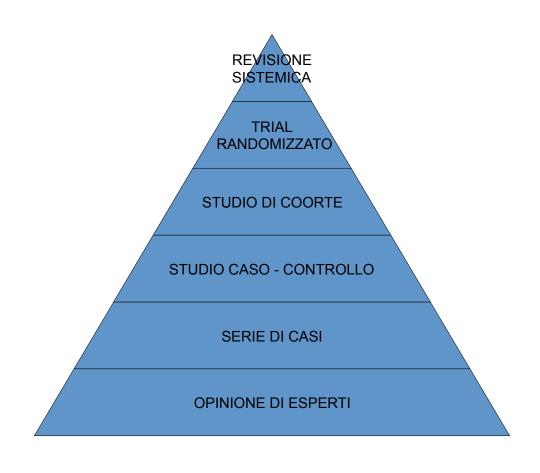


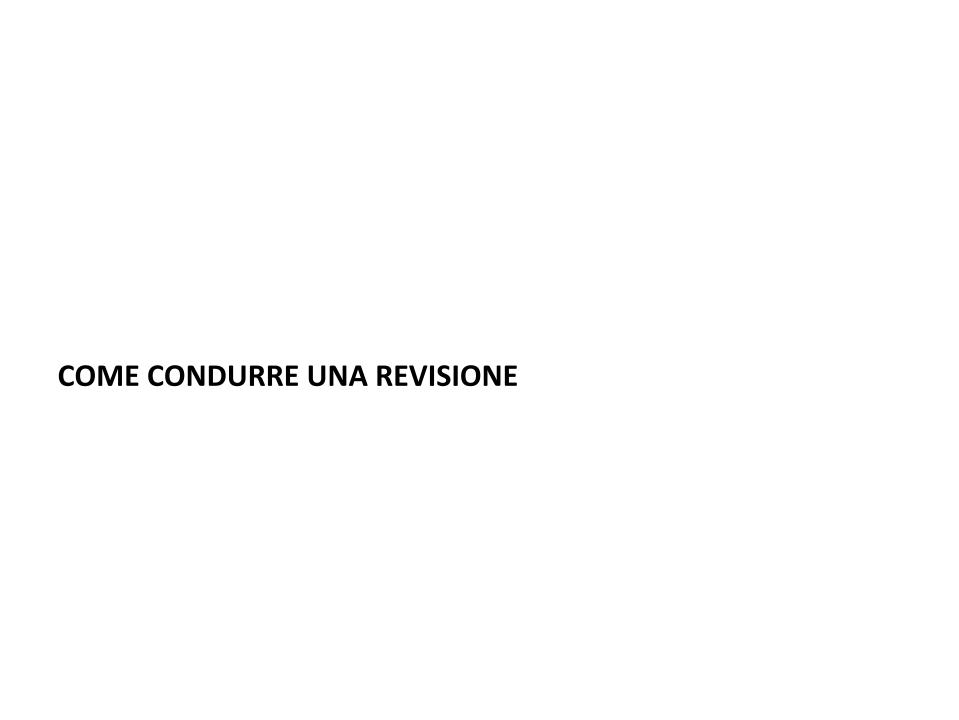
La Revisione Sistematica

 A systematic review is a rigorous summary of all the research evidence that relates to a specific question, be it a question about harm, diagnosis, prognosis, or the efffectiveness of health care interventions.

[DiCenso – Guyatt – Ciliaska, Evidence Based Nursing: A guide to Clinical Practice. Elsevier Mosby, 2005: pp 138]

Gerarchia delle prove di efficacia





Processo per condurre una revisione sistematica (1)

Formulazione del quesito

- Specificare:
 - Popolazione
 - Intervento o esposizione
 - Outcome
 - Metodologia
- Specificare criteri di inclusione/esclusione
- Descrivere eventuali restrizioni: lingua, unpublished data,...

Processo per condurre una revisione sistematica (2)

Condurre la ricerca bibliografica

• Decidere le fonti di informazione: database bibliografici, esperti, registri, ...

Identificare titoli ed abstract

Processo per condurre una revisione sistematica (3)

Applicare i criteri di inclusione e di esclusione

- Applicare i criteri di inclusione e di esclusione ai titoli ed abstract identificati
- Ottenere i full text dei report ritenuti eleggibili dalla lettura del titolo e dell'abstract
- Applicare i criteri di inclusione e di esclusione ai full text
- Selezionare gli studi eleggibili finali

Processo per condurre una revisione sistematica (4)

Valutazione

- Valutare la qualità metodologica degli studi (validity assessment)
- Estrarre i dati da ogni studio rispetto i partecipanti, esposizione o intervento, disegno dello studio
- Estrarre i risultati

Processo per condurre una revisione sistematica (5)

Condurre l'analisi

- Esplorare l'eterogeneità
- Determinare metodi per riassumere i risultati
- Combinare i risultati (se appropriato)

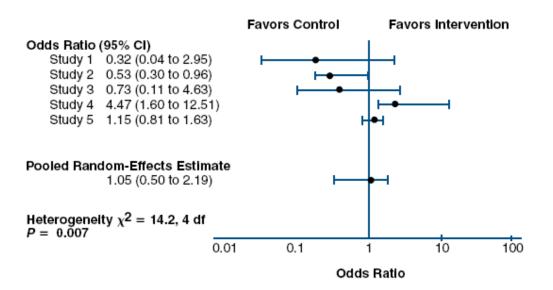


Figure 24-1. Results of meta-analysis A

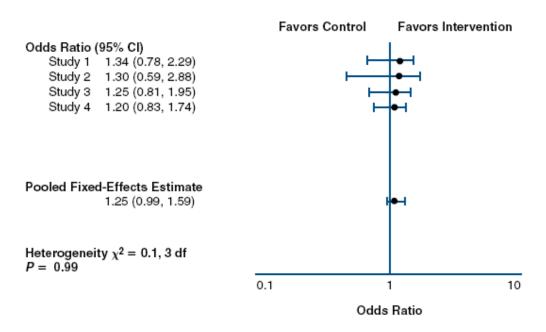


Figure 24-2. Results of meta-analysis B

Tratto da DiCenso et al, 2005: pp 383



PRISMA

TRANSPARENT REPORTING of SYSTEMATIC REVIEWS and META-ANALYSES

Home | News | The PRISMA Statement | History | Endorsing PRISMA

Welcome to the PRISMA Statement website

PRISMA stands for Preferred Reporting Items for Systematic Reviews and Meta-Analyses. It is an evidence-based minimum set of items for reporting in systematic reviews and meta-analyses.

The aim of the PRISMA Statement is to help authors improve the reporting of systematic reviews and meta-analyses. We have focused on randomized trials, but PRISMA can also be used as a basis for reporting systematic reviews of other types of research, particularly evaluations of interventions. PRISMA may also be useful for critical appraisal of published systematic reviews, although it is not a quality assessment instrument to gauge the quality of a systematic review.

The PRISMA Statement consists of a 27-item <u>checklist</u> and a four-phase <u>flow diagram</u>. It is an evolving document that is subject to change periodically as new evidence emerges. In fact, the PRISMA Statement is an update and expansion of the now-out dated QUOROM Statement. This website contains the current definitive version of the PRISMA Statement.

We invite readers to comment on the PRISMA Statement by contacting us.

The <u>PRISMA Explanation and Elaboration document</u> explains and illustrates the principles underlying the PRISMA Statement. It is strongly recommended that it be used in conjunction with the PRISMA Statement.

PRISMA is part of a broader effort, to improve the reporting of different types of health research, and in turn to improve the quality of research used in decision-making in healthcare.

Please join PRISMA in supporting the All Trials campaign to get all clinical trial results reported





Register your systematic review protocols at PROSPERO (click on the link to the left).
PROSPERO is the first online facility to prospectively register systematic reviews (via their protocol) PROSPERO is a global.

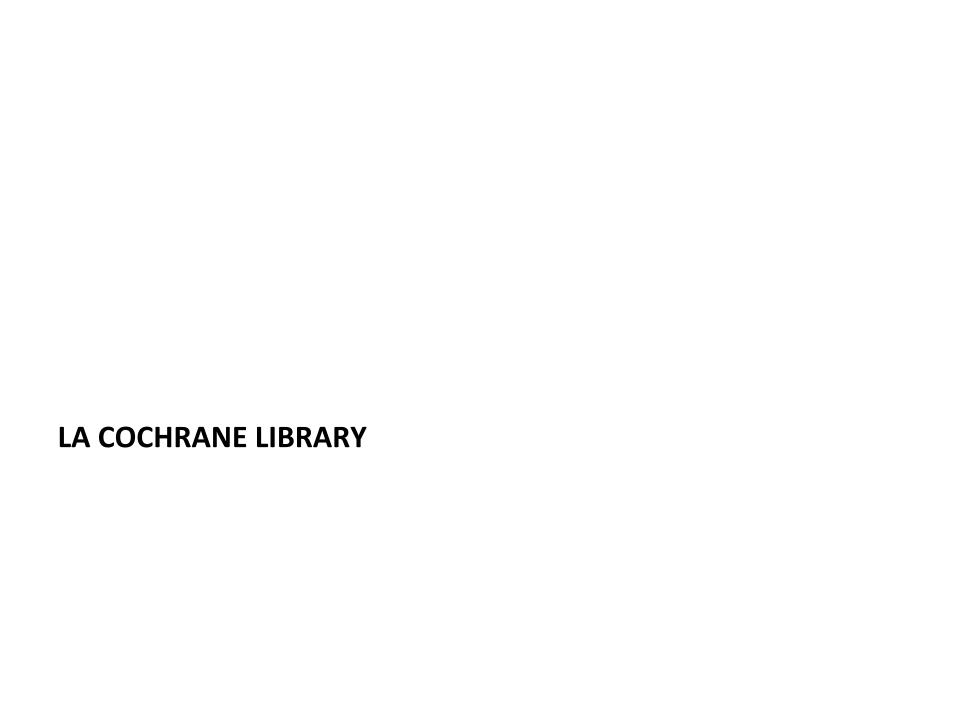
Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement (1)

TITLE				
Title	1	Identify the report as a systematic review, meta-analysis, or both.		
ABSTRACT	•			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.		
INTRODUCTION	•			
Rationale	3	Describe the rationale for the review in the context of what is already known.		
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).		
METHODS				
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.		
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.		
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.		
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.		
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).		
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.		
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.		
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.		
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).		
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency $(e.g., l^2)$ for each meta-analysis.		

Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement (2)

Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	
DISCUSSION			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	

From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(6): e1000097. doi:10.1371/journal.pmed1000097





Trusted evidence. Informed decisions. Better health.

Search title, abstract, keyword



Cochrane Reviews ▼

Trials ▼

More Resources ▼

About ▼

Help ▼





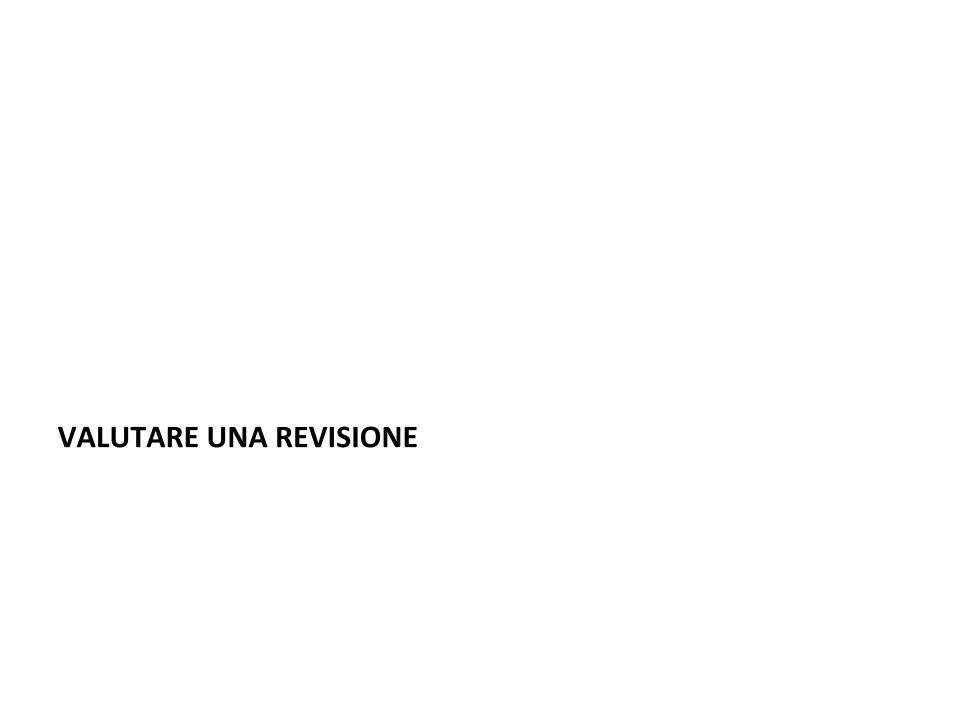


Highlighted Reviews

Editorials

Special Collections

Esercitazione ...



Come valutare una revisione? (1)

I risultati sono validi?

- La revisione esplicita un quesito clinico sensibile?
- La ricerca bibliografica è avvenuta in dettaglio e in modo esaustivo?
 - Quali database?
 - Abstract di recenti congressi/meeting
 - esperti (idenficare studi non inclusi per errore e per evietare pubblication bias)
 - [publication bias]

Come valutare una revisione? (2)

I risultati sono validi?

- Gli studi inclusi sono stati condotti con una metodologia adeguata e di qualità?
 - Studi di basa qualità tendono a sovrastimare l'efficacia
 terapeutica/preventiva di un intervento [Guyatt GH, 2000]



Journal of Clinical Epidemiology 53 (2000) 167-174

Randomized trials versus observational studies in adolescent pregnancy prevention

Gordon H. Guyatt^{a,b*}, Alba DiCenso^{a,c}, Vern Farewell^d, Andrew Willan^a, Lauren Griffith^a

^aDepartment of Clinical Epidemiology & Biostatistics, Room 2C12, McMaster University Faculty of Health Sciences, 1200 Main Street West, Hamilton, Ontario, Canada L8N 3Z5, ^bDepartment of Medicine, McMaster University, Hamilton, Ontario, Canada L8N 3Z5, ^cSchool of Nursing, McMaster University, Hamilton, Ontario, Canada L8N 3Z5, ^dDepartment of Statistical Science, University College, London, UK

Received 1 May 1999; received in revised form 24 June 1999; accepted 26 July 1999

Abstract

The objective of this study is to compare the results of randomized trials and observational studies of interventions to prevent adolescent pregnancy. We identified published and unpublished reports through computerized searches of CATLINE, CINAHL, CONFER-ENCE PAPERS INDEX, DISSERTATION ABSTRACTS ONLINE, EMBASE, ERIC, MEDLINE, NTIS, POPLINE, PsycINFO, and SOCIOLOGICAL ABSTRACTS; manual searches of eight relevant journals; reference lists from primary articles; and contact with content experts. We included randomized trials and observational studies that evaluated the impact of primary prevention interventions including sex education classes, school-based clinics, free-standing clinics, physician/nurse practitioner practice-based service, improved access, and community-based programs on four outcomes: sexual intercourse, birth control use, responsible sexual behavior, or pregnancy in adolescents. One investigator abstracted the data and a second conducted a detailed review of the abstraction. We identified 13 randomized trials and 17 observational studies. We generated estimates of the impact of the interventions separately for males and females for all four outcomes for both observational studies and randomized trials. For six of the eight outcomes the summary odds ratios for the observational studies showed a significant intervention benefit (P < 0.05) while the randomized trials did not show a benefit for any outcome in either females or males. The difference between the results of the observational studies and randomized trials was statistically significant in two of the eight outcomes (P < 0.05 for initiation of intercourse and pregnancy in females). Observational studies yield systematically greater estimates of treatment effects than randomized trials of adolescent pregnancy prevention interventions. Public policy or individual patient treatment decisions should be based on observational studies only when randomized trials are unavailable and only with careful consideration of possible biases. © 2000 Elsevier Science Inc. All rights reserved.

Keywords: Randomized trials; Observational studies; Adolescent pregnancy; Prevention strategies

Come valutare una revisione? (3)

I risultati sono validi?

La valutazione degli studi è riproducibile

Come valutare una revisione? (3)

Quali sono i risultati

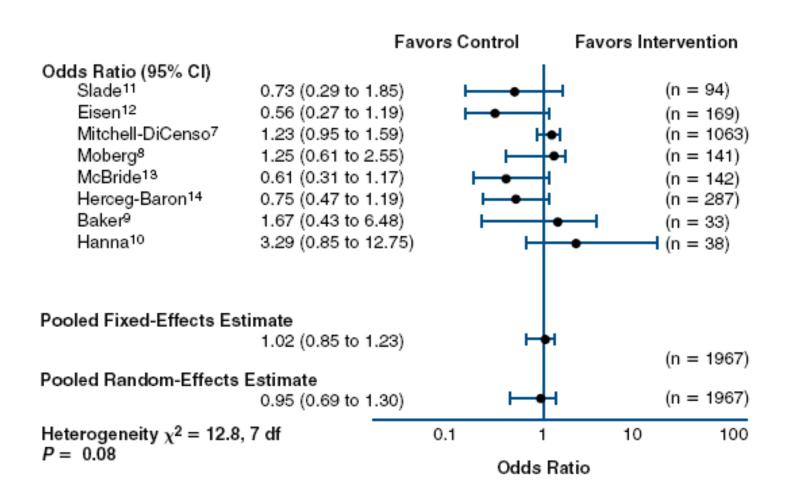
- I risultati degli studi sono simili tra loro?
 - Valutazione degli intervalli di confidenza dei vari studi coincidono
 - Test of heterogeneity (solitamente chi-square test)
 - Attenzione se il numero di studi e i campioni sono piccoli

Come valutare una revisione? (4)

Quali sono i risultati

- Qual è il risultato della revisione?
 - La semplice comparazione tra studi positivi e studi negativi non è sufficiente
 - Attraverso la meta analisi si pesano i vari studi tenendo in considerazione il loro campione, in modo tale che studi con una numerosità campionaria grande abbiano un peso maggiore
 - Sensibility analysis
 - Fixed effects model vs Random effects model
- Come sono precisi i risultati?

Fixed – effects model vs Random – effects model



Tratto da DiCenso et al, 2005: pp 390

Primo autore e anno di pubblicazione degli studi inclusi nell'analisi

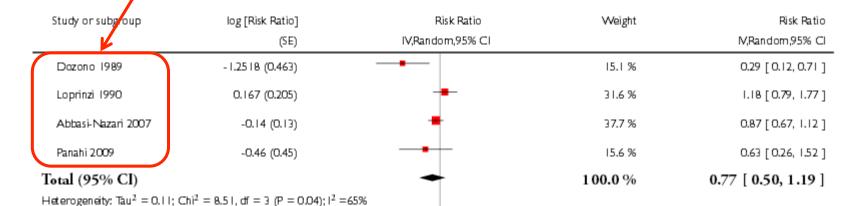
Analysis I.I. Comparison I Allopurinol versus placebo/no treatment, Outcome I Mucositis (any).

Review: Interventions for preventing oral mucositis for patients with cancer receiving treatment

Comparison: I Allopur nol versus placebo/no treatment

Outcome: I Mucos tis (any)

Test for overall effect: Z = 1.17 (P = 0.24) Test for subgroup differences: Not applicable



0.1 0.2 0.5 | 2 5 10
Favours allopurino1 Favours control

Tasso di rischio con relativo intervallo di confidenza di ogni studio \

Analysis I.I. Comparison I Allopurinol versus placebo/no treatment, Outcome I Mucositis (any).

Review: Interventions for preventing oral mucositis for patients with cancer receiving treatment

Comparison: I Allopurinol versus placebo/no treatment

Outcome: I Mucositis (any)

Study or subgroup	log [Risk Ratio]	Risk Ratio	Weight	Risk Ratio
	(SE)	IV,Random,95% CI		N,Random,95% CI
Dozono 1989	-1.2518 (0.463)		15.1 %	0.29 [0.12, 0.71]
Loprinzi 1990	0.167 (0.205)	-	31.6 %	1.18 [0.79, 1.77]
Abbasi-Nazari 2007	-0.14 (0.13)	+	37.7 %	0.87 [0.67, 1.12]
Panahi 2009	-0.46 (0.45)		15.6 %	0.63 [0.26, 1.52]
Total (95% CI)		•	100.0%	0.77 [0.50, 1.19]
Heterogeneity: $Tau^2 = 0.11$; C	$Chi^2 = 8.5 I$, $df = 3 (P = 0.04)$; $I^2 =$:65%		
Test for overall effect: $Z = 1.1$	7 (P = 0.24)			
Test for subgroup differences:	Not applicable			
		0.1 0.2 0.5 2 5 10		

Favours allopurinol

Favours control

Risultato di ogni singolo studio: RR e IC

Analysis I.I. Comparison I Allopurino versus placebo/no treatment, Outcome I Mucositis (any).

Review: Interventions for preventing oral mucositis for patients with cancer receiving treatment

Comparison: I Allopurinol versus placebo/no treatment

Outcome: I Mucositis (any)

Study or subgroup	log [Risk Ratio]	Risk Ratio	Weight	Risk Ratio
	(SE)	IV <mark>, L</mark> andom,95% CI		V,Random,95% CI
Dozono 1989	-1.2518 (0.463)		15.1 %	0.29 [0.12, 0.71]
Loprinzi 1990	0.167 (0.205)	+	31.6 %	1.18 [0.79, 1.77]
Abbasi-Nazari 2007	-0.14 (0.13)	+	37.7 %	0.87 [0.67, 1.12]
Panahi 2009	-0.46 (0.45)		15.6 %	0.63 [0.26, 1.52]
Total (95% CI)		•	100.0 %	0.77 [0.50, 1.19]

Heterogeneity: Tau 2 = 0.11; Chi 2 = 8.51, df = 3 (P = 0.04); I 2 =65%

Test for overall effect: Z = 1.17 (P = 0.24)

Test for subgroup differences: Not applicable

0.1 0.2 0.5 Favours allopurinol Favours control

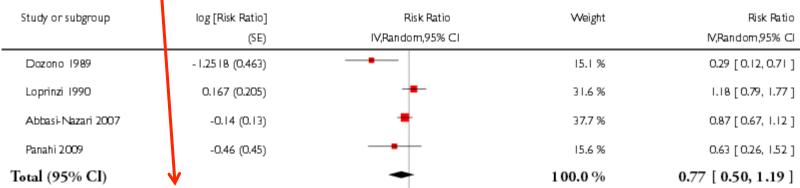
Test of homogeneity

Analysis I.I. Comparison I Allopurinol versus placebo/no treatment, Outcome I Mucositis (any).

Review: Interventions for preventing oral mucositis for patients with cancer receiving treatment

Comparison: | Allopurinol versus placebo/no treatment

Outcome: I Mucositis (any)



Heterogeneity: $Tau^2 = 0.11$; $Chi^2 = 8.51$, df = 3 (P = 0.04); $I^2 = 65\%$

Test for overall effect: Z = 1.17 (P = 0.24)

Test for subgroup differences: Not applicable

0.1 0.2 0.5 | 2 5 10
Favours allopurinol Favours control

Modello utilizzato per combinare i risultati

Analysis I.I. Comparison I Allopurinol versus placebo/no treatment, Outcome I Mucositis (any).

Review: Interventions for preventing oral mucositis for patients with cancer receiving treatment

Comparison: I Allopurinol versus placebo/no treatment

Outcome: I Mucositis (any)

Study or subgroup	log [Risk Ratio]	Risk Ratio	Weight	Risk Ratio
	(SE)	IV,Random,95% CI		V,Random,95% CI
Dozono 1989	- 1.25 18 (0.463)		15.1 %	0.29 [0.12, 0.71]
Loprinzi 1990	0.167 (0.205)	-	31.6 %	1.18 [0.79, 1.77]
Abbasi-Nazari 2007	-0.14 (0.13)	•	37.7 %	0.87 [0.67, 1.12]
Panahi 2009	-0.46 (0.45)		15.6 %	0.63 [0.26, 1.52]
Total (95% CI)		•	100.0 %	0.77 [0.50, 1.19]

Heterogeneity: Tau 2 = 0.11; Chi 2 = 8.51, df = 3 (P = 0.04); I 2 =65%

Test for overall effect: Z = 1.17 (P = 0.24)

Test for subgroup differences: Not applicable

0.1 0.2 0.5 | 2 5 10
Favours allopurinol Favours control

Risultato conclusivo della revisione

Analysis I.I. Comparison I Allopurinel versus placebo/no treatment, Outcome I Mucositis (any).

Review: Interventions for preventing oral mucositis for patients with cancer receiving treatment

Comparison: I Allopurinol versus placebo/no treatment

Outcome: I Mucositis (any)

Study or subgroup	log [Risk Ratio]	Risk Ratio	Weight	Risk Ratio
	(SE)	IV.Random,95% CI		V,Random,95% CI
Dozono 1989	- 1.25 18 (0.463)		15.1 %	0.29 [0.12, 0.71]
Loprinzi 1990	0.167 (0.205)	\ -	31.6 %	1.18 [0.79, 1.77]
Abbasi-Nazari 2007	-0.14 (0.13)	+	37.7 %	0.87 [0.67, 1.12]
Panahi 2009	-0.46 (0.45)	•	15.6 %	0.63 [0.26, 1.52]
Total (95% CI)		-	100.0%	0.77 [0.50, 1.19]

Heterogeneity: Tau² = 0.11; Chi² = 8.51, df = 3 (P = 0.04); I^2 = 65%

Test for overall effect: Z = 1.17 (P = 0.24) Test for subgroup differences: Not applicable

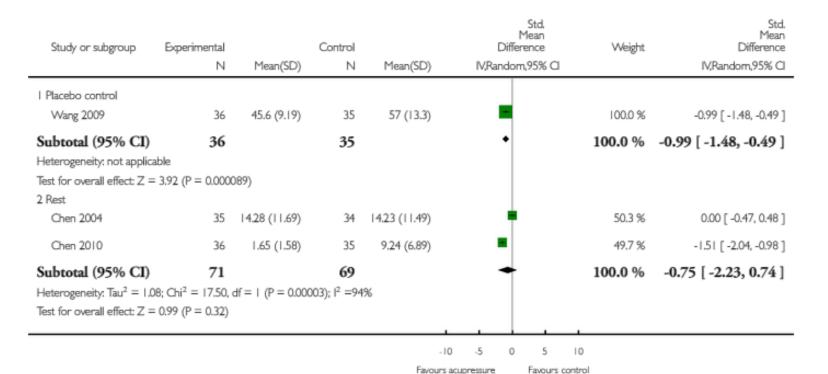
> 0.1 0.2 0.5 10 Favours allopurinol Favours control

Analysis 2.1. Comparison 2 Acupressure versus control, Outcome I Pain relief.

Review: Acupuncture for dysmenomhoea

Comparison: 2 Acupressure versus control

Outcome: I Pain relief



Come valutare una revisione? (5)

Come si possono applicare i risultati nella cura dei pazienti

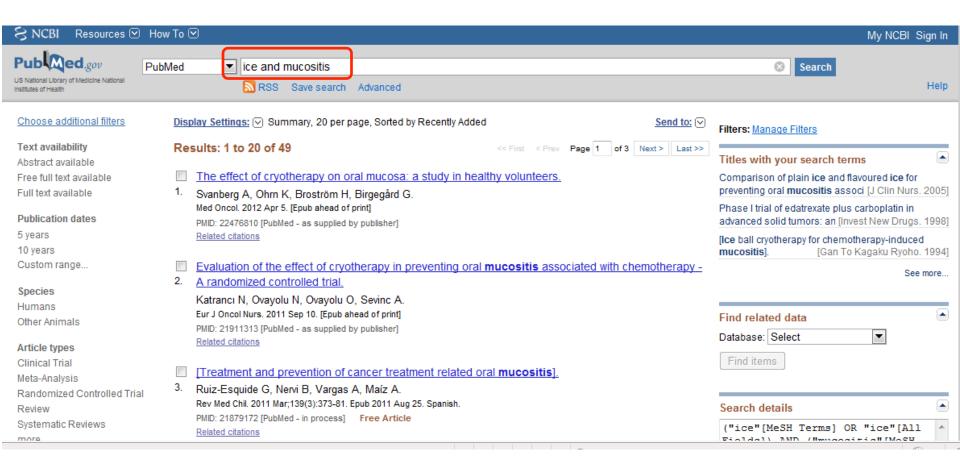
- Come si possono interpretare al meglio i risultati per applicarli nella pratica?
- Tutti i "Patient-Important Outcomes" sono stati considerati?
 - Sono valutati tutti gli effetti positivi e negati del trattamento (esempio: terapia ormonale: riportato l'aumento del rischio di cancro della mammella)
 - Costi
- I benefici sono bilanciati con i rischi potenziali

PERCHE' UTILIZZARE LE REVISIONI SISTEMATICHE NELLA PRATICA CLINICA ASSISTENZIALE

Efficacia della crioterapia nella prevenzione delle mucositi nei pazienti sottoposti a chemioterapia

PICO???

Ricerca PubMed (1)



Ricerca PubMed (2)

Display Settings: V Abstract

Send to: ✓

Cancer. 2008 Apr 1;112(7):1600-6.

Double-blind, placebo-controlled, randomized study of chlorhexidine prophylaxis for 5-fluorouracil-based chemotherapy-induced oral mucositis with nonblinded randomized comparison to oral cooling (cryotherapy) in gastrointestinal malignancies.

Sorensen JB, Skovsgaard T, Bork E, Damstrup L, Ingeberg S.

Department Oncology, Finsen Centre/National University Hospital, Copenhagen, Denmark. jens.benn.soerensen@rh.regionh.dk

Abstract

BACKGROUND: The purpose was to evaluate prevention of oral mucositis (OM) using chlorhexidine compared with placebo and with oral cooling (cryotherapy) during fluorouracil (5-FU)-based chemotherapy in gastrointestinal (GI) cancer.

METHODS: Patients with previously untreated GI cancer receiving bolus 5-FU/leucovorin chemotherapy were randomized to chlorhexidine mouthrinse 3 times a day for 3 weeks (Arm A), double-blind placebo (normal saline) with the same dose and frequency (Arm B), or cryotherapy with crushed ice 45 minutes during chemotherapy (Arm C). Patients self-reported on severity (CTC-grading) and duration of OM.

RESULTS: Among 225 patients randomized, 206 answered the questionnaire (70, 64, and 63 patients in Arms A, B, and C, respectively) and were well balanced with respect to diagnoses, stage, age, sex, smoking habits, and performance status. Mucositis grade 3-4 occurred more frequently in Arm B (33%) than in A (13%, P<.01) and C (11%, P<.005) Duration was significantly longer in B than in both A (P=.035) and C (P=.003).

CONCLUSIONS: The frequency and duration of OM are significantly improved by prophylactic chlorhexidine and by cryotherapy. The latter is easy and inexpensive but has limited use, as it is drug- and schedule-dependent. The current study is the first double-blind randomized evaluation of prophylactic chlorhexidine in a large adult patient population with solid tumors receiving highly OM-inducing chemotherapy. A role for chlorhexidine in the prevention of OM is suggested, which should be evaluated further.

Ricerca PubMed (3)

Display Settings: (V) Abstract

Send to: ♥

Bone Marrow Transplant. 2007 Mar;39(6):347-52. Epub 2007 Feb 5.

Cryotherapy in the prevention of oral mucositis in patients receiving low-dose methotrexate following myeloablative allogeneic stem cell transplantation: a prospective randomized study of the Gruppo Italiano Trapianto di Midollo Osseo nurses group.

Gori E, Arpinati M, Bonifazi F, Errico A, Mega A, Alberani F, Sabbi V, Costazza G, Leanza S, Borrelli C, Berni M, Feraut C, Polato E, Altieri MC, Pirola E, Loddo MC, Banfi M, Barzetti L, Calza S, Brignoli C, Bandini G, De Vivo A, Bosi A, Baccarani M.

Department of Hematology and Medical Oncology Seragnoli, University of Bologna, Bologna, Italy.

Abstract

Severe oral mucositis is a major cause of morbidity following allogeneic hematopoietic stem cell transplantation (AHSCT). Cryotherapy, that is, the application of ice chips on the mucosa of the oral cavity during the administration of antineoplastic agents, may reduce the incidence and severity of chemotherapy-related oral mucositis. In this multicenter randomized study, we addressed whether cryotherapy during MTX administration is effective in the prevention of severe oral mucositis in patients undergoing myeloablative AHSCT. One hundred and thirty patients undergoing myeloablative AHSCT and MTX-containing GVHD prophylaxis were enrolled and randomized to receive or not receive cryotherapy during MTX administration. The incidence of severe (grade 3-4) oral mucositis, the primary end point of the study, was comparable in patients receiving or not cryotherapy. Moreover, no difference was observed in the incidence of oral mucositis grade 2-4 and the duration of oral mucositis grade 3-4 or 2-4, or in the kinetics of mucositis over time. In univariate and multivariate analysis, severe oral mucositis correlated with TBI in the conditioning regimen and lack of folinic acid rescue following MTX administration. Thus, cryotherapy during MTX administration does not reduce severe oral mucositis in patients undergoing myeloablative allogeneic HSCT. Future studies will assess cryotherapy before allogeneic HSCT.

Quindi

La crioterapia è efficace o no??



Trusted evidence. Informed decisions. Better health.

Search title, abstract, keyword



Cochrane Reviews ▼

Trials ▼

More Resources ▼

About ▼

Help ▼







Highlighted Reviews

Editorials

Special Collections

Interventions for preventing oral mucositis for patients with cancer receiving treatment (Review)

Worthington HV, Clarkson JE, Bryan G, Furness S, Glenny AM, Littlewood A, McCabe MG, Meyer S, Khalid T



Analysis 5.1. Comparison 5 Cryotherapy versus no treatment, Outcome I Mucositis (any).

Review: Interventions for preventing oral mucositis for patients with cancer receiving treatment

Comparison: 5 Cryotherapy versus no treatment

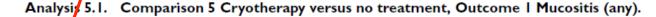
Outcome: I Mucositis (any)

Study or subgroup	log [Risk Ratio]	Risk Ratio	Weight	Risk Ratio
	(SE)	IV,Random,95% CI		IV,Random,95% CI
Mahood 1991	-0.462 (0.26)	-	13.8 %	0.63 [0.38, 1.05]
Cascinu 1994	-0.4526 (0.271)		13.1 %	0.64 [0.37, 1.08]
Lilleby 2006	-0.4479 (0.174)		19.9 %	0.64 [0.45, 0.90]
Gori 2007	-0.02 (0.04)	•	30.3 %	0.98 [0.91, 1.06]
Sorensen 2008	-0.36 (0.14)	-	22.8 %	0.70 [0.53, 0.92]
Total (95% CI) Heterogeneity: $Tau^2 = 0.05$; Test for overall effect: $Z = 2$	Chi ² = 14.77, df = 4 (P = 0.01); l ²	=73%	100.0 %	0.74 [0.57, 0.95]

0.1 0.2 0.5 I 2 5 I0

Favours cryotherapy Favours control

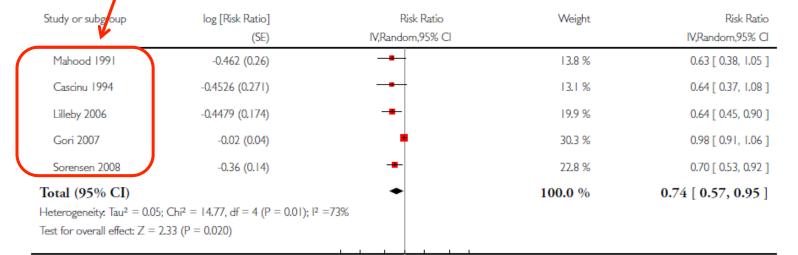
Primo autore e anno di pubblicazione degli studi inclusi nell'analisi



Review: Intervention for preventing oral mucositis for patients with cancer receiving treatment

Comparison: 5 Cr otherapy versus no treatment

Outcome: I Mucositis (any)

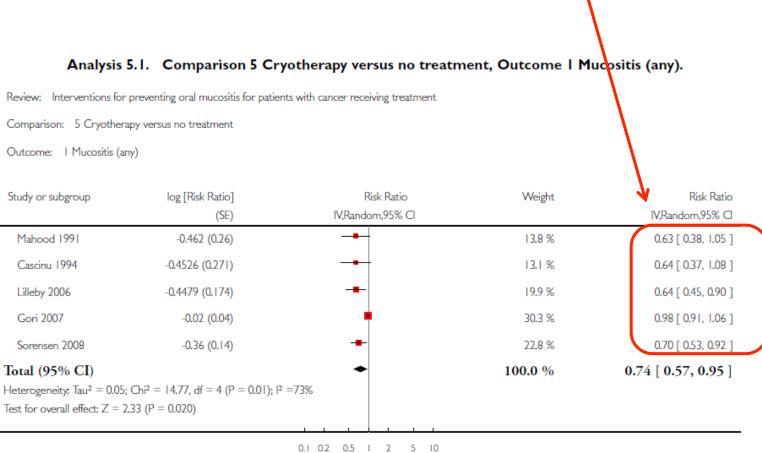


0.1 0.2 0.5 1 2 5 10

Favours cryotherapy

Favours control

Tasso di rischio con relativo intervallo di confidenza di ogni studio



Favours cryotherapy

Favours control

Risultato di ogni singolo studio: RR e IC

Analysis 5.1. Comparison 5 Cryotherapy versus no treatment, Outcome I Mucositis (any).

Review: Interventions for preventing oral mucositis for patients with cancer receiving treatment

Comparison: 5 Cryotherapy versus no treatment

Outcome: I Mucositis (any)

Study or subgroup	log [Risk Ratio]	Risk Ratio	Weight	Risk Ratio
	(SE)	IV,Random,95% CI		IV,Random,95% CI
Mahood 1991	-0.462 (0.26)	-	13.8 %	0.63 [0.38, 1.05]
Cascinu 1994	-0.4526 (0.271)		13.1 %	0.64 [0.37, 1.08]
Lilleby 2006	-0.4479 (0.174)		19.9 %	0.64 [0.45, 0.90]
Gori 2007	-0.02 (0.04)	•	30.3 %	0.98 [0.91, 1.06]
Sorensen 2008	-0.36 (0.14)	•	22.8 %	0.70 [0.53, 0.92]
Total (95% CI)		•	100.0 %	0.74 [0.57, 0.95]
Heterogeneity: Tau ² = 0.05	$Chi^2 = 14.77$, $df = 4$ (P = 0.01); F	2 =73%		
Test for overall effect: $Z = 2$	2.33 (P = 0.020)			

Test of homogeneity

Analysis 5.1. Comparison 5 Cryotherapy versus no treatment, Outcome I Mucositis (any).

Review: Interventions for preventing oral mucositis for patients with cancer receiving treatment

Comparison: 5 Cryotherapy versus no treatment

Outcome: I Mucositis (any)

Study or subgroup	log [Risk Ratio]	Risk Ratio	Weight	Risk Ratio
	(SE)	IV,Random,95% CI		IV,Random,95% CI
Mahood 1991	-0.462 (0.26)		13.8 %	0.63 [0.38, 1.05]
Cascinu 1994	-0.4526 (0.271)	-	13.1 %	0.64 [0.37, 1.08]
Lilleby 2006	-0.4479 (0.174)	-	19.9 %	0.64 [0.45, 0.90]
Gori 2007	-0.02 (0.04)	•	30.3 %	0.98 [0.91, 1.06]
Sorensen 2008	-0.36 (0.14)	-	22.8 %	0.70 [0.53, 0.92]
Total (95% CI)	V	•	100.0 %	0.74 [0.57, 0.95]
Heterogeneity: Tau ² = 0.0	5; $Chi^2 = 14.77$, $df = 4$ ($P = 0.01$); F	2 =73%		
Test for overall effect: $Z =$	2.33 (P = 0.020)			

Modello utilizzato per combinare i risultati

Analysis 5.1. Comparison 5 Cryotherapy versus no treatment, Outcome I Mucositis (any).

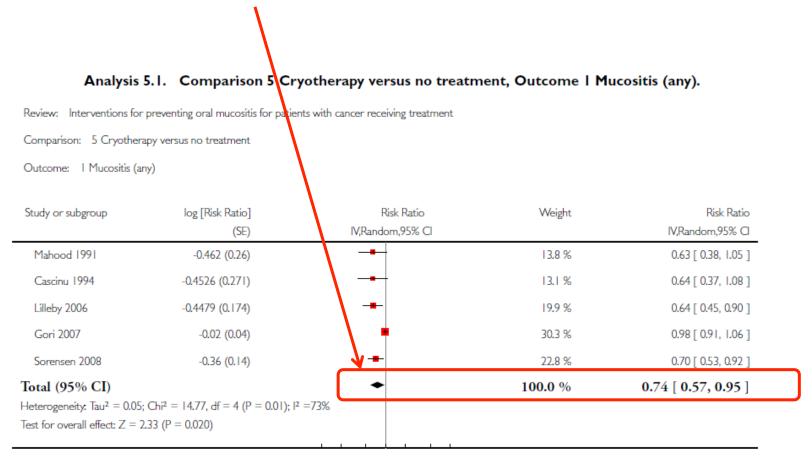
Review: Interventions for preventing oral mucositis for patients with cancer receiving treatment

Comparison: 5 Cryotherapy versus no treatment

Outcome: I Mucositis (any)

Study or subgroup	log [Risk Ratio]	Pisk Ratio	Weight	Risk Ratio
	(SE)	IV,Random,95% CI		IV,Random,95% CI
Mahood 1991	-0.462 (0.26)	-	13.8 %	0.63 [0.38, 1.05]
Cascinu 1994	-0.4526 (0.271)	-	13.1 %	0.64 [0.37, 1.08]
Lilleby 2006	-0.4479 (0.174)		19.9 %	0.64 [0.45, 0.90]
Gori 2007	-0.02 (0.04)	•	30.3 %	0.98 [0.91, 1.06]
Sorensen 2008	-0.36 (0.14)	-	22.8 %	0.70 [0.53, 0.92]
Total (95% CI)		•	100.0 %	0.74 [0.57, 0.95]
Heterogeneity: Tau ² = 0.05	; $Chi^2 = 14.77$, $df = 4$ ($P = 0.01$); I^2	=73%		
Test for overall effect: $Z = 2$	2.33 (P = 0.020)			

Risultato conclusivo della revisione



0.1 0.2 0.5 1 2 5 10

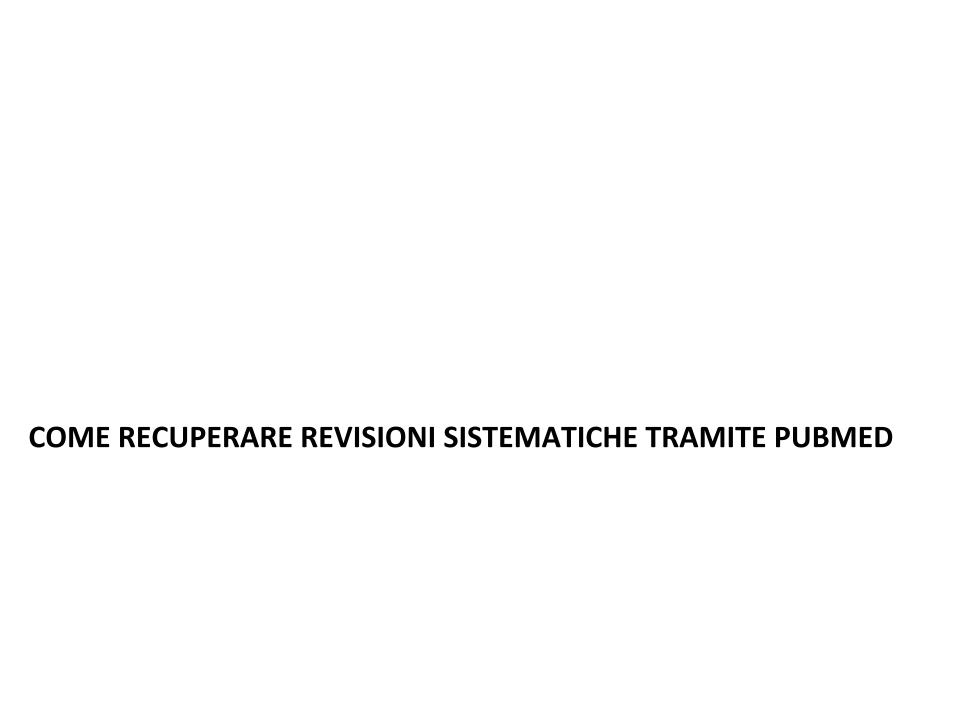
DISCUSSION

Summary of main results

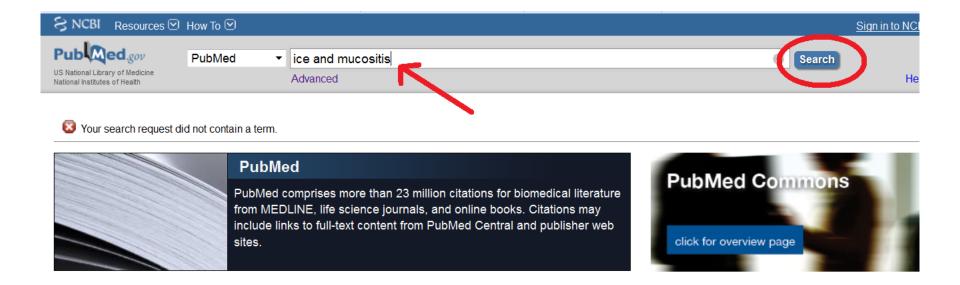
This update has identified a further 42 included trials which have been published in less than 3 years, bringing the total number of included studies up to 131. The trials included in this review have evaluated 43 different interventions and recruited a total of 10,514 patients.

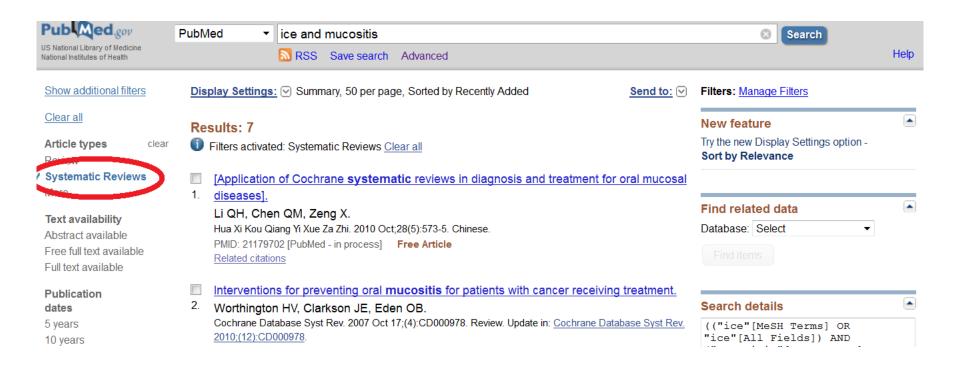
There is some evidence of a benefit for cryotherapy (ice chips) and keratinocyte growth factor based on a body of evidence comprising at least 6 trials and at least 550 participants for each of these interventions. However all these trials were assessed as being at either high or unclear risk of bias.

Cryotherapy was found to be beneficial in the prevention of all the outcome categories of mucositis. Specifically the prevention of any mucositis RR = 0.74 (95% CI 0.57 to 0.95, P = 0.02), moderate plus severe mucositis RR = 0.53 (95% CI 0.31 to 0.91, P = 0.02), and severe mucositis RR = 0.36 (95% CI 0.17 to 0.77, P = 0.008).



http://www.ncbi.nlm.nih.gov/pubmed





Esercitazione

I risultati sono validi?

- La revisione esplicita un quesito clinico sensibile?
- La ricerca bibliografica è avvenuta in dettaglio e in modo esaustivo?
- Gli studi inclusi sono stati condotti con una metodologia adeguata e di qualità?
- La valutazione degli studi è riproducibile?

Quali sono i risultati

- I risultati degli studi sono simili tra loro?
- Qual è il risultato della revisione?
- Come sono precisi i risultati?

Come si possono applicare i risultati nella cura dei pazienti

- Come si possono interpretare al meglio i risultati per applicarli nella pratica?
- Tutti i "Patient-Important Outcomes" sono stati considerati?
- I benefici sono bilanciati con i rischi potenziali