

循证医学之证据检索

2019.10

主要内容



- 一. 概况
- 二. 临床实践的步骤
- 三. 证据种类
- 四. 证据检索

循证医学的先驱

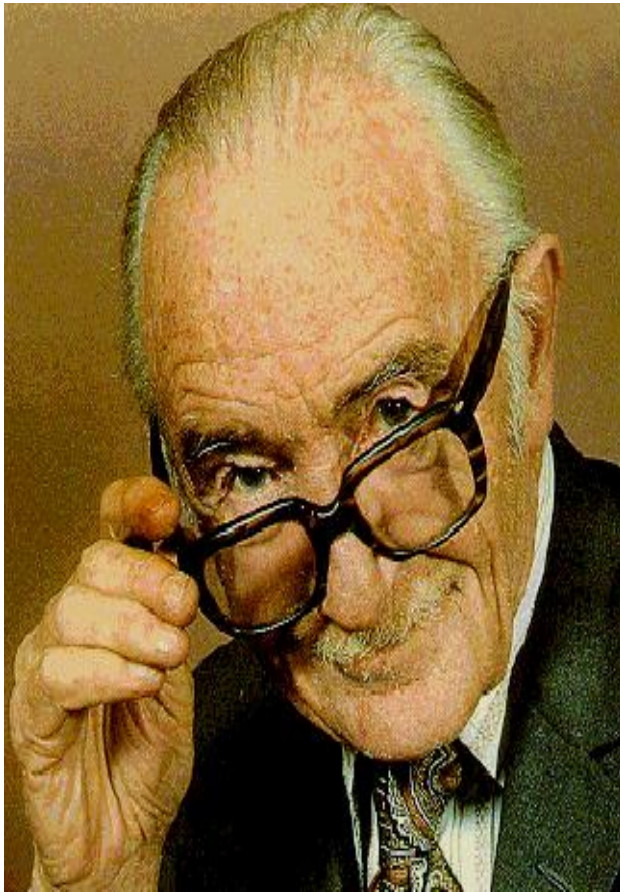


- **Evidence Based Medicine
EBM**
- **循证医学是有意识地、明确地、审慎地利用现有最好的证据制定病人的诊治方案。实施循证医学意味着医生要参照最好的研究证据、临床经验和病人的意见。**

**—David L. Sackett
(1934-2015)**

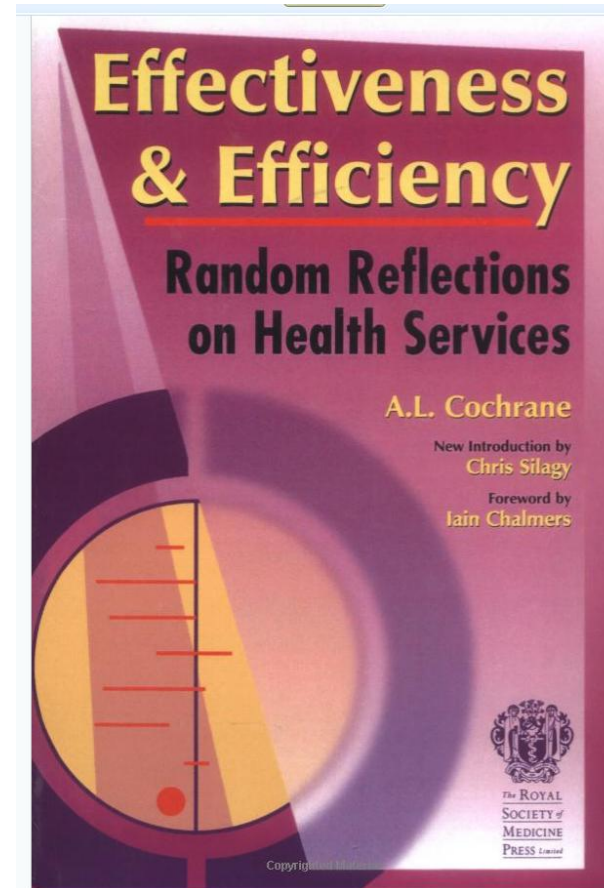


循证医学的先驱



Archie Cochrane
(英国, 1909-1988)

1972年, 其力作《疗效与效益: 健康服务中的随机反映》问世。这部经典巨著催生了循证医学的诞生。



循证医学的先驱



◆ Iain Chalmers

(英国, 1943-)

◆ 对有早产倾向的产妇使用糖皮质激素有效减少早产儿呼吸窘迫综合征的出现。

◆ Cochrane协作网创始人之一



The screenshot shows the Cochrane website homepage. At the top, there is a navigation bar with language options (English, 简体中文, Deutsch, Español, Français, Hrvatski, 日本語, 한국어, Bahasa Malaysia, Polski) and links for Media, Contact us, and Community. The Cochrane logo and tagline "Trusted evidence. Informed decisions. Better health." are prominently displayed. A search bar is located to the right. Below the navigation bar, there are four main menu items: "Our evidence", "About us", "Get involved", and "News and events", followed by a "Cochrane Library" button. The main content area features a large banner for "Cochrane seeks members for its inaugural Scientific Committee" with a sub-headline: "Independent forum providing guidance to ensure that Cochrane Reviews always represent the best methodological practice in evidence synthesis." Below this, there is a "Latest News and Events" section with four news items: "Cochrane in the news: November 2016" (21 November 2016), "Translated Cochrane evidence" (21 November 2016), "Cochrane seeks Executive Assistant to the CEO - London, UK" (22 November 2016), and "The Cochrane Library - iPad edition" (18 November 2016). To the right of the news section is a "What is Cochrane evidence and how can it help you?" section, which includes a "Latest Cochrane evidence" list with a "Top 10" filter. The list includes: "Gabapentin for chronic neuropathic pain and fibromyalgia in adults", "Vaccines to prevent influenza in healthy adults", "Amitriptyline for neuropathic pain in adults", "Intravenous infusion of lidocaine starting at the time of surgery for reduction of pain and improvement of recovery after surgery", "Corticosteroids for bacterial meningitis", "Vitamin E supplementation in pregnancy", "T-tube drainage versus no T-tube drainage after open common bile duct exploration", "Weaning from mechanical ventilation using pressure support or a T-tube for a spontaneous breathing trial", "Loop diuretics for patients receiving blood transfusions", and "Two different laparoscopic techniques for repairing a hernia in the groin".



简体中文 Deutsch English Español Français Hrvatski 日本語 한국어 Bahasa Malaysia Polski 媒体 | 联系我们 | 团队 | 我的帐户

Cochrane 可靠证据 知情决策 更好的医疗和健康

我们的证据 关于我们 加入Cochrane News and jobs Cochrane图书馆

50 "高血压"的检索结果

当前检索: 高血压 重置

筛选检索结果: Cochrane证据 资源 指南&手册 培训&研讨会 新闻 Cochrane所有网站

健康主题

- 补充替代医学 (5)
- 儿童健康 (9)
- 肺与呼吸道 (4)
- 内分泌与代谢 (11)
- 妊娠与分娩 (18)
- 神经学 (1)
- 肾脏疾病 (18)
- 消费者与交流策略 (1)
- 心脏与循环系统 (16)
- 有效实践与健康系统 (3)

+ 显示更多

新的与更新的主题

新的 (1)

Podcasts

播客 (4)

请注意: 并非所有的概要都已翻译检索结果中可能存在更多的英文或其它语言条目

按...分类 隐藏描述 [订阅这个检索](#)

COCHRANE证据 · 已发表7十二月2011

抗血小板制剂与抗凝血制剂对高血压患者的疗效

高血压病人每天服用抗血小板制剂阿司匹林, 可明显降低心脏病发生率, 但也增加了相似程度的大出血事件发生率, 因此对于未发生过脑中风或心脏病的高血压病人并不建议使用阿司匹林。对于曾经发生过脑中风或心脏病的高血压病人, 建议每日服用低剂量的阿斯匹灵, 这样益处多于害处。目前还没有证据证明, 高血压患者单独使用抗血控制剂华法林或和阿司匹林合用有益处。其他新药, 如糖蛋白IIb/IIIa受体抑制剂、clopidogrel, prasugrel, ticagrelor, 以及口服抗血控制剂dabigatran 和 rivaroxaban, 对高血压患者的利弊, 在还未临床实验中进行研究。

COCHRANE证据 · 已发表2十月2018

轻到中度的妊娠期高血压的抗高血压药物疗法

综述问题是什么? 本综述的目的是确定降压药(抗高血压药)对轻度至中度高血压(血压高)孕妇的益处和不良反应。另一个目的是评估这些药物对婴儿的益处和不良影响。为什么这个问题很重要? 在怀孕期间, 多达十分之一的女性血压读数高于正常值。对于一些女性来说, 她们的血压虽然略高(称为“轻度至中度的高血压”), 但是没有明显的并发症。其中一些女性继续发展为极高血压。如果极高血压影响女性的器官(例如肝脏或大脑以中风的形式存在), 则可能导致医疗紧急情况。此外, 它会严重影响宝宝的成长和健康。降压药用于治疗轻度至中度高血压, 可以信任这种治疗对于防止血压持续升高的效果。多年来, 来自高质量研究的信息一直存在矛盾, 因此我们无法确定这种药物治疗是否值得。我们发现了什么证据? 本Cochrane综述是对于在2001年首次发表、在2007年和2014年更新后的再次更新。我们在2017年9月检索了随机对照试验, 纳入了58项试验的数据, 涉及超过5900名女性。共有涉及3485名女性的31项试验将一些不同的降压药物与安慰剂或无治疗药物进行了比较。还有涉及2774名女性的29项试验将一种降压药物与另一种降压药物进行比较。有证据表明, 用降压药物治疗中度升高血压的孕妇可能会使发生严重

We use cookies to improve your experience on our site. [OK](#) [更多信息](#)

二. 临床实践的步骤



1. 构建临床问题
2. 检索相关文献
3. 严格评价文献
4. 应用最佳证据
5. 不断提高改进



1. 构建临床问题

□ 构建临床问题 – 国际通用PICO原则



病人或疾病 (即问题) **P**atients/**P**roblems



干预 **I**ntervention



比较干预或暴露 **C**omparison(optional)



临床结局 **O**utcome

◆ 研究设计 **S**tudy (etiology/diagnosis/therapy/prognosis)

临床问题举例



PICO



一位64岁肥胖的男性病人，尝试用各种方式减轻体重。他向王医师呈交一篇报道：“肥胖者的福音”——壳聚糖（chitosan），患者想了解服用壳聚糖对他减肥是否有效，但王医师凭借以往经验无法给出答案。

P	I	C	O
肥胖病人 Obesity overweight	壳聚糖 chitosan	是否有对照组 (not clear)	减轻体重 Weight

S 治疗
therapy

临床问题举例



- 构建不够好的问题

壳聚糖对肥胖病人有效吗?

I P

- 构建良好的问题

壳聚糖与奥利斯他相比是否更能降低肥胖病人的脂肪吸收?

I C P O



2.检索相关文献

- 根据提出的临床问题，确定“检索词”
- 利用各种权威的检索系统检索相关文献。
 - 原始研究
 - 二次研究
- 从检索结果中找出与问题关系密切的资料，作为分析评价之用。
- **文献检索虽是循证医学实践中的一个环节，但检索策略的制定很重要。**



- Cochrane Library: Cochrane协作网建立
<http://www.thecochranelibrary.com>
- PubMed: 美国国立医学图书馆创建
<http://ncbi.nlm.nih.gov/PubMed>
- BMJ Best Practice: BMJ创建
<http://bestpractice.bmj.com>
- 中文生物医学文献数据库 (CBM) : 中国医学科学院医学信息研究所研制



3. 严格评价文献

- 应用临床流行病学及EBM质量评价标准，从证据的真实性、可靠性、临床价值及其适用性作出具体的评价。
- 如果收集的合格文献较多的话，可以作系统评价(systematic review) 和Meta-分析(meta-analysis)
- 学习循证医学最好的方法是制作一篇系统评价。

学习系统评价的历程



- 1、提出问题，确定系统评价的题目
- 2、与相关的Cochrane系统评价组联系，申请注册题目
- 3、题目批准后，根据协作网提供的RevMan软件和Handbook制作系统评价的 protocol
- 4、计划书完成后提交协作网，接受评价组的修改
- 5、修改到编辑部满意后，发表在CL上
- 6、完成SR全文并送协作网审批
- 7、再修改直到发表在CL上
- 8、跟踪本课题的进展，随时更新。

摘自丁香园

系统评价手册



《Cochrane 干预措施系统评价手册》
中文翻译版
The Translation of Cochrane
Handbook for Systematic Reviews of
Interventions

总审校 李静 张鸣明

审译单位
四川大学华西医院中国 Cochrane 中心
兰州大学循证医学中心

c2014中文版.pdf 4 / 673

目 录

Cochrane 干预措施系统评价手册.....	i
第一章 导论.....	1
1.1 Cochrane 协作网.....	2
1.1.1 引言.....	2
1.1.2 Cochrane 协作网组织结构.....	3
1.1.3 Cochrane 评价的发表.....	3
1.2 系统评价.....	4
1.2.1 系统评价的需求.....	4
1.2.2 什么是系统评价.....	4
1.3 关于本手册.....	5
1.4 手册参编者.....	6
1.5 本章信息.....	7
1.6 参考文献.....	7
第二章 系统评价的准备.....	9
2.1 计划书的原则.....	10
2.2 Cochrane 系统评价的格式.....	10
2.2.1 Cochrane 系统评价格式的原则.....	10
2.2.2 Cochrane 系统评价计划书的框架.....	11
2.2.3 Cochrane 系统评价的大纲.....	13
2.3 制作系统评价的流程.....	15
2.3.1 制作系统评价的动机.....	15
2.3.2 规划系统评价的主题和范围.....	15
2.3.3 注册计划书.....	15
2.3.4 系统评价工作组.....	16
2.3.5 Cochrane 评价使用的软件.....	18
2.3.6 培训.....	19
2.3.7 Cochrane 系统评价小组的编辑过程.....	19



系统评价手册

第四章 Cochrane 计划书及系统评价内容指南.....	46
4.1 引言.....	47
4.2 标题与系统评价信息（或计划书信息）.....	47
4.2.1 标题.....	47
4.2.2 作者.....	48
4.2.3 通讯作者.....	49
4.2.4 日期.....	49
4.2.5 新内容和历史.....	50
4.3 摘要.....	51
4.4 通俗语言总结.....	51
4.5 正文.....	51
4.6 表格.....	64
4.6.1 纳入研究特征.....	64
4.6.2 偏向风险.....	64
4.6.3 排除研究特征.....	65
4.6.4 待分类研究特征.....	65
4.6.5 在研研究的特征.....	65
4.6.6 结果的总结.....	66
4.6.7 附加表格.....	66
4.7 研究和参考文献.....	66
4.7.1 研究的参考文献.....	66
4.7.2 其他参考文献.....	67
4.8 数据和分析.....	68
4.8.1 比较.....	68
4.8.2 结果.....	68
4.8.3 亚组.....	69

5.9 参考文献.....	84
第六章 文献检索.....	86
6.1 引言.....	87
6.1.1 一般问题.....	88
6.1.2 要点总结.....	89
6.2 检索信息源.....	89
6.2.1 书目数据库.....	89
6.2.2 期刊和其它非书目数据库源.....	98
6.2.3 未发表和在研的研究.....	103
6.2.4 要点总结.....	108
6.3 规划检索过程.....	109
6.3.1 邀请试验检索协调员和卫生保健图书馆员参与检索过程.....	109
6.3.2 协作网检索倡议.....	109
6.3.3 CENTRAL, MEDLINE 和 MEDLINE 检索: 特殊问题.....	115
6.3.4 要点总结.....	117
6.4 设计检索策略.....	117
6.4.1 设计检索策略-简介.....	117
6.4.2 检索策略架构.....	118
6.4.3 服务提供商和检索界面.....	118
6.4.4 检索敏感度与精确性.....	119
6.4.5 受控词表和文本词.....	119
6.4.6 同义词、相关词、不同拼写、截词和通配符.....	121
6.4.7 布尔运算符（与、或、非）.....	121
6.4.8 相邻运算符（NEAR, NEXT and ADJ）.....	122
6.4.9 语言、日期和文献格式的限制.....	122
6.4.10 识别欺诈性研究、其它撤回发表物、勘误和意见.....	123
6.4.11 检索过滤器.....	123
6.4.12 检索更新.....	128
6.4.13 检索策略示范.....	129
6.4.14 要点总结.....	130



系统评价手册

Citations Month X, 200X' 非索引记录文件。关于这一问题的进一步指导，联系试验检索协调员。

6.4.13 检索策略示范

框6.4.e提供了一个主题为“它莫西芬治疗乳腺癌”的CENTRAL检索策略演示。注意：它仅包括主题词（随机对照试验过滤器不适合CENTRAL）。没有限制于人类。该策略只用于演示目的：检索CENTRAL中研究以纳入系统评价时针对每一个概念需要更多的检索词汇。

框6.4.f提供一个主题为“它莫西芬治疗乳腺癌”的Ovid MEDLINE检索策略演示。注意MEDLINE使用了主题词和一个随机对照试验过滤器，检索仅限于人类。提供这一策略仅作为演示目的：检索MEDLINE中研究以纳入系统评价时针对每一概念需要更多的检索词汇。

框6.4.e 主题为“它莫西芬治疗乳腺癌”的CENTRAL检索策略示范

```

#1 MeSH descriptor Breast Neoplasms explode all trees
#2 breast near cancer*
#3 breast near neoplasm*
#4 breast near carcinoma*
#5 breast near tumour*
#6 breast near tumor*
#7 #1 OR #2 OR #3 OR #4 OR #5 OR #6
#8 MeSH descriptor Tamoxifen explode all trees
#9 tamoxifen
#10 #8 OR #9
#11 #7 AND #10

```

“near”运算符默认为在6个字内；
“*”表示阶段符。

129

框6.4.f 主题为“它莫西芬治疗乳腺癌”的MEDLINE (Ovid格式) 检索策略示范

```

1 randomized controlled trial.pt.
2 controlled clinical trial.pt.
3 randomized.ab.
4 placebo.ab.
5 drug therapy.fs.
6 randomly.ab.
7 trial.ab.
8 groups.ab.
9 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8
10 animals.sh. not (humans.sh. and animals.sh.)
11 9 not 10
12 exp Breast Neoplasms/
13 (breast adj6 cancer$.mp.
14 (breast adj6 neoplasm$.mp.
15 (breast adj6 carcinoma$.mp.
16 (breast adj6 tumour$.mp.
17 (breast adj6 tumor$.mp.
18 12 or 13 or 14 or 15 or 16 or 17
19 exp Tamoxifen/
20 tamoxifen.mp.
21 19 or 20
22 11 and 18 and 21

```

‘adj6’运算符表示在6个字内；

‘\$’表示截断符；

.mp.表示检索标题、原标题、摘要、实义词及主题词。



4. 应用最佳证据

- 将获得的真实可靠的并有临床应用价值的最佳证据，用于指导临床决策。
- 否定经严格评价认为乏效甚至有害的治疗措施。
- 对于尚难定论并有期望的治疗措施，可为进一步研究提供信息。
- 遵循个性化原则



5. 不断提高改进

- 通过对患者的实践，总结经验教训，从中获益，促进学术水平和医疗质量的提高。

三.证据种类



“证”就是对临床研究的文献，应用临床流行病学的原则和方法，经过认真的分析和评价获得的新近的最真实可靠且有临床重要应用价值的研究成果。



1. 证据的种类

1.1 Systematic Review 和 Meta-Analysis

针对某一具体临床问题，全面搜集相关文献，运用统计学的原理和方法，对符合标准的文献进行全新的综合和研究而产生的新文献。

[例] 非小细胞肺癌完全切除术后的放射治疗，存在争议。近年来系统评价得出结论：术后放射治疗不利于完全切除的早期非小细胞肺癌病人。



Postoperative radiotherapy for non-small cell lung cancer

Sarah Burdett¹, Larysa Rydzewska¹, Jayne Tierney¹, David Fisher², Mahesh KB Parmar², Rodrigo Arriagada³, Jean Pierre Pignon⁴, Cecile Le Pechoux⁵, on behalf of the PORT Meta-analysis Trialists Group¹

¹Meta-analysis Group, MRC Clinical Trials Unit at UCL, London, UK. ²MRC Clinical Trials Unit at UCL, London, UK. ³Karolinska Institutet, Stockholm, Sweden. ⁴Plateforme LNCC de Méta-analyse en Oncologie et Service de Biostatistique et d'Epidémiologie, Gustave Roussy Cancer Campus, Villejuif, France. ⁵Département de Radiothérapie, Gustave Roussy Cancer Campus, Villejuif, France

Contact address: Sarah Burdett, Meta-analysis Group, MRC Clinical Trials Unit at UCL, Aviation House, 125 Kingsway, London WC2B 6NH, UK. sarah.burdett@ucl.ac.uk

Editorial group: Cochrane Lung Cancer Group.

Publication status and date: New search for studies and content updated

Citation: Burdett S, Rydzewska L, Tierney J, Fisher D, Parmar MKB, Arriagada R, Pignon JP, Le Pechoux C, on behalf of the PORT Meta-analysis Trialists Group. Postoperative radiotherapy for non-small cell lung cancer. *Cochrane Database of Systematic Reviews*. 2016, Issue 10. Art. No.: CD002142. DOI: 10.1002/14651858.CD002142.pub2

Copyright © 2016 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.

课题背景

研究目的

检索方法

选择标准

数据搜集与分析

主要结果

作者结论

Abstract

Jump to...

Background

The role of postoperative radiotherapy (PORT) in the treatment of patients with completely resected non-small cell lung cancer (NSCLC) was not clear. A systematic review and individual participant data meta-analysis was undertaken to evaluate available evidence from randomised controlled trials (RCTs). These results were first published in *Lung Cancer* in 2013.

Objectives

To evaluate the effects of PORT on survival and recurrence in patients with completely resected NSCLC. To investigate whether predefined patient subgroups benefit more or less from PORT.

Search methods

We supplemented MEDLINE and CANCELIT searches (1965 to 8 July 2016) with information from trial registers, handsearching of relevant meeting proceedings and discussion with trialists and organisations.

Selection criteria

We included trials of surgery versus surgery plus radiotherapy, provided they randomised participants with NSCLC using a method that precluded prior knowledge of treatment assignment.

Data collection and analysis

We carried out a quantitative meta-analysis using updated information from individual participants from all randomised trials. We sought data on all participants from those responsible for the trial. We obtained updated individual participant data (IPD) on survival and date of last follow-up, as well as details on treatment allocation, date of randomisation, age, sex, histological cell type, stage, nodal status and performance status. To avoid potential bias, we requested information on all randomised participants, including those excluded from investigators' original analyses. We conducted all analyses on intention-to-treat on the endpoint of survival.

Main results

We identified 14 trials evaluating surgery versus surgery plus radiotherapy. Individual participant data were available for 11 of these trials, and our analyses are based on 2343 participants (1511 deaths). Results show a significant adverse effect of PORT on survival, with a hazard ratio of 1.18, or an 18% relative increase in risk of death. This is equivalent to an absolute detriment of 5% at two years (95% confidence interval (CI) 2% to 9%), reducing overall survival from 58% to 53%. Subgroup analyses showed no differences in effects of PORT by any participant subgroup covariate.

We did not undertake analysis of the effects of PORT on quality of life and adverse events. Investigators did not routinely collect quality of life information during these trials, and it was unlikely that any benefit of PORT would offset the observed survival disadvantage. We considered risk of bias in the included trials to be low.

Authors' conclusions

Results from 11 trials and 2343 participants show that PORT is detrimental to those with completely resected non-small cell lung cancer and should not be used in the routine treatment of such patients. Results of ongoing RCTs will clarify the effects of modern radiotherapy in patients with N2 tumours.

系统评价的格式



Postoperative radiotherapy for non-small cell lung cancer

New search | Review | Intervention

Sarah Burdett, Larysa Rydzewska, Jayne Tierney, David Fisher, Mahesh KB Parmar, Rodrigo Arriagada, Jean Pierre Pignon, Cecile Le Pechoux, on behalf of the PORT Meta-analysis Trialists Group

First published: 11 October 2016

Editorial Group: Cochrane Lung Cancer Group

DOI: 10.1002/14651858.CD002142.pub4 View/save citation

Cited by (CrossRef): 2 articles Check for updates Citation tools

Am score 8

See clinical summaries based on this review

Abstract English | French

Background

The role of postoperative radiotherapy (PORT) in the treatment of patients with completely resected non-small cell lung cancer (NSCLC) was not clear. A systematic review and individual participant data meta-analysis was undertaken to evaluate available evidence from randomised controlled trials (RCTs). These results were first published in *Lung Cancer* in 2013.

Objectives

Abstract
Background
Objectives
Methods
Results
Discussion
Authors' conclusions
Acknowledgements
Data and analyses
Appendices
What's new
History
Contributions of authors
Declarations of interest
Sources of support
Characteristics of studies

References to studies included in this review
References to studies excluded from this review
References to ongoing

- 摘要：结构式
- 课题背景
- 研究目的
- 方法
- 结果
- 讨论
- 作者结论
-



1. 证据的种类

1.2 Randomized Controlled Trial, RCT

采用随机分配的方法，将符合要求的研究对象分别分配到试验组与对照组。然后接受相应的人为干预措施，在一致的条件下或相同的环境里，同步进行研究和观察，并采用客观的、公认的效应指标对试验结果进行测量和评价的试验设计。

奥美沙坦酯与氯沙坦钾治疗中国轻、中度原发性高血压患者 8 周的疗效与安全性比较

诸骏仁 蔡迺绳 范维琥 朱鼎良 何奔 吴宗贵
柯元南 郭静莹 马虹 黄峻 李新立 陈运贞

【摘要】 **目的** 通过与氯沙坦钾比较评价奥美沙坦酯治疗轻、中度原发性高血压患者的疗效和安全性。**方法** 采用随机、双盲、双模拟、阳性对照、平行分组、多中心临床试验方法。共入选 287 例轻、中度原发性高血压患者,按照 1:1 的比例随机分组,分别接受奥美沙坦酯 20 mg 或氯沙坦钾 50 mg,每天 1 次口服治疗。在用药 4 周后对患者进行血压评价,如果患者舒张压(DBP)仍 ≥ 90 mm Hg (1 mm Hg = 0.133 kPa),则试验药物剂量加倍,直至 8 周试验结束;治疗 4 周后 DBP < 90 mm Hg 的患者则维持原剂量继续治疗至第 8 周。**结果** (1) 治疗 4 周后,奥美沙坦酯组坐位 DBP 谷值平均下降 11.72 mm Hg,氯沙坦钾组平均下降 9.23 mm Hg,两组间比较 $P = 0.004$ 。(2) 治疗 8 周后,奥美沙坦酯组坐位 DBP 谷值平均下降 12.94 mm Hg,氯沙坦钾组平均下降 11.01 mm Hg,两组间比较 $P = 0.035$ 。(3) 治疗 4 周后,奥美沙坦酯组有效数为 81 例(65.3%),氯沙坦钾组有效数为 68 例(52.7%),两组间比较 $P = 0.028$;治疗 8 周后,两组有效病例数和有效率相当, $P > 0.05$ 。(4) 治疗 8 周后,24 h 动态血压监测显示,奥美沙坦酯组 DBP 和 SBP 的个体和总体谷/峰比值均高于氯沙坦钾组,奥美沙坦酯在 24 h 内的作用持续时间比氯沙坦钾组长。(5) 奥美沙坦酯组和氯沙坦钾组发生的与试验药物有关的不良事件的发生率分别为 10.5% 和 13.9%, $P > 0.05$ 。**结论** 奥美沙坦酯每日口服 20 ~ 40 mg 能够有效、安全地治疗高血压。与氯沙坦钾每日口服 50 ~ 100 mg 相比,奥美沙坦酯的降压效果优于氯沙坦钾。

【关键词】 高血压; 抗高血压药; 治疗结果

1. 证据的种类



1.3 Health Technology Assessment

对卫生技术的技术特性、安全性、有效性（效能、效果和生存质量）、经济学特性（成本效果）和社会的适应性（法律、伦理）进行评价，为决策者提供合理选择卫生技术的证据。

专栏 FEATURES

国产永磁型磁共振成像设备的卫生技术评估

Health Technology Assessment of Domestic Permanent Magnetic Type Magnetic Resonance Imaging Equipment

邵晓力*, 钱兵*, 包家立*, 姚露露*

1. 浙江现代生物技术发展中心, 浙江杭州 310002; 2. 浙江大学医学院 浙江首物生物医学重点实验室生物物理与医学工程研究所, 浙江杭州 310058

摘要 对国产永磁型磁共振成像设备进行卫生技术评估, 为政府制定公共卫生政策、产业发展规划、技术创新提供科学依据。采用公开文献、企业调查、医院问卷等方式, 对某家国产永磁型磁共振成像设备的图像质量、安全性、有效性、利用率、经济性、社会性等六方面进行评估。结果显示该型设备图像质量和安全性符合技术标准; 诊断检查多数比CT、MSCT、US、X线等检出率高; 设备使用率达到95%以上, 适合各级别医院使用, 尤其是二甲医院; 成本效益远高于进口同类设备; 社会已有较好的认可度。

关键词 磁共振成像设备; 永磁型; 卫生技术评估

Abstract: A domestic permanent magnet magnetic resonance imaging (MRI) was evaluated by health technology assessment (HTA) so as to provide the scientific basis for the public health policies, the industrial development planning, and the guide of technological innovation for China government. The paper assessed the image quality, safety, effectiveness, efficiency, economy, sociality of the domestic MRI equipment by analyzing data from the public literature and surveys to the company and hospital. Results showed that image quality and safety performance of the MRI met technical standards; the relevance ratio of diagnostic was more than that of CT, MSCT, US and X-ray; utilization rate of the MRI was above 95%, which made it suitable for hospitals at all levels, especially second semi-class hospitals. And the cost-benefit was much higher than similar imported equipment.

Key words: magnetic resonance imaging; permanent magnet; health technology assessment

[中图分类号] R197.39 [文献标志码] A

doi: 10.3969/j.issn.1674-1633.2016.04.003

[文章编号] 1674-1633(2016)04-0014-04

QIU Xiao-li*, QIAN Bin*,
BAO Jia-li*, YAO Lu-lu*
1. Zhejiang Modern Biotechnology Development Center, Hangzhou Zhejiang 310002, China; 2. Research Group of Biophysics and Medical Engineering, Zhejiang Provincial Key Laboratory of Bioelectromagnetics, School of Medicine, Zhejiang University, Hangzhou Zhejiang 310058, China

0 引言

近年来, 随着医疗器械产业的发展, 医疗设备的支付持续增长, 增加了社会负担, 严重影响了医改。世界卫生组织 (WHO) 在 2007 年世界卫生大会上已有议程表达医疗器械支付卫生资源侵占的关注, 认为过渡医疗设备的投入剥夺了其他卫生资源的配置, 从而破坏了整个卫生服务体系^[1]。提出基于流行病学和人口数据对医疗器械的可及性和使用率、

收稿日期: 2016-03-08
基金项目: 浙江省科技厅“十二五”国家创新医疗器械产品与技术创新系列化工程重大专项(2012YF1014)
通信作者: 邵晓力, 副主任医师
通信作者邮箱: 98786277@qq.com

14 中国医疗设备 2016年第31卷 04期 VOL.31 No.4

使用人员的能力、购置的成本效益分析, 以及适宜卫生技术中的应用进行评估^[2]。

医用磁共振成像设备 (MRI) 是一种高值乙类大型医疗设备, 价格从几百万到上千万不等。我国目前主要依靠进口, 与我国日益增长的医疗需求与现实支付能力形成了一对矛盾。国产 MRI 具有价格低、成本效益高、备件易得等特点, 正被国内医疗机构所接受, 并且经过十多年的发展, 已经涌现了如鑫益、贝斯达、安科、万东、东软、联影等一批国产 MRI 产品。然而, 国产 MRI 因缺少客观的评估, 社会认可度还不高, 阻碍了我国卫生事业的发展。因此, 对国产 MRI 进行全性能评价具有现实意义。

本文采用卫生经济学公认的卫生技术评估 (Health

专栏 FEATURES

对 MRI 的比吸收率 (SAR) 作出了限制, 3 台抽检设备的全身 SAR 比标准低 2 个数量级。静磁场的生物效应相对较弱, 限值可以达到 8 T。本评价 MRI 属低场。因此, 抽检设备所有检测项目均满足标准要求, 在用设备也没有电磁安全不良事件报告。

表 2 某国产品牌永磁型 MRI 安全特性

限值标准	抽检 1	抽检 2	抽检 3	
有效刺激持续时间 (ms)	0.30	0.28	0.28	0.30
梯度场总幅 (V/m)	21.02	19.00	19.50	20.00
梯度场变化率 (T/s)	210.2	33.2	33.5	32.8
SAR 限值 (W/kg)				
全身	2	0.054	0.055	0.064
头颈部	10	3.2	3.3	3.9
眼	20	8.0	8.2	9.6

2.3 有效性

从文献分析, 低场永磁型 MRI 在肿瘤、骨科、脑等检查与 CT、螺旋 CT (MSCT)、超声 (US)、X 线比较, 见表 3。表明 MRI 检查多数比 CT、MSCT、US、X 线等检出率高, 但在颅脑外伤检查 CT 比 MRI 占优。有研究表明 MRI 的脑部检查一致性比 CT 高, 椎体要低^[3]。然而, 表 3 表明其不具备这种特性, 表明制定 MRI 诊断的“金标准”具有重要意义。

表 3 分期或病类型及检出率 (%)

疾病类型	病例数	检出率	其他检出率
真肿瘤 ^[4]	79	72.15	
鼻咽癌 ^[5]	36	72.2	38.9 (CT)
鼻咽癌 ^[5]	23	91.3	78.3 (CT)
颅脑淋巴瘤 ^[6]	9	100	
脑白质炎 ^[7]	77	98.7	
垂体瘤 ^[8]	6	100	
环状血管瘤 ^[9]	78	100	97.06 (US)
椎管内占位性病变 ^[10]	22	90.0	
腰椎间盘突出 ^[11]	40	95.0	92.5 (CT)
颅面骨膜炎 ^[12]	57	96	84 (CT)
股骨头缺血性坏死 ^[13]	38	100	80.6 (CT)
隐睾症骨桥 ^[14]	79	100	85.5 (MSCT)
膝关节力性骨桥 ^[15]	21	100	38.1 (X 线)
颅底血管瘤 ^[16]	40	82.5	92.5 (CT)
鼻窦鼻窦黏膜炎 ^[17]	5	100	60 (US)

2.4 利用率

在 9 家某国产品牌永磁型 MRI 的医疗机构 (1 家三甲医院, 7 家二甲医院, 1 家民营医院) 进行关于 MRI 利用率和经济效益的问卷调查, 结果见表 4 和 5。调查表明: 某国产品牌永磁型 MRI 使用率达到 95% 以上, 表明该型设备适合各等级医院使用, 尤其是二甲医院。外地患者承担指数很低, 表明该型设备完全适应于本地卫生资源配置。我国 MRI 总体上使用合理, 过度使用率较低^[18]。高场 MRI 的使用率在 50% 左右^[19], 而某国产品牌利用率高的因素之一是许多疾病可用该型机器诊断。

16 中国医疗设备 2016年第31卷 04期 VOL.31 No.4

表 4 某国产品牌永磁型 MRI 利用率

评估项目	数据
检查人次 (次)	5867 ± 1075
人均检查时间 (分钟)	20.0 ± 4.3
年实际开机时间 (小时)	1981 ± 96
年实际可能工作时间	2080
外地患者检查数	很少
年开机利用率	98.7%
年同时利用率	94.0%
外地患者承担指数	很少

表 5 某国产品牌永磁型 MRI 经济性

评估项目	数据
人均投资 (元)	350 ± 60
初次投资 (万元)	318 ± 47
折旧	10%
单位运营成本	291 ± 44
成本回收期 (%)	37.9 ± 4.0
投资回收期 (年)	3.7 ± 0.5
年保本服务量 (人次)	2200 ± 229
外地患者承担指数	很少

2.5 经济性

成本-效益分析是医院分级标准的必需指标^[20], 运行成本包括包括人员工资、管理费、材料费、维修费、业务费、折旧费等^[21]。某国产品牌永磁型 MRI 初次投资 318 万元, 是进口机价格的一半^[22]。人均检查费 350 元, 平均投资回报率 37.9%, 投资回收期 3.7 年, 年保本服务量 2200 人次。而同类进口机的投资回收期要达到 6.3 年, 年保本服务量达到 3084 人次^[23]。本部检查定价 973-1336 元^[24]。显然, 该型机器的经济效益优于同类进口机。

2.6 社会性

在 7 家某国产品牌永磁型 MRI 的医疗机构 (余姚市人民医院、成都医学院第一附属医院、昆明骨科医院、民权县中医院、湖南岳阳广济医院、河南鹿邑真德医院、隆县红十字会医院) 进行关于 MRI 社会性问卷调查, 调查内容包括对某国产品牌永磁型磁共振成像设备在工程评价、可靠性、主观感受、经济性、适用性、厂家服务、创新性等 7 大 55 个指标评价, 结果见图 1。

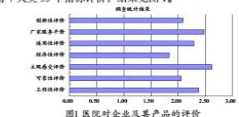


图 1 医院对企业及其产品的评价
调查的主观结果是某国产品牌产品性能稳定, 故障率低, 图像质量好, 操作简单, 主观感受满意, 后续费用较低, 厂家定期随访, 跟踪指导, 服务周到。

1. 证据的种类



1.4 Clinical Practice Guideline

针对特定的临床问题，系统地制定出指导性意见，帮助临床医师和病人做出的恰当处理。

HEPATOLOGY

PRACTICE GUIDELINE

AASLD Guidelines for Treatment of Chronic Hepatitis B

Norah A. Terrault,¹ Natalie H. Bzowej,² Kyong-Mi Chang,³ Jessica P. Hwang,⁴ Maureen M. Jonas,⁵ and M. Hassan Murad⁶

See Editorial on Page 31

Objectives and Guiding Principles

Guiding Principles

This document presents official recommendations of the American Association for the Study of Liver Diseases (AASLD) on the treatment of chronic hepatitis B (CHB) virus (HBV) infection in adults and children. Unlike previous AASLD practice guidelines, this guideline was developed in compliance with the Institute of Medicine standards for trustworthy practice guidelines and uses the Grading of Recommendation Assessment, Development and Evaluation (GRADE) approach.¹ Multiple systematic reviews of the literature were conducted to support the recommendations in this practice guideline. An enhanced understanding of this guideline will be obtained by reading the applicable portions of the systematic reviews.

This guideline focuses on using antiviral therapy in chronic HBV infection and does not address other related and important issues, such as screening, prevention, and surveillance. For broader issues related to diagnosis, surveillance, and prevention as well as treatment in special populations (e.g., liver transplant recipients) that are not addressed by this guideline, the previous AASLD guideline² and recent World Health Organization (WHO) guideline³ are excellent additional resources.

Objectives

Guideline developers from the AASLD formulated a list of discrete questions that physicians are faced with in daily practice. These questions were:

1. Should adults with immune active CHB be treated with antiviral therapy to decrease liver-related complications?
2. Should adults with immune-tolerant infection be treated with antiviral therapy to decrease liver-related complications?
3. Should antiviral therapy be discontinued in hepatitis B e antigen (HBeAg)-positive persons who have developed HBeAg seroconversion on therapy?
4. Should antiviral therapy be discontinued in persons with HBeAg-negative infection with sustained HBV DNA suppression on therapy?
5. In HBV-monoinfected persons, does entecavir therapy, when compared to tenofovir therapy, have a different impact on renal and bone health?
6. Is there a benefit to adding a second antiviral agent in persons with persistent low levels of viremia while being treated with either tenofovir or entecavir?
7. Should persons with compensated cirrhosis and low levels of viremia be treated with antiviral agents?
8. Should pregnant women who are hepatitis B surface antigen (HBsAg) positive with high viral load receive antiviral treatment in the third trimester to prevent perinatal transmission of HBV?
9. Should children with HBeAg-positive CHB be treated with antiviral therapy to decrease liver-related complications?

Target Audience

This guideline is intended primarily for health care professionals caring for patients with CHB. Additionally, this guideline may assist policy makers in optimizing the care of individuals living with CHB.

Abbreviations: AASLD, American Association for the Study of Liver Diseases; ALT, alanine aminotransferase; anti-HBe, antibody to HBeAg; anti-HBs, antibody to

· 888 ·

中华肝病杂志2015年12月第23卷第12期 Chin J Hepatol, December 2015, Vol. 23, No. 12

· 指南 ·

慢性乙型肝炎防治指南 (2015更新版)

中华医学会肝病学分会 中华医学会感染病学分会

【关键词】 肝炎, 乙型, 慢性; 治疗; 预防; 指南

The guideline of prevention and treatment for chronic hepatitis B: a 2015 update Chinese Society of Hepatology, Chinese Medical Association; Chinese Society of Infectious Diseases, Chinese Medical Association.

【Key words】 Hepatitis B, chronic; Treatment; Prevention; Guideline

Corresponding author: Hou Jinlin, Email: jlhousma@163.com. Department of Infectious Diseases and Hepatology Unit, Nanfang Hospital, Southern Medical University, Guangzhou 510515, China

Co-corresponding author: Wei Lai, Email: weilai@pkuph.edu.cn. Peking University People's Hospital, Peking University Hepatology Institute, Beijing 100044, China

本指南为规范慢性乙型肝炎 (CHB) 的预防、诊断和抗病毒治疗而制订, 涉及 CHB 其他治疗方法和策略请参阅相关的指南和共识。

中华医学会肝病学分会和感染病学分会于 2005 年组织国内有关专家制订了《慢性乙型肝炎防治指南》(第 1 版)。

表 1 推荐意见的证据等级和推荐等级

级别	详细说明
证据等级	
A 高质量	进一步研究不大可能改变对该评估结果的信心
B 中等质量	进一步研究有可能对该评估结果的信心产生重要影响
C 低质量	进一步研究很可能影响该评估结果, 且该评估结果很可能改变
推荐等级	
1 强推荐	充分考虑到了证据的质量、患者可能的预后情况及治疗成本而最终得出的推荐意见
2 弱推荐	证据价值参差不齐, 推荐意见存在不确定性, 或推荐的治疗意见可能会有较高的成本疗效比等, 更倾向于较低等级的推荐

持续感染引起的慢性肝脏炎症性疾病, 可分为 HBeAg 阳性 CHB 和 HBeAg 阴性 CHB。

HBeAg 阳性慢性乙型肝炎 (HBeAg positive CHB): 血清 HBsAg 阳性、HBeAg 阳性、HBV DNA 阳性, ALT 持续或反复升高, 或有肝组织学病变。

HBeAg 阴性慢性乙型肝炎 (HBeAg negative CHB): 血清 HBsAg 阳性, HBeAg 阴性, HBV DNA 阳性, ALT

NCCN 美国国家综合癌症网络

您的抗癌最佳资源中心

NCCN National Comprehensive Cancer Network

[NCCN在中国](#) [关于NCCN](#) [NCCN指南/临床资源](#) [产品目录/订阅服务](#) [联系NCCN](#)

[NCCN在中国](#) > [NCCN指南](#) / [临床资源](#)

NCCN指南中国版 (NCCN Guidelines® : China Editions) *

2017

- B细胞淋巴瘤临床指南 (2017年第5版)
- 慢性淋巴细胞白血病/小淋巴细胞淋巴瘤临床指南 (2017年第2版)
- 毛细胞白血病临床指南 (2017年第2版)
- 霍奇金淋巴瘤临床指南 (2017年第1版)
- 多发性骨髓瘤临床指南 (2017年第3版)
- 原发性皮肤B细胞淋巴瘤临床指南 (2017年第2版)
- 前列腺癌临床指南 (2017年第2版)
- T细胞淋巴瘤临床指南 (2017年第2版)

2016

- 2016年前列腺癌实践指南 (第二版)
- 2016霍奇金淋巴瘤实践指南 (第二版)
- 2016膀胱癌亚洲共识声明
- 2016胃癌亚洲共识声明
- 多发性骨髓瘤实践指南2016中文版

2015

- 卵巢癌临床实践指南2015中文版
- 霍奇金淋巴瘤实践指南2015中文版
- 非霍奇金淋巴瘤实践指南2015中文版
- 非小细胞肺癌实践指南2015中文版

* 如欲参考最新NCCN指南国际版, 请至NCCN.org网站浏览。

中国 US 免费注册

NCCN美国成员机构介绍

Featured Member Institution



Yale CANCER CENTER
A Comprehensive Cancer Center Designated by the National Cancer Institute
SMILOW CANCER HOSPITAL AT YALE-NEW HAVEN



NCCN Global Academy for Excellence & Leadership in Oncology™
Friday, October 6, 2017 | San Francisco, CA



Free NCCN Guidelines® App

激活 Windows
转到设置以激活 Windows。
NCCN Nursing Forum:
Advancing Oncology



NCCN指南中文版专家组召集人孙燕院士 (Professor Yan Sun) 对此一学术交流方案, 寄予厚望。

四、证据检索



- **EBM数据库**

1. **The Cochrane Library**
2. **BMJ Best Practice**

- **综合性数据库**

3. **PubMed**
4. **中国生物医学数据库(CBM)**



1. The Cochrane Library



- 是获取循证医学证据的主要来源，由Cochrane协作网创建。<http://www.thecochranelibrary.com>



CL的主要子库



(1) Cochrane Reviews & Protocol

收录由Cochrane协作网系统评价组在统一工作手册(The Reviewer' s Handbook)指导下完成的系统评价, 包括系统评价(Review)和研究方案(Protocol), 并随着读者的建议和评论以及新的临床试验的出现不断补充和更新。



(2)Trials (Cochrane中心对照试验注册库, CENTRAL)

- 来源于协作网各系统评价小组和其它组织的专业临床试验资料库以及在MEDLINE上被检索出的随机对照试验 (RCT) 和临床对照试验 (CCT) 。
- 还包括了全世界Cochrane协作网成员从有关医学杂志会议论文集和其他来源中收集到的CCT报告。
- 是获得Cochrane系统评价合格试验的最好来源。
- 普遍认为CENTRAL、MEDLINE和 EMBASE这三个数据库是检索试验报告最重要的信息源, 也是撰写系统评价时必查的数据库。



(3) Cochrane Clinical Answers

- 基于高质量的Cochrane系统评价证据。
- 为床旁诊疗提供研究证据和决策支持。
- 每个CCA都包含一个临床问题、一个简短的答案和来自Cochrane系统评价结论中的数据。

浏览与检索



Cochrane Library Trusted evidence. Informed decisions. Better health.

Search title, abstract, keyword

Browse Advanced Search

Cochrane Reviews ▾ Trials ▾ More Resources ▾ About ▾ Help

Browse by Topic

Browse the *Cochrane Database of Systematic Reviews* by Topic...

A Allergy & intolerance	G Gastroenterology & hepatology Genetic disorders Gynaecology	P Pain & anaesthesia Pregnancy & childbirth Public health
B Blood disorders	H Health & safety at work Heart & circulation	R Rheumatology
C Cancer Child health Complementary & alternative medicine Consumer & communication strategies	I Infectious disease	S Skin disorders
D Dentistry & oral health Developmental, psychosocial & learning problems Diagnosis	K Kidney disease	T Tobacco, drugs & alcohol
	L Lungs & airways	U Urology
	M Mental health	W Wounds

CL检索规则

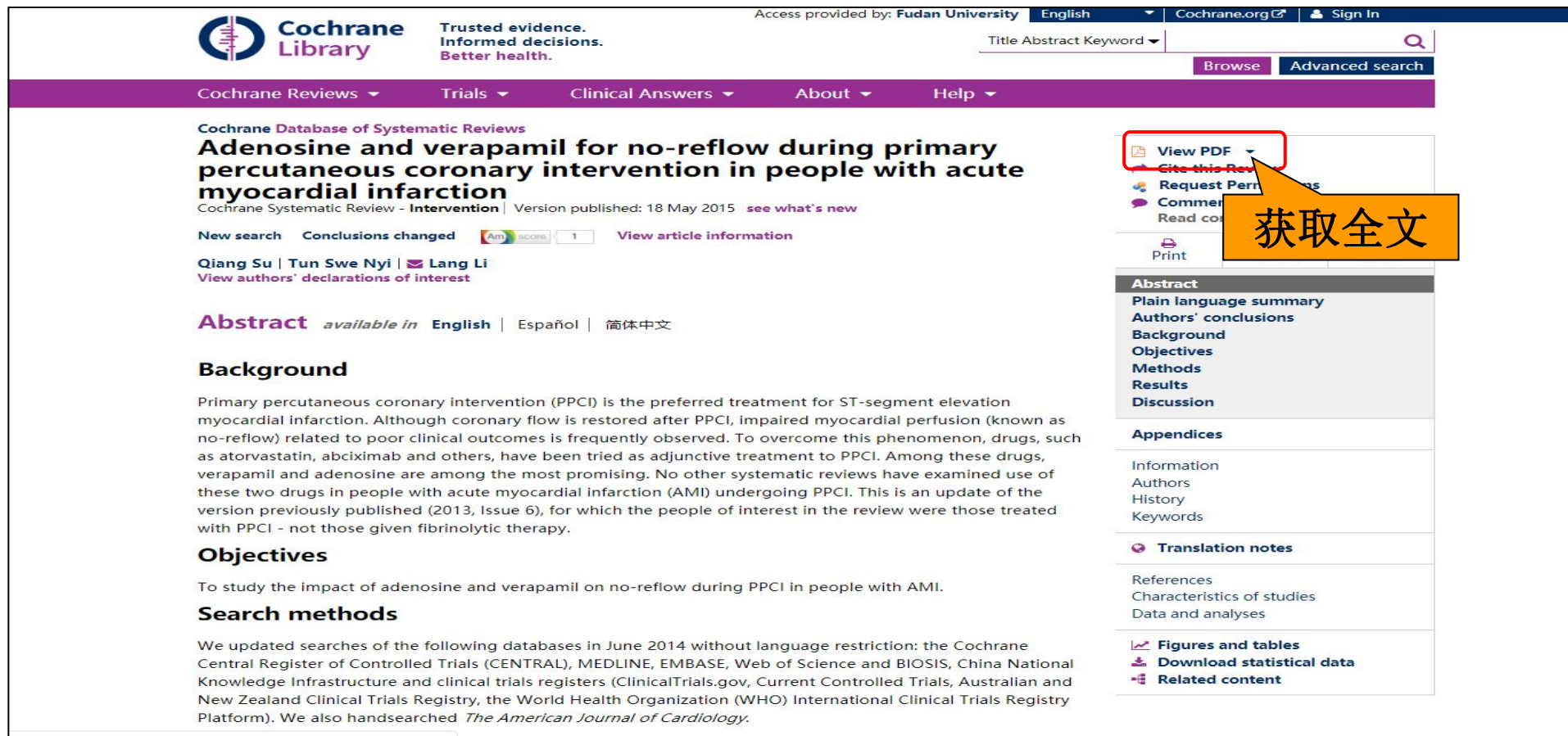


- 1.支持布尔算符，运算符大写，优先运算用括弧
如：liver AND (fibrosis OR cirrhosis)
- 2.默认空格为AND运算，强迫词组用双引号
如：“Molecular targeted therapy”
3. * 号可用作截词、? 号可用作替代检索。
- 4.检索词大小写不敏感
- 5.支持临近检索 (near)



Search: 经皮冠状动脉介入治疗急性心肌梗死

The screenshot shows the Cochrane Library Advanced Search page. The search criteria are: Title Abstract Keyword: acute myocardial infarction AND Title Abstract Keyword: percutaneous coronary intervention. The search results show 7 Cochrane Reviews. Annotations in orange callouts provide instructions: '输入检索词' (Input search terms) points to the search input fields; '可进一步筛选记录' (Can further filter records) points to the filter sidebar; '将检索式添加至检索管理器中。' (Add search formula to search manager) points to the 'Send to search manager' button; and '点击篇名获取摘要' (Click article title to get abstract) points to the first search result.




Access provided by: Fudan University English Cochrane.org Sign In


Trusted evidence. Informed decisions. Better health.

Cochrane Database of Systematic Reviews

Adenosine and verapamil for no-reflow during primary percutaneous coronary intervention in people with acute myocardial infarction

Cochrane Systematic Review - Intervention | Version published: 18 May 2015 [see what's new](#)

New search Conclusions changed  1 [View article information](#)

Qiang Su | Tun Swe Nyi |  Lang Li
[View authors' declarations of interest](#)

Abstract available in [English](#) | [Español](#) | [简体中文](#)

Background


Primary percutaneous coronary intervention (PPCI) is the preferred treatment for ST-segment elevation myocardial infarction. Although coronary flow is restored after PPCI, impaired myocardial perfusion (known as no-reflow) related to poor clinical outcomes is frequently observed. To overcome this phenomenon, drugs, such as atorvastatin, abciximab and others, have been tried as adjunctive treatment to PPCI. Among these drugs, verapamil and adenosine are among the most promising. No other systematic reviews have examined use of these two drugs in people with acute myocardial infarction (AMI) undergoing PPCI. This is an update of the version previously published (2013, Issue 6), for which the people of interest in the review were those treated with PPCI - not those given fibrinolytic therapy.

Objectives

To study the impact of adenosine and verapamil on no-reflow during PPCI in people with AMI.

Search methods

We updated searches of the following databases in June 2014 without language restriction: the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, EMBASE, Web of Science and BIOSIS, China National Knowledge Infrastructure and clinical trials registers (ClinicalTrials.gov, Current Controlled Trials, Australian and New Zealand Clinical Trials Registry, the World Health Organization (WHO) International Clinical Trials Registry Platform). We also handsearched *The American Journal of Cardiology*.

View PDF  [Cite this Review](#) [Request Permissions](#) [Comment](#) [Read comments](#)

Abstract

- Plain language summary
- Authors' conclusions
- Background
- Objectives
- Methods
- Results
- Discussion

Appendices

- Information
- Authors
- History
- Keywords

Translation notes

- References
- Characteristics of studies
- Data and analyses

Figures and tables

- Download statistical data
- Related content

获取全文



Adenosine and verapamil for no-reflow during primary percutaneous coronary intervention in people with acute myocardial infarction (Review)

Su Q, Nyi TS, Li L

Su Q, Nyi TS, Li L.
Adenosine and verapamil for no-reflow during primary percutaneous coronary intervention in people with acute myocardial infarction.
Cochrane Database of Systematic Reviews 2015, Issue 5. Art. No.: CD009503.
DOI: 10.1002/14651858.CD009503.pub3.

www.cochranelibrary.com

Adenosine and verapamil for no-reflow during primary percutaneous coronary intervention in people with acute myocardial infarction (Review)
Copyright © 2015 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.

WILEY

[Intervention Review]

Adenosine and verapamil for no-reflow during primary percutaneous coronary intervention in people with acute myocardial infarction

Qiang Su¹, Tun Swe Nyi¹, Lang Li¹

¹Department of Cardiology, The First Affiliated Hospital of Guangxi Medical University, Nanning, China

Contact address: Lang Li, Department of Cardiology, The First Affiliated Hospital of Guangxi Medical University, No. 6, Shuang Yong Road, Nanning, Guangxi, 530021, China. drilang@163.com.

Editorial group: Cochrane Heart Group.

Publication status and date: New search for studies and content updated (conclusions changed), published in Issue 5, 2015.

Citation: Su Q, Nyi TS, Li L. Adenosine and verapamil for no-reflow during primary percutaneous coronary intervention in people with acute myocardial infarction. *Cochrane Database of Systematic Reviews* 2015, Issue 5. Art. No.: CD009503. DOI: 10.1002/14651858.CD009503.pub3.

Copyright © 2015 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.

ABSTRACT

Background

Primary percutaneous coronary intervention (PPCI) is the preferred treatment for ST-segment elevation myocardial infarction. Although coronary flow is restored after PPCI, impaired myocardial perfusion (known as no-reflow) related to poor clinical outcomes is frequently observed. To overcome this phenomenon, drugs, such as atorvastatin, abciximab and others, have been tried as adjunctive treatment to PPCI. Among these drugs, verapamil and adenosine are among the most promising. No other systematic reviews have examined use of these two drugs in people with acute myocardial infarction (AMI) undergoing PPCI. This is an update of the version previously published (2013, Issue 6), for which the people of interest in the review were those treated with PPCI - not those given fibrinolytic therapy.

Objectives

To study the impact of adenosine and verapamil on no-reflow during PPCI in people with AMI.

Search methods

We updated searches of the following databases in June 2014 without language restriction: the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, EMBASE, Web of Science and BIOSIS, China National Knowledge Infrastructure and clinical trials registers (ClinicalTrials.gov, Current Controlled Trials, Australian and New Zealand Clinical Trials Registry, the World Health Organization (WHO) International Clinical Trials Registry Platform). We also handsearched *The American Journal of Cardiology*.

Selection criteria

We selected randomised controlled trials (RCTs) in which adenosine or verapamil was the primary intervention. Participants were individuals diagnosed with AMI who were undergoing PPCI.

Data collection and analysis

Two review authors collected studies and extracted data. When necessary, we contacted trial authors to obtain relevant information. We calculated risk ratios (RRs), P values and 95% confidence intervals (CIs) of dichotomous data.

Adenosine and verapamil for no-reflow during primary percutaneous coronary intervention in people with acute myocardial infarction (Review)

Copyright © 2015 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.

Search Manager: 检索管理器



Access provided by: Fudan University English Cochrane.org Sign In

Cochrane Library Trusted evidence. Informed decisions. Better health.

Cochrane Reviews Trials Clinical Answers About Help

Advanced Search

Please note that the Advanced Search is optimised for English search terms. Certain features, such as search operators and MeSH terms, are only available in English.

Search Search manager Medical terms (MeSH)

Save this search View saved searches Search help

Print

#1 (acute myocardial infarction):ti,ab,kw AND (percutaneous coronary intervention):ti,ab,kw S 2685
(Word variations have been searched)

Title Abstract Keyword acute myocardial infarction

AND Title Abstract Keyword percutaneous coronary intervention

Add to search line

#2 Manually type a S MeSH N/A

Clear all

Save this search View saved searches Search help

Print

检索历史，可展开浏览编辑旧的检索式，也可添加新的检索。

Medical Terms: 甲型肝炎的预防控制



Access provided by: Fudan University English Cochrane.org Sign In

Trusted evidence. Informed decisions. Better health.

Cochrane Reviews Trials Clinical Answers About Help

Advanced Search

Please note that the Advanced Search is optimised for English search terms. Certain features, such as search operators and MeSH terms, are only available in English.

Search Search manager Medical terms (MeSH)

Hepatitis A prevention & control - PC x **Look up** **Clear**

Definition
Hepatitis A - IN contamination be transmitted through fecal

Thesaurus Matches

Exact Term Match

Hepatitis A
Synonyms: Infectious Hepatitis; Hepatitides, Infectious; Infectious Hepatitides; Hepatitis, Infectious

Phrase Matches

Hepatitis A Antigens
Synonyms: Antigens, Hepatitis A; Hepatitis A Virus Antigens

Hepatitis A Virus, Human
Synonyms: Human hepatitis A virus

Hepatitis A virus
Synonyms: Hepatitis A viruses

MeSH Trees

MeSH term - Hepatitis A

Explode all trees
 Single MeSH term (unexploded)

Explode selected trees **Select**

Tree number 1

Virus Diseases [+19]
Hepatitis, Viral, Human [+5]
Hepatitis A
Hepatitis B [+1]
Hepatitis C [+1]
Hepatitis D [+1]
Hepatitis E

Tree number 2

Virus Diseases [+19]
RNA Virus Infections [+17]

Search Results

There are 142 results for your search on

- MeSH descriptor: Hepatitis A
- Explode all trees
- With qualifier(s) prevention & control

Add to search manager

Trials	140
Cochrane Reviews	2

Save search **View results**

输入主题词, 选择副主题词

浏览检索结果

检索结果 (Trials)



Synonyms: Infectious Hepatitis; Hepatitis, Infectious; Hepatitides, Infectious; Infectious Hepatitides

Phrase Matches

Hepatitis A Antigens
Synonyms: Antigens, Hepatitis A; Hepatitis A Virus Antigens

Hepatitis A Virus, Human
Synonyms: Human hepatitis A virus

Hepatitis A virus
Synonyms: Hepatitis A viruses

Explode selected trees **Select**

Tree number 1

Virus Diseases [+19]
Hepatitis, Viral, Human [+5]
Hepatitis A
Hepatitis B [+1]
Hepatitis C [+1]
Hepatitis D [+1]
Hepatitis E

Tree number 2

Virus Diseases [+19]
RNA Virus Infections [+17]

Add to search manager

Trials	140
Cochrane Reviews	2

Save search **View results**

Filter your results

Year

Year first published

2018	0
2017	2
2016	7
2015	4
2014	7

Custom Range:
yyyy to yyyy
Apply **Clear**

Date

Date added to CENTRAL trials database

The last 3 months	0
The last 6 months	0
The last 9 months	0

Cochrane Reviews 2 | Cochrane Protocols 0 | **Trials 140** | Editorials 0 | Special collections 0 | Clinical Answers 0 | More

140 Trials matching on 'MeSH descriptor: [Hepatitis A] explode all trees and with qualifier(s): [prevention & control - PC]'

Cochrane Central Register of Controlled Trials
Issue 9 of 12, September 2018

Select all (140) Export selected citation(s)

Order by **Relevancy** Results per page **25**

- Immunogenicity and adverse effects of inactivated virosome versus alum-adsorbed hepatitis A vaccine: a randomized controlled trial**
BR Holzer, C Hatz, D Schmidt-Sissolak, R Glück, B Althaus, M Egger
Vaccine, 1996, 14(10), 982-986 | added to CENTRAL: 31 January 1998 | 1998 Issue 1
[PubMed](#) [Embase](#)
- Immunogenicity and safety of three consecutive lots on an inactivated hepatitis A vaccine: a double-blind, immunogenicity and safety of three consecutive lots on an inactivated hepatitis A vaccine: a double-blind, randomized and controlled trial in children**
WP Jiang, YL Wang, WY Chen, WG Xu, JT Chen, X Wang, Y Liu, WD Yin
Zhonghua liu xing bing xue za zhi, 2008, 29(6), 556-559 | added to CENTRAL: 30 April 2010 | 2010 Issue 2
[PubMed](#)
- Hepatitis A vaccine interchangeability**
MR Wallace

PICO search^{BETA}



Cochrane Reviews ▾ Trials ▾ Clinical Answers ▾ About ▾ Help ▾

Advanced Search

Search Search manager Medical terms (MeSH) PICO search^{BETA}

Enter a search term and select a PICO vocabulary term from the dropdown

Essential Hypertension

AND Calcium Channel Blockers

AND Placebo

AND All Cause Mortality

Clear All Run search

About / Help

从PICO四个方面选词检索

Population
Outcome
Intervention
Comparison
Intervention
Comparison
Outcome

Filter your results

Population

Condition

Essential Hypertension..... 3

Hypertensive Left Ventricular Hypertrop... 1

Intervention / Comparison

Cochrane Reviews
3

3 Cochrane Reviews matching "Essential Hypertension AND Calcium Channel Blockers AND Placebo AND All Cause Mortality"
21, October 2019

Select all (3) Export selected citation(s) Show all PICO^s BETA

Order By Relevancy

Results per page 25

PICO search^{BETA}



Filter your results

Population

Condition

Essential Hypertension..... 3

Hypertensive Left Ventricular Hypertrop... 1

Intervention / Comparison

Intervention Name

Beta Blocking Agents..... 3

Calcium Channel Blockers..... 3

Angiotensin-converting enzyme inhibito... 2

Minoxidil..... 2

Hydralazine..... 2

Diuretic..... 2

Angiotensin II Antagonists, Plain..... 2

Central alpha-adrenoceptor agonist..... 1

Alpha 2 adrenergic blocking agent..... 1

Alpha 1 adrenergic blocking agent..... 1

[Show all](#)

High-level Intervention Classification

Pharmacological..... 3

Cochrane Reviews
3

3 Cochrane Reviews matching "Essential Hypertension AND Calcium Channel Blockers AND Placebo AND All Cause Mortality"
21, October 2019

Select all (3) [Export selected citation\(s\)](#) [Show all PICO^s BETA](#)

Order By Results per page

1 **Pharmacotherapy for hypertension in adults aged 18 to 59 years**
[Show PICO^s BETA](#) 12 August 2017

2 **First-line drugs for hypertension**
[Hide PICO^s BETA](#) 17 April 2018

Population (4)	Intervention (6)	Comparison (1)	Outcome (11)
Adult	Angiotensin II Antagonist...	Placebo	All Cause Mortality
Aged (65+)	Calcium Channel Blockers		Hospitalization
Child	Thiazides, Plain		Cardiovascular Event
Essential Hypertension	Beta Blocking Agents		Ruptured Cerebral Aneur...
	Alpha-adrenoreceptor An...		Stroke
	Ace Inhibitors, Plain		Sudden Cardiac Death
			Myocardial Infarction
			Coronary Arteriosclerosis
			Show more

3 **Pharmacotherapy for hypertension-induced left ventricular hypertrophy**
[Show PICO^s BETA](#) 12 January 2016

CH 册 中 小 大 简 繁

1



2. BMJ Best Practice

- Best Practice整合了BMJ Clinical Evidence (临床证据) 中的治疗研究证据, 增添了由全球知名学者和临床专家执笔撰写的, 以个体疾病为单位, 涵盖基础、预防、诊断、治疗和随访等各个环节的内容 (包括临床常见疾病和非常见病), 尤其像鉴别诊断, 实验室检查, 诊断和治疗的方法和步骤等。



2. BMJ Best Practice

- Best Practice还提供数千项的国际治疗指南和诊断标准的全文内容,并可定制中文的临床指南和标准;
- 嵌入了国际权威的药物处方数据库, 提供最新的药物副反应和多种药物相互作用的最新证据;
- 以及收录大量的病症彩色图像和证据表格等资料。

Best Practice主页



Access provided by: Fudan University Log in Create account Help ▾

BMJ 临床实践

Search conditions, symptoms...

Recent updatesSpecialtiesCalculatorsProcedural videosEvidenceDrugs

Best Practice app



Get fast access to clinical answers. Anywhere. Even when offline.

Important updates

- 18 五月 2018 [Schizoaffective disorder](#)
- 18 五月 2018 [Migraine headache in children](#)
- 18 五月 2018 [Generalised seizures](#)
- 18 五月 2018 [Generalised seizures in children](#)

Re-inventing BMJ Best Practice



Our programme of product development continues. Find out how our customers and users have changed our approach.

Specialties 专业



The screenshot shows the BMJ Best Practice website interface. At the top, there is a navigation bar with the BMJ logo and 'Best Practice 临床实践'. To the right of the logo is a search bar with the placeholder text 'Search conditions, symptoms...'. Further right are links for 'Log in', 'Create account', and 'Help'. Below the navigation bar is a secondary menu with icons and labels for 'Recent updates', 'Specialties', 'Calculators', 'Procedural videos', 'Evidence', and 'Drugs'. The main content area is titled 'Specialties' and contains a list of 24 medical specialties arranged in three columns. The specialty 'Cardiology' is highlighted with a red rectangular box.

Allergy and immunology	Geriatric medicine	Paediatrics and adolescent medicine
Anaesthesiology	Haematology	Palliative care
Cardiology	Health maintenance	Primary care
Cardiothoracic surgery	Infectious diseases	Psychiatry
Critical care medicine	Nephrology	Respiratory disorders
Dermatology	Neurology	Rheumatology
Ear, nose, and throat	Neurosurgery	Urology
Emergency medicine	Nutrition	Vascular surgery
Endocrinology and metabolic disorders	Obstetrics and gynaecology
Gastroenterology and hepatology	Oncology	Assessments
General surgery	Ophthalmology	Overviews
Genetics	Orthopaedics	

Specialties专业

A screenshot of the BMJ Best Practice website. The page is titled 'Cardiology' and shows a list of conditions under the letter 'A'. The condition 'Angina, unstable' is highlighted with a red box. The website header includes 'BMJ Best Practice 临床实践', a search bar, and navigation links for 'Recent updates', 'Specialties', 'Calculators', 'Procedural videos', 'Evidence', and 'Drugs'. The 'Specialties' link is highlighted in the navigation bar.

BMJ Best Practice 临床实践

Log in Create account Help

Search conditions, symptoms...

Recent updates Specialties Calculators Procedural videos Evidence Drugs

← Cardiology

A - Z EMERGENCY

A B C D E F G H I K L M N O P R S T U V W

A

- Abdominal aortic aneurysm
- Acute coronary syndrome (overview)
- Acute exacerbation of congestive heart failure
- Aneurysm, abdominal aorta
- Angina, chronic stable
- Angina, unstable**
- Aortic arch syndrome
- Aortic coarctation
- Aortic dissection
- Aortic regurgitation
- Aortic stenosis
- Arteritis, Takayasu
- ASD
- Assessment of cardiomyopathy
- Assessment of chest pain
- Assessment of clubbing

对每一种疾病都提供了标准结构内容



The screenshot shows the BMJ Best Practice website interface for 'Unstable angina'. The page is structured as follows:

- Header:** BMJ Best Practice 临床实践. Search bar: Search conditions, symptoms... Log in, Create account, Help.
- Navigation:** Recent updates, Specialties, Calculators, Procedural videos, Evidence, Drugs.
- Topic Header:** Unstable angina
- Table of Contents:**

OVERVIEW	THEORY	DIAGNOSIS	MANAGEMENT	FOLLOW UP	RESOURCES
Summary	Epidemiology Aetiology Case history	Approach History and exam Investigations Differentials Criteria Screening	Approach Treatment algorithm Emerging Prevention Patient discussions	Monitoring Complications Prognosis	Guidelines Images and videos References Calculators Evidence
- Metadata:** Last reviewed: September 2018, Last updated: September 2018.
- Summary Section:**

Most commonly presents with chest pain and/or dyspnoea, although atypical symptoms may be present....
[READ MORE](#)

Definition
Unstable angina (UA) is an acute coronary syndrome that is defined by the absence of biochemical evidence of myocardial damage. [1] It is characterised by specific clinical findings of prolonged (>20 minutes) angina at rest; new onset of severe angina; angina that is increasing in frequency, longer in duration, or lower in threshold; or angina that occurs after a recent episode of myocardial infarction. [1]
- Differentials Section:**
 - Stable angina
 - Prinzmetal (variant or vasospastic) angina
 - Non-ST-elevation myocardial infarction[Full details](#)
- Guidelines Section:**

2018 ESC/EACTS guidelines on
- ECG Image:** A 12-lead ECG showing ST-segment depression in leads II, III, and aVF, consistent with non-ST-elevation myocardial infarction.

3. PubMed



方法一：字段限定

例：iron deficiency anemia AND **systematic[sb]**

The screenshot shows the PubMed search results page for the query "iron deficiency anemia AND systematic[sb]". The search results are sorted by "Best Match" and show 422 items. An orange callout box highlights the search results, stating: "包含系统评价、meta分析、实践指南等多种文献类型。" (Includes systematic reviews, meta-analysis, practice guidelines, and other types of literature.)

Search results include:

1. **Iron deficiency anemia in adolescents: a literature review.** De Andrade Cairo RC, Rodrigues Silva L, Carneiro Bustani N, Ferreira Marques CD. *Nutr Hosp.* 2014 Jun 1;29(6):1240-9. doi: 10.3305/nh.2014.29.6.7245. Review. PMID: 24972460
2. **Screening and routine iron supplementation in children and adolescents: a systematic review.** McDonagh MS, Blazi J, Pediatrics. 2015 Apr;135(4):e123-32. doi: 10.1093/ped/dpu001. Review. PMID: 25825534
3. **Management of iron deficiency anemia in children and adolescents: a systematic review.** Nielsen OH, Ainsworth Medicine (Baltimore). 2015 Apr;94(4):e123-32. doi: 10.1093/ped/dpu001. Review. PMID: 26061331
4. **Routine iron supplementation and screening for iron deficiency anemia in pregnant women: a systematic review.** Cantor AG, Bougatsos C, Ann Intern Med. 2015 Apr 21;162(8):526-32. doi: 10.7554/ajph.2014.2932. Review. PMID: 25820661
5. **Routine Iron Supplementation and Screening for Iron Deficiency Anemia in Pregnant Women: A Systematic Review to Update the U.S. Preventive Services Task Force Recommendation (Internet).** McDonagh M, Cantor AG, Bougatsos C, Dana T, Blazina I, Rockville (MD): Agency for Healthcare Research and Quality (US); 2015 Mar. PMID: 25927136
6. **Obesity and iron deficiency: a quantitative meta-analysis.** Zhao L, Zhang X, Shen Y, Fang X, Wang Y, Wang F. *Obes Rev.* 2015 Dec;16(12):1081-93. doi: 10.1111/obr.12323. Epub 2015 Sep 23. Review. PMID: 26395622
7. **Multiple-Micronutrient Fortified Non-Dairy Beverage Interventions Reduce the Risk of Anemia and Iron Deficiency in School-Aged Children in Low-Middle Income Countries: A Systematic Review and Meta-Analysis (I-IV).** Aaron CJ, Dror DK, Yang Z, Nutrients. 2015 May 21;7(5):3847-68. doi: 10.3390/nu7053847. Review. PMID: 26007336

方法二：Clinical Queries



NCBI Resources How To My NCBI Sign In

PubMed Clinical Queries

Search Search Clear

Results of searches on this page are limited to specific clinical research areas. For comprehensive searches, use [PubMed](#) directly.

Clinical Study Categories

Category: Scope:

Systematic Reviews

Results: 5 of 146

Positive predictive values of $\geq 5\%$ in primary care for cancer: systematic review. [Br J Gen Pract. 2010]

Screening for Iron Deficiency Anemia in Childhood and Pregnancy: Update of the 1996 U.S. Preventive Task Force Review [Internet] [2006]

Maternal iron-folic acid supplementation programs: evidence of impact and implementation. [Food Nutr Bull. 2010]

Adjusting plasma ferritin concentrations to remove the effects of subclinical inflammation in the assessment of iron deficiency: a meta-analysis. [Am J Clin Nutr. 2010]

The effects of changing vitamin D levels on anemia in chronic kidney disease patients: a retrospective cohort review. [Clin Nephrol. 2010]

See all (146)

Filter citations for systematic reviews, meta-analyses, reviews of clinical trials, evidence-based medicine, consensus development conferences, and guidelines. See [related sources](#).

Medical Genetics

Topic:

Results: 5 of 652

Benefits and risks of iron supplementation in anemic neonatal pigs. [Am J Pathol. 2010]

Altered heme catabolism by heme oxygenase-1 caused by mutations in human NADPH cytochrome P450 reductase. [Biochem Biophys Res Commun. 2010]

A novel TMPRSS6 mutation that prevents protease auto-activation causes IRIDA. [Biochem J. 2010]

Increased susceptibility to iron deficiency of Tmprss6-haploinsufficient mice. [Blood. 2010]

Two to tango: regulation of Mammalian iron metabolism. [Cell. 2010]

See all (652)

Filter citations to topics in medical genetics.

Results: 5 of 5013

Phase III, Randomized Study of the Effects of Parenteral Iron, Oral Iron, or No Iron Supplementation on the Erythropoietic Response to Darbepoetin [J Clin Oncol. 2010]

Relationship between iron deficiency and anemia in children younger than 4 years. [J Pediatr (Rio J). 2010]

Management of anemia and iron deficiency in heart failure. [Curr Treat Options Cardiovasc Med. 2010]

Blue rubber bleb nevus syndrome causing refractory anaemia. [J Assoc Physicians India. 2010]

Complementary Foods Fortified with Micronutrients Prevent Iron Deficiency and Anemia in Vietnamese infants. [J Nutr. 2010]

See all (5013)

Filter citations to a specific clinical study category and scope. These search filters were developed by [Haynes RB et al.](#)

方法三：Article types



The screenshot shows a PubMed search for "hypertension drug therapy". The search results are displayed in a list format, with the first six results visible. The "Article types" filter is highlighted in a red box on the left sidebar. The results list includes:

- 1. [Initial Combination Therapy Reduces the Risk of Cardiovascular Events in Hypertensive Patients: A Matched Cohort Study.](#) Gradman AH, Parisé H, Lefebvre P, Falvey H, Lafeuille MH, Duh MS. *Hypertension*. 2012 Nov 26. [Epub ahead of print] PMID: 23184383 [PubMed - as supplied by publisher] [Related citations](#)
- 2. [Incidence and risk of hypertension with pazopanib in patients with cancer: a meta-analysis.](#) Qi WX, Lin F, Sun YJ, Tang LN, He AN, Yao Y, Shen Z. *Cancer Chemother Pharmacol*. 2012 Nov 21. [Epub ahead of print] PMID: 23178953 [PubMed - as supplied by publisher] [Related citations](#)
- 3. [Identifying patients with resistant hypertension and options for clinical management.](#) Tsang Cheung T, Man Yung Cheung B. *Future Cardiol*. 2012 Nov;8(6):837-46. doi: 10.2217/fca.12.66. PMID: 23176687 [PubMed - in process] [Related citations](#)
- 4. [Clinical studies of renal nerve ablation. Unanswered questions for its efficacy and safety.](#) Doulmas M, Faselis C, Kokkinos P, Tsioufis C, Papademetriou V. *Curr Clin Pharmacol*. 2012 Nov 7. [Epub ahead of print] PMID: 23173961 [PubMed - as supplied by publisher] [Related citations](#)
- 5. [Cost analysis in favor of a combined approach for cytomegalovirus after kidney transplantation: a single-center experience.](#) Hellemans R, Beutels P, Ieven M, Verpooten GA, Bosmans JL. *Transpl Infect Dis*. 2012 Nov 23. doi: 10.1111/tid.12023. [Epub ahead of print] PMID: 23173691 [PubMed - as supplied by publisher] [Related citations](#)
- 6. [A Trial of 2 Strategies to Reduce Nocturnal Blood Pressure in Blacks With Chronic Kidney Disease.](#) Rahman M, Greene T, Phillips RA, Agodoa LY, Bakris GL, Charleston J, Contreras G, Gabbai F, Hiremath L, Jamerson K, Kendrick C, Kusek JW, Lash JP, Lea J, Miller ER 3rd, Rostand S, Toto R.

The "Article types" filter on the left sidebar includes: Clinical Trial, Meta-Analysis, Practice Guideline, Randomized Controlled Trial, Review, Systematic Reviews, and more ...



随机对照试验的高敏感检索策略 (MEDLINE)

- #1 randomized controlled trial [pt]
- #2 controlled clinical trial [pt]
- #3 randomized [tiab]
- #4 placebo [tiab]
- #5 drug therapy [sh]
- #6 randomly [tiab]
- #7 trial [tiab]
- #8 groups [tiab]
- #9 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8
- #10 animals [mh] NOT humans [mh]
- #11 #9 NOT #10

4. 中国生物医学文献数据库(CBM)



在CBM中检索有关“系统评价”的检索策略可写成:

- #1 系统评价 or 系统综述 or 系统性评价 or 系统性综述
or 系统评述 or 系统性评述
- #2 英文题目: systematic and review
- #3 循证医学 or 证据医学 or 实证医学
- #4 meta 分析 or 荟萃分析 or 汇总分析 or 集成分析
- #5 #1 or #2 or #3 or #4

参考书目



- 王家良, 循证医学(第3版).人民卫生出版社, 2016
- 李幼平, 循证医学(第2版).高等教育出版社, 2009
- 邓可刚等, 循证医学证据的检索与利用(第2版)。人民卫生出版社, 2008
- 丁香园——循证医学与临床应用讨论版
<http://www.dxy.cn/bbs/index.html>



在EBM实践中构建临床问题,一般遵循以下哪个原则?

- A、POCI
- B、PICO ✓
- C、IOPC
- D、COPI



下列哪个证据的级别最高(可靠性最强)?

- A、系统评价 ✓
- B、随机对照试验
- C、病例对照
- D、动物研究



在PubMed中查找系统评价,可使用下列哪些方法?

- A、 字段限定 ✓
- B、 Clinical Queries ✓
- C、 Article Types ✓
- D、 Limits



以下哪些是循证医学数据库？

- A、The Cochrane Library ✓
- B、MEDLINE
- C、BMJ Best Practice ✓
- D、Web of Science



若想撰写一篇系统评价，必须检索的数据库是：

- A、The Cochrane Library
- B、MEDLINE ✓
- C、BMJ Best Practice
- D、CENTRAL ✓
- E、EMBase ✓

谢谢大家，欢迎提问！