







ا. آشنایی با کاکرین و کاکرین ایران (19 الى ١٤ ساعت ١٧ الى ١٩)

کتر بیتا مسگریور





دکتر پیام گیپری

٣. جستجوي شواهد

(19 رازار ۱۹ الي ۱۹ الي ۱۹ الي ۱۹





دکتر منوچهر کرمی

٣. اصول ممالعات مروری ساختارمند (19 الي ١١٧ ساعت ١٤ الي ١٩)



دکتر جلیل کوهیایهزاده

۴. ارزیابی نقادانه شواهد (اد/۱۱/۱۷ عامت ۱۷ الے ۱۹)



دكتر بهاره يزدي زاده

۵. اصول و مبانی ترجمان دانش (19 LJI 14 CLEW 115-P/1P/-P)

لینگ ثبتنام در وبینار: https://zaya.io/pzc31

لینک شرکت در وبینار برای ثبتنام

كنندگان ايميل خواهد شد

کارگاههای تفکر نقادانه و تصمیمگیری آگاهانه (وبینار رایگان)

کتابخانه مرکزی و مرکز اسناد

دانشگاه علوم پزشکی کرمان

با همگاری مرکز کاکرین ایران

برگزار میکند

أولورك بغيرش با فالشجوران فالشكاه علوم بإرشك كرمان و ساير فالشكامهاي كان منطقه ٨ أمايشي، إيرالشور، ردي ودرائك، رئستجال، زاران، زادهال وسيرطال اسك وردورك جمير الكمال كارشك وخرير والشجوران وافرادها المحال الشار والشكامها المكان بالبخير السك

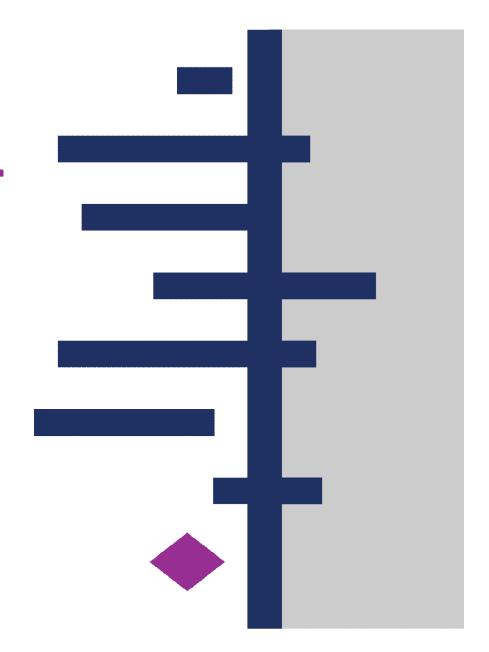
مديريت اطلاع رساني يزشكي ومنابع علمي دانشگاه



آشنایی با کاکرین و کاکرین ایران

کارگاه تفکر نقادانه و تصمیمگیری آگاهانه بهمن و اسفند 1402

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(Declaration of Interest) اظهار تضاد منافع



دانشیار فارماکواپیدمیولوژی معاونت تحقیقات و فناوری وزارت بهداشت

مسؤولیت فعلی:

معاون کاکرین ایران



استاد اپیدمیولوژی دانشگاه علوم پزشکی کرمانشاه

مسؤوليت فعلى:

رئیس کاکرین ایران



محورهای سخنرانی

- چرا کاکرین؟
- کاکرین چیست؟ اهداف، ساختار، اعضا و ...
 - انواع مطالعات و طبقهبندی آنها
 - کاکرین ایران و دستاوردهای آن
 - ممکاری با کاکرین 🍍
- آشنایی با کاکرین Crowd و کاکرین •



به روز بودن در پزشکی

پزشکان عمومی: خواندن روزانه 19 مقاله جدید که در مجلات پزشکی منتشر میشود

2 x 19 ساعت (ارزیابی نقادانه)= 38 ساعت در روز

BMJ. 1995; 310:1085-86

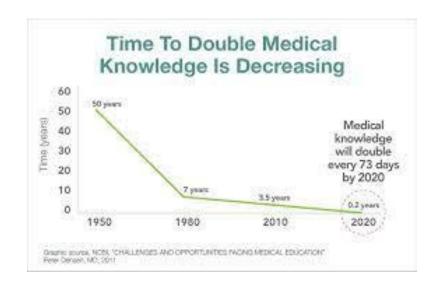


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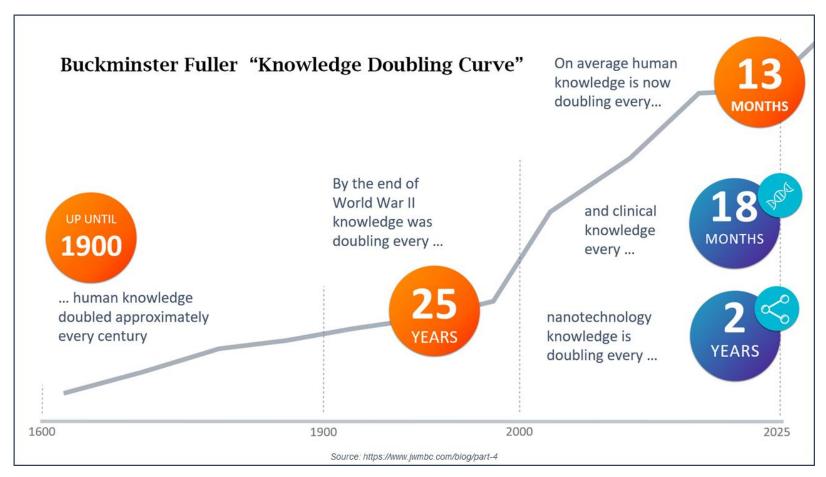


زمان دو برابر شدن دانش پزشکی در سال 1950، 50 سال 500 سال 1980، 7 سال؛ و 50 سال 1980، 7 سال؛ و در سال 2010، 3/5 سال. در سال 2020 پیشبینی شده که زمان دو برابر شدن دانش پزشکی 0/2 سال - فقط 73 روز باشد.

Trans Am Clin Climatol Assoc. 2011; 122: 48-58.



منحنی دو برابر شدن دانش



https://openminds.com/market-intelligence/executive-briefings/leading-in-a-time-of-knowledge-doubling/

This scientist read a paper every day for 899 days. Here's what she learned

Olivia Rissland says reading a different paper every day has made her a better scientist.

Olivia Rissland, PhD

Associate Professor of Biochemistry and Molecular Genetics at the University of Colorado School of Medicine. She holds a DPhil in Biology from the University of Oxford and an Sc. B. in Biology, Mathematics and Latin from Brown University.



Olivia Rissland says that her reading habits have made her "a much more well-rounded scientist". Credit: Olivia Rissland



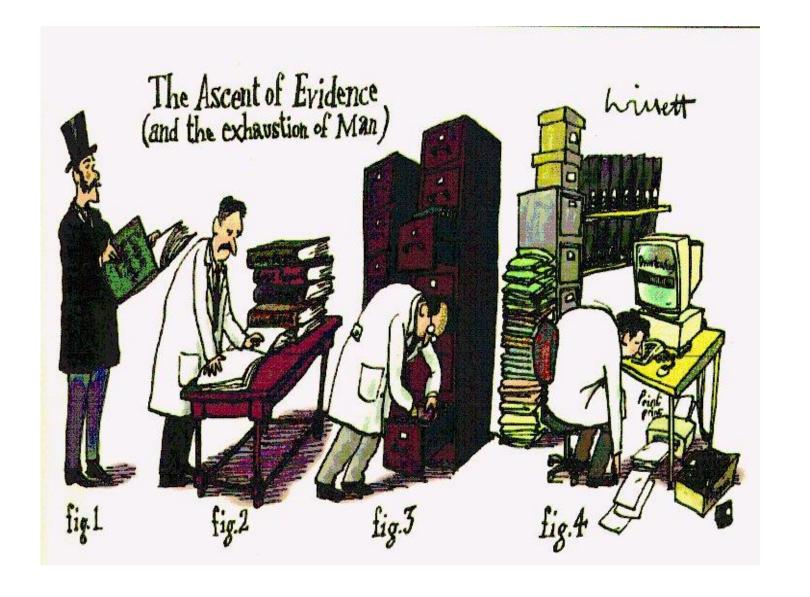
سه واژه مرتبط با اطلاعات

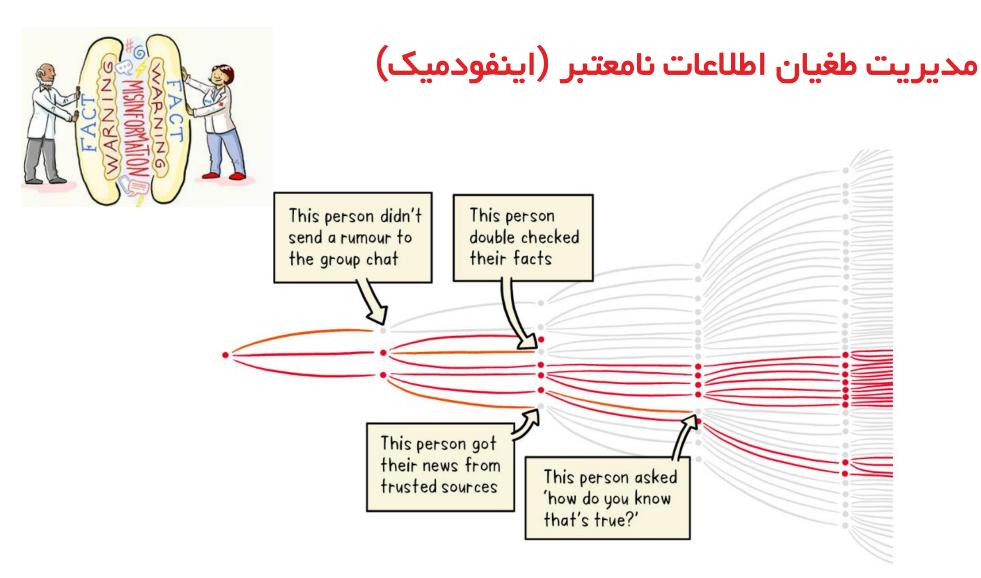
- اطلاعات (information): آن چیزهایی که با بهترین دانش فعلی ما دقیـق هسـتند. بـه عنـوان
 مثـال، COVID-19 مخفـف بیمـاری کرونـاویروس 2019 اسـت و توسـط ویـروس SARS-CoV-2
 ایجاد میشود.
- اطلاعات نادرست (misinformation): اطلاعات نادرستی که به قصد آسیب رساندن به دیگران ایجاد نشده است. اطلاعات غلط اغلب توسط شخصی شروع می شود که واقعاً میخواهد موضوعی را بفهمد و به حفظ امنیت و سلامت دیگران اهمیت میدهد. سپس توسط دیگرانی که همین احساس را دارند به اشتراک گذاشته میشود. همه بر این باورند که اطلاعات خوبی را به اشتراک میگذارند اما متاسفانه اینطور نیست؛ و بسته به آنچه به اشتراک گذاشته می شود، اطلاعات نادرست می تواند بسیار مضر باشد.
- دروغپراکنی (disinformation): اطلاعات نادرستی است که به قصد سود بردن از آن یا آسیب رساندن ایجاد شده است. این آسیب میتواند برای یک فرد، گروهی از مردم، یک سازمان یا حتی یک کشور باشد.

طغیان اطلاعات نامعتبر (اینفودمیک): اطلاعات بیش از حد از جمله اطلاعات نادرست یا گمراه کننده در محیطهای دیجیتال و فیزیکی در طول طغیان یک بیماری است.



- باعث سردرگمی و رفتارهای مخاطره آمیز میشود که میتواند به سلامت آسیب برساند.
- همچنین منجر به بیاعتمادی به مسؤولان حوزه سلامت میشود و پاسخ بهداشت عمومی را تضعیف میکند.
 - اینفودمیک میتواند طغیان بیماری را تشدید یا طولانی کند.





https://www.who.int/news-room/spotlight/let-s-flatten-the-infodemic-curve

1. Assess the source

- Who shared the information with you and where did they get it from? Even if it is friends or family, you still need to vet their source.
- To check for fake social media accounts, look at how long profiles have been active, their number of followers and their most recent posts. For websites, check the "About Us" and "Contact Us" pages to look for background information and legitimate contact details.
- When it comes to images or videos, make it a habit to verify their authenticity. For images, you can use reverse image search tools provided by <u>Google</u> and <u>TinEye</u>. For videos, you can use Amnesty International's <u>YouTube DatViewer</u>, which extracts thumbnails that you can enter into reverse image search tools.
- Other clues that a source may be unreliable or inaccurate include unprofessional visual design, poor spelling and grammar, or excessive use of all caps or exclamation points.

2. Go beyond headlines

- Headlines may be intentionally sensational or provocative to get high numbers of clicks. Read more than just the headline of an article – go further and look at the entire story.
- Search more widely than social media for information look at print sources such as newspapers and magazines, and digital sources such as podcasts and online news sites. Diversifying your sources allows you to get a better picture of what is or is not trustworthy.

3. Identify the author

Search the author's name online to see if they are real or credible.

4. Check the date

Ask yourself these questions: Is this a recent story? Is it up to date and relevant to current events? Has a headline, image or statistic been used out of context?

6. Check your biases

We all have biases, and these factor into how we view what's happening around us. Evaluate your own biases and why you may have been drawn to a particular headline or story. What is your interpretation of it? Why did you react to it that way? Does it challenge your assumptions or tell you what you want to hear? What did you learn about yourself from your interpretation or reaction?

7. Turn to fact-checkers

When in doubt, consult trusted fact-checking organizations, such as the <u>International Fact-Checking Network</u> and global news outlets focused on debunking misinformation, including the Associated Press and Reuters.



Infodemic Management Course Series



Infodemic Management: Addressing health misinformation

SELF-PACED

NOT DISEASE SPECIFIC

RECORD OF ACHIEVEMENT

EN



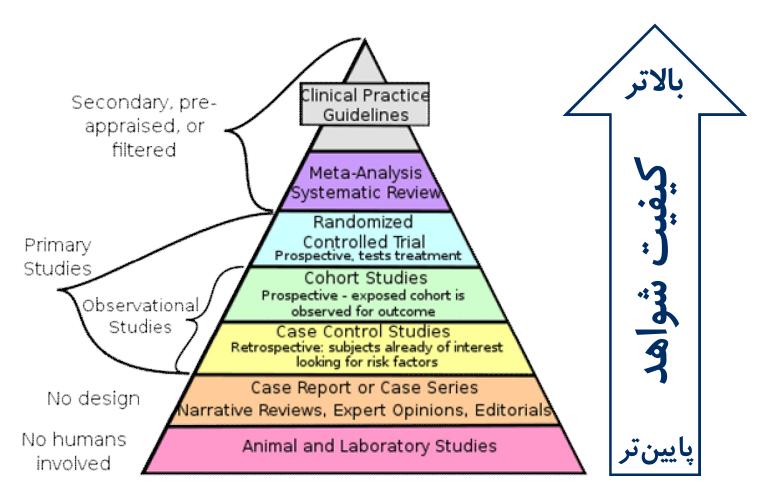


A certificate of achievement will be available to participants who score at least 80% of the total points available in the final assessment.

https://openwho.org/channels/infodemic-management



هرم طبقهبندی شواهد



Levels of Evidence for Therapeutic Studies

Level of Evidence	Type of Study
1a	Systematic reviews (with homogeneity) of RCTs
1b	Individual RCTs (with narrow confidence interval)
2a	Systematic reviews (with homogeneity) of cohort studies
2b	Individual cohort studies (including low-quality RCTs, eg. <80% follow-up)
3a	Systematic reviews (with homogeneity) of case-controlled studies
3b	Individual case-controlled studies
4	Case series (and poor-quality cohort and case-control studies)
5	Expert opinion without explicit critical appraisal

Adapted from: Sackett DL et al. Evidence-Based Medicine: How to Practice and Teach EBM. 2nd ed. Churchill Livingstone; 2000.



محورهای سخنرانی

- چرا کاکرین؟
- کاکرین چیست؟ اهداف، ساختار، اعضا و ...
 - انواع مطالعات و طبقهبندی آنها
 - کاکرین ایران و دستاوردهای آن
 - همکاری با کاکرین
- آشنایی با کاکرین Crowd و کاکرین Timulage



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About Cochrane

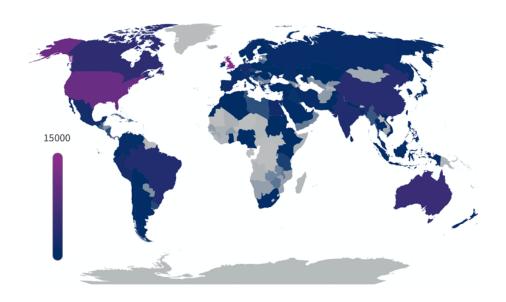
The Cochrane Collaboration was established in 1993 at the first Cochrane Colloquium, which was attended by 77 people from 19 countries.



Sir lain Chalmers one of the founders of the Cochrane



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کاکرین یک شبکه مستقل جهانی متشکل از محققان، متخصصان، بیماران، مراقبان و افراد علاقه مند به سلامت است.

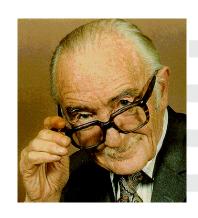
چشمانداز کاکرین: دنیایی از سلامت بهتر برای همه مردم که در آن تصمیمات مربوط به سلامت و مراقبت براساس شواهد با کیفیت بالا است.

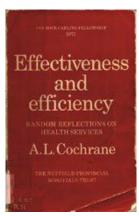


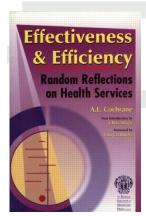
About Cochrane

Cochrane was named after the British epidemiologist, Archie Cochrane.

Archie Cochrane (1909-1988) contributed greatly to the development of epidemiology as a science. He is best known for his influential book, *Effectiveness and Efficiency*.

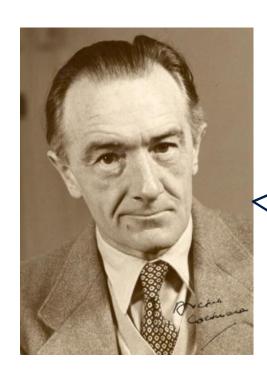






() Cochrane

Archie Cochrane's challenge



"It is surely a great criticism of our profession that we have not organised a critical summary, by specialty or subspecialty, adapted periodically, of all relevant randomised controlled trials."

Archie Cochrane, 1979

 $Photograph: Cardiff\ University\ Library,\ Cochrane\ Archive,\ University\ Hospital\ Llandough$



كاكرين چگونه عمل مىكند؟

استراتژی تغییر: 2020-2023

هدف 1: توليد شواهد قابل اعتماد

تولید شواهد قابل اعتماد و به موقع که به مهمترین سؤالات برای تصمیمگیری در مورد بهداشت و مراقبت بپردازد (انتشار بیش از 9000 مرور کاکرینی در <mark>کتابخانه کاکرین</mark>).

هدف 2: طرفداری از شواهد

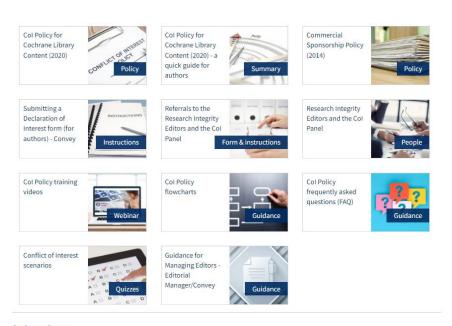
به عنوان یک مدافع جهانی پیشرو در سلامت و مراقبت آگاه از شواهد.

هدف 3: تصمیمات آگاهانه در سلامت و مراقبت

آگاه از شواهد بودن تصمیمات مربوط به سلامت و مراقبت با در <u>دسترس قرار دادن شواهد خود به</u> صورت قابل استفاده و در دسترس همه.



کاکرین حمایت مالی تجاری یا دچار تعارض را قبول نمیکند. برای <mark>کاکرین</mark> حیاتی است که اطلاعات معتبر و قابل اعتماد تولید کند، آزادانه کار انجام دهد و به واسطه منافع تجاری و مالی محدود نباشد.



سیاستهای پیشگیری از تضاد منافع (conflict of interest)

Cochrane Groups











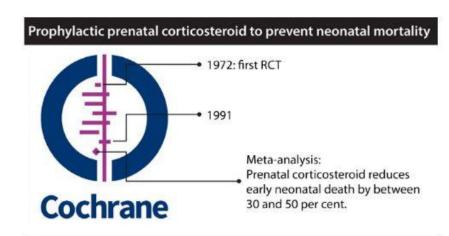
https://training.cochrane.org/online-learning/editorial-policies/coi-policy



() Cochrane Flowchart 1: Author's payments from a commercial organization Does the author, or has the author previously, received financial support (excluding employment - see flowchart 3) from a commercial organization that has a financial interest in the topic? (e.g. is it developing, manufacturing or distributing (anywhere in the world) an intervention that is the subject of the review or potential comparators?) yes no Was this support received within a period of 36 months prior to title This does not breach the Col Policy for Cochrane Library Content registration (or to work beinging for an update) through to (2020). This person can be an publication? (N.B. for authors joining part way through, the relevant author. timeframe is 36 month before their involvement through to publication) This does not breach the Col Policy for Is the author the first or last Cochrane Library Content (2020). This author of the review? person can be an author. no Overall, is two thirds of the whole author team free of any relevant financial interests? Were any of the payments no made to the author personally? Were any of the payments made to the author personally? no/unsure yes yes no/unsure This breaches the Col Policy This breaches the Col Policy This may be is for Cochrane Library Conten This may breach the This does not for Cochrane Library breach of the Col Content (2020). (2020). Col Policy for breach the Policy for The first and last authors Cochrane Library Col Policy for At least two-thirds of the Cochrane Library author team must be free of must be free of relevant Content (2020). Cochrane Content (2020). financial interests. Please submit a Library elevant financial conflicts of Please submit a referral to the If you still have questions, Content interest. referral to the please submit a referral to Research Integrity (2020). This If you still have questions, Research Integrity the Research Integrity **Editors and Col** person can be please submit a referral to Editors and Col the Research Integrity Editors and Col panel here panel here. an author. panel here. Editors and Col panel here

Cochrane's Logo tells a story

The circle formed by two 'C' shapes represents our global collaboration. The lines within illustrate the forest plot from an early version of this review dating back to 1982.



Despite several trials showing the benefit of corticosteroids, adoption of the treatment among obstetricians was slow. The systematic review was influential in increasing use of this treatment. This simple intervention has probably saved thousands of premature babies.

تجویز کورتیکواستروئیدها در دوره پیش از زایمان برای تسریع بلوغ ریه جنین در زنان در معرض خطر زایمان زودرس

Crowley P. Promoting pulmonary maturity. In: *Chalmers I, Enkin M, Keirse MJNC, eds.* Effective care in pregnancy and childbirth. Oxford: Oxford University Press, 1989:746-764.



ویدیوی داستان سه بیماری که کاربرد شواهد کاکرین را تجربه کردند در کانال آپارات کاکرین: https://www.aparat.com/v/qVepb



شبکہ جھانی کاکرین

هیچ مکان یا دفتری تحت عنوان «<mark>کاکرین</mark>» وجود ندارد.

شبکه جهانی اعضا و حامیان ما با یکدیگر همکاری میکنند تا به اهداف راهبردی خود دست یابند و معمولاً بر اساس علایق، تخصص و/یا موقعیت جغرافیایی وابسته به یک یا چند گروه کاکرین هستند.

- اعضای کاکرین (Cochrane Members): مشارکتکنندگانی که عضویت دریافت کردهاند (تا پایان سال 2023: 10،825 نفر)
- حامیان کاکرین (Cochrane Supporters): شبکه جهانی دارندگان پروفایل (Account) در کاکرین که مشارکت فعال دارند (تا پایان سال 2023: 121،668 نفر)

تعداد کل اعضا و حامیان کاکرین تا پایان سال 2023 نفر 132،493 نفر



100 هزارمین حامی



Priscila is an ophthalmologist from Mexico City. She is currently completing a master's degree in medical sciences at Universidad Nacional Autónoma de México.

She joined Cochrane to encourage and assist with research, training, and dissemination of evidence in vision and ophthalmology

() Cochrane

10 اصل کاری کاکرین

- 1- همكاري (Collaboration)
- 2- بنا شده بر پایه شور و شوق افراد (Building on the enthusiasm of individuals)
 - 3- اجتناب از تکرار تلاش (Avoiding duplication of effort)
 - 4- به حداقل رساندن سوگیری (Minimizing bias)
 - 5- بەروزبودن (Keeping up-to-date)
 - 6- تلاش برای مرتبطبودن (Striving for relevance)
 - 7- گسترش دسترسی (Promoting access)
 - 8- اطمینان از کیفیت (Ensuring quality)
 - 9- تداوم (Continuity)
 - 10- امكان مشاركت گسترده (Enabling wide participation)



مهمترین محصول کاکرین

کتابخانه کاکرین (Cochrane Library) مشتمل بر چندین پایگاه اطلاعاتی از جمله (Cochrane Library) عناد در ورهای Cochrane Database of Systematic Reviews سیستماتیک کاکرین در آن منتشر میشود، مهمترین محصول کاکرین است.

تا کنون ۹،193 مرور کاکرین در 37 دستهبندی موضوعی منتشر شده است.

742

ر اهنمای بالینی در سال 2022 منتشر شده که حداقل به یک مرور کاکرین ارجاع داده است. 8/4

Impact Factor دیتابیس CDSR در سال 2022 83,897

مجموع استنادات به مرورهای کاکرین در سال 2022 343

مرور کاکرین جدید یا به روز شده و 250 پروتکل در سال 2022 منتشر شد.



انواع مطالعات مروري كاكرين

مرور مداخلهای (Intervention reviews)

مرور صحت تست تشخیصی (Diagnostic test accuracy reviews)

■ مرورهای روششناسی (Methodology reviews)

مرورهای کیفی (Qualitative reviews)

مرورهای پیشآگهی (Prognosis reviews)

() Cochrane Cochrane Handbook for **Systematic Reviews** of Interventions SECOND EDITION () Cochrane Cochrane Handbook for **Systematic Reviews of** Edited by **Diagnostic Test** Julian P. T. Higgins **Accuracy** WILEY Blackwell

https://training.cochrane.org/handbook/current

https://training.cochrane.org/handbook-diagnostic-test-accuracy

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Cochrane Database of Systematic Reviews (launched in 1995) in The Cochrane Library, an online platform, cochranelibrary.com

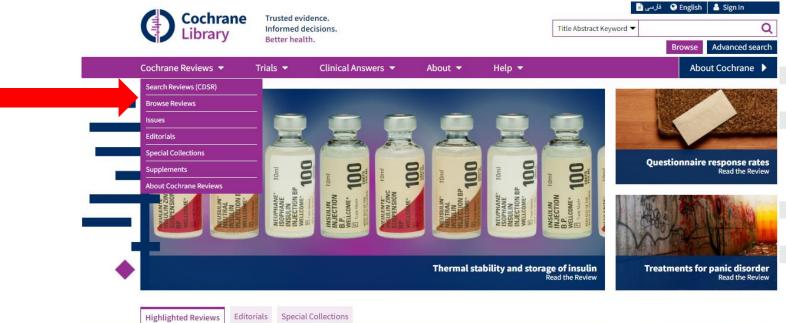


Cochrane Library includes three databases:

- Cochrane Database of Systematic Reviews; CDSR (Cochrane Reviews)
- 2. Cochrane Central Register of Controlled Trials; CENTRAL (Clinical Trials)
- 3. Cochrane Clinical Answers



جستجو در کتابخانه کاکرین



Adverse effects of immunotherapies for multiple sclerosis: a network meta-analysis

Irene Tramacere^a, Gianni Virgili^a, Vittorio Perduca^a, Ersilia Lucenteforte, Maria Donata Benedetti, Matteo Capobussi, Greta Castellini, Serena Frau, Marien Gonzalez-Lorenzo, Robin Featherstone, Graziella Filippini

30 November 2023

Nirmatrelvir combined with ritonavir for preventing and treating COVID-19

Stefanie Reis, Maria-Inti Metzendorf, Rebecca Kuehn, Maria Popp, Ildiko Gagyor, Peter Kranke, Patrick Meybohm, Nicole Skoetz, Stephanie Weibel



https://www.cochranelibrary.com/





Cochrane Reviews ▼

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Clinical Answers -



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Browse the Cochrane Reviews, Protocols and Clinical Answers.

Trials -

△ Set email alerts

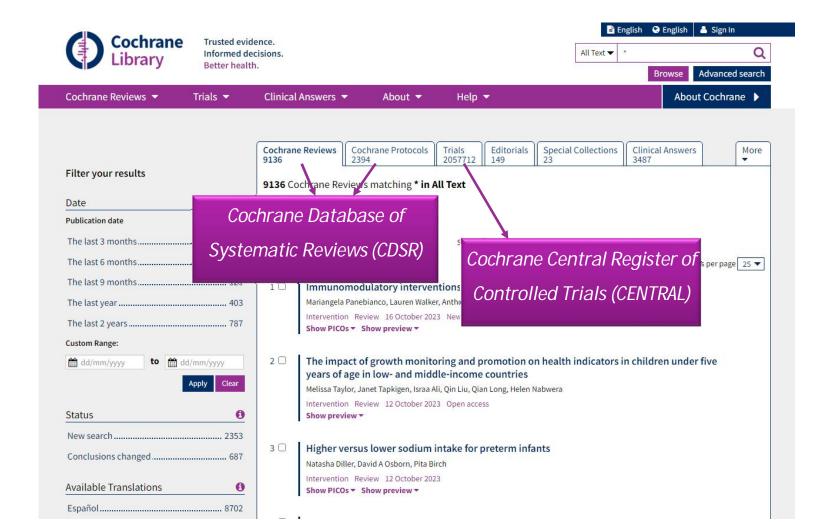
About Cochrane >

a	g	n	
Allergy & intolerance	Gastroenterology & hepatology	Neonatal care	
b	Genetic disorders	Neurology	
Blood disorders	Gynaecology	0	
c	h	Orthopaedics & trauma	
Cancer	Health & safety at work	р	
Child health	Health professional education	Pain & anaesthesia	
Complementary & alternative medicine	Heart & circulation	Pregnancy & childbirth	
Consumer & communication strategies	I	Public health	
d	Infectious disease	r	
Dentistry & oral health	Insurance medicine	Reproductive & sexual health	
Developmental, psychosocial & learning problems	k	Rheumatology	
Diagnosis	Kidney disease	s	
e	l	Skin disorders	
Ear, nose & throat	Lungs & airways	t	
Effective practice & health systems	m	Tobacco, drugs & alcohol	
Endocrine & metabolic	Mental health	u	
Eyes & vision	Methodology	Urology	
2.25(8)10		w	
101		Wounds	

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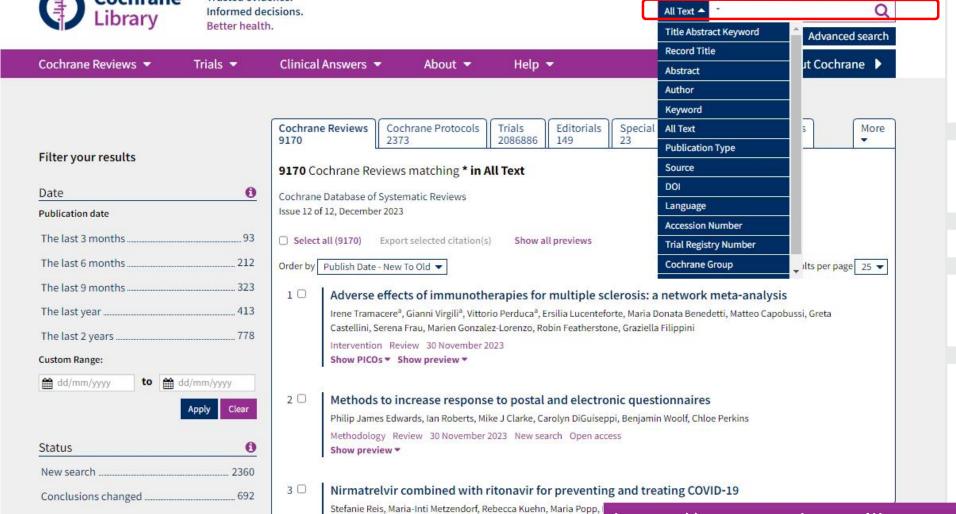
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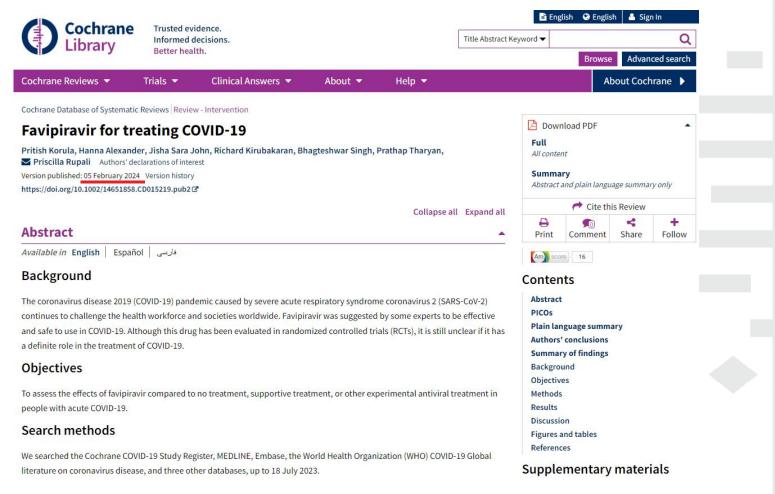


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https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD015219.pub2/full



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بخش PICO در مرور کاکرین

Cochrane Reviews ▼

Trials -

Clinical Answers ▼

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Cochrane Database of Systematic Reviews Review - Intervention

Favipiravir for treating COVID-19

Pritish Korula, Hanna Alexander, Jisha Sara John, Richard Kirubakaran, Bhagteshwar Singh, Prathap Tharyan,

Version published: 05 February 2024 Version history

https://doi.org/10.1002/14651858.CD015219.pub2 &

PICOs[®]

Population (1) Intervention (1) Comparison (0) Outcome (1)

COVID-19 Favipiravir All Cause Mortality

1 The PICO model is widely used and taught in evidence-based health care as a strategy for formulating questions and search strategies and for characterizing clinical studies or meta-analyses. PICO stands for four different potential components of a clinical question: Patient, Population or Problem; Intervention; Comparison; Outcome.

See more on using PICO in the Cochrane Handbook ♂.

https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD015219.pub2/full



خلاصه ساده یک مرور کاکرین

Plain language summary

فارسى Available in English Español

Is favipiravir useful in treating people with COVID-19?

Key messages

Due to a lack of robust evidence, we are unclear if favipiravir provides any benefit in the treatment of people with coronavirus disease 2019 (COVID-19) infections who do not require hospital admission, as well as those admitted to hospital.

Favipiravir might lead to mild side effects, but doesn't seem to cause major or severe side effects.

What is favipiravir?

Favipiravir is a medicine that can fight viruses. It is usually taken by mouth. Originally used for treating other viral infections, favipiravir has been suggested as a potential treatment for COVID-19 as it prevents the reproduction of the virus. Medical regulators have approved favipiravir for emergency use to treat people with COVID-19.

What did we want to find out?

We wanted to find out if favipiravir was better than no treatment, supportive treatment, or any other experimental antiviral treatment for people with COVID-19, in terms of death, need for a breathing machine (mechanical ventilation), and other outcomes. We also wanted to find out if favipiravir was associated with any unwanted effects.

What did we do?

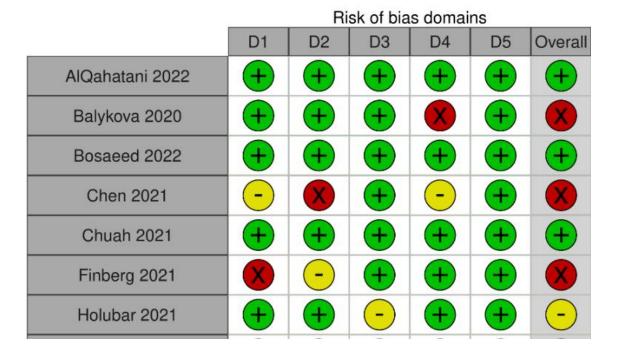
We searched for studies that compared favipiravir with no treatment, supportive treatment, or other antiviral treatment in people with COVID-19 disease. We compared and summarized the results of the studies and rated our confidence in the evidence, based on factors such as study methods and sizes.

https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD015219.pub2/full



Risk of bias (RoB)

Figure 2. Traffic Light Plot



Judgement:







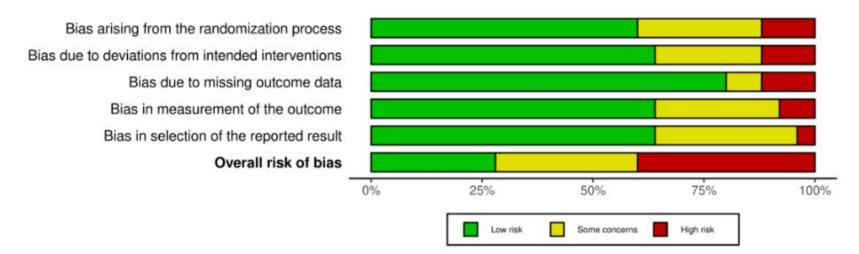
Domains:

- D1: Bias arising from the randomization process
- D2: Bias due to deviations from the intended intervention
- D3: Bias due to missing outcome data
- D4: Bias in measurement of outcome
- D5: Bias in selection of the reported result



Risk of bias (RoB)

Figure 3. ROB summary plot



- · bias arising from the randomization process;
- bias due to deviations from the intended interventions;
- · bias due to missing outcome data;
- · bias in measurement of the outcome;
- · bias in selection of the reported results.

The algorithm of RoB 2 assigned each domain to one of the following levels of bias:

- · low risk of bias;
- · some concerns;
- · high risk of bias.



A Cochrane Review and its implications for practice

Implications for practice

It is unclear if there is any benefit from using favipiravir in the treatment of coronavirus disease 2019 (COVID-19) in hospitalized and ambulatory people, with overall very low- to low-certainty evidence from several randomized trials of people with mostly mild to moderate disease. Favipiravir in the treatment of people with COVID-19 may increase the risk of non-serious adverse events.



A Cochrane Review and its implications for research

Implications for research

Larger randomized controlled trials with homogenous populations may be warranted to be more certain of the efficacy and safety of favipiravir. Specifically, the effect of favipiravir on mortality, progression to invasive mechanical ventilation, and time to clinical improvement needs more detailed investigation.





Certainty of the evidence

HIGH

 $\oplus \oplus \oplus \oplus$

MODERATE

 $\Theta \Phi \Phi \Theta$

LOW

 $\Theta\ThetaOO$

VERY LOW

 Θ

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) is currently emerging as the dominant method for appraising controlled studies and making recommendations for systematic reviews and guidelines

Used by:

- Cochrane for use in systematic reviews
- World Health Organization (WHO) guideline developers
- other guideline developers

SUMMARY OF FINDINGS

Summary of findings 1. Favipiravir versus no treatment, supportive treatment, or other antiviral treatment for treating COVID-19

Patient/population: people with confirmed COVID-19

Setting: both inpatient and outpatient

Intervention: favipiravir

Comparison: no treatment, supportive treatment, or any other experimental antiviral treatment (i.e. any other treatment not containing favipiravir)

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of partici- pants (studies)	Certainty of the evidence (GRADE)	Comments
	Risk without favipiravir	Risk with favipiravir		(studies)	(GRADE)	
All-cause mortality – at 28 to 30 days, or in-hos- pital	50 per 1000	42 per 1000 (24 to 73)	RR 0.84 (0.49 to 1.46)	3459 (11 RCTs)	ecco Very lowa,b,c	We are uncertain whether favipiravir reduces all-cause mortality (at 28 to 30 days, or in-hospital).
Progression to invasive mechanical ventilation	80 per 1000	68 per 1000 (54 to 87)	RR 0.86 (0.68 to 1.09)	1383 (8 RCTs)	⊕000 Very low ^{c,d,e}	We are uncertain whether favipiravir reduces the progression to invasive mechanical ventila- tion.
Need for admission to hospital (if ambulatory)	92 per 1000	96 per 1000 (41 to 227)	RR 1.04 (0.44 to 2.46)	670 (4 RCTs)	eecc Low ^{c,f}	Favipiravir may make little to no difference in the need for admission to hospital (if ambula- tory).
Time to clinical improve- ment (defined as time to a 2-point reduction in patients' admission status on WHO's ordinal scale)	-	-	HR 1.13 (0.69 to 1.83)	721 (4 RCTs)	⊕ooo Very low& ^{h,i}	We are uncertain whether favipiravir reduces the time to clinical improvement (defined as time to a 2-point reduction in patients' admission status on WHO's ordinal scale).
Progression to oxygen therapy	158 per 1000	189 per 1000 (131 to 276)	RR 1.20 (0.83 to 1.75)	543 (2 RCTs)	eeco Low ^{c,e,j}	Favipiravir may make little to no difference in progression to oxygen therapy.
All adverse events	180 per 1000	228 per 1000 (194 to 286)	RR 1.27 (1.05 to 1.54)	4699 (18 RCTs)	00 00 Low ^{k,l,m}	Favipiravir may result in an increased risk of an adverse event.





استراتژی دسترسی آزاد به مرورهای کاکرین

کاکرین در برنامه راهبردی (strategy for change) خود را متعهد نموده تا دسترسی آزاد (open access) به مرورهای کاکرین را فراهم کند.

تا سال 2025، کاکرین دسترسی آزاد جهانی به مرورهای سیستماتیک خود را بلافاصله پس از انتشار برای مرورهای جدید و به روز شده، فراهم خواهد کرد.

این استراتژی متعهد به انجام این کار بدون تحمیل بار مالی بر دوش نویسندگان مرور و بدون به خطر انداختن پایداری مالی مؤسسه خیریه است.

ICCNI- 2022-0022

Volume 1 | Issue 10 | December 2023

COCHRANEEVIDENCE SYNTHESIS AND METHODS



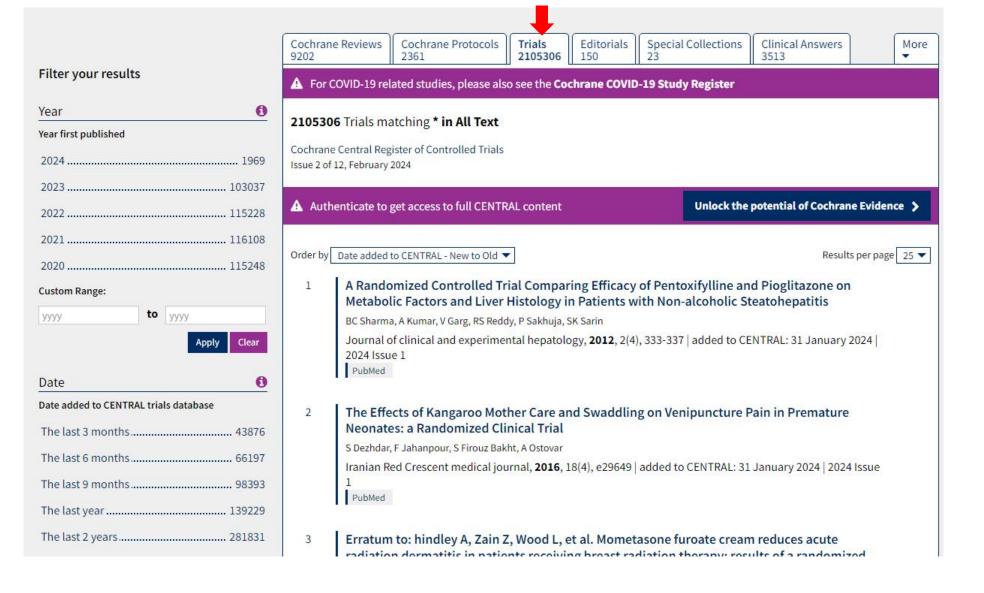
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() Cochrane

Cochrane Central Register of controlled Trials (CENTRAL)

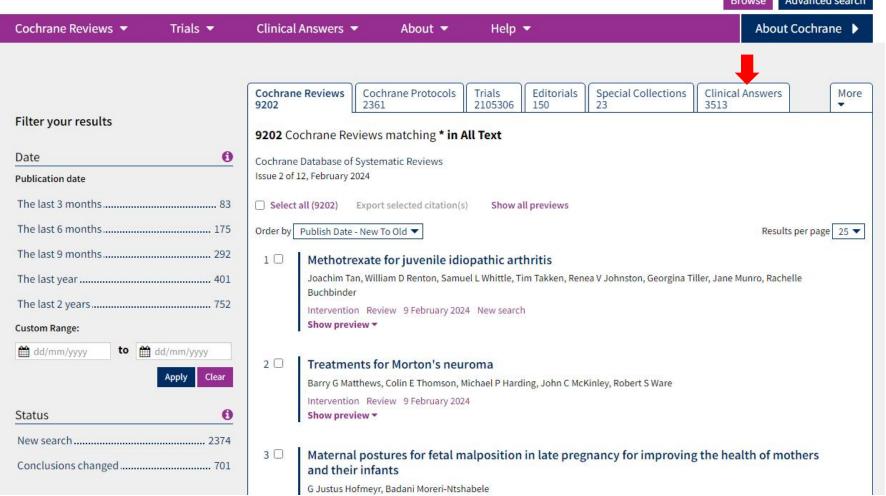
- TCENTRAL is a highly concentrated source of reports of randomized and quasi-randomized controlled trials
- Most records are taken from bibliographic databases (mainly Pubmed and Embase as well as CINAHL, ClinicalTrials.gov and WHO's international Clinical Trials Registry Platform)





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Trials -



Figures

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Cochrane Clinical Answers

Cochrane Reviews -

Question:

For adults with coronavirus disease 2019 (COVID-19), what are the benefits and harms of hydroxychloroquine?

Clinical Answers -

About ▼

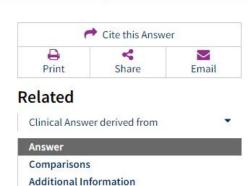
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Sera Tort, Christopher Bunt
5 March 2021
https://doi.org/10.1002/cca.3553 ♂

Clinical Answer:

Compared with standard care for adults with COVID-19, high-certainty evidence shows no benefit of hydroxychloroquine for all-cause mortality. Moderate-certainty evidence shows little to no likely benefit for progression to mechanical ventilation. Low-certainty evidence suggests little to no difference in the number of people testing negative at day 7 or day 14 and little to no difference in hospital admission (based on 465 participants; most participants were already hospitalized) or in length of hospital stay (based on 642 participants).

Moderate-certainty evidence appears to demonstrate higher risk of adverse events with hydroxychloroquine (on average, 632 vs 218 per 1000 people), although this result was imprecise (with potentially 107 to 782 more people experiencing an adverse event per 1000 people). Rates of serious adverse events were low in both groups (≤ 2%; low-certainty evidence). Very low-certainty results for time to clinical improvement and for risk of prolongation of the QT interval were underpowered.





6 Networks

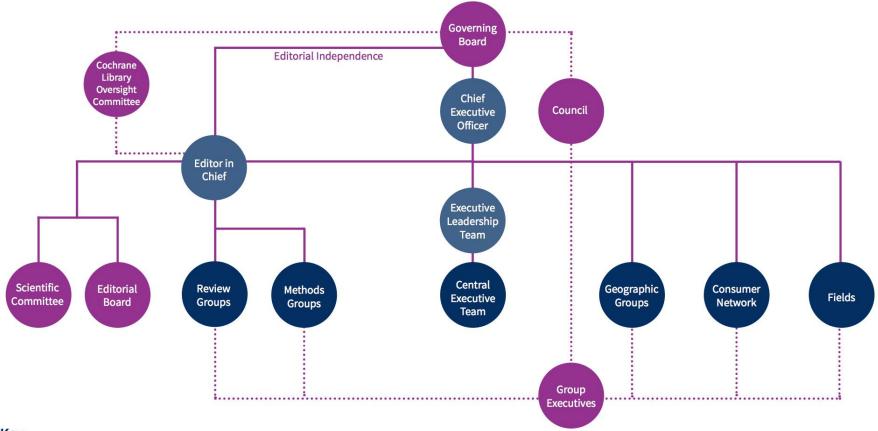
and 33 Review

Groups

Cochrane's organizational structure

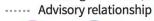


Organizational Accountability Structure



Key

Formal governance/management relationship









گروههای موضوعی (Thematic Groups)

هدف این است که گروههای موضوعی آیندهنگر بوده و پاسخگوی نیازهای ذینفعان کاکرین باشند و کمک کنند تا کاکرین بتواند چهار اصل کلیدی خود در استراتژی تغییر را ارایه دهد:

- 1- همکاری (Collaboration)
 - (Relevance) مناسبت
 - 3- يکپارچگی (Integrity)
 - 4- كيفيت (Quality)















and Public Health













گروههای مروری (Review Groups)

کاکرین دارای تعداد

زیادی گروه مروری

(CRG) است که مسؤول

تولید کار آمد و به موقع

مرورهای سیستماتیک با

كيفيت بالا هستند.

این مرورها به مهمترین

سؤالات پژوهشی برای

مىدھند.

1. Acute Respiratory Infections Group 18. Infectious Diseases Group

2. Airways Group

3. Anaesthesia Group

4. Breast Cancer Group

5. Colorectal Group

6. Consumers and Communication Group

7. Cystic Fibrosis Group

8. Drugs and Alcohol Group

9. Emergency and Critical Care Group 25. Neonatal Group

10. Epilepsy Group

11. Eyes and Vision Group

12. Fertility Regulation Group

13. Gut Group

14. Gynaecology and Fertility Group

15. Haematology Group

16. Hepato-Biliary Group

17. Hypertension Group

19. Kidney and Transplant Group

20. Lung Cancer Group

21. Metabolic and Endocrine Disorders Group

22. Methodology Review Group

23. Multiple Sclerosis and Rare Diseases of the CNS Group

24. Musculoskeletal Group

26. Oral Health Group

27. Public Health Group

28. Schizophrenia Group

29. Skin Group

30.STI Group

31. Tobacco Addiction Group

32. Urology Group

33. Work Group



گروههای روششناسی (Method Groups)

- گروههای روششناسی
 - کاکرین توصیههای
- سیاستی ارایه میکنند
- و فضایی برای بحث در
 - مور د توسعه و
- پیادهسازی روشهای
- استفادهشده در تهیه
 - مرورهای کاکرین را
 - فراهم میکند.

- 1. Adverse Effects Methods Group
- 2. Bias Methods Group
- 3. Co-Production Methods Group
- 4. Comparing Multiple Interventions Methods Group
- 5. Economics Methods Group
- 6. Equity Methods Group
- 7. GRADEing Methods Group
- 8. Information Retrieval Methods Group
- 9. IPD Meta-Analysis Methods Group
- 10. NRS for Interventions Methods Group
- 11. Patient Reported Outcomes Methods Group
- 12. Priority Setting Methods Group
- 13. Prognosis Methods Group
- 14. Prospective Meta-Analysis Methods Group
- 15. Qualitative and Implementation Methods Group
- 16. Rapid Reviews Methods Group
- 17. Screening and Diagnostic Tests Methods Group
- 18. Statistics Methods Group



فيلدها و شبكهها (Fields and Networks)

فیلدها و شبکههای

موضوعی، بر ابعاد

مراقبتهای سلامت و

فراتر از یک وضعیت یا

موضوع تمرکز دارد -

مثل ساختار مراقبت

(مراقبتهای اولیه) یا

نوع مصرف كننده

(کودکان، افراد مسن).

- Cochrane Child Health
- 2. Cochrane Complementary Medicine
- 3. Cochrane Consumer Network
- 4. Cochrane First Aid
- 5. Cochrane Global Ageing
- 6. Cochrane Insurance Medicine
- 7. Cochrane Neurosciences
- 8. Cochrane Nursing
- 9. Cochrane Nutrition
- 10. Cochrane Pre-hospital and Emergency Care
- 11. Cochrane Primary Care
- 12. Cochrane Rehabilitation
- 13. Cochrane Sustainable Healthcare

بیماران و مراقبان نقش مهمی در کاکرین ایفا میکنند Cochrane پیماران و مراقبان نقش مهمی در کاکرین ایفا میکنند

کاکرین از واژه مصرفکنندگان (consumer) برای اشاره به بیماران، مراقبان و اعضای خانواده با تجربه دست اول از یک وضعیت مراقبت سلامت استفاده میکند. کاکرین سابقه طولانی و غنی در مشارکت دادن مصرف کنندگان در سطح جهانی در تمام جنبههای کار ما دارد.

کاکرین از مشارکت و درگیری حسی (engagement) مصرف کننده در تحقیقات سلامت حمایت میکند زیرا:

- شفافیت، مسئولیتپذیری و اعتماد را در روش تولید تحقیقات ترویج میکند؛
- به شواهدی منجر میشود که نیازهای مصرفکنندگان را برطرف میکند، هدررفت تحقیقات
 را کاهش میدهد، ترجمه تحقیقات را به سیاست و عمل بهبود میبخشد، و در نهایت به
 مزایای بهبود یافته برای سیستمهای سلامت و نتایج برای بیماران منجر میشود.
 - با رویکردهای تحقیقاتی فعلی سلامت سازگار است و توسط سرمایهگذاران، شرکا و مصرفکنندگان ما مورد انتظار یا اجبار است.



محورهای سخنرانی

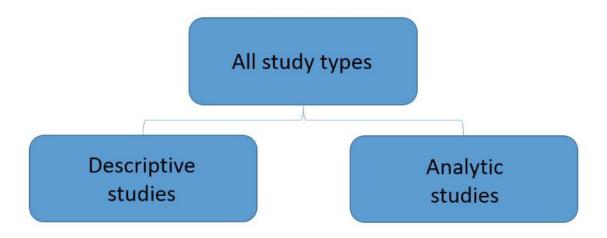
- چرا کاکرین؟
- کاکرین چیست؟ اهداف، ساختار، اعضا و ...
 - انواع مطالعات و طبقهبندی آنها
 - کاکرین ایران و دستاوردهای آن
 - ممکاری با کاکرین -
- آشنایی با کاکرین Crowd و کاکرین Timulage



Study design (introduction 1)

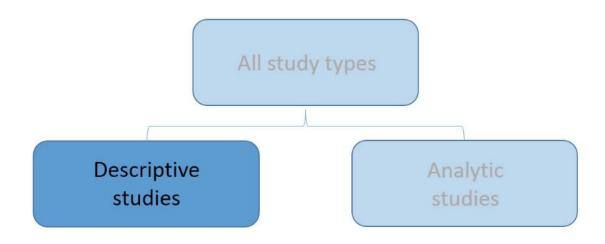
In medical research there are a number of different ways in which researchers can design experiments (studies) to answer questions they may have. The design they use will depend upon the question they want to answer and the resources that they have available. Different study designs will be appropriate for different stages of research, so whilst we consider some types of study, particularly randomised controlled trials (RCTs) to be of "high quality" they would not be appropriate to answer all questions.

Broadly speaking studies in medical research can be divided into two categories:





Study design (introduction 2)

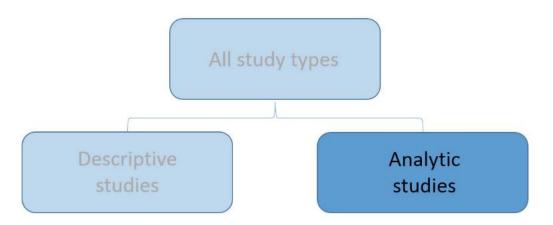


Descriptive (non-analytic) studies give us a picture of what is going on without trying to look into relationships of cause and effect. They may tell us the prevalence of a disease, the incidence of a certain type of event or simply describe a one-off experience (a case report) or a series of events (a case series).

They often generate further questions which will need to be answered by analytic studies. e.g. *The* prevalence of ovarian cancer appears to be higher in X population than Y population. What is the difference between these populations?



Study design (introduction 3)



Analytic studies try to quantify the relationships observed in descriptive studies. They deal with PICO (Patient, Intervention, Comparison group, Outcome) and PECO (where the E stands for Exposure rather than Intervention).

They can be experimental (RCTs or quasi-RCTs) or observational (cohort studies, cross-sectional studies and case-controls). We'll go into more detail about these different study-types later. For now, let's spot the descriptive studies from the analytic....



Management of aneurysmal subarachnoid hemorrhage: A national survey of current practice

Objectives: The Royal College of Physicians and American Heart Association/American Stroke Association published recommendations in 2012 for the management of aneurysmal subarachnoid hemorrhage (aSAH). This was followed by recommendations included in the National Confidential Enquiry into Patient Outcome and Death (NCEPOD) report published in November 2013. The aim of this study was to assess how many of these recommendations were being followed across the UK and Ireland 6 months after publication of the latest recommendations, and to compare current practice with the NCEPOD data collected in 2011. Methods: We formulated a survey composed of 19 questions regarding the management of aSAH, and conducted a telephone interview with the neurosurgical registrars on call. Results: 22 out of 30 centers aimed to treat ruptured aneurysms by coiling or clipping within 48 h from ictus, yet only 15 units offered regular weekend interventional neuroradiological treatment. In 9 units, all aSAH patients were routinely discussed in a multidisciplinary meeting. Conclusions: At 6 months following publication of the NCEPOD report we found that in the majority of neurosurgical units, most of the key recommendations were being met. However, in the remainder there was variability in clinical practice.

Is this study an analytic study or a descriptive one?

Descriptive study

Analytic study



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Is this study an analytic study or a descriptive one?

We agree!

This is a descriptive study. It's a survey and gives us a general picture of how well the guidelines in the treatment of this condition are adhered to. It doesn't attempt to quantify the relationship between the two factors. The data described are factual and there is an analysis to present the data in a manageable way. We can't attempt to draw conclusions about cause and effect from descriptive studies, but we can use them to create a hypothesis which can be tested with an analytic study.

Descriptive study

Analytic study



Myxolipoma of the renal capsule: A case report

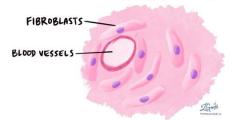
INTRODUCTION Although lipomas are the most common mesenchymal tumors of the human body, primary intrarenal lipomas are quite rare. In this report we present a case of benign mesenchymal tumor with lipomatous and myxoid components. PRESENTATION OF CASE A sixty one years old male patient was admitted to our outpatient clinic for a general control since he had a right radical nephrectomy operation due to renal cell carcinoma (RCC) eight years ago and he did not have any urological control for last 3 years. However the urinary ultrasound revealed a mass lesion on left kidney and then on axial contrast-enhanced computed tomography (CT) scan, there were two masses on the left kidney. In the magnetic resonance imaging (MRI), the tumor on cortex was depicted as a homogeneous low-signal intensity on the T1-weighted pulse sequence and as a heterogeneous high-signal intensity on the T2-weighted pulse sequence. In pathological evaluation, the biopsy material of the cortical mass was a tumoral lesion containing lipomatous and mixoid areas without atypia, mitosis or necrosis which was diagnosed as myxolipoma. DISCUSSION Myxolipoma, an uncommon type of lipoma, is a benign tumor composed mainly of fat cells with myxoid (mucus-like) components. In our case, the tumor was composed of mature adipocytes together with areas rich in mucoid substances and there were no malignant features including lipoblasts, mitosis or abundant capillary network. CONCLUSION Herein we present a case of a fatty tumor originating from the renal capsule with the histologic diagnosis of myxolipoma. To the best of our knowledge, myxolipoma, a very rare form of lipoma, is not reported in kidney, in the literature before. Copyright © 2014 The Authors. Published by Elsevier Ltd.

Is this study an analytic study or a descriptive one?

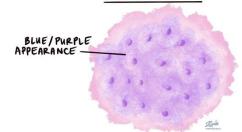
Descriptive study

Analytic study

NORMAL STROMA



MYXOID STROMA





Myxolipoma of the renal capsule: A case report

INTRODUCTION Although lipomas are the most common mesenchymal tumors of the human body, primary intrarenal lipomas are quite rare. In this report we present a case of benign mesenchymal tumor with lipomatous and myxoid components. PRESENTATION OF CASE A sixty one years old male patient was admitted to our outpatient clinic for a general control since he had a right radical nephrectomy operation due to renal cell carcinoma (RCC) eight years ago and he did not have any urological control for last 3 years. However the urinary ultrasound revealed a mass lesion on left kidney and then on axial contrast-enhanced computed tomography (CT) scan, there were two masses on the left kidney. In the magnetic resonance imaging (MRI), the tumor on cortex was depicted as a homogeneous low-signal intensity on the T1-weighted pulse sequence and as a heterogeneous high-signal intensity on the T2-weighted pulse sequence. In pathological evaluation, the biopsy material of the cortical mass was a tumoral lesion containing lipomatous and mixoid areas without atypia, mitosis or necrosis which was diagnosed as myxolipoma. DISCUSSION Myxolipoma, an uncommon type of lipoma, is a benign tumor composed mainly of fat cells with myxoid (mucus-like) components. In our case, the tumor was composed of mature adipocytes together with areas rich in mucoid substances and there were no malignant features including lipoblasts, mitosis or abundant capillary network. CONCLUSION Herein we present a case of a fatty tumor originating from the renal capsule with the histologic diagnosis of myxolipoma. To the best of our knowledge, myxolipoma, a very rare form of lipoma, is not reported in kidney, in the literature before. Copyright © 2014 The Authors. Published by Elsevier Ltd.

Is this study an analytic study or a descriptive one?

We agree!

This is a descriptive study. Case reports describe an interpret and individual case, usually in narrative format. They may examine a unique set of symptoms that cannot be explained by known diseases or syndromes; an important variation of a disease of condition; unexpected events or progression in a disease that may help us to learn more; or a case where a patient has two or more unrelated diseases or disorders. Case reports are not considered to be rigorous evidence in medical research as they deal with one patient, so conclusions may not be generalizable. Case reports are really important to help generate new ideas and hypotheses which should be tested in analytic studies.

Descriptive study

Analytic study



Environmental and school influences on physical activity in South Asian children from low socio-economic backgrounds: A qualitative study

South Asian (SA) children are less active but have enhanced metabolic risk factors. Physical activity (PA) is a modifiable risk factor for metabolic disease. Evidence suggests that environmental factors and socio-economic status influence PA behaviour. The purpose of this study was to understand PA environments, barriers and facilitators of PA in deprived environments for children from SA backgrounds. Focus groups were conducted with 5 groups of children aged 7-9 years (n = 33; male = 16, female = 17; SA = 17, White = 8 and Black = 8) from two schools in deprived wards of Coventry, England. Thematic analysis was used to identify key themes and subthemes across all transcripts. From the results, emergent themes included school and home environment, outdoor activity, equipment, weather, parental constraints and safety. Ethnic differences were apparent for sources of beliefs and knowledge and religious practice as constraints for PA. The findings suggest that school provides a good foundation for PA attitude, knowledge and behaviour, especially for SA children. To increase PA, multi-component interventions are needed, which focus on changing the home environment (i.e. junk food and media time), encouraging outdoors activity, changing perceptions of safety and weather conditions, which provide parental constraints for children. Interventions also need to be considerate to religious practices that might constrain time. Copyright © The Author(s) 2013.

Does this study generate a hypothesis or test a hypothesis?

Generates hypothesis

Tests hypothesis



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Does this study generate a hypothesis or test a hypothesis?

We agree!

This is a qualitative study. The researchers have a general theory that physical activity might not be equal amongst children from all backgrounds and have conducted focus groups to demonstrate that this is the case. They can now generate a hypothesis about the specific difference(s) between the groups affecting this, and possible interventions and they can test this using an analytic study.

Generates hypothesis

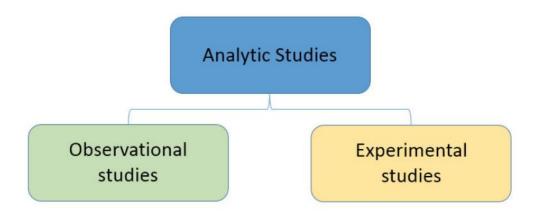
Tests hypothesis



Study design (introduction 4)

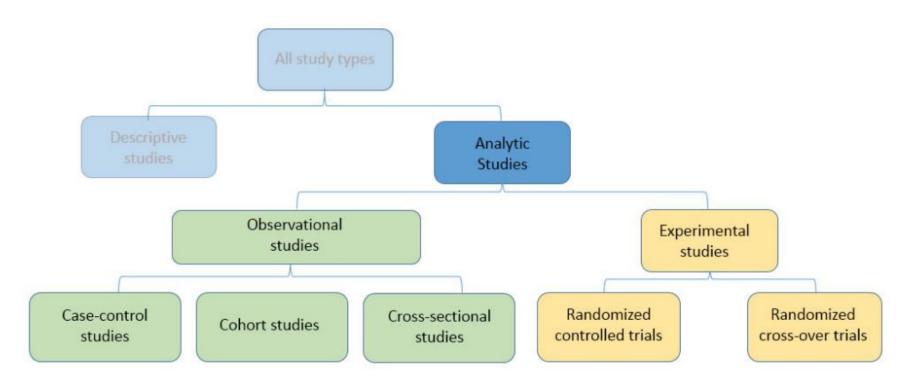
In the last few questions we've explored some of the different types of descriptive studies; surveys, case reports, case series and qualitative studies and looked at the types of question that they might answer.

We're now going to take a look at analytic studies. This type of study can be broken down into two groups: observational and experimental and there are many study designs that can fall into these categories.





Study design (introduction 4)





High-flow nasal cannula oxygen therapy versus noninvasive ventilation versus in immunocompromised patients with acute respiratory failure

BACKGROUND: Acute respiratory failure is the main cause of admission to intensive care unit in immunocompromised patients. In this subset of patients, the beneficial effects of noninvasive ventilation (NIV) as compared to standard oxygen remain debated. High-flow nasal cannula oxygen therapy (HFNC) is an alternative to standard oxygen or NIV, and its use in hypoxemic patients has been growing. Therefore, we aimed to compare outcomes of immunocompromised patients treated using HFNC alone or NIV as a first-line therapy for acute respiratory failure in an observational cohort study over an 8-year period. Patients with acute-on-chronic respiratory failure, those treated with standard oxygen alone or needing immediate intubation, and those with a do-not-intubate order were excluded. RESULTS: Among the 115 patients analyzed, 60 (52 %) were treated with HFNC alone and 55 (48 %) with NIV as first-line therapy with 30 patients (55 %) receiving HFNC and 25 patients (45 %) standard oxygen between NIV sessions. The rates of intubation and 28-day mortality were higher in patients treated with NIV than with HFNC (55 vs. 35 %, p = 0.04, and 40 vs. 20 %, p = 0.02 log-rank test, respectively). Using propensity score-matched analysis, NIV was associated with mortality. Using multivariate analysis, NIV was independently associated with intubation and mortality. CONCLUSIONS:Based on this observational cohort study including immunocompromised patients admitted to intensive care unit for acute respiratory failure, intubation and mortality rates could be lower in patients treated with HFNC alone than with NIV. The use of NIV remained independently associated with poor outcomes.

Is this study experimental or oberservational?

Experimental



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Is this study experimental or oberservational?

We agree!

This is an observational study. It's looking at a cohort and gives us an insight into the relationship between one factor of their treatment and the patient outcome. It tries to quantify the extent of the cause and effect and examines different variables to see whether recommending one or another intervention might be appropriate, either overall or for a specific subset of the group. The researchers don't have control over allocation of patients to the two groups, so they must be aware of bias that might make one treatment appear to be more successful. For instance, are the patients who are given one of the treatment options sicker in the first place?

Experimental



Ticagrelor versus aspirin in acute stroke or transient ischemic attack

BACKGROUND Ticagrelor may be a more effective antiplatelet therapy than aspirin for the prevention of recurrent stroke and cardiovascular events in patients with acute cerebral ischemia. METHODS We conducted an international double-blind, controlled trial in 674 centers in 33 countries, in which 13,199 patients with a nonsevere ischemic stroke or high-risk transient ischemic attack who had not received intravenous or intraarterial thrombolysis and were not considered to have had a cardioembolic stroke were randomly assigned within 24 hours after symptom onset, in a 1:1 ratio, to receive either ticagrelor (180 mg loading dose on day 1 followed by 90 mg twice daily for days 2 through 90) or aspirin (300 mg on day 1 followed by 100 mg daily for days 2 through 90). The primary end point was the time to the occurrence of stroke, myocardial infarction, or death within 90 days. RESULTS During the 90 days of treatment, a primary end-point event occurred in 442 of the 6589 patients (6.7%) treated with ticagrelor, versus 497 of the 6610 patients (7.5%) treated with aspirin (hazard ratio, 0.89; 95% confidence interval [CI], 0.78 to 1.01; P = 0.07). Ischemic stroke occurred in 385 patients (5.8%) treated with ticagrelor and in 441 patients (6.7%) treated with aspirin (hazard ratio, 0.87; 95% CI, 0.76 to 1.00). Major bleeding occurred in 0.5% of patients treated with ticagrelor and in 0.6% of patients treated with aspirin, intracranial hemorrhage in 0.2% and 0.3%, respectively, and fatal bleeding in 0.1% and 0.1%. CONCLUSIONS In our trial involving patients with acute ischemic stroke or transient ischemic attack, ticagrelor was not found to be superior to aspirin in reducing the rate of stroke, myocardial infarction, or death at 90 days. (Funded by AstraZeneca; ClinicalTrials.gov number, NCT01994720.). © Copyright 2016 Massachusetts Medical Society. All rights reserved.

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Is this study experimental or oberservational?

We agree!

This is a randomized controlled trial. That means that the researchers took a group of patients with a condition or group of similar conditions and assigned which treatment they should receive in a randomized way. In this case, patients received either Ticagrelor or Aspirin to reduce the chance of them having a stroke, myocardial infarction or dying within 90 days after symptom onset and treatment. They could then examine any difference in outcome between the two groups to see which drug was more effective. Randomized trials are always experimental because the researchers are determining an aspect of the patients' care rather than just measuring the outcome of the normal course of action.

Experimental



Tai Chi and meditation-plus-exercise benefit neural substrates of executive function: A cross-sectional, controlled study

Background: We report the first controlled study of Tai Chi effects on the P300 event-related potential, a neuroelectric index of human executive function. Tai Chi is a form of exercise and moving meditation. Exercise and meditation have been associated with enhanced executive function. This cross-sectional, controlled study utilized the P300 event-related potential (ERP) to compare executive network neural function between self-selected long-term Tai Chi, meditation, aerobic fitness, and sedentary groups. We hypothesized that because Tai Chi requires moderate aerobic and mental exertion, this group would show similar or better executive neural function compared to meditation and aerobic exercise groups. We predicted all health training groups would outperform sedentary controls. Methods: Fifty-four volunteers (Tai Chi, n=10; meditation, n=16; aerobic exercise, n=16; sedentary, n=12) were tested with the Rockport 1-mile walk (estimated VO2 Max), a well-validated measure of aerobic capacity, and an ecologically valid visuospatial, randomized, alternating runs Task Switch test during dense-array electroencephalographic (EEG) recording. Results: Only Tai Chi and meditation plus exercise groups demonstrated larger P3b ERP switch trial amplitudes compared to sedentary controls. Conclusions: Our results suggest long-term Tai Chi practice, and meditation plus exercise may benefit the neural substrates of executive function. Copyright © 2014 by De Gruyter.

Is this study a randomised controlled trial (RCT)?

1 RCT



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We agree!

This is a cross-sectional study. It's looking at a cohort of people who practise Tai Chi to see whether their executive function is better than a cohort who don't practise Tai Chi. In order to help us to decide whether the benefit comes from Tai Chi specifically, or general physical activity, or meditation, the researchers have includede 3 control groups: "meditation without physical activity", "aerobic exercise without meditation", and "no exercise". Looking at the executive function scores of these different control groups in relation to each other and the "Tai Chi" group allows us to see which, if any, aspects of Tai Chi may be beneficial. The groups all practised their respective exercise types prior to the study so it's observational. A randomized trial in this area might be resource intensive as you would need to follow the participants for enough time for the exercise to take effect.

RCT



Seven-year efficacy of RTS, S/AS01 malaria vaccine among young african children

BACKGROUND The candidate malaria vaccine RTS, S/AS01 is being evaluated in order to inform a decision regarding its inclusion in routine vaccination schedules. METHODS: We conducted 7 years of follow-up in children who had been randomly assigned, at 5 to 17 months of age, to receive three doses of either the RTS, S/AS01 vaccine or a rabies (control) vaccine. The end point was clinical malaria (temperature of >37.5degreeC and infection with Plasmodium falciparum of>2500 parasites per cubic millimeter). In an analysis that was not prespecified, the malaria exposure of each child was estimated with the use of information on the prevalence of malaria among residents within a 1-km radius of the child's home. Vaccine efficacy was defined as 1 minus the hazard ratio or the incidence-rate ratio, multiplied by 100, in the RTS, S/AS01 group versus the control group. RESULTS: Over 7 years of follow-up, we identified 1002 episodes of clinical malaria among 223 children randomly assigned to the RTS, S/AS01 group and 992 episodes among 224 children randomly assigned to the control group. The vaccine efficacy, as assessed by negative binomial regression, was 4.4% (95% confidence interval [CI], -17.0 to 21.9; P = 0.66) in the intentionto-treat analysis and 7.0% (95% CI, -14.5 to 24.6; P = 0.52) in the per-protocol analysis. Vaccine efficacy waned over time (P = 0.006 for the interaction between vaccination and time), including negative efficacy during the fifth year among children with higher-than-average exposure to malaria parasites (intention-to-treat analysis: -43.5%; 95% CI, -100.3 to -2.8 [P = 0.03]; per-protocol analysis: -56.8%; 95% CI, -118.7 to -12.3 [P = 0.008]). CONCLUSIONS: A three-dose vaccination with RTS, S/AS01 was initially protective against clinical malaria, but this result was offset by rebound in later years in areas with higher than-average exposure to malaria parasites. Copyright © 2016 Massachusetts Medical Society.

Is this study a randomised controlled trial (RCT)?

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We agree!

In a randomized study, the reseachers allocate participants to one treatment group or another in a randomized way. In this casea vaccine against malaria and a vaccine against rabies. Having a control group is important because it allows you to compare values for the two groups. The control group can receive another treatment, often treatment-as-usual, so we can see if a new option is more effective. Sometimes they receive a placebo which is usually an inactive intervention. In this case, administering a rabies vaccine wouldn't be expected to prevent malaria, so the rabies vaccine acts as the control.

RCT



Background radiation and childhood leukemia: A nationwide register-based case-control study

High doses of ionizing radiation are an established cause of childhood leukemia. However, substantial uncertainty remains about the effect of low doses of radiation, including background radiation and potential differences between genetic subgroups of leukemia have rarely been explored. We investigated the effect of the background gamma radiation on childhood leukemia using a nationwide register-based case-control study. For each of the 1,093 cases, three age- and gender matched controls were selected (N = 3,279). Conditional logistic regression analyses were adjusted for confounding by Down syndrome, birth weight (large for gestational age), and maternal smoking. Complete residential histories and previously collected survey data of the background gamma radiation in Finland were used to assess the exposure of the study subjects to indoor and outdoor gamma radiation. Overall, background gamma radiation showed a non-significant association with the OR of childhood leukemia (OR 1.01, 95% CI 0.97, 1.05 for 10 nSv/h increase in average equivalent dose rate to red bone marrow). In subgroup analyses, age group 2-<ars displayed a larger effect (OR 1.27, 95% CI 1.01, 1.60 for 1 mSv increase in equivalent cumulative dose to red bone marrow). Suggestive difference in OR by genetic subtype was found. Our results provide further support to the notion that low doses of ionizing radiation increase the risk for childhood leukemia, particularly at age 2-<rs. Our findings suggest a larger effect of radiation on leukemia with high hyperpdiploidy than other subgroups, but this result requires further confirmation. Copyright © 2016 UICC

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This is looking at exposure as a cause of disease and the study design is case-control. In this case, the study looks at the difference in childhood exposure to background radiation in participants with and without leukemia. A significant difference in the levels of background radiation between the groups may indicate a causative relationship between the two factors.

RCT