



Cochrane Nigeria

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Infosheet

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Edition

Newsletter of **Cochrane Nigeria**, Calabar Institute of Tropical Diseases Research and Prevention,
University of Calabar Teaching Hospital, Nigeria.

Planned early birth versus expectant management for hypertensive disorders from 34 weeks' gestation to term

Approximately 260,000 women died as a result of pregnancy and childbirth related causes in 2023.¹ Over 90% of these deaths occurred in low- and middle-income countries and most of these deaths were preventable. Sub-Saharan Africa accounted for 70% of maternal deaths. Although maternal mortality ratio (number of maternal deaths per 100,000 live births) dropped by about 40% globally between 2000 and 2023, the numbers remain high in these regions. According to the *Trends in maternal mortality estimates 2000 to 2023*², “Nigeria had the highest number of maternal deaths and accounted for more than a quarter (28.7%) of all estimated global maternal deaths in 2023, with approximately 75,000 deaths.”

The main causes of maternal deaths include severe bleeding especially after childbirth (postpartum haemorrhage), unsafe abortion, high blood pressure during pregnancy (including pre-eclampsia or eclampsia), and maternal infections. While haemorrhage accounts for the most number of maternal deaths globally, high blood pressure is the third leading cause accounting for approximately 16% of all maternal deaths.² Although many of these pregnancy complications are preventable, they vary from region to region due to inequities in

availability, quality and access to basic and comprehensive emergency obstetric care.

Hypertensive disorders in Pregnancy (HDP) include chronic hypertension diagnosed before pregnancy or before 20 weeks of pregnancy, gestational hypertension and pre-eclampsia. Pre-eclampsia, however, is the most serious hypertensive disorder in pregnancy. Globally It affects 3-8% of all women that give birth³. If not managed, hypertension in pregnancy can lead to complications for the mother and baby such as seizures (eclampsia), organ damage, HELLP Syndrome, stroke, preterm birth, difficulty breathing, placental abruption (detachment of the placenta), or death.



There are both pharmacological (drug-related) and non-pharmacological (non-drug related) interventions for managing HDP. These include administration of drugs such as magnesium sulfate, antihypertensive medications or corticosteroids. If there are no severe complications, non-pharmacological management may be done by expectant management with close monitoring of the mother and baby. Alternatively, management could be by planned early birth. There are however risks and benefits that have been associated with each of these methods.

A recent Cochrane systematic review⁴ by Beardmore-Gray and colleagues sought to find the benefits and risks of planned early birth compared to expectant management in pregnant women with hypertensive disorders from 34 weeks' gestation onwards. The authors searched various databases including CENTRAL, MEDLINE, Embase, CINAHL, ClinicalTrials.gov and WHO ICTRP covering the period from 1 January 2016 to 16 January 2026 to retrieve studies for the review. They identified and included six studies (randomized controlled trials) involving 3491 women in the systematic review. Of these studies, two were conducted in Netherlands, two in the UK, one in the USA and one in India and Zambia. These studies included pregnant women with pre-eclampsia, gestational diabetes, deteriorating pre-existing hypertension or chronic hypertension. However, all the studies that included women with pre-eclampsia excluded women that had severe pre-eclampsia.

The results showed high certainty evidence that compared to expectant management, planned early birth reduces the composite (combined) maternal mortality (death) and morbidity

(illness/disease) and leads to no increased risk of caesarean section. Additionally, the results showed that planned early birth likely results in a large reduction in the risk of stillbirth but probably results in little to no difference in rates of neonatal unit admission. These findings were supported by moderate-certainty evidence (from five studies and 6 studies respectively).

The results also showed that planned early birth may result in little to no difference in the risk of maternal death (not measured as a composite with maternal morbidity) or neonatal death. However, these results were based on low-certainty evidence and further research is very likely to change the conclusions. The evidence on the effect of planned early birth on composite perinatal mortality and morbidity was very uncertain.

References

1. <https://www.who.int/news-room/fact-sheets/detail/maternal-mortality> accessed 18 June 2026.
2. Trends in maternal mortality estimates 2000 to 2023: estimates by WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division. Geneva: World Health Organization; 2025. Licence: CC BY-NC-SA 3.0 IGO.
3. <https://www.who.int/news-room/fact-sheets/detail/pre-eclampsia> accessed 22 June 2026.
4. Beardmore-Gray A, Rohwer C, Fernandez Turienzo C, Cluver CA. Planned early birth versus expectant management for hypertensive disorders from 34 weeks' gestation to term. Cochrane Database of Systematic Reviews 2026, Issue 5. Art. No.: CD009273. DOI: 10.1002/14651858.CD009273.pub3. Accessed 23 June 2026.

Evidence at your fingertips

(From the Cochrane Library)

Plain Language Summaries

1

Are stem cells taken from a person's bone marrow and delivered to their heart a safe and effective treatment following a heart attack?

Key messages

- Stem cell treatment does not lead to an improvement in clinical outcomes in people that have had a heart attack.
- The therapy leads to few unwanted or harmful (adverse) effects around the time of treatment.

What is the health problem?

Heart attacks are caused by a blockage in an artery supplying blood to the heart muscle. Although new therapies are advancing, many people who have had a heart attack have a reduction in cardiac function and decreased life expectancy.

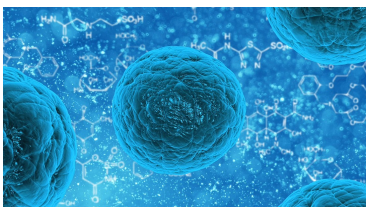
How is the condition treated?

Currently, the standard treatment for people who suffer a heart attack is the re-opening of the blocked artery with a tiny balloon in a procedure called primary angioplasty, and the introduction of a small tube (called a stent) into the artery to keep it open.

What is the treatment under study?

Bone marrow-derived cells have been investigated as an additional treatment for heart attacks based on their ability to repair damaged heart muscle. This has shown a beneficial effect on outcomes such as chemicals in the blood that correlate to heart damage and

imaging tests that measure heart function. However, it has



not been proven to affect important clinical outcomes like death, repeat readmissions to hospital or the chance of having another major heart problem (e.g. a stroke or another heart attack).

What did we want to find out?

We wanted to know if stem cell treatment results in a reduction in death and improvement in measures of heart function when the data from all studies performed are combined.

What did we do?

This review identified clinical trials that randomized people diagnosed with a heart attack to either cell treatment, a placebo (a 'dummy' treatment) or to continue on standard medical therapy alone. In order to identify these trials, we searched databases for relevant clinical trials up to February 2022. After the inclusion of these trials, we analysed the data to find common trends. We also analysed the risk of bias (including the possibility that people in the studies were aware of which treatment they were getting).

What did we find?

In this review we selected and analysed data from 53 trials that recruited 4159 people. We are confident that this review shows that stem cell treatment does not lead to an improvement in clinical outcomes in people that have had a heart attack. The therapy led to few unwanted or harmful (adverse) effects around the time of treatment.

What are the limitations of the evidence?

It is possible that people in some of the studies were unintentionally aware of which treatment they were getting. Not all studies provided data about everything that we wished to include in our analysis.

How up-to-date is this evidence?

The evidence in this review is up-to-date to February 2022.

Reference:

Zwetsloot PP, van der Naald M, Jones D, Reid A, Chamuleau S, Mathur A. Stem cell treatment for acute myocardial infarction. Cochrane Database of Systematic Reviews 2025, Issue 6. Art. No.: CD006536. DOI: 10.1002/14651858.CD006536.pub5. Accessed 14 May 2026.

2

Can short bursts of very hard exercise (high-intensity interval training) improve heart health and reduce the risk of conditions like diabetes in people who are healthy but not very active?

Key messages

- *Physical inactivity costs the world an estimated USD (US dollar) 53.8 billion each year. Exercise is a simple, affordable, and effective way to reduce the risk of heart disease, especially for people who are not active. However, many people don't meet the level of physical activity recommended by the World Health Organization (WHO).*
- *Compared to no exercise, high-intensity interval training (HIIT) probably improves fitness and reduces waist size, but we found no clear differences between no exercise and HIIT for systolic blood pressure (the top blood pressure number), the ratio of waist to hip size, or circulating triglycerides (a type of blood fat). Compared with steady, moderate-paced exercise, HIIT may improve fitness slightly, but we found no clear differences between the two types of exercise for systemic blood pressure, waist size, the ratio of waist to hip size, or circulating triglycerides.*
- *Our findings suggest that HIIT may be as effective as moderate-intensity training to improve heart health and reduce the risk of conditions like type 2 diabetes. However, more high-quality evidence is needed to be confident in these findings.*

What is high-intensity interval training?

High-intensity interval training (HIIT) is a type of exercise training that involves repeated short periods of hard/intense exercise followed by rest periods.



What is cardiometabolic health?

Cardiometabolic health refers to the health of the heart and blood vessels, as well as how the body processes energy from food. It involves key factors like blood pressure, cholesterol levels, blood sugar, and bodyweight. When these are in a healthy range, the risk of developing conditions like heart disease, stroke, and type 2 diabetes is much lower.

What did we want to find out?

We wanted to find out if HIIT was better than no training or moderate-intensity continuous training (MICT) to improve markers of cardiometabolic health in inactive people.

What did we do?

We searched for studies that investigated the effect of HIIT compared to no exercise training or MICT on indicators of cardiometabolic health. We were interested in studies that looked at inactive but otherwise healthy people. We summarized the results of the studies and rated our confidence in the evidence based on factors such as study methods, sizes, and the amount of information presented.

What did we find?

We found 58 studies involving

2075 inactive adults. The number of participants in each study ranged from 14 to 90, and the training programmes lasted from four weeks to 16 weeks. Thirty-five studies compared HIIT with MICT, 11 compared HIIT with no exercise, and 12 included both comparisons.

Main results

- Compared with no exercise, HIIT likely improves VO_{2max} , which reflects overall heart and lung fitness. HIIT also leads to a small reduction in waist size. However, HIIT probably has little or no effect on the ratio of waist to hip size, and may have little or no effect on triglycerides (a type of blood fat). The evidence for HIIT on systolic blood pressure (the top blood pressure number) is very uncertain.
- Compared with MICT, HIIT may improve VO_{2max} slightly. There may be no difference between HIIT and MICT for systolic blood pressure and triglycerides, and there is probably no difference between the two types of exercise for waist size and the ratio of waist to hip size.
- No studies reported important long-term health outcomes such as heart attacks, strokes, or deaths.

What are the limitations of the evidence?

We have little confidence or moderate confidence in most of our results, and further research could change our conclusions. Three main factors reduced our confidence in the evidence. First, there was variation in how people in the studies responded to the treatment they received. Second, some studies were very small, and for some outcomes, there were too few studies to be certain about the results. Finally, people in the studies were aware of which treatment they were getting.

How up to date is this evidence?

The evidence is up-to-date to 13th October 2025.

Reference:

Strauss JA, Kirwan R, Rana-singhe C, Schwingshackl L, Shepherd SO, Chaplin M, Sguassero Y, Petkovic J, Vil-lanueva G, Dwan K. High-intensity interval training for reducing cardiometabolic syndrome in healthy but sedentary populations. Cochrane Database of Systematic Reviews 2026, Issue 3. Art. No.: CD013617. DOI: 10.1002/14651858.CD013617.pub2. Accessed 14 May 2026.

Antiepileptic drug monotherapy (single drug treatment) for epilepsy

Background

Epilepsy is a common neurological disorder in which abnormal electrical discharges from the brain cause recurrent seizures. We studied two types of epileptic seizures in this review: focal seizures that start in one area of the brain, and generalized onset tonic-clonic seizures that start in both cerebral hemispheres simultaneously.

For around 70% of people with epilepsy, seizures can be controlled and, for the majority, seizures are controlled with a single antiepileptic drug. Currently in the UK, National Institute for Health and Care Excellence (NICE) guidelines for adults and children recommend carbamazepine or lamotrigine as the first treatment options to try for individuals with newly diagnosed focal seizures and sodium valproate for individuals with newly

diagnosed generalized tonic-clonic seizures; however, a range of other antiepileptic drug treatments are available.

The choice of the first antiepileptic drug for an individual with newly diagnosed seizures is of great importance and should be made taking into account high-quality evidence of how effective the drugs are at controlling seizures and whether they are associated with side effects. It is also important that drugs appropriate for different seizure types are compared to each other.

Review methods

The antiepileptic drugs of interest to this review were carbamazepine, phenytoin, sodium valproate, phenobarbitone, oxcarbazepine, lamotrigine, gabapentin, topiramate,

levetiracetam, zonisamide, eslicarbazepine acetate, and lacosamide. In this review, we evaluated the evidence from 89 randomized controlled clinical trials comparing two or more of the drugs of interest based on how effective the drugs were at controlling seizures (i.e. whether people had recurrence of seizures or had long periods of freedom from seizures (remission)) and how tolerable any related side effects of the drugs were. We were able to combine data for 14,789 people from 39 of the 89 trials; for the remaining 7251 people from 50 trials, data were not available to use in this review. No data were available from people receiving eslicarbazepine acetate.

We performed two types of analysis in this review; firstly, we combined data available where pairs of drugs had been compared directly in clinical trials and, secondly, we performed an analysis to combine all information from the clinical trials across the 'network' of 11 drugs. This analysis allowed us to compare drugs in the network that had



not previously been compared to each other in clinical trials.

Key results

Our 'network' analysis showed that, for people with focal seizures and for people with generalized seizures, the oldest drugs (phenobarbitone and phenytoin) were better options in terms of seizure control than the other drugs but that these older drugs were the worst in terms of long-term retention (stopping the treatment) compared to the newer drugs such as lamotrigine and levetiracetam. Sodium valproate was the best option of all the drugs for achieving control and remission of generalized tonic-clonic seizures.

The most commonly reported side effects across all drugs were drowsiness or fatigue, headache or migraine, gastrointestinal disturbances (stomach upsets), dizziness or faintness, and rash or skin disorders.

Quality of the evidence

This review provides high-quality evidence for individuals with focal seizures and moderate- to high-quality evidence for individuals with generalised tonic-clonic seizures, as less information was available for some of the drugs of interest for people with this seizure type.

Conclusions

The results of this review support the NICE guidelines that carbamazepine and lamotrigine are suitable first treatment options for individuals with focal onset seizures, and also show that levetiracetam would be a suitable first treatment. Results of this review also support the use of sodium valproate as the first treatment for individuals with generalised tonic

-clonic seizures and show that lamotrigine and levetiracetam would be suitable alternative first treatments, particularly for those who are pregnant or considering becoming pregnant, for whom sodium valproate may not be an appropriate treatment option.

How up to date is this evidence?

The evidence is current to April 2021.

Reference

Nevitt SJ, Sudell M, Cividini S, Marson AG, Tudur Smith C. Antiepileptic drug monotherapy for epilepsy: a network meta-analysis of individual participant data. *Cochrane Database of Systematic Reviews* 2022, Issue 4. Art. No.: CD011412. DOI: 10.1002/14651858.CD011412.pub4. Accessed 14 May 2026.

Mini Quiz - Test Your Evidence IQ

All answers are hidden in this issue's Plain Language Summaries. Read carefully!

Question 1

According to the Cochrane review on stem cell treatment for acute myocardial infarction (heart attack), what is the certainty of the evidence that stem cell treatment does NOT improve clinical outcomes in people who have had a heart attack?

- A) Very low certainty
- B) Low certainty
- C) High certainty (the authors state "we are confident")
- D) Moderate certainty

Question 2

In the review of high-intensity interval training (HIIT) for inactive but healthy adults, which of the following outcomes did the authors find that HIIT LIKELY improves compared to no exercise?

- A) Systolic blood pressure
- B) Waist-to-hip ratio
- C) Heart and lung fitness (VO_{2max})
- D) Triglycerides (blood fat)

Question 3

For people with focal onset seizures, which two antiepileptic drugs do the results from the Cochrane review show to be suitable first treatment options, matching current NICE guidelines?

- A) Phenytoin and phenobarbitone
- B) Carbamazepine and lamotrigine
- C) Sodium valproate and gabapentin
- D) Levetiracetam and topiramate



Question 4

According to the stem cell review, what did the authors report about unwanted or harmful effects of stem cell treatment around the time of treatment?

- A) There were many serious adverse events
- B) The therapy led to few adverse effects
- C) No studies reported on adverse effects
- D) Adverse effects were common but mild

Question 5

For people with generalised tonic-clonic seizures, the Cochrane review on antiepileptic drugs supports sodium valproate as the first treatment option. Which two drugs does it name as suitable ALTERNATIVE first treatments, especially for women who are pregnant or considering pregnancy?

- A) Carbamazepine and phenytoin
- B) Lamotrigine and levetiracetam
- C) Gabapentin and topiramate
- D) Oxcarbazepine and zonisamide

Answers

CCBBB

RECENT EVENTS

Research in Progress - Updates from One-Health Zoonosis Project

The Calabar Institute of Tropical Diseases Research and Prevention, University of Calabar Teaching Hospital (which hosts Cochrane Nigeria) recently held a Research-in-Progress meeting in collaboration with the Cross River Ecology and Health Project (CREHP). The Cross River Ecology and Health Project aims to “identify, describe, and communicate the links between human, animal and environmental health to fully understand the consequences of environmental change to society” and is a partnership with the Mkpot community in Cross River State, Cross River National Park, University of Calabar, Calabar Institute for Tropical Diseases Research and Prevention, and Penn State University.

During the meeting, Professor Sagan Friant (the Founder/Director of CREHP and Assistant Professor of Anthropology, Penn State University) presented ongoing research by the Project on One Health research. The concept of one health is that the health of humans, animals and the environment/ecosystem are interconnected. Her presentation was titled “Origins and Emergence: Zoonoses and a Nigerian One Health Research Program.

The presentation which was focused on bush meat pathogens, handling practices, food and nutrition security, and sociodemographic contexts, sought to address the following questions based on the research.

- i. *What are the risks associated with handling bush meat?*
- ii. *What handling practices create exposure risks?*
- iii. *What is the role of bush meat in local diets and nutrition? and*
- iv. *What factors pattern risk behavior in hunting communities?*

Prof. Friant noted that bush meat is a pathway for zoonotic spillover. She explained that the study setting was the Cross River National Park, Nigeria which covers approximately 4000 sq. Km and hosts a wide array of wildlife. She and her research colleagues sought to identify the pathogens (bacterial and viral) in the bush meat. The research team collected samples from the spleen liver, and other organs of the animals as well as oral, rectal, tissue and surface swabs obtained from various sources including hunters, village households, markets, restaurants and mobile vendors. Subsequently they characterized the bacterial and viral microbiota from the bush meat samples. Out of a list of 28





known pathogenic genera of bacteria derived from the NIAID biodefence pathogens, they identified 15 genera in the samples.

Prof. Friant also talked about the “Scaling Lassa Virus Dynamics within Anthropogenic Ecosystems” (SCAPEs) study which is focused on Lassa fever.

The meeting was attended by 18 persons including Prof. Angela Oyo-Ita (Director of the Institute of Tropical Diseases Research and Prevention) and Prof. Martin Meremikwu (Director, Cochrane Evidence Synthesis Unit, Nigeria). Some of the attendees asked questions and also made comments about the research.

What Works Climate Solution (WWCS) Project

Cochrane Africa and Cochrane ESU Nigeria joined by other experts in climate change research will be working with five teams from Africa on a suite of systematic reviews. These reviews aim to synthesize evidence on important problems in relation to climate change and health to inform policy and practice. The reviews are being conducted under the aegis of the What Works Climate Solution and funded by the Wellcome Trust.



Epidemiological Society of Nigeria Conference 2026

The Epidemiological Society of Nigeria (EPISON) held their 12th annual conference from the 4-6 June 2026 in Calabar, Cross River State, Nigeria with the theme “Strengthening Epidemiological Resilience in Nigeria: Addressing emerging and re-emerging health challenges.

The conference which held at the Prince Otu Conference Hall, State Library Complex. Dr. Ekpereonne Esu (Associate Director, Strategy/Methods Coordination, Cochrane Nigeria) made a presentation at the preconference workshop on 4th June on “Introduction to Systematic



Dr. Ekpereonne Esu making his presentation at the Conference

Reviews and Meta-analysis” which was attended by over 100 delegates. The session covered an introduction to Evidence-based Medicine, the anatomy of

a systematic review, the PICO framework, Searching, screening and data extraction and meta-analysis. The presentation was received with enthusiasm with active participation from the participants.



Presentations by Participants following group work



Group work presentation



- ♦ **Strengthening Evidence Integrity:** Cochrane has established new protocols (<https://www.cochrane.org/about-us/news/cochrane-strengthens-systems-manage-retracted-publications-its-published-reviews>) to identify and manage retracted publications in both ongoing and published systematic reviews, ensuring the highest standards of evidence.
- ♦ **AI in Evidence Synthesis:** Cochrane has released resources to guide authors on when to utilize or when to avoid AI tools in various stages of review production.
- ♦ **World Evidence-Based Healthcare Day:** On 24 June 2026, a coalition of organizations dedicated to evidence-informed decision making (Joanna Briggs Institute, Cochrane, The Campbell Collaboration, Institute of Development Studies, Centre for Evidence-based Health Care, and Instituto Veredas) launched the 2026 World Evidence-based Healthcare (EBHC) Day campaign. The theme of this year's campaign is "Evidence and AI: People at the Centre," emphasizing the ethical integration of technology in health decisions. The World EBHC day is held every year on 20th October. Guidelines International Network (GIN), HTiA, and The Africa Evidence Youth League are World EBHC Day partners.
- ♦ **Cochrane at the World Health Assembly:** Cochrane representatives participated in the 79th World Health Assembly (WHA) in Geneva, advocating for global evidence-informed health policies.

ANNOUNCEMENTS



- **Cochrane Colloquium 2026:** The annual Cochrane Colloquium will take place in Krakow, Poland at the ICE Krakow Congress Centre from 8-10 December. <https://colloquium-2026.cochrane.org>

- **Cochrane Webinar:** Cochrane will be holding a number of free online webinars in the coming months including a number of webinars on Grading of Recommendations Assessment, Development and Evaluation (GRADE) which will help to improve your skills in GRADE Methodology. Also upcoming is a webinar on “An overview of evidence synthesis types and modes” (Prof. Zachary Munn). For a complete listing of the webinars and to register please visit <https://www.cochrane.org/learn/webinars>



- **Systematic Reviews Workshop (Awka):** A three-day Introduction to Cochrane Systematic Reviews Workshop will run from Thursday, 13th August to Saturday, 15th August 2026.
 - ◊ **Venue:** Chukwuemeka Odumegwu Ojukwu University Teaching Hospital, Amaku Awka, Anambra State.
 - ◊ **Time:** 9 AM to 5 PM daily
 - ◊ **Workshop Fee:** NGN 60,000

For more information and to register visit: <https://nigeria.cochrane.org/introduction-cochrane-systematic-reviews-workshop-august-2026>



- **Advanced Review Training (Virtual):** Registration opens later this quarter for the Certificated Online Systematic Reviews Advanced Author Training Course. Watch out for the advert in the coming months on our training page <https://nigeria.cochrane.org/learning-and-support/training-programme-2026>.

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