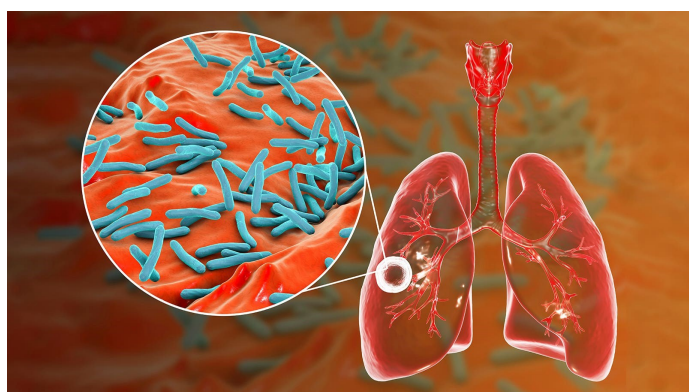




Rapid molecular tests for tuberculosis and tuberculosis drug resistance: recipient and provider views



Tuberculosis (TB) is an infectious disease caused by the bacterium, *Mycobacterium tuberculosis* which usually attacks the lungs. Among infectious diseases, tuberculosis is the second leading cause of death globally. In children, however, it is the leading infectious disease killer. In 2020, 1.5 million people died from TB, and approximately 10 million people were ill with TB¹. Eight Countries account for two-thirds of the global burden of tuberculosis, Nigeria ranks sixth among these countries accounting for 4.6% of the global burden².

Tuberculosis spreads when airborne droplets from an infected person who sneezes or coughs are inhaled by another person. Some common symptoms of TB include prolonged cough, weakness, weight loss, fever, fatigue, chills, night sweats, loss of appetite, and in some cases, coughing up blood. Tuberculosis can be fatal if not treated properly, thus, prompt diagnosis of tuberculosis is important for persons who require recommended treatment regimens. The World Health Organization recommends rapid molecular diagnostic tests as initial tests for people with suspected TB. Examples of such tests are Xpert assays (Xpert MTB/RIF, Xpert MTB/RIF Ultra, Xpert MTB/XDR, Cepheid, Sunnyvale, USA), and

the Truenat assays (Truenat MTB and MTB Plus, and Truenat MTB-RIF Dx assay, Molbio Diagnostics, Goa, India to mention a few). However, uptake of interventions and their proper use is influenced, not only by their effectiveness but many other factors including perspectives of providers and recipients of the intervention.

A recent Cochrane systematic review by Engel and colleagues³, sought to summarize the experiences and opinions of people who use rapid diagnostic tests including people with tuberculosis, their families/caregivers, and health care/laboratory personnel. The review included 32 studies, all conducted in low and middle-income countries. Most of the studies were conducted in countries with a high burden of tuberculosis (twenty-seven studies) or high burden of Multidrug-resistant TB (Twenty-one studies). The review findings were grouped into three main categories: Critical aspects users value; Challenges reported to realizing those values; and Concerns for access and equity. The researchers found that, with

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regard to critical aspects users value, what was important to people with tuberculosis was having an accurate diagnosis, avoidance of delays in diagnosis and keeping costs low. Health care providers also valued accurate test results to enable them make accurate diagnosis, rapid results and keeping costs low. In addition, they valued ability to use various types of specimens for the test (e.g. stool, sputum). Laboratory personnel valued improved ease of use with rapid molecular tests and they reported increased staff satisfaction with these tests.

Challenges or barriers to realizing these values for both people with TB and healthcare workers included fears of a positive test, concerns about stigma and the cost of taking the test. Challenges at different steps in the diagnostic pathway, that were identified as leading to delays or underutilization of the tests, included poor quality of samples; difficulty in transporting specimens, health system inefficiencies and insufficient resources. Other challenges identified were increased workload for providers; maintenance of the rapid diagnostic tests; over-dependence on test results by clinicians rather than their own experience with diagnosing tuberculosis; inefficiencies in integrating the test into routines at clinics; and lack of data and inclusiveness for implementation process at national levels.

In relation to access and equity, concerns were expressed about sustainable funding for the tests,

requirements for maintenance of the tests, long delays in diagnosis, underutilization of the rapid molecular diagnostic tests, lack of tuberculosis diagnostic facilities in the community, and many restrictions on who was eligible to access the test, particularly for vulnerable groups such as children, people with MDR-TB and people with limited resources to pay for testing. The authors had high confidence in most of the findings of the review

The authors conclusion was that although rapid molecular diagnostic tests provide an added value, the potential benefits could be undermined unless challenges identified in the review such as lack of infrastructure and human resources as well as weak systems, inadequate data on real life situations before and during implementation and conflicts of interest between donors and people implementing the tests, are addressed.

References

1. Tuberculosis fact sheet. <https://www.who.int/news-room/fact-sheets/detail/tuberculosis>
2. World Health Organization. Global Tuberculosis Report. 2021.
3. Engel N, Ochodo EA, Karanja PW, Schmidt B-M, Janssen R, Steingart KR, Oliver S. Rapid molecular tests for tuberculosis and tuberculosis drug resistance: a qualitative evidence synthesis of recipient and provider views. Cochrane Database of Systematic Reviews 2022, Issue 4. Art. No.: CD014877. DOI: 10.1002/14651858.CD014877.pub2. Accessed 16 September 2022.

Plain Language Summary

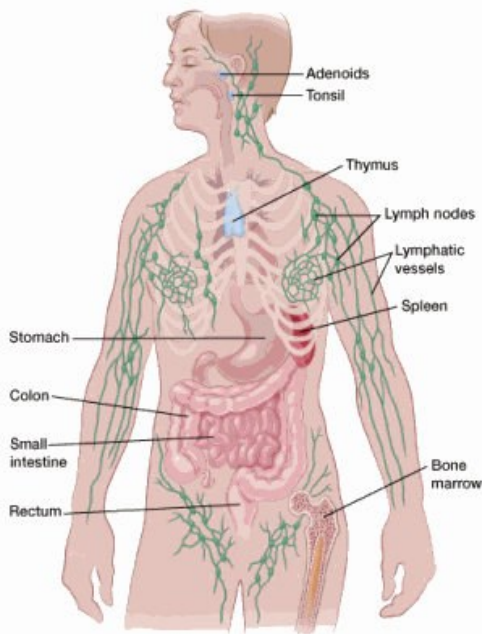
Evidence at your fingertips (From the Cochrane Library)

Treatment of early stage Hodgkin lymphoma

Background

Hodgkin lymphoma (HL) is a malignancy of the lymphatic system. It occurs in children and adults, but it is more common in the third decade of life. It is one of the most curable forms of cancer. There are four stages of HL, stages I and II are considered as early stage HL and stages III and IV as advanced

stage. Using risk factors such as presence or absence of bulky disease and presence or absence of B-symptoms, like night sweats or fever, early stage HL is further classified into early favourable and early unfavourable stages. Treatment options are chemotherapy, radiotherapy or both. Radiotherapy may have, more treatment-related side effects than chemotherapy, including second malignancies; this applies at least to the large treatment fields used in the past. However,



Lymph tissue is in many parts of your body, so Hodgkin lymphoma can start almost anywhere.

with modern, very limited treatment fields, the risks of long-term side effects caused by radiotherapy have been reduced significantly.

Review question

This systematic review compares overall survival (OS) and progression free survival (PFS) in adults with early stage HL after receiving chemotherapy alone or chemotherapy plus radiotherapy.

Study characteristics

We searched important medical databases such as the Cochrane Central Register of Controlled Trials and MEDLINE. Two review authors independently screened, summarised and analysed the results. This led to the inclusion of seven randomised controlled trials involving with 2564 patients.

The evidence provided is current to December 2016.

Key results

For the comparison of chemotherapy alone and chemotherapy plus radiotherapy with the same number of chemotherapy cycles in both arms, this systematic review found no evidence for a difference regarding OS between the interventions, however, two included trials had potential other high risk of bias due to a high number of patients not receiving radiotherapy

as planned beforehand. After excluding these trials in a further analysis, OS was superior in adults receiving chemotherapy plus radiotherapy than in those receiving chemotherapy alone. PFS was also superior in adults receiving chemotherapy plus radiotherapy. Most trials reported adverse events (AEs), but in different ways. Because of insufficient comparable data we focused on adverse events considered of particular interest. For infection-related mortality, second cancer-related mortality and cardiac disease-related mortality, there was no evidence for a difference between treatment groups. For complete response rate (CRR) there was no evidence for a difference between treatment groups either.

For the comparison of chemotherapy alone and chemotherapy plus radiotherapy with different numbers of chemotherapy cycles in the arms, OS was reported in one trial only. The use of chemotherapy alone may improve OS compared to chemotherapy plus radiotherapy. There was no evidence for a difference between treatment groups regarding PFS. After excluding one trial with patients not receiving the planned therapy the results showed that chemotherapy plus radiotherapy improved PFS. For infection-related mortality, second cancer-related mortality and cardiac disease-related mortality, there is no evidence for a difference between treatment groups. CR was not reported.

Quality of evidence

For the same number of chemotherapy cycles in both arms, we judged the quality of evidence for OS and PFS as moderate, for AEs and CR as low.

For different numbers of chemotherapy cycles in the arms, we considered the quality of evidence for OS, PFS and AEs to be low.

Conclusion

This systematic review compared the effects of chemotherapy alone and chemotherapy plus radiotherapy in adults with early stage HL.

For the comparison with same numbers of chemotherapy cycles in both arms we found moderate-quality evidence that PFS is superior in patients receiving chemotherapy plus radiotherapy than in those receiving chemotherapy alone. The addition of radiotherapy to chemotherapy has probably little or no difference on OS. A further analysis without the trials with potential other high risk of bias showed that chemotherapy plus radiotherapy improves OS (both analyses moderate-quality evidence).

For the comparison of chemotherapy alone and chemotherapy plus radiotherapy with different numbers of chemotherapy cycles between the arms

there were no implications for OS and PFS possible, because of the low quality of evidence of the results.

Community views on mass drug administration for filariasis: a qualitative evidence synthesis

What was studied in this synthesis?

Mass drug administration (MDA) involves the regular delivery of treatment medicines to whole populations, regardless of whether an individual has the disease or not, and aims to prevent onward transmission (passing from one person to another). It is currently recommended for some disease control programmes in low- and middle-income countries, including the parasitic disease lymphatic filariasis, which can result in swollen limbs and disability. For governments and their health service this is a large logistical task requiring money and staff, and success depends on communities taking the medicines given.

In this review, we looked for studies that explored how people view and experience these programmes. We collected all relevant studies and included 29 in this synthesis.

What was the aim of this synthesis?

In this synthesis of qualitative research, we aimed to explore people's views on MDA programmes for treating lymphatic filariasis in low- and middle-income countries.

Key messages

People must weigh up a number of factors before deciding to take the medicines. Not everyone benefits from MDA and some may experience harms. The decision to adhere therefore, depends on a complex balance between their trust in the government distributing the medicines; their prior understanding of the disease and the knowledge they receive on the programme; their experience of harms; the influence of family, neighbours, and health staff; and their experience and perception of the people distributing the medicines.

What were the main findings?

We included 29 studies in our analysis. The studies

covered a broad range of countries in Africa, South-East Asia, and South America, although most were conducted in India. These studies primarily explored the views and experiences of community members and those distributing the medicines in low-income countries where lymphatic filariasis is considered a problem. From the data, four themes emerged.

People weigh up benefits and harms before participating. People understand they can reduce the suffering, stigma and costs of developing the disease (high confidence); however, these benefits do not always mesh with their experiences (high confidence). In particular, side effects are frightening and unwelcome (high confidence); and these effects are amplified through rumour and social media (moderate confidence).

Many people are suspicious of MDA programmes. When people lack a detailed explanation for the programme and their experiences of it, they often develop explanations based on the historical backdrop and level of trust people have in relevant authority figures (high confidence), although some have unwavering faith in their government and by extension the programme (moderate confidence).

Programmes expect compliance, and this can become coercive and blaming. Health workers and community members stigmatize non-compliance, which can become coercive (moderate confidence), so communities may appear to comply publicly, but privately reject treatment (moderate confidence).

Community distributors are often not respected or valued. They have little authority (moderate confidence), and the behaviour of some damages the MDA programme's reputation (high confidence). Communities want information about programmes to help make decisions about participation, but drug distributors are not sufficiently informed, or skilled in this communication (high confidence).

We were unable to assess the impact of programme design on communities' perception of the programme and decision to adhere as these aspects were too similar across all studies.

How up to date was this synthesis?

We searched for studies published before 8 April 2021.

RECENT EVENTS

Systematic Reviews and Evidence-Based Medicine Workshop



The Nigeria Centre for Disease Control is the national public health institute responsible for preparedness, detection and response to infectious disease outbreaks and public health emergencies in Nigeria. As part of collaboration with the NCDC, Cochrane Nigeria held a two day Systematic Reviews and Evidence-Based Medicine workshop on 17-18 February, 2022. The Workshop had in attendance key officers from various departments of the NCDC including Dr. Chinwe Ochu (Director, Prevention Programs and Knowledge Management Department, NCDC).

The workshop was facilitated by Dr. Emmanuel Effa (Deputy Director & Training Coordinator, Cochrane Nigeria), Dr. Ekpereonne Esu (Associate Director, Cochrane, Nigeria), Mrs. Dachi Arikpo (Senior Research officer, Evidence Synthesis, Cochrane Nigeria) and Mrs. Moriam Chibuzor (Senior Research officer, Communications and Information Science, Cochrane Nigeria). The first day of the workshop included an introduction to evidence based health care, systematic reviews and Cochrane; as well as introductory session of the various types of systematic reviews and practical sessions. The second day took participants through the key aspects of performing systematic reviews including developing a review question, writing a review protocol, searching for studies data collection and meta-analysis. The participants reported that they benefitted considerably from the workshop.

Global Evidence - Local Adaptation (GELA): Grant to enhance evidence-informed guideline recommendations for newborn and young child health in three sub-Saharan African countries



The European and Developing Countries Clinical Trials Partnership (EDCTP) has awarded a three-year (2022 – 2025) grant to a partnership coordinated by Cochrane South Africa (SA), South African Medical Research Council along with partners from Cochrane Nigeria at

the University of Calabar Teaching Hospital, the Norwegian Institute of Public Health, The Norwegian University of Science and Technology, Western Norway University of Applied Science, Stellenbosch University (South Africa), Kamuzu University of Health

Sciences (Malawi), Cochrane and the Stiftelsen MAGIC Evidence Ecosystem (Norway). The Global Evidence, Local Adaptation (GELA) project aims to enhance evidence-informed guideline recommendations for newborn and young child health in three countries in sub-Saharan Africa (Nigeria, Malawi and South Africa) and maximise the impact of evidence for poverty-related diseases by increasing the capacity of decision makers and researchers to use global research to develop locally relevant guidelines for newborn and child health.

The project will support healthcare decision makers in these countries, building on and adding value to the large-scale programme of child-health guideline development led by the World Health Organization (WHO), with adaptation and implementation led by the WHO Afro regional office, country offices and national ministries of health.

The specific objectives of the GELA project are to:

1. **ENGAGE:** Identify child and newborn priority topics and the capacity needs of guideline panels.
2. **SYNTHESISE:** Support policy makers and researchers to find, appraise and use best-available systematic reviews and guidelines.
3. **DECIDE:** Support guideline panels' capacity to contextualise global evidence using transparent, digitally supported standards and WHO methods for guideline development.
4. **SHARE:** Disseminate and communicate guideline recommendations to healthcare providers and the public using innovative and user-friendly formats and digital platforms.
5. **LEARN:** Strengthen capacity of researchers and policy makers for all aspects of guideline development, adaptation and dissemination.
6. **EVALUATE:** Monitor and evaluate policy makers' experiences of this approach, preferences for receiving evidence, capacity development and overall impact of the project on evidence-informed decision-making processes.

GELA will incorporate a multi-faceted, multidisciplinary research and capacity-strengthening programme using primary and secondary research, guideline-adaptation

methodology and digital platforms to support delivery and dynamic local adaptation. This is enabled through a project team of African and international leaders in the field of evidence-based healthcare and guidelines methods partnering with national ministries in Malawi, Nigeria and South Africa, the WHO and its Afro regional office and the civil society group, Peoples Health Movement.

In Nigeria, the GELA project will engage with the Federal Ministry of Health in Nigeria, the WHO country office, the Afro regional office, professional health groups including the Paediatrics Association of Nigeria (PAN), consumer groups, civil society groups and other key stakeholders.

The European and Developing Countries Clinical Trials Partnership (EDCTP) is a public-public partnership between countries in Europe and sub-Saharan Africa, supported by the European Union. EDCTP focuses on enhancing research capacity and accelerating the development of new or improved medical interventions for the identification, treatment and prevention of poverty-related infectious diseases, including emerging and re-emerging diseases in sub-Saharan Africa, through all phases of clinical trials, with emphasis on phase II and III trials.

This project is part of the EDCTP2 programme supported by the European Union (grant number RIA2020S-3303-GELA).

New and Updated Reviews & Protocols from the Cochrane Library

The following new or updated reviews, published recently in the Cochrane Library, were authored or co-authored by Nigerians.

New or updated Reviews & Protocols

- 1) Interventions to improve psychosexual function in women treated for gynaecological cancers (Protocol) **by**
Emmanuel Okpo, Richard Othieno, **George U Eleje**, Chikelue Ifeanyichukwu Oragwu, Ahizechukwu C Eke. Issue 8, 2022
- 2) Pharmacological interventions for depression in adults with chronic hepatitis B or C (Protocol) **by**
Zohaib Akhter, Olamide Todowede, Jennifer Valeska Elli Brown, Alexander Jarde, Laraib Mazhar, Venkata lakshmi narasimha, Sagir Muhammad, Sheraz Fazid, Khalid Rehman, Chetana Deshmukh, **Akeemat Ayinla**, **Funmilola Wuraola**, Mir Nabila Ashraf, Najma Siddiqi. Issue 8, 2022

Other Recent Reviews

- 1) Prehabilitation exercise therapy before elective abdominal aortic aneurysm repair **by**
*Candida Fenton, Audrey R Tan, **Ukachukwu Okoroafor Abaraogu**, James E McCaslin.* Issue 7, 2021
- 2) Provision of folic acid for reducing arsenic toxicity in arsenic-exposed children and adults **by**
*Sajin Bae, Elena Kamynina, Heather M Guetterman, **Adetutu F Farinola**, Marie A Caudill, Robert J Berry, Patricia A Cassano, Patrick J Stover.* Issue 10, 2021

Announcements

- **Useful links:** For useful links on various aspects of Cochrane including Training, Task Exchange, the Cochrane Handbook, Covid-19 Resources, frequently asked question and lots of other useful information please visit: <https://www.cochrane.org/news/important-cochrane-links>
- **Cochrane Colloquium 2023:** The next Cochrane Colloquium will take place in London, UK from 4-6 September.



Join us in London as we go forwards together at the Cochrane Colloquium

Save the Date

3 September - Satellite events

4-6 September Cochrane Colloquium



Registration will open in early 2023. Scientific programme will be announced in the coming months.

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