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Cochrane NIGERIA infosheet

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HOME- OR COMMUNITY-BASED PROGRAMMES FOR TREATING MALARIA

Malaria is a life threatening disease caused by Plasmodium parasites. In 2010, there were about 219 million cases of malaria and an estimated 660 000 deaths. Most of these deaths were among children below five years of age living in Africa where a child dies every minute from the illness. Malaria is also a major cause of morbidity and mortality among pregnant women in sub-Saharan Africa. The Democratic Republic of the Congo and Nigeria account for over 40% of the estimated total malaria deaths globally.[1]

The World health Organization (WHO) recommends early diagnosis and treatment of uncomplicated malaria with artemisinin-based combination therapy (ACTs) at home and community level to reduce incidence and prevent malaria deaths. This is as part of the integrated Community Case Management (iCCM) which focuses on comprehensive and early treatment of malaria, pneumonia and diarrhoeal diseases. As part of iCCM, community level health workers are trained, using simple learning packages and are then supervised to diagnose and treat children for the three conditions, using ACTs, oral antibiotics, oral rehydration solution and zinc. Community case management of malaria (CCMm) – the malaria component of iCCM seeks to tackle issues of poor and untimely access to effective care within the first 24 hours of symptoms. This very pragmatic strategy is also aimed at reducing deaths and improving affordability, availability, acceptability and adequacy of treatment. Home- or community-based programmes for managing malaria is one of the key strategies that have been proposed to overcome the problem of geographical accessibility to effective malaria treatment.[2] In addition, the WHO recommends confirmation of malaria diagnosis in suspected cases using parasite-based diagnostic tests (light microscopy or rapid diagnostic test) before administering treatment.

A Cochrane Systematic Review[3] was recently conducted to evaluate the effectiveness of home-based and community-based management strategies for treating malaria or fever. The review included ten (10) studies conducted in Africa (Seven Randomized Controlled Trials and Three Controlled Before and After Studies). In all the studies, low level health workers or mothers were trained to give antimalarials to people with fever. Specifically, in eight studies, the presumptive treatment of fever with antimalarials by health workers or mothers was compared with standard facility-based care. The remaining two studies compared home- or community-based programmes using Rapid Diagnostic tests (RDTs) to confirm malaria, with programmes using presumptive treatment. Antimalarials were provided free of charge or at a highly subsidized cost in all the studies.

The results of the review show that Home- or community-based interventions which provide antimalarial drugs free of charge probably improve prompt access to antimalarials. Moderate quality evidence from rural Ethiopia shows that these interventions may reduce childhood mortality in appropriate settings.

However, the results show that Home- or community-based programmes may have little or no effect on the prevalence of anaemia (low quality evidence), a common problem in children with malaria. Adverse effects of home- or community-based programmes for treating malaria were not reported in any of the studies included in the review.

One problem with programmes which treat all fevers presumptively is that they are likely to lead to overuse of antimalarial drugs, and potentially undertreat other causes of fever such as pneumonia. This problem may be overcome by incorporating RDT diagnosis into home- or community-based programmes for malaria - a strategy recommended by the current CCMm guideline

Two of the studies which were included in the review, which trained community health workers to only prescribe antimalarials after a positive RDT, showed that prescriptions of antimalarials were reduced compared to the control group where community health workers used clinical diagnosis (moderate quality evidence).

The authors recommend that more trials assessing the efficacy of community-based programmes involving the use of RDTs to confirm malaria, and which report on outcomes such as adverse events, severe malaria and malaria-specific mortality, are needed to further guide practice.

References

1. World Health Organization. Malaria Factsheet: http://www.who.int/mediacentre/factsheets/fs094/en/index.html

2. World Health Organization. Scaling up home-based management of malaria: from research to implementation. http://apps.who.int/tdr/svc/publications/training-guideline-publications/scaling-up-home-based-management 2004

3. Okwundu CI, Nagpal S, Musekiwa A, Sinclair D. Home- or community-based programmes for treating malaria. Cochrane Database of Systematic Reviews 2013, Issue 5. Art. No.: CD009527. DOI: 10.1002/14651858.CD009527.pub2.

EVIDENCE AT YOUR FINGERTIPS
(From the Cochrane Library)

PLAIN LANGUAGE SUMMARIES

Specially formulated foods for treating children with moderate acute malnutrition in low- and middle-income countries

Moderate acute malnutrition (MAM) affects around 10% of children under five years of age in low- and middle-income countries. Different food strategies have been used for the nutritional recovery of children with MAM, such as lipid-based nutrient supplements or blended foods, which can be provided in full dose or in a low dose as a complement to the usual diet. However, there is no definitive consensus on the most effective way to treat children with MAM.

We searched eight electronic databases and three trials registers (in October 2012 for all except Embase, which was searched in August 2012). We also searched the reference lists of relevant papers and contacted nutrition-related organisations and researchers in this field.

We found eight relevant randomised controlled trials, enrolling 10,037 children under five years of age. All but one study was conducted in Africa.

The risk of bias in the studies was generally low, though two studies had a high dropout rate. The participants were aware which intervention group they were in and this may have influenced their behaviour but we thought it unlikely it would have influenced the results since the outcomes measured were objective ones. For four of the studies, we were unable to assess if the study authors reported all the outcomes they intended to measure.

When any type of specially formulated food was compared to standard care (medical care and counselling without foods), the children treated with foods had a higher chance of recovering from moderate malnutrition (two studies), greater improvement in nutritional status (two studies), and a lower number of dropouts (one study). A reduction in mortality was not shown.

When lipid-based nutrient supplements (which are food with high energy density and high lipid content) at full dose were compared to blended foods at full dose (which are dry food mixtures without high lipid content), there was no difference between these two types of foods in terms of number of deaths (five studies), children progressing to severe acute malnutrition (three studies), and children dropping out (four studies). However, lipid-based nutrient supplements increased the number recovered by 10% (five studies), decreased the number of children non-recovering (three studies), and slightly improved the nutritional status among the recovered. One study observed more children vomiting when given lipid-based nutrient supplements compared to blended foods, but this was not reported by the other studies. No other side effects were reported.

Few studies evaluated foods at complementary dosage (i.e. foods given in low quantity, just to complement the diet and not to fully substitute it), and no conclusion could be drawn from these studies.

When specific foods were compared to each other, a type of corn-soy blended food called CSB++ compared to lipid-based nutrient supplements resulted in similar outcomes, while results of another blended food (CSB pre-mix) versus lipid-based nutrient supplements were unclear. In one study, CSB++ did not show any significant benefit over locally-made blended foods, for example, Misola.

No study evaluated the impact of improving adequacy of local diet, such as local foods prepared at home according to a given recipe or of home processing of local foods (soaking, germination, malting, fermentation) in order to increase their nutritional content.

In conclusion, there is moderate to high quality evidence that both lipid-based nutrient supplements and blended foods are effective in treating children with moderate acute malnutrition. Although lipid-based nutrient supplements (LNS) led to a clinically significant benefit in the number of children recovered in comparison with blended foods, LNS did not reduce mortality, the risk of default or progression to SAM. It also induced more vomiting. Blended foods such as CSB++ may be equally effective and cheaper than LNS. There are no studies evaluating special recipes to improve the adequacy of the usual home diet, an approach that should be evaluated in settings where food is available, and nutritional education and habits are the main

determinants of malnutrition. There are no studies from Asia, where moderate acute malnutrition is most prevalent.

Lazzerini M, Rubert L, Pani P. Specially formulated foods for treating children with moderate acute malnutrition in low- and middle-income countries. Cochrane Database of Systematic Reviews 2013, Issue 6. Art. No.: CD009584. DOI: 10.1002/14651858.CD009584.pub2.

Postpartum misoprostol for preventing maternal mortality and morbidity

Bleeding from the uterus or womb after childbirth is normal, but excessive bleeding (haemorrhage) is an important cause of death and can be reduced by medication that causes the uterus to contract. Misoprostol is one such medication and is a tablet marketed to treat certain stomach ulcers but which also contracts the uterus and reduces bleeding. It may also have harmful side effects, in particular raised body temperature (pyrexia) and shivering. Misoprostol can more easily be distributed at community level than less stable, injectable medication such as oxytocin to prevent or treat severe bleeding in woman after giving birth (postpartum haemorrhage). This review investigated whether giving misoprostol to women after birth to prevent or treat excessive bleeding reduces maternal deaths and severe complications other than blood loss (which is covered in separate reviews). We included 78 randomised controlled studies involving 59,216 women. The variety of study designs, populations studied, routes of administration and co-interventions, as well as the exceptionally high incidence of hyperpyrexia in Ecuador were limiting factors. Maternal deaths, and the combined outcome, death or severe illness resulting in major surgery, admission to intensive care or vital organ failure (excluding very high fever) were not reduced by misoprostol. The known side effects of misoprostol (fever and very high fever) were worse with dosages of 600 µg or more than with lower dosages. Therefore, the review supports the use of the lowest effective misoprostol dose to prevent or treat maternal bleeding after the birth of the baby, and calls for more research to find out the optimal dosage, with continued surveillance for serious side effects.

Hofmeyr GJ, Gülmezoglu AM, Novikova N, Lawrie TA. Postpartum misoprostol for preventing maternal mortality and morbidity. Cochrane Database of Systematic Reviews 2013, Issue 7. Art. No.: CD008982. DOI: 10.1002/14651858.CD008982.pub2.

Alternatives to isoniazid monotherapy for preventing active tuberculosis in HIV-negative persons

Tuberculosis (TB) is a disease that is caused by a bacterial infection that affects an estimated two billion people (about a third of the world's population). However, most people have dormant (latent) infections and only a small percentage of people infected with TB will develop an active disease. Preventing latent TB infection (LTBI) developing into active TB, through the use of drugs, is an important part of global TB control. Treatment with the drug isoniazid for six months is recommended, but the treatment period is long, it can cause liver damage, and only about half of the people who start this drug treatment complete it.

The authors of this review evaluated alternatives to isoniazid monotherapy in HIV-negative people with LTBI. They identified 10 randomized controlled trials that included 10,717 adults and children, who were mostly HIV-negative, with a follow-up period ranging from two to five years.

Rifampicin for three to four months may give quite similar results to isoniazid for six months in preventing TB, and may cause fewer side effects. As the treatment period with rifampicin is shorter, it may result in more people completing treatment. Two other drug combination treatments (rifampicin plus isoniazid, and rifampicin plus pyrazinamide) did not differ in preventing TB compared with isoniazid alone, but they resulted in more adverse events. A third combination of rifapentine plus isoniazid supervised weekly for three months was as effective in preventing TB as self-administered isoniazid for nine months, increased treatment completion, and caused less liver toxicity, though treatment-limiting adverse events were more frequent with the weekly rifapentine and isoniazid combination.

Sharma SK, Sharma A, Kadhiravan T, Tharyan P. Rifamycins (rifampicin, rifabutin and rifapentine) compared to isoniazid for preventing tuberculosis in HIV-negative people at risk of active TB. Cochrane Database of Systematic Reviews 2013, Issue 7. Art. No.: Cd007545. DOI: 10.1002/14651858.CD007545.pub2.

EVIDENCE-BASED MEDICINE AND SYSTEMATIC REVIEW WORKSHOP AT NNAMDI AZIKIWE UNIVERSITY TEACHING HOSPITAL, NNEWI

A two-day Evidence-Based Medicine (EBM) and Cochrane Systematic Review Workshop was held at the Nnamdi Azikiwe University, Nnewi on 19-20 June 2013. The workshop was primarily conceived to expand the reach of Evidence Based Medicine training and practice, as well as introduce more people to research synthesis through Cochrane style systematic reviews, in the south eastern region of the Nigeria. It was organized by the Nigerian Branch of the South African Cochrane Centre in collaboration with the Nnamdi Azikiwe University Teaching Hospital and Nigerian Medical Association, Anambra state.

The workshop, which was declared open by the Chief Medical Director of the Hospital, consisted of a combination of didactic, interactive and breakout sessions in groups of 5-7. A total of Seventy-seven participants including specialists from several medical specialties such as community medicine, surgery, obstetrics and gynaecology, paediatrics etc. attended the workshop. The first day dealt mostly with Evidence based healthcare issues while the second day was devoted to developing a Cochrane systematic review protocol and critical appraisal of randomized controlled trials.

Overall, participants agreed that the workshop was quite useful to them and look forward to joining the collaboration in various capacities.

Group Photo of Participants

Participants during group work session

AFRICAN COCHRANE INDABA

Beautiful, colourful, eye opening.... these were just a few words to describe the African Cochrane Indaba (ACI). Indaba is a Zulu word which simply means a *gathering* or *meeting – and a gathering it was indeed*. From May 6-8th, 2013 Cochranites gathered at the beautiful Lagoon Beach Hotel in Cape Town for a conference of African Cochrane Contributors and to celebrate the 15th Anniversary of the South African Cochrane Centre (SACC) and 20th Anniversary of the Cochrane Collaboration.

The participants at the Indaba were a rich blend of over 120 people from different countries in Africa and other parts of the world. The Indaba drew notable names in the Collaboration such as Mark Wilson (CEO of The Cochrane Collaboration), Sir Iain Chalmers (One of the Founders of the Cochrane Collaboration), Dr. David Tovey (Editor in Chief of *The Cochrane Library*) and many others.

'Global evidence, Local Application' – this was the theme of the ACI and the objectives of the conference were to provide a forum for capacity development in Cochrane Review Methods, to share best practices for disseminating evidence, deciphering and using evidence, and networking among others. Workshops, plenaries and parallel sessions were organized to accomplish these objectives.

The workshops were practical and gave participants an opportunity to update their knowledge on Cochrane methodologies such as risk of bias, GRADE and meta-analysis, and to refine their writing, editorial and clinical practice guidelines skills to mention a few.

Particularly thought provoking were presentations by Sir Iain Chalmers and Prof. Justus Hofmeyr in the opening plenary. Sir Chalmers brought to light the colossal amount of waste that goes on in the medical world and ways to reduce it. Prof. Hofmeyr, speaking on global health, highlighted issues in accessing and interpreting evidence, and presented the need to use second best care in the absence of best care in order to save lives.

One of the highlights of the Conference was the Anniversary dinner. Particularly thrilling was the sight of the Cochranites (nobody was exempted) dancing in a circle to music from a live band and the cutting of the anniversary cake by Sir Iain Chalmers and Prof. Jimmy Volmink (Director, SACC).

The conference was very well organized and the meetings ran like clockwork. Overall the ACI was very successful. It was a reunion for many Cochranites and provided a great opportunity for networking.


Sir Ian Chalmers and Prof. Jimmy Volmink cutting Cochrane Collaboration 20th Anniversary Cake


Poster Session


Group Photo of Participants


Prof Martin Meremikwu Co-chairing a Plenary Session with Prof. Paul Garner


Group Discussion


15th Anniversary Cake


The Nigerian Contingent with some staff of SACC


Cross Section of Nigerian Participants


15th Anniversary Dinner

MEDIA ROUND TABLE ON IMPACT OF SALT REDUCTION ON HYPERTENSION

The media plays an important role in the dissemination of health information. It is therefore important that media practitioners are equipped with reliable sources of health information so that the public may benefit positively. The Nigerian Branch of the South African Cochrane Centre (NBofSACC) recently held a roundtable discussion with thirteen Media practitioners from different media organizations. The meeting took place at the Calabar Institute of Tropical Diseases Research and Prevention (CITDR&P) on the 23rd of July 2013 and the focus of the discussion was a Cochrane Systematic Review which showed that modest salt reduction lowers blood pressure in all ethnic groups.

To lay the foundation for the discussion a few brief presentations were made by the Director and Associates of the Branch. Professor Martin Meremikwu (Director of the NBofSACC) spoke on the importance of Cochrane Reviews and evidence based medicine. During his presentation, he highlighted the importance of the Cochrane library and other sources of evidence based health care information and emphasized the need for media practitioners to utilize such resources.

Dr. Emmanuel Effa (Senior Research Associate/Training Coordinator, NBofSACC) gave a presentation on the role of dietary salt in hypertension. He stressed the fact that intake of excess salt can cause hypertension. Dr. Ekong Udoh (Senior research associate, NBofSACC) gave a summary of the Cochrane Review (The effect of longer-term modest salt reduction of blood pressure) which was the focus of the roundtable discussion. The review shows that daily salt intake can be reduced from 5-6 grams as currently recommended by WHO to 3 grams per day. Over a period of four weeks or more this was shown to lower blood pressure in all ethnic groups and at all levels of blood pressure, without adverse consequences. Dr. Udoh also spoke on the prevalence, and consequences of hypertension and emphasized the need for media practitioners to reduce their daily intake of salt to 1-2 teaspoons (equivalent of 3 grams) and to disseminate the information to the general public, friends and relations. This drew series of questions from the media practitioners which were addressed by the facilitators.

The event ended with closing remarks by Mrs. Dachi Arikpo (IT Support officer, NBofSACC), who thanked the media practitioners for taking out time to attend the programme. Mrs. Ursula Ikpare, a participant from the Cross River Broadcasting Corporation (CRBC) expressed her gratitude to the NBofSACC for such useful information and for organizing the workshop.

Media Practitioners with Facilitators and Branch Staff

New and Updated Reviews from the Cochrane Library

THE COCHRANE COLLABORATION

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

Updated Reviews

- Hematopoietic stem cell transplantation for people with sickle cell disease *by Chioma Oringanje, Eneida Nemecek, Oluseyi Oniyangi. Issue 3, 2013.*

Other Recent Reviews

- Interventions for the prevention of mycobacterium avium complex in adults and children with HIV *by Muhammed Mubashir B Uthman, Olalekan A Uthman and Ismail Yahaya. Issue 4, 2013*
- Surgical versus non-surgical management of abdominal injury *by Angela Oyo-Ita, Udey G Ugare, Ikpeme A Ikpeme. Issue 11, 2012.*
- Interventions for HIV-associated nephropathy *by Ismail Yahaya, Olalekan A Uthman, Muhammed Mubashir B Uthman. Issue 1, 2013.*
- Antipyretic measures for treating fever in malaria *by Martin Meremikwu, Chibuzo C Odigwe, Bridget Akudo Nwagbara, Ekong E Udoh. Issue 9, 2012.*
- Treatments for suppression of lactation *by Olufemi T Oladapo, Bukola Fawole. Issue 9, 2012.*
- Regional versus general anaesthesia for caesarean section **by** *Bosede B Afolabi, Foluso EA Lesi. Issue 10, 2012.*

ANNOUNCEMENTS

- Issue 7, 2013 is online – The complete issue of Issue 7, 2013 is now online. Please visit www.thecochranelibrary.com
- 21st Annual Cochrane Colloquium - The 21st Annual Cochrane Colloquium will be coming up from 19-23 September 2013 in Quebec, Canada. For more information, visit the Colloquium website: http://colloquium.cochrane.org/
- How can we serve you better - Please feel free to contact us and let us know how we can tailor the *Info Sheet* to better meet your needs. Send your emails to cochranenigeria@yahoo.co.uk

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