# Resources

## MALNUTRITION

### New WHO guidelines for severe acute malnutrition.

In 2011 19 million children aged under 5 years had severe acute malnutrition (SAM). Most lived in Africa and southeast Asia. SAM was a contributory cause of >7% of all deaths in this age group. WHO has recently published new guidelines for managing SAM.Previously it was recommended that all children younger than 5 years with SAM (a weight-for-height Z score of less than −3 or presence of bilateral oedema) should be admitted to hospital, but now the aim is to treat as many as possible as outpatients. This means they can remain with their carers and are not at risk of hospital-acquired infections and treatment costs are reduced. However children treated as outpatients should be carefully selected, followed closely and given supplies of Ready-to-Use Therapeutic Foods (RUTF). The new guidelines stress that antibiotics should be used only for children with SAM, not those with less severe undernutrition.

The new guidelines say to identify and treat SAM in infants younger than 6 months. The also cover treatment of children with SAM who are living with HIV infection, which is crucial because mortality is highest in this group.

Reference WHO 2013. 'Updates on the management of severe acute malnutrition in infants and children guideline' are available at http://www.who.int/nutrition/publications/guidelines/updates_management_SAM_infantandchildren/en/index.html

### Home food vs Ready-to-use- therapeutic food (RUTF) for treating moderate acute malnutrition (MAM)

Authors of a Cochrane review states that "The world needs studies to evaluate interventions to improve the quality of the home diet. Different types of foods may be equally effective in the short term nutritional rehabilitation of children with moderate acute malnutrition (MAM). Most of the research so far has focused on industrialized foods, and on short term outcomes of MAM".

From Breastfeeding Promotion Network of India (BPNI)/ The International Baby Food Action Network Asia(IBFAN Asia). SeeImproved home cooked food can be as good as RUTF for treating MAM says Cochrane

Vulnerability factors for malnutrition among people living with HIV under antiretroviral treatment in an outpatient clinic: Kinshasa, Democratic Republic of Congo

Significant progress has been made in the fight against HIV/AIDS across the world. However, in sub-Saharan countries, there remain numerous obstacles to achieving treatment goals. The aim of this study was to identify factors underlying vulnerability to malnutrition among people living with HIV (PLWHIV) under antiretroviral treatment (ART) in resource-limited settings.

A cross-sectional study was carried out in May 2010 in Kinshasa, DRC. Baseline characteristics of PLWHIV were analyzed, and statistical analyses were performed in order to compare proportions of low weight, low mid-upper arm circumference, and low body mass index. Further analyses were performed to compare means of anthropometric characteristics according to sociodemographic, socioeconomic, and clinical characteristics. Multiple regression analyses were used to assess vulnerability determinants for malnutrition following adjustment.

The study identified specific sociodemographic characteristics, socioeconomic level and clinical characteristics (i.e. autonomous activity, appetite, asthenia level, and HIV clinical stage) that were significantly associated with malnutrition in PLWHIV.

Reference K. Tshingani2013 Science Direct http://www.sciencedirect.com/science/article/pii/S1730127013001008Background

### Nutritional care and support for patients with tuberculosis Guideline

This guideline from WHO provides guidance on the principles and evidence-informed recommendations on the nutritional care and support for patients with tuberculosis.

Undernutrition increases the risk of tuberculosis and in turn tuberculosis can lead to malnutrition. Undernutrition is therefore highly prevalent among people with tuberculosis. It has been demonstrated that undernutrition is a risk factor for progression from tuberculosis infection to active tuberculosis disease and that undernutrition at the time of diagnosis of active tuberculosis is a predictor of increased risk of death and tuberculosis relapse. However, the evidence concerning the effect of nutritional supplementation on tuberculosis prevention and health outcomes among people with tuberculosis had not previously been systematically reviewed.

Reference WHO 2013. http://www.who.int/nutrition/publications/guidelines/nutcare_support_patients_with_tb/en/index.html

### Nutrition Forums and email newsletters

- ProNut-HIV, a moderated e-forum on nutrition and HIV/AIDS,

To subscribe: pronut-hiv-join@healthnet.org

To unsubscribe: pronut-hiv-leave@healthnet.org

To discuss (subscribers only): pronut-hiv@healthnet.org

For help: pronut-hiv-owner@healthnet.org

Archives: www.pronutrition.org/archives.php

- ProNUTRITION http://www.pronutrition.org is an information resource that supports health care providers, community health workers, policy makers, and program managers with current, relevant, and practical knowledge and tools for decision-making.
- A wide range of information, such as discussion groups on timely topics, newsletters, documents on-line, links to useful Web sites, guidelines, and assessment tools, are offered on the site to assist individuals in the provision of better care based on knowledge.
- 1,000 days news giving latest nutrition-related news from around the web and world particularly related to the first 1,000 days of life – sign up for updates at http://www.thousanddays.org/

## INFECTIONS

### Umbilical cord infections

Umbilical cord infections (omphalitis) and neonatal sepsis are significant contributors to the proportion of neonatal infections that prove fatal, However, there is little information about cord care practices in sub-Saharan Africa - most of what is known about cord care practices comes from Southeast Asian cultures.

A new research study published in the open-access journal PLoS One, examined practices in Zambia and found a wide variation in knowledge, beliefs, and practices surrounding cord care. It states, 'For home deliveries, cords were cut with non-sterile razor blades or local grass. Cord applications included drying agents (e.g., charcoal, baby powder, dust), lubricating agents (e.g., Vaseline, cooking oil, used motor oil) and agents intended for medicinal/protective purposes (e.g., breast milk, cow dung, chicken faeces).'

Reference Herlihy JM 2013 Local perceptions, cultural beliefs and practices that shape umbilical cord care: a qualitative study in southern province, Zambia.PLoS One. 2013 Nov 7;8(11):e79191http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3820671/

### Drug-resistant tuberculosis in South Africa

Long-term treatment-related outcomes in patients with extensively drug-resistant (XDR) tuberculosis are unknown. This study followed up a cohort of 107 patients between March, 2008, and August, 2012, from three provinces in South Africa, who had been diagnosed with XDR tuberculosis. Available isolates from 56 patients were genotyped to establish strain type and used for extended susceptibility testing.

All patients were treated empirically as inpatients with a median of eight drugs (IQR six to ten). 44 patients (41%) had HIV. 36 (64%) of 56 isolates were resistant to at least eight drugs, and resistance to an increasing number of drugs was associated with the Beijing genotype (p=0•01). After 24 months of follow-up, 17 patients (16%) had a favourable outcome (ie, treatment cure or completion), 49 (46%) had died, seven (7%) had defaulted (interruption of treatment for at least 2 consecutive months), and 25 (23%) had failed treatment. At 60 months, 12 patients (11%) had a favourable outcome, 78 (73%) had died, four (4%) had defaulted, and 11 (10%) had failed treatment. 45 patients were discharged from hospital, of whom 26 (58%) had achieved sputum culture conversion and 19 (42%) had failed treatment. Median survival of patients who had failed treatment from time of discharge was 19•84 months (IQR 4•16—26•04). Clustering of cases and transmission within families containing a patient who had failed treatment and been discharged were shown with genotypic methods. Net sputum culture conversion occurred in 22 patients (21%) and median time to net culture conversion was 8•7 months (IQR 5•6—26•4). Independent predictors of probability of net culture conversion were no history of multidrug-resistant tuberculosis (p=0•0007) and use of clofazamine (p=0•0069). Independent overall predictors of survival were net culture conversion (p<0•0001) and treatment with clofazamine (p=0•021). Antiretroviral therapy was also a predictor of survival in patients with HIV (p=0•003).

It was concluded that in South Africa, long-term outcomes in patients with XDR tuberculosis are poor, irrespective of HIV status. Because appropriate long-stay or palliative care facilities are scarce, substantial numbers of patients with XDR tuberculosis who have failed treatment and have positive sputum cultures are being discharged from hospital and are likely to transmit disease into the wider community. Testing of new combined regimens is needed urgently and policy makers should implement interventions to minimise disease spread by patients who fail treatment.

Reference ElizePietersen etal Long-term outcomes of patients with extensively drug-resistant tuberculosis in South Africa. The Lancet, Early Online Publication, 17 January 2014

## MISCELLANEOUS

### Global Health: Science and Practice

GHSP is a no-fee, open-access online journal at www.ghspjournal.org, aims to improve health practice, especially in low- and middle-income countries. Its goal is reach global health professionals, particularly program implementers, to advance knowledge on practical program implementation issues, with information on what programs entail and how they are implemented. GHSP recently published its third issue at http://www.ghspjournal.org/content/current which included following topics:

- Should PEPFAR focus on a broader range of priority health needs?
- How will routine immunization programs ultimately be successful?
- Can community health workers safely and effectively provide injectables in Africa?
- Should pregnancy tests be offered to reduce denial of family planning services?
- What is causing obesity in rural Tanzania?

You can SUBSCRIBE to receive alerts when new articles and issues are published at http://www.ghspjournal.org/cgi/alerts

To submit an article go to http://www.ghspjournal.org/site/misc/ifora.xhtml

### Medical Aid Films

You can accessa variety of films aimed at a variety of levels of frontline healthworkers in low resource settings at the website: http://medicalaidfilms.org/our-films . They are available free (in return for feedback) by download, or on USB or DVD. Our films are available in English and Swahili; and MAF is keen to work with partners who may wish to dub them into local languages.

There are films in the following subjects – most are related to pregnancy and newborn care: Films for Community Health Workers & Communities; Understanding your body / pregnancy); Food for life; Safe Delivery and a healthy Newborn; Obstetric and Neonatal Emergencies; Early Identification of a Sick Child; Films for skilled health workers; Emergency Obstetric and Newborn Care; Ultrasound.

Contact MAF on info@medicalaidfilms.org if you would like to use the films.