

MEDICINES AND DIAGNOSTICS FOR COMMUNITY CASE MANAGEMENT: OPTIONS FOR SELECTION

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1. INTRODUCTION

The Selection of medicines and diagnostics for use in Integrated Community Case Management (iCCM) programmes must take into consideration the needs of the target population (children), the interaction between the caregiver and the community health worker, and the supply chain that will support interventions. Through the WHO/UNICEF Better Medicines for Children project, the UN Commission on Life Saving Commodities and other initiatives, UNICEF has advocated for the development and introduction of better products to best fit programmes, some of which are relevant for iCCM. These are included in UNICEF's range of products.

This is a briefing note on iCCM products available through UNICEF and provides key references for further information.

2. AVAILABLE PRODUCTS

Please visit the [UNICEF Supply Catalogue](#) for more products and more details about the products listed below.

a. DIARRHOEA

Treatment. WHO/UNICEF recommends Oral rehydration and 10-14 days of Zinc supplementation in the clinical management of diarrhoea in children. Bundles of ORS and Zinc have been piloted successfully by organizations such as Population Services International (PSI), and are now being promoted as mainstream products for both public and private sector markets.

UNICEF offers a range of presentations of ORS and Zinc separately and in bundles (co-packs). Sources of the co-pack are still limited, but there are plans for more manufacturers coming on-board in 2014, including from Africa.

Short Description	UNICEF Cat. No.	Unit Cost ¹
ORS low osm. 20.5g/1L CAR/100 (Non-flavoured)	S1561120	7.70
ORS low osm. 20.5g/1L CAR/100 (Flavoured)	S1561130	9.70
Zinc 20mg scored tablets/PAC-100 (Blisters of 10x10)	S1580020	1.30-2.51
ORS (2x1L) + Zinc co-pack (Each Co-pack contains 2 sachets of flavoured ORS/1 + 1 blister of 10 scored tablets of Zinc 20mg and a patient information leaflet)	S1580022	0.50-0.58
ORS (4x0.5L) + Zinc co-pack (Each Co-pack contains 4 sachets of flavoured ORS/500ml +1 blister of 10 scored tablets of Zinc 20mg and a patient information leaflet)	S1580021	0.52-0.58

¹ Prices are indicative. Ranges reflect a variety of prices in contracts.

ORS 1 litre and 0.5 litre is also available in packs of 10x100 as per table below

Short Description	UNICEF Cat. No.	Unit Cost ¹
ORS low osm. 20.5g/1L CAR/10x100 (Non-flavoured)	S1561121	76.07
ORS low osm. 20.5g/1L CAR/10x100 (Flavoured)	S1561131	94.63
ORS low osm. 10.2g/0.5L CAR/10x100 (Non-flavoured)	S1561140	81.47
ORS low osm. 10.2g/0.5L CAR/10x100 (Flavoured)	S1561132	60.55

UN Commission of Live Saving Commodities (UNoLSC): ORS and Zinc technical reference team brief:

www.everymaneverychild.org/images/content/files/trt/ZincORSAmoxicillin_Final.pdf

Zinc Task Force: www.zinctaskforce.org

CCM Central contains a wide range of recent documents on ORS and Zinc. <http://ccmcentral.com/>

b. MALARIA

Diagnosis. Rapid Diagnostic Tests (RDTs) are the recommended method of diagnosis of malaria in the community. These come in a variety of formats and are designed to detect Plasmodium falciparum (Pf), specific species or combination of species (Pan). RDTs for detection of Pf cost approximately US\$ 0.45 per test, while those for detection of Pf/Pan species cost around US\$ 0.60 per test. It is important to note that tests must be provided in the full box (usually between 25 and 30 tests) to ensure that buffer and lancets accompany the test devices.

Treatment. The main Artemisinin-based Combination Therapies (ACTs) for children under 5 are listed below. They are packed in presentations that allow easy dispensing and use in paediatric populations.

Rectal artesunate for pre-referral in severe malaria cases is currently available in 2 strengths, 50mg and 200mg, neither of which fit well with iCCM treatment guidelines. The development of 100mg rectal artesunate is ongoing.

Short Description	UNICEF Cat. No.	Unit Cost ¹
Malaria rapid diagnostic tests-RDT Pf	Various	0.45
Malaria rapid diagnostic tests-RDT Pf/Pan	Various	0.60
Safety Box for used Syringes/Needles, 5 litre, /BOX-25	S0782208	13.00
Artemether 20mg+Lumefantrine 120mg dispersible tablets/12/PAC-30	S1300075	24.00-28.20
Artemether 20mg+Lumefantrine 120mg dispersible tablets/6/PAC-30	S1300074	12.00-14.10
Amodiaquine 135mg+Artesunate 50mg tablets/3/PAC-25*	S1300101	7.00-9.75
Amodiaquine 67.5mg+Artesunate 25mg tablets/3/PAC-25*	S1300121	4.50-7.50
Artesunate 200mg rectal caps/6/PAC-1, perforated tear off blisters	S1300072	3.30
Artesunate 50mg rectal caps/6/PAC-1, perforated tear off blisters	S1300070	1.75

(*) For very young children who cannot swallow Amodiaquine+Artesunate tablets whole, the tablets can be crushed or *dispersed* in water before administration.

- WHO, Good practices for selecting and procuring rapid diagnostic tests for malaria, 2011. <http://www.who.int/malaria/publications/atoz/9789241501125/en/>
- WHO, information on RDTs and results of testing. www.who.int/malaria/areas/diagnosis/rapid_diagnostic_tests/en/
- FIND, Malaria RDT Implementation Guide, 2013. http://www.finddiagnostics.org/resource-centre/reports_brochures/malaria_rdt_implementation_guide_june2013
- UNITAID: Malaria Diagnostics Market Landscape Update, November 2013. http://www.unitaid.eu/images/projects/malaria/UNITAID_2013_Update_Malaria_Diagnostics_Market_Landscape.pdf

c. PNEUMONIA

Diagnosis. Guidelines for the diagnosis of pneumonia in the community include the determination of respiratory rate by counting breaths over time. This rate can be determined through a variety of methods, including using a stop-watch, a dedicated Acute Respiratory Infection (ARI) Timer or counting beads. This is an area where innovative solutions are being pursued to develop user-friendly and affordable products. UNICEF offers a simple ARI Timer that gives a signal after 30 and 60 seconds.

Treatment. Integrated Management of Childhood Illness (IMCI) Guidelines for the treatment of pneumonia in the community advocate for the use of Amoxicillin 250 mg dispersible tablets (DT) as the basis for simplified treatment. Significant work has been done to bring manufacturers on board and the UNCoLSC has supported the development of quality sources, the inclusion of Amoxicillin DT in country national guidelines, and the development of dispensing and job aids. Amoxicillin 250 mg DT (and 125 mg DT) offer an alternative to the powder for oral suspension, with added benefits ease of use by patients, reduced cost and weight/volumes. They have the potential to enhance adherence to treatment.

In 2013, UNICEF procured over 11 million blisters of 10 of Amoxicillin DT. Although the registration of Amoxicillin DT is not yet widespread, UNICEF continues to advocate for registration in countries ready to implement new IMCI guidelines. National regulatory authorities and manufacturers must work together to ensure compliance with local regulatory requirements. UNICEF has also worked with the Program for Appropriate Technology in Health (PATH) to develop innovative dispensing solutions for amoxicillin that countries can use according to their own systems and preferences. Amoxicillin DT is offered in a variety of pack sizes, but the packs of 100 (10x10 blisters) is the most commonly procured.

Short Description	UNICEF Cat. No.	Unit Cost ¹
Amoxicillin powder for oral suspension 125mg/5ml/BOT-100ml	S1505046	0.40
Amoxicillin 250mg dispersible tablets /PAC-10	S1505045	0.32
Amoxicillin 250mg dispersible tablets/PAC-20	S1505044	0.37-0.57
Amoxicillin 250mg dispersible tablets/PAC-100	S1505043	1.50-2.80
Amoxicillin 125mg dispersible tablets/PAC-100	S1505042	1.23

- UNICEF, Strengthening Pneumonia Diagnosis Tools for Low-Resource Settings.
- <http://www.innovateforchildren.org/projects/strengthening-pneumonia-diagnostic-tools-low-resource-settings>
- UNICEF, Amoxicillin DT Product Profile and Market Update, July 2013
http://www.unicef.org/supply/index_69800.html
- UNICEF, rethinking the packaging of Amoxicillin.
- <http://www.innovateforchildren.org/case-studies/rethinking-packaging-amoxicillin-worldwide?page=4>
- WHO, Revised WHO Classification and Treatment of Childhood Pneumonia at Health Facilities. Implications for Policy and Implementation. 2014
http://apps.who.int/iris/bitstream/10665/137331/1/WHO_FWC_MCA_14.8_eng.pdf?ua=1

d. OTHER PRODUCTS WITH APPLICATION IN CCM

i. FEVER

Diagnosis. A thermometer can confirm the scale of fever in a child and guide the need to manage it.

Treatment. Among the existing medicines used to manage fever, Paracetamol has the wider acceptance for paediatric use. Paracetamol is usually available as an oral liquid or adult tablets of 500 mg. However, lower strength dispersible tablets that offer easier dosing and patient use, lower cost and reduced potential for misuse and waste, are available through UNICEF.

Short Description	UNICEF Cat. No.	Unit Cost ¹
Thermometer,clinical,digital,32-43°C	S0481053	1.22-1.75
Paracetamol 125mg/5ml oral solution/Bottle of 60ml	S1555990	0.34-0.48
Paracetamol 100mg dispersible tablets/PAC-100	S1555979	0.75
Paracetamol 250mg dispersible tablets/PAC-100	S1555966	0.78

ii. DISINFECTION AND CORD CARE

Chlorhexidine is a common disinfectant that has been included in kits for community health workers for general use. The 2013 edition of the WHO Essential Medicines List for children included Chlorhexidine 4% solution for cord care, and there is wide interest in introducing this simple intervention to reduce infection in new-borns. For general disinfection, UNICEF offers 100ml and 1L bottles. For cord care, UNICEF offers a solution in small bottles for home use, and is working with manufacturers to expand the sources and expand the range to include a gel.

Short Description	UNICEF Cat. No.	Unit Cost ¹
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Chlorhexidine digluconate 7.1% w/v sol for cord care/BOT-10ml (Equivalent to Chlorhexidine 4%)	S1531515	0.30
Chlorhexidine conc. sol. 5%/BOT-100ml	S1531510	0.54
Chlorhexidine conc. sol. 5%/BOT-1000ml	S1531505	2.72

iii. SEVERE ACUTE MALNUTRITION

Diagnosis Community health workers provide a valuable service monitoring the nutrition status of children. The main tool for assessing nutrition status is the well-known Mid Upper Arm Circumference (MUAC) tape.

Treatment. Ready-to-Use Therapeutic Food (RUTF) paste is a high energy fortified food used for the treatment of Severe Acute Malnutrition (SAM).

Short Description	UNICEF Cat. No.	Unit Cost ¹
MUAC tape, Child 11.5 Red/PAC-50	S0145620	2.94
Therapeutic spread, sachet 92g/CAR-150*(RUTF)	S0000240	54.00

(*) Product can be made available to community health workers as per national policy and guidelines.

- Community-based management of Severe Acute Malnutrition. A Joint Statement by the World Health Organization, the World Food Programme, the United Nations System Standing Committee on Nutrition and the United Nations Children’s Fund, May 2007

http://www.who.int/nutrition/topics/Statement_community_based_man_sev_acute_mal_eng.pdf?ua=1

3. CUSTOMISATION

UNICEF can work with country programmes to customise/differentiate products to meet specific country requirements, such as colour coding. The additional product cost and lead time associated with customisation should be factored into budgets and supply plans.

4. FURTHER INFORMATION

If you want to know more about products supplied by UNICEF or want to know how UNICEF can work with you to make these available in your programmes, please contact the UNICEF Country Office:

<http://www.unicef.org/infobycountry/> or countrysupport@unicef.org. Further information can be found in the UNICEF Supply website at www.unicef.org/supply.