

The status of 'Child Size Medicines' in the national policy documents in Uganda

- **Xavier Nsabagasani:** Child Health and Development Center, College of Health Sciences, Makerere University
- ***Professor Jasper Ogwal Okeng:*** Department of Pharmacology and Therapeutics, College of Health Sciences, Makerere University
- ***Professor Anthony Mbonye:*** Commissioner Health Services, Ministry of Health Uganda and Department of Health, Uganda Christian University
- ***Dr. Freddie Ssengooba:*** Senior Lecturer, School of Public Health, College of health Sciences, Makerere University
- ***Professor Ebba Holme Hansen:*** Section for Social and Clinical Pharmacy, University of Copenhagen



Background and objective

- Children are not small adults and their medication can not be determined by reduction of the adult dosage regimens.
- '*Child size medicine*' campaign was launched in 2007 by WHO and UNICEF to improve access to medicines that will suit the child's weight, psychological and physiological condition.
- The call for child size medicines is global and there is a knowledge gap as to how this initiative works in the context of low income countries such as Uganda.
- The overall objective of this project is to explore and analyze the status of '*child size medicines*' in Uganda

Major components of the study

- I. Pediatric Medicine formulations: Mapping of relevant policies in Uganda
- II. To what extent are child size medicines necessary for Uganda? stakeholders' perspectives
- III. Availability of child size medicines: A survey of health facilities in Jinja district, Uganda
- IV. Child size medicines in the context of Integrated Management of Childhood illnesses (IMCI): Realities in a district in Uganda

Methodology: Study Design

- **Documentary study** of national policy documents since 2007
- Policy documents included policy statements, strategic plans, guidelines and essential medicines lists
- The analysis focused on medicines for: pneumonia, asthma, HIV/AIDS, epilepsy, bilharzia and, malaria and diarrhea
- Parenteral dosage forms were excluded as they are administered by qualified health workers at specified levels of the health facilities

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Methodology

- Documents were retrieved from MOH and internet search. Websites included: MOH, National Drug Authority, National Medical Stores and development partners
- A checklist was used to extract data
- An index for assessing child size medicines ('The child size medicine index') was developed
- The data was analyzed for content in relation to the index.

Results: content of the policy documents

- There is no evidence of specific attention to child size medicines in the policy statements and strategic plans
- The main focus of the documents relates to general issues such as the definitions of essential medicines, procurement standards, quality assurance, regulation and delivery mechanisms.
- Only the HSSIP III specifies IMCI and ICCM as key approaches

Documents Reviewed

Title of the document	Type of document
The second National Health Policy (NHP II 2012/19)	Policy Statement
Health Sector Ministerial Policy Statement- FY2010 and 2011	Policy statement
National Drug Authority Uganda Strategic Plan 2011-2015	Policy strategy
The Health Sector Strategic and Investment Plan 2010/11-2014/15	Policy Strategy
The Uganda Clinical Guidelines 2010	Guidelines
The Essential Medicine and Health Supplies List (EMHSLU) of 2012	Lists/guidelines
The Uganda National Malaria Control Policy of 2011	Policy Statement
Integrated Community Case Management of Childhood Malaria, Pneumonia and Diarrhea: Implementation Guidelines	Guidelines
Users' manual for the rapid use of the	Guidelines

Results: Essential Medicine List for Children

- Uganda has not yet developed a separate essential medicines list for children. There is a general list called 'Essential Medicines and Health Supplies List for Uganda' (EMHSLU) and is a core policy document that brings to light 3 key aspects of relevance to child size:
 1. The deletion of some of the old and addition of new medicines,
 2. **Essential and Necessary (VEN) classification concept**
 3. Includes varying strengths of medicines in different formulations

Deletion and addition of some medicines

Disease	Medicines that were removed	Medicines that were added	Comments
Pneumonia	<ul style="list-style-type: none"> Amoxicillin syrup Cotrimoxazole syrup 	No medicines were added	Of the oral medications for pneumonia, only syrups were removed and no child size medicines were added.
Malaria	<ul style="list-style-type: none"> Chloroquine syrup 	<ul style="list-style-type: none"> Artesunate suppository 200mg Artesunate suppository 50mg 	Syrups were removed the more child size suppositories and fixed dose combinations were added.
Diarrhea	no medicines were removed	<ul style="list-style-type: none"> Zinc sulphate effervescent tablet 20mg Oral Rehydration Salt 	Both Zinc Sulphate effervescent tablet 20 mg and ORS is child friendly. Effervescent tablets are among the WHO recommended child size medicines.
Asthma	<ul style="list-style-type: none"> Salbutamol injection Salbutamol tablet Betammethasone tablet 0.5mg Dexamethasone 4mg 	<ul style="list-style-type: none"> Bethamesathone injections Dexamethasone 0.5mg Hydrocortizone Injection 	Salbutamol tablets are the 2 nd line option for children above 5years and adults. No inhalers and neubilizers have been included although they are recommended as first line and most critical. Only injectables have been included. Injectables are child friendly
Epilepsy	<ul style="list-style-type: none"> Phenytoin suspension 30mg/5ml 	<ul style="list-style-type: none"> Carbamazepine tablet chewable 100mg 	Phenytoin was recommended in the clinical guidelines as first line for managing grand-mal epilepsy
Bilharzia	<ul style="list-style-type: none"> Noting was deleted 	<ul style="list-style-type: none"> Nothing was added 	Praziquantell is not child friendly since it is a large tablet with un palatable side effects

Results: The VEN classification

Medicine Name	Dosage form	Weight (mg)	Classification	Comments
Amoxicillin	Tablet	250 mg	VITAL only HCII and above	The weight is suitable for older children. Recommended as second line at the health facility and first line for the community based VHTs for the ICCM. The scored dispersible tablet is supplied by development partners
Cotrimoxazole	Tablets	120 mg	VITAL only HCII and above	Child size in terms of strengths. Still a big table. Recommended first line for Uganda and although not recommended for high HIV prevalence settings
Artesunate	Suppository	50 mg	VITAL HCl and II	Appropriate weight and dosage form for children
Artemeter lumefantrine	Tablet	20+120 mg	VITAL only HCII	Weight adjusted for the child and is a good example of fixed

VEN classification cont'd

Medicine name	Dosage form	Weight (mgs)	Classification	Comments
Zinc sulphate	Effervescent tablet	20mg	VITAL for HCl and II	Child friendly both in terms of weight and dosage form. The effervescence aspect is not mentioned in the 2012 UCG
ORS	Solution- WHO formula	-	VITAL for HCl and II	Child friendly and widely used for managing diarrhea among children
Praziquantel	Tablet	600 mg	ESSENTIAL for HC IV	Not child size. Difficult to swallow has severe side effects and these affect compliance and adherence
Prednisolone	Tablet	5mg	VITAL for HCl and II	A small tablet and child size
Salbutamol	Nebulizer solution	2mg/ml	VITAL for HC IV	Adjusted according to the accessories. The nebulizer itself is neutral for both adults and children.
Carbamazepine	Tablet (chewable)	100mg	Vital for HCIII	Child size and convenient for administration to the child
Carbamazepine	Syrup	100mg/ml	VITAL for	Child size and convenient for administration to the child. This is one of the few syrups included in the list.

Limited child size concepts in the EMHLSU

- There is no explicit reference to terms/concepts used to describe medicines specific for children. The word pediatric appears only twice in the whole document
- Dosage forms in the list that are child size only include suppositories and syrups. Suppositories have been allotted for diazepam, diclofenac, paracetamol, artesunate, bismuth subgallate and bisacodyl. Syrups are largely for HIV medicines and there is also Carbamazepine syrup.
- There are fixed dose combinations and these are mainly HIV medicines. It is only artemether lumefantrine that is fixed dose for the selected diseases.
- Dispersible tablets of artemether lumefantrine and amoxicillin that have been recommended for treating children world-wide are not included in the EMHLSU. These medicines are being supplied at the community through ICCM with support of development partners

Uganda Clinical Guidelines(UCG)

- The 2012 UCG makes reference to pediatric prescribing
- The UCG has a general section covering both children and adults and, a specific section on children treatment, focusing on IMCI (adapted from the IMCI guidelines of 2000)
- Bulky and could be a challenge for getting exactly where to refer
- Recommends the use of weight to determine the dosage regimen for children and where weighing is not possible and no suitable pediatric dose, doses are approximated from adult doses:
 - <5 years $\frac{1}{4}$ of adult dose
 - <5-8 years $\frac{1}{2}$ of adult dose

Harmony Between the UCG and EMHSLU

New changes in the EMHSLU which are also reflected in the 2012 UCG:

- Rectal artesunate
- The UCG provides for prednisolone 30-60mg single dose while the EMHSLU provides for 5mg and 20mg only
- The VEN Classification (EMHSLU) and level of management (UCG)

Conclusion

- The most important policy documents highlighting medicines for children are the UCG and EMHSLU. Some medicines included in the policy documents have elements of 'child size'
- The UCG needs to be updated and harmonized with EMHSLU by specifying some of the important 'child size' medicines that are provided for in the EMHSLU and in due consideration of the VEN classification
- These are in need to upgrade the IMCI approach with due respect to child size medicines
- While it is clear that oral medication is preferred to other forms, in Uganda oral medication is by design limited to tablets. It will be necessary to include other formulations e.g. pellets

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Thanks you for listening

