

MINISTRY OF HEALTH



THE REPUBLIC OF UGANDA

Uganda National Redistribution Strategy for Prevention of Expiry and Handling of Expired Medicines and Health Supplies



Produced by: The Division of Pharmacy Services
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FOREWORD

Over the years, the health sector has been challenged with accumulation of expired and unusable essential medicines and health supplies. This situation has always challenged the inadequate storage capacity at various health facilities and there are fears of expired EMHS filtering back to the market. The Ministry of Health has not had documented procedure for movement of the excess EMHS between health facilities and districts that has further contributed to the unfortunate regular wastage of resources through expiry. The Uganda National Redistribution and Strategy for Prevention of Expiry and Handling of Expired Medicines and Health Supplies Guidelines provides a framework and environment within the context of the National Health Policy and the Health Sector Strategic and Investment Plan for Sustainable and Rational Use of Medicines.

The purpose of the guidelines is to provide a harmonised framework for redistribution and prevention of expiry of medicines in Uganda. It covers the main areas of redistribution; namely, the principles of redistribution, triggers and initiation of redistribution, steps in redistributions, financial implications, and the necessary authorizations required. The guideline also covers similar content areas for the handling and disposal of expired medicines.

This document is intended to serve as a guide for all health workers, stakeholders and partners, and Government ministries and agencies in planning, resource mobilization, and implementation of redistribution and expiry of medicines control.

The Ministry of Health (MOH) is absolutely dedicated to ensuring the rational use of medicines and aims to have a dramatic impact on the level of waste and shortage of medicines in the country. It is hoped that this guideline will be found useful by all Institutions and health workers involved in EMHS management at all levels of care and should be referred to at all times to reduce on wastage of resources through expiry.



Hon. Dr. Christine D.J. Ondo

Minister of Health

PREFACE

This first edition of the Uganda National Redistribution Strategy for Prevention of Expiry and Handling of Expired Medicines and Health Supplies, has been developed to address the challenges of medicines and Health supplies management at the facility level. It has been common practice for medicines to expire in one health facility yet the next health facility needs the same medicine. This scenario has greatly contributed to wastage of the already constrained financial resources to the health sector. The guidelines will ensure that the limited resources are used efficiently to improve availability of EMHS and improve their rational use.

The guideline is especially timely to address the fears of accumulation and shortages that may result from the current system of supplying pre-packaged kits to lower health facilities (HCII and HCIII). Even for higher level facilities, medicines stocks have been known to go above the maximum level or below the minimum level where redistribution could have reduced wastage.

The Ministry of health has involved a broader section of stakeholders and hopes that many of their concerns are addressed in these guidelines. But as we continue using the guidelines, areas that are not adequately addressed will continue to be identified and these will inform the next edition of the guidelines. Any future suggestions to improvement of this edition should be forwarded to pharmacy@health.go.ug.

It is my sincere commitment that all health workers especially those involved in medicines management will find these guides useful and will greatly contribute to improvement of rational distribution and use of medicines in the country. The DHOs are encouraged to oversee the successful implementation of these guidelines in their respective districts.



Dr. Aceng Jane Ruth,

Director General of Health Services

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- The persons listed below for their contribution to the development of the first draft of the guidelines;

Name	Organisation
Albert Kalangwa	UNFPA
Andrew Waswa	Joint Medical Store
Barbara Kimuli Nanteza	Stores In charge Kayunga Hospital
Birna Trap	SURE Program
Dennis Kibira	Coalition for Health Promotion and Social Development (HEPS)
Dennis Mwesigwa	National Drug Authority
Dr.Ahmed Matovu	Medical Superintendent Kayunga Hosp.
Dr. Fred Sebisubi	Pharmacy Division, MOH
Evans Klaus	CHAI
Noorin Mawani	CHAI
Jackson Ogwal	NUMAT Project
John Obicho	STAR SW Project
Joseph Mangusho	STAR E Project
Khalid Mohammed	SURE Program

Kigongo Francis	Mityana District
Lawrence Mumbere	AIDS Control Program, MOH
Lawrence Were	SURE, Pharmacy Division, MOH
Morries Seru	Pharmacy Division, MOH
Muhindo K. Isaiah	District Medicines Management Supervisor Mukono
Nabangi William	District Medicines Management Supervisor Mityana
Obua Thomas	Pharmacy Division, MOH
Robinah Babirye	Reproductive Health Division, MOH
Sam Balyejjusa	AIDSTAR-One /Uganda
Dr. Victoria Masembe	AIDSTAR-One /Uganda
Victoria Nakiganda	SURE Program
Vivianne Mulema	STAR EC Project
Dr. Jacinto Amandua	Commissioner, Clinical Services

All their efforts are greatly appreciated.



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Oteba Olowo Martin

Assistant Commissioner Health Services
Pharmacy Division

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ACRONYMS AND ABBREVIATIONS

ARVs	Antiretroviral
CAO	Chief Administrative Officer
DHO	District Health Officer
EMHS	Essential Medicines and Health Supplies
HF	Health Facility
HF I/C	Health Facility In-Charge
HMIS	Health Management Information System
HSD	Health Sub-District
HUMC	Health Unit Management Committee
JMS	Joint Medical Store
MOH	Ministry of Health
NDA	National Drug Authority
NEMA	National Environmental Management Authority
NMS	National Medical Store
PPDA	Public Procurement Disposal of Public Assets Authority

BACKGROUND

Uganda is currently using both a push (kit -based) and pull (order -based) system to supply essential medicines and health supplies (EMHS) to health facilities. Higher-level health facilities (Hospitals and Health Centres level (HCIV) utilize the pull system by requesting EMHS from the National Medical Stores based on their budgets. Lower level health facilities (HC II and HC III) receive a “kit” with standardized types and quantities of EMHS. The kit system does inevitably result in over and under stocking. The degree of over/under stocking will vary by facility due to factors such as patient load, human resource capacity, EMHS utilization and disease patterns.

As a result, two outcomes have emerged in the medicines supply and management system in the country: 1) Shortages of essential medicines and health supplies remain rampant, and 2) paradoxically, medicine expiries are occurring more regularly.

The impact of essential medicines shortages and expired medicines is clear: patients are directly affected. Expired medicines have a high likelihood of being re-circulated into the market. If used, expired products are not only ineffective but can result in the emergence of resistance to antimicrobial agents, toxicity in humans and other animals. Expired medicines pose risks to food chains and water sources if not properly disposed of. In addition, expired medicines constrain storage capacity at the health facilities.

The increased shortages and stock out of essential medicines, and its large impact to society, have raised the need to understand the causes of medicine expiries and subsequently develop strategies for their prevention and management.

On many occasions, there has been reluctance of the health workers to move over stocked and near to expiry EMHS between health facilities and districts. To minimize the potential for expiries and stock outs, the Ministry of Health has developed these guidelines to empower health workers at all levels of care to carry out redistribution of medicines and supplies that are not needed or are about to expire. The procedures presented in this document should be used to guide redistribution and disposal of expired medicines and should be followed and documented to ensure transparency of all the processes involved.

PART 1: GUIDELINE ON REDISTRIBUTION

1.0 PRINCIPLES BEHIND REDISTRIBUTION

Redistribution is an essential part of reverse logistics that moves unused, unexpired stock between health facilities and districts where it is most needed. Redistribution only applies to useable stock.

2.0 TRIGGERS OF REDISTRIBUTION

The triggers for redistribution are derived from the stock management tools especially the stock cards and supported by regular physical stock count. It is therefore important that health facilities maintain updated stock cards to effectively manage the redistribution process.

Redistribution should therefore occur in three scenarios:

- i. When there is excess of EMHS in one facility and a deficit in another. Excess is defined as having:
 - More than five months worth of stock for an EMHS
 - More than four months worth of stock for ARVs
 - More than three months worth of stock for laboratory chemicals with short shelf life
- ii. Stock that will expire before use (short shelf life)
- iii. Items have been distributed to levels where they are not supposed to be used

3.0 INITIATION OF REDISTRIBUTION PROCESS

The health facility in-charge (HF I/C) is responsible for initiation of redistribution. The HF I/C having been informed by regular stores facility report, should communicate to the next level of supervision (HF to the Health Sub-District (HSD)). The HSD in turn informs the District Health Officer (DHO) about the overstock.

4.0 STEPS IN REDISTRIBUTION

Step I: Detection and Reporting of Stock for Redistribution

- i. The storekeeper/supervisor should complete monthly physical inventory checks and notify the HF I/C of items that need to be redistributed
- ii. Using a redistribution form, the HF I/C should then communicate the need to the HSD, who should in turn report to the DHO.

Step II: Identification of Recipient Health Facility

- i. The DHO should first consult other health facilities about the existing stock, including the District Hospital and the Regional Referral Hospital for that district.
- ii. If facilities in a district are well-supplied and do not need the overstocked item, the DHO may communicate with the neighboring districts and offer them items.
- iii. If no other district is willing to take the excess stock, the district should inform the National Medical Store (NMS) and Joint Medical Store (JMS) about the stock.

Step III: Authorization and Stock Adjustments

Once a recipient is identified, the transfer process is implemented using the requisition and issue voucher.

The DHO or his/her representative initiates this process:

- i. The request is filled on behalf of the recipient health facility
- ii. The issued quantity is entered on the voucher. The HF I/C and DHO sign the voucher. The process should be witnessed by a member of the Health Unit Management Committee (HUMC), who also signs the requisition and issue voucher.
- iii. One duplicate copy of the requisition and issue voucher should remain at the health facility. The storekeeper should make the adjustments on the stock card.

5.0 FINANCIAL IMPLICATIONS

Government through Ministry of Health allocates funds to various health facilities for procurement of EMHS which should be accessed by the patients for free. There shall therefore be no direct monetary implications or challenge to the recipient during the redistribution process within the district and inter districts. Health facilities at all levels of care should however document the worth of stock movement to inform future policy and guidelines and are encouraged to ensure maximum and efficient utilisation of the allocated resources for procurement of EMHS.

6.0 ROLE OF INSTITUTIONS

To ensure that redistribution occurs with the proper controls, the following parties should carry out specific responsibilities:

- Health Facility In-Charge: Sign off on donated and received stock; ensure proper records are maintained
- A member of the Health Unit Management Committee: Witness the dispatch and receipt of stock
- Medicines Management Supervisor: Detect the need to redistribute stock and assist the District Director of Health Services to identify recipient facilities; support health facilities to initiate redistribution process on behalf of the DHO
- District Health Officer: Over see the EMHS management in the district; this responsibility can be delegated to any competent officer.

7.0 NECESSARY AUTHORIZATIONS AND FORMS

The following forms are necessary for a successful redistribution:

- i. ***Redistribution of EMHS Notification Form (Annex A):*** The HF I/C will notify the HSD in charge about the overstocked items using a Redistribution Notification Form. The Redistribution Notification Form is first completed by the storekeeper and then signed by the HF I/C, who sends it for a signature and authorization by the HUMC. Once signed, the form is sent to the HSD, who in turn forwards it to the DHO. The form is in triplicate, and copies with all signatures should be kept at the health facility, HSD and DHO.

- ii. **Requisition/Issue Voucher HMIS 017 (Annex B):** This form should be completed once redistribution is decided. The request is completed by the recipient facility and endorsed by the DHO. The storekeeper from the issuing facility completes the Requisition/Issue Voucher HMIS 017 form, and the HF I/C approves the release of the items.
- iii. **Stock Card HMIS 015:** The stock cards for the items should be updated to account for EMHS redistribution to another facility. The quantities issued for redistribution are written as negative adjustments.
- iv. Authorization at different levels:

On the redistribution form

- a. Facility: Health facility in-charge witnessed by HUMC
- b. HSD: HSD in-charge or sub-county chief
- c. District: DHO and Chief Administrative Officer (CAO)
- d. General/District hospital: Medical superintendent and Administrator
- e. Regional Referral Hospital: Hospital Director and Administrator

PART 2: HANDLING AND DISPOSAL OF EXPIRED MEDICINES

1.0 STEPS IN DISPOSAL OF EXPIRED MEDICINES

Step I: Identification and Signing Off

- i. Stores managers/in-charge should review stock cards and conduct physical count monthly to identify expired commodities
- ii. Store in-charge should keep an expired items register, providing details of expired products, including the cost per unit (Annex C)
- iii. The expired products should be removed from the shelves and stored in a secure room or segregated area
- iv. Adjustments should be made on the stock card

Step II: Boarding Off

- i. Head of facility notifies the DHO
- ii. DHO notifies the District Procurement and Disposal Unit
- iii. District Procurement and Disposal Unit constitutes the Board of Survey to verify and sign off the commodities
- iv. The Board of Survey Report (Annex D) should be filled and signed by all members present
- v. A member of the Health Unit Management Committee should be present to witness this activity

Step III: Sorting

Medicines and all supplies should be sorted into the following **special** categories:

- Cytotoxic drugs
- Narcotics
- Ignitable (24% alcohol)
- Corrosive, e.g. strong acids, strong bases
- Reactive, e.g. nitroglycerine
- Toxic, e.g. containing arsenic, barium, cadmium, selenium, chloroform, chromium, lindane, m-cresol, mercury

All other expired pharmaceutical waste not in the categories above will be sorted into five categories below:

- Solids: Tablets, capsules, granules, powders, antibiotics in vials
- Semi-solids: Creams, lotions, gels, suppositories
- Liquids: Solutions, suspensions, syrups, ampoules
- Aerosol canisters: Propellant driven, sprays, inhalers, anti-histamines sprays
- Damaged pressurized cylinders

Technical officers should supervise sorting of medicines and supplies.

Step IV: Quantification and Recording

- Before transportation, ensure there is a record of all items and quantities that are being transported

Step V: Packaging, Sealing, Labelling, and Securing

- Remove all unnecessary packaging materials, such as cardboard, boxes, and plastic wrappings, which can be disposed of by burning or taken for recycling.
- Solids and semi-solids should be repackaged in large plastic containers, sealed, weighed, and labeled. This will reduce storage area required for keeping expired items.
- Secure in a lockable room

Step VI: Transportation

- i. DHO/storekeeper will advise on the best way forward
- ii. Where the district has arranged other means to transport expired medicines to destruction sites, National Environmental Management Authority (NEMA), National Drug Authority (NDA), and the police should be notified. Express permission obtained before the goods are moved.

Step VII: Disposal

Disposal will occur at facility, district, and central levels. Disposal locations will be based on the medicine/supply that is being disposed. The information below identifies which medicines/supplies should be disposed of at each level:

Disposal at Facility Level

- Liquids other than those classified as **special** in step III can be disposed of by opening/breaking the containers, diluting the contents with water, and pouring the contents out into the sewage system

- If it was packed in plastic containers, the plastics should be rinsed and taken to the nearest recycling plant
- For liquids in Ampoules, the glass container should be crushed and disposed of in a landfill

Disposal at District Level

The following items can be disposed at the district using the method described below. This should be done under the supervision of a pharmacist or a dispenser.

Commodity	Disposal Method
<ul style="list-style-type: none">• Inflammable, corrosive, and reactive waste	<ul style="list-style-type: none">• Dilute with water in a strong puncture-proof container and dispose of in a landfill
<ul style="list-style-type: none">• Solid and semi-solid waste; Weight below 100 kilograms	<ul style="list-style-type: none">• Dispose of in a district landfill
<ul style="list-style-type: none">• Liquids :small quantities; up to 10 litres	<ul style="list-style-type: none">• Dilute with water in a ratio of 1:50 and dispose of in a sewerage system
<ul style="list-style-type: none">• Liquid large quantities	<ul style="list-style-type: none">• Dilute with water and dispose in a Lagoon
<ul style="list-style-type: none">• Liquid anti-infective drugs	<ul style="list-style-type: none">• Should be diluted in water in a container left for two weeks, and disposed of in a sewer
<ul style="list-style-type: none">• Aerosol canisters	<ul style="list-style-type: none">• Should be disposed of in the district landfill

Disposal at specialised sites

The following categories of commodities require specialised destruction equipment and more sophisticated techniques. The items should be stored in a secure lockable place until they are collected by National Medical Stores or any other agency approved by Ministry of Health to be taken to the appropriate disposal sites.

Commodity	Disposal method
<ul style="list-style-type: none"> • Cytotoxic medicines and narcotic waste 	<ul style="list-style-type: none"> • Incinerate at temperatures over 1200⁰C
<ul style="list-style-type: none"> • Heavy metals 	<ul style="list-style-type: none"> • Inertization; This is a stabilisation process used for reduction of hazard potential of the waste by converting the contaminants into their least soluble, least mobile, or least toxic form • Harvesting; The item is subjected to a specified chemical reaction and the required component is obtained for re-use
<ul style="list-style-type: none"> • Solid and semi-solid waste: Weight above 100 kilograms 	<ul style="list-style-type: none"> • Incinerate at 1200⁰C and above
<ul style="list-style-type: none"> • Damaged pressurized cylinders 	<ul style="list-style-type: none"> • Incinerate at 1200⁰ C and above

2.0 FINANCIAL IMPLICATIONS

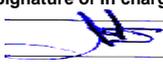
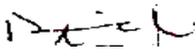
Facilities will not be charged for disposal of expired medicines. Central level and districts are encouraged to include an item line for handling and disposing expired medicines in their budgets and work plans.

3.0 REPORTING LEVELS

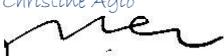
Health workers should report all expired medicines to the district. DHO and directors/medical superintendants should report all expired medicines to the Ministry of Health. The Ministry of Health should notify NMS, NDA, police (where appropriate), NEMA, and the Public Procurement Disposal of Public Assets Authority (PPDA).

ANNEXES

ANNEX A: REDISTRIBUTION OF EMHS NOTIFICATIONS FORM

Facility Name and Level Kiwagi HC II		Date 10th October 2011			
Health Sub District Masaka Municipality		Name and Signature of In charge Bileti John 			
District Masaka		Name and Signature of health facility Store Keeper Jane Kasumba 			
This is to notify the District Health Officer that the following items are in excess of stocks that can be used in the facility before it expires.					
Item Code No	Overstocked items	Expiry date	Pack size	Number of packs to be redistributed	Reason for Overstock
220 162	Diclofenac Tabs 50mg	05/2012	Pack of 100 tabs	20	Donation from NGO
202 054	Tetra eye Oint 1%	03/2012	Tube	50	Part of Kit and slow moving
220 255	Ferrous + Folic acid Tabs (150 /0.5) mg	04/2012	Jar of 1000 tabs	20	Donation from NGO
220 145	Chlorpheniramine Maleate tabs 4mg	03/2012	Jar of 1000	10	Slow moving - part of the Kit
Name- Signature- Date (HUMC Member) Ssalongo Bukya Eliphaz  10/10/11			Name Signature date (HSD in-charge) Dr Kayongo Joshua  12/10/11		
Name- Signature- Date (DHO) Dr. Sebuliba Mutumba  13/10/11			Name Signature date (CAO) Mr. Alphonse Zaake  13/10/11		

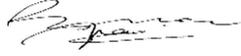
ANNEX B: HMIS FORM 017 REQUISITION AND ISSUE VOUCHER

Name of Health Unit: <u>Bumanya HC II</u>						
Dept/section/ward/dispensary:				Date: <u>13 Nov. 2011</u>		
Ordered by (Name and signature): <u>Christine Agio</u> 				Authorized by (Name and Signature): <u>Bileti John</u> 		
Item Code No.	Item Description (name, formulation, strength)	Balance on Hand	Quantity Required	Quantity Issued	Unit Cost	Total Cost
220 162	Diclofenac Tabs 50mg	0	2 x 100 tabs	2 packets	550	1100
202 054	Tetra eye Oint 1%	2	10 tubes	10	380	3800
220 255	Ferrous + Folic acid Tabs (150 /0.5)mg	0	1 x 1000 tabs	1	7000	7000
220 145	Chlorpheniramine Maleate tabs 4mg	0	1 x 1000 tabs	1	16000	16,000
	Total					27900
Issue date: <u>13 Nov. 2011</u>				Receipt date: <u>13 Nov. 2011</u>		
Name & Signature receiver: <u>Christine Agio</u> 				Name & signature issuer: <u>Jane Kasumba</u> 		

ANNEX C: HEALTH FACILITY EXPIRED AND SPOILT ITEMS REGISTER

Date	Expired/spoiled item (with description)	Exp. date/ Batch no.	Quantity x unit	Unit Price UGX	Total value of expired items	Witnessed/ taken by	Remarks
02/02/11	Paracetamol 500 mg tab	FT3000	5 x 1,000	5,906	29,530	Ruyooka/ MKali	Taken to DHO
4/10/11	Co-trimoxazole 480 mg tab	12K09	3 x 1,000	23,015	69,046	Ruyooka/ MKali	Taken to DHO
21/12/11	Sulfadoxine/pyrimethamine 500/25 mg tab	A0034	1 x 1,000	34,000	34,000	Ruyooka/ MKhali	Taken to DHO

ANNEX D: BOARD OF SURVEY REPORT

Department of: <i>Health office of the District Health officer</i>					
Proceedings of a Board of survey held at <i>District health Store</i> on <i>15th March 2011</i>					
The following unserviceable items were examined					
Description of article	Number or quantity	Value		Reason for condemning	Recommendation on how to dispose
<i>Assorted expired medicines and Laboratory reagents</i>	<i>See full list of items and quantities attached</i>	<i>UGX</i>	<i>USD</i>	<i>Expired items</i>	<i>To be destroyed in accordance to NDA guidelines</i>
<p>We the undersigned do hereby certify that we have examined the above mentioned items, and find them unserviceable, except otherwise indicated in the final column. We recommend that the former be disposed of as in that column</p> <p>Name: _____ Rank: _____</p> <p><i>1. John Asaba</i> _____ <i>Chairman</i></p> <p><i>2. Milly Ayot</i> _____ <i>Secretary</i></p> <p><i>3. Phillip Obbo</i> _____ <i>Member</i></p> <p>Date: <i>15th March 2011</i> _____ Members of Board of survey</p>					
<p>APPROVED: I hereby certify that the items above have been disposed off as authorized:</p> <p> _____</p> <p> _____</p> <p>_____ <i>Officer in charge of stores</i></p> <p>Date:<i>16th May 2011</i>..... Date:<i>16th May 2011</i>.....</p> <p>Note: The recommendations of the board should not be carried out until approval thereof has been conveyed</p>					
Instructions for use					
<p>Instructions for Board of survey</p> <p>Boards of survey will:</p> <ol style="list-style-type: none"> Find equipment submitted serviceable or not serviceable as the case maybe Recommend as to the items condemned whether they should be a) sold, b) sent to a center for parts to be utilized c) order that they should be destroyed (burned or broken up) The proceedings of the board should be in triplicate. One copy will, if approved, be sent for retention by the officer-in-charge of, and responsible for the equipment, one will be attached to the voucher for replacement or to the revenue return in case of sales, and the original be retained at the district office 			<p>Instructions for officer in-charge of movable assets</p> <ol style="list-style-type: none"> A certificate of destruction should be given by NDA showing how the items will be destroyed In case of sale, the cash should be properly brought to account, supported by the proceedings of the board In case of transfer, a report when dispatched and where to should be availed. <p>It is suggested that lists of losses should be submitted to each Board of survey with such explanation as may be possible, and that successive lists be forwarded as part of the proceedings of the board with such comments as it may desire to make.</p>		

