UNHCR
The UN Refugee Agency

UNHCR ESSENTIAL MEDICINES AND MEDICAL SUPPLIES GUIDANCE 2023

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Cover photo: UNHCRJordan/Hawari (copyright) - Salam AlHariri, 26, is a Syrian refugee and pharmacist in Jordan. A DAFI scholarship graduate from the University of Jordan in 2018, she has since been training in a local community pharmacy in Amman.

INTRODUCTION

The 2022 UNHCR Essential Medicines and Medical Supplies Guidance updates and replaces the version of 2013 and is to be used together with the UNHCR Administrative Instruction on Public Health Programming.

This guidance covers the selection of medicines and supplies, managing procurement, stock management, dispensing, rational use and monitoring of medicines and medical supplies in UNHCR supported health programmes. It is targeted at UNHCR personnel primarily at country level, notably public health personnel and is relevant to supply, programme and project control personnel and UNHCR's health and nutrition partners.

The guidance is divided into two parts:

Part A on the **selection and procurement of medicines and medical supplies** is particularly relevant to concerned UNHCR personnel including public health, supply, programme and project control.

Part B on **pharmacy management and dispensing** is primarily targeted at health partner personnel and is relevant for UNHCR personnel involved in health programme monitoring. It is also relevant to UNHCR regional public health personnel who are providing support to and oversight of the management of medicines and supplies in their regions.

© UNHCRJordan/Hawari - Medical staff at UNHCR's partner Caritas prepare medicines for delivery to vulnerable refugees in Amman.

PART A:
SELECTION AND PROCUREMENT OF MEDICINES AND MEDICAL SUPPLIES

The selection and procurement of essential medicines and medical supplies is fundamental to ensure that patients have access to the right medication, of good quality and when they need it.

Chapter 1.

Selection of essential medicines and medical supplies

Key points to remember

- Rational selection of medicines and medical supplies leads to better supply, lower costs, rational prescription and use of medicines.
- Selection of medicines and medical supplies in UNHCR operations must be based on UNHCR's Essential Medicines and Medical Supplies List (EML).
- The UNHCR EML has been developed after cross-referencing the World Health Organization (WHO) Model List of Essential Medicines and is updated regularly.
- Selection should be based on the essential health needs of the target population.
- Items that are not included in the EML can exceptionally be ordered with strong justification and with approval from the Public Health Section.

Introduction

UNHCR has developed an Essential Medicines and Medical Supplies List (EML) (available on the UNHCR intranet under Procurement of Medical Items (unhcr.org), based on WHO's essential medicines list. The rationale for selecting a limited number of essential medicines and medical supplies is that it will lead to:

a. **A reliable supply:**
   i. Easier procurement, storage and distribution
   ii. Reduced risk of stockouts
   iii. Better quality assurance
   iv. Easier dispensing

b. **Rational prescribing:**
   i. Evidence-based medicines are used
   ii. No irrational treatment alternatives available

c. **Reduced costs (more competitive prices through increased competition).**

d. **Rational patient use:**
   i. Increased adherence to treatment
   ii. Focused education
   iii. Reduced confusion
   iv. Increased availability

Criteria for the selection of medicines

Emergency Response

During the emergency phase of a refugee influx (usually the first 2-3 months) procurement of medicines and medical supplies is usually facilitated by the immediate provision of Emergency Health Kits. Even if kits are used, normal non-emergency lines of procurement must be planned and set up from the beginning of an emergency so that a smooth and timely transition can take place. The most commonly used kits are the Interagency Emergency Health Kit (IEHK 2017, an update is expected in 2023)[1] which is usually procured by WHO or UNICEF and the Inter-Agency Emergency Reproductive Health Kits for Use in Humanitarian Settings (2019)[2] which is usually procured by UNFPA. UNHCR may have to fill gaps in certain circumstances, therefore, those kits along with the Cholera kit, the Non-Communicable Disease kit and the Nutrition kit, are included in the UNHCR EML and can be procured through UNHCR.

The Interagency Emergency Health Kit (2017)

The IEHK was developed by WHO in consultation with partners, including UNHCR, and is updated every four years. It is designed to meet the initial primary care needs of a displaced population during an acute emergency. It consists of two different sets of medicines and medical devices, namely a basic unit and a supplementary unit. To facilitate distribution to smaller health facilities on site, the quantities of medicines and medical devices in the basic unit have been divided into 10 identical units for 1,000 people each. Please note that the IEHK does not cover all the reproductive health needs of the affected population and the Emergency Reproductive Health Kits should be use for that purpose.

1. Basic unit

The basic unit contains essential medicines and medical devices for primary health care (PHC) workers with limited training and is designed to be used at health post/centre level. It contains oral and topical medicines but does not contain any injectables.

2. Supplementary unit

The supplementary unit contains medicines and medical devices for a population of 10,000 persons and is to be used only by professional health workers or doctors. The supplementary unit does not contain any medicines or medical devices from the basic units. The supplementary unit should only be used together with one or more of the basic units at the field hospital or higher-level clinic level.

Both units contain malaria modules and the supplementary unit also contains a Post- Exposure Prophylaxis (PEP) kit. Be aware that some suppliers still consider them separate units needing explicit inclusion during the ordering process.

Inter-Agency Emergency Reproductive Health Kits for Use in Humanitarian Settings (IARH) 6th ed. 2019

Ensuring quality sexual and reproductive health (SRH) services is an essential element of any humanitarian response, as outlined in UNHCR's Global Public Health Strategy (2021 – 2025)[3] and in the Inter-Agency Minimum Initial Service Package for SRH in Crisis Situations (MISP)[4]. Timely availability of quality,

1. The Inter-Agency Emergency Health Kit: https://www.who.int/emergencies/emergency-health-kits
2. The Inter-Agency Emergency Reproductive Health Kits Manual: https://www.unfpa.org/sites/default/files/resource-pdf/IARH-Kits-6th-Edition_Manual_English.pdf
3. UNHCR Global Public Health Strategy 2021-2025: https://www.unhcr.org/612643544
4. MISP: https://iawg.net/resources/minimum-initial-service-package-misp-resources

essential SRH supplies, medicines and equipment is key to helping reduce mortality and morbidity in an emergency. To this end, Inter-Agency Emergency Reproductive Health Kits for Use in Humanitarian Settings[5] have been designed to complement the IEHK. The manual contains key descriptions of the kits, how to order them and manage their use. UNFPA maintains a stock of essential IARH kits ready to ship for urgent and emergency requests. In this link you can also find guidance on the storage of the Reproductive Health Kits.

Newborn Care Supply Kits for Humanitarian Settings (developed by UNICEF and Save The Children)

To complement the IARH kits, which do not provide the full range of supplies, equipment and medicines to support implementation of priority newborn care services, the Newborn Supply Kits for Humanitarian Settings (Newborn Kits) were developed and can be ordered from UNICEF Supply Division. For details, refer to the Manual on Newborn Care Supply Kits for Humanitarian Settings[6].

Post-Emergency

IEHK and IARH kits are for use only in the early phase of an emergency. These kits are neither designed nor recommended for re-supplying existing health care facilities. Good emergency preparedness planning according to context may not even require the use of kits but placing an emergency order directly. Normal non-emergency lines of procurement for medicines and medical supplies must be planned and set up as soon as possible during the emergency phase so that a smooth and timely transition takes place.

The choice of medicines depends on many factors. The most important are the pattern of prevalent diseases and national guidelines when existing. Medicines will primarily target primary care level and must be based on UNHCRs essential medicines and medical supplies list (EML).

Developing a Country Level Essential Medicines List

A country list should be selected based on the global UNHCR EML. Exceptionally, additional items not present in UNHCR EML may be included, but must have a strong and evidence-based justification. As a minimum, any such medication must be on both the national medicines list and on the WHO EML and preferably as a first line treatment. The special request form (see Annex A1) should be used to provide a strong justification and approval by the Public Health Section at headquarters is needed.

The UNHCR country Public Health Officer together with the public health staff of partner agencies should take the lead in the development or review of the EML and standard treatment guidelines in coordination with relevant local authorities and other agencies.

Developing Local Standard Treatment Guidelines

The introduction and use of standard treatment guidelines (preferably national guidelines where existing, otherwise other widely used guidelines e.g. MSF guidelines) https://medicalguidelines.msf.org/en or WHO guidelines, used in conjunction with standardized case definitions, is required. These treatment guidelines should cover the most common diseases and conditions, be differentiated for the different levels of health care, and be adapted to the competence of the health workers.

5. The Inter-Agency Emergency Reproductive Health Kits Manual: https://www.unfpa.org/sites/default/files/resource-pdf/IARH-Kits-6th-Edition_Manual_English.pdf
6. Newborn Care Supply Kits for Humanitarian Settings: https://www.healthynewbornnetwork.org/hnn-content/uploads/Newborn-Care-Supply-Kits-Manual_DIGITAL-131219.pdf

Donations of medicines and medical supplies

Guidelines for medicines donations in emergencies have been developed by the WHO in cooperation with UNHCR and other major international agencies active in humanitarian programmes. The four core principles are that:

- Donations should benefit the recipient to the maximum extent possible. All donations should be based on an expressed need. Unsolicited donations are to be discouraged.
- Donations should be given with due respect to the wishes and authority, policies and administrative arrangements of the recipient country.
- There should be effective coordination and collaboration between the donor and the recipient, with all donations made according to a plan formulated by both parties.
- There should be no double standard in quality. If the quality of an item is unacceptable in the donor country, it is also unacceptable as a donation.

UNHCR has developed technical guidance on accepting donations of specific items including medicines and medical supplies[7]. In summary:

- As a rule, UNHCR does not accept in-kind donations of medicines and medical supplies.
- Under exceptional circumstances, UNHCR may consider accepting donations on a case-by-case basis as approved by DESS/Procurement and DRS/Public Health.
- UNHCR may consider donations of kits (IEHK, IARH kits, etc.)
- UNHCR requires prior written approval before accepting donations on behalf of government and hospitals in countries where donations are used in referral care facilities.
- National guidelines should also be considered.

7. UNHCR/AI/2021/03 Administrative instruction on the acceptance and formalization of donor contributions (cash or in-kind donations)

Chapter 2.

Guidance for the procurement of medicines, medical supplies and medical equipment

Key points to remember

- It is UNHCR's policy to procure medicines and medical supplies through international suppliers.
- Local procurement should only be exceptional (in case of insurmountable import restrictions or non-planned emergency needs or the Government mandates procurement through nominated suppliers) and where quality of products can be ensured.
- The procurement process seeks to achieve the 'best-value quality', provided all mandatory documentation is available to assure quality of the medicine or supply.
- Quality assurance procedures must be in place for procurement whether it is done internationally or locally.

Introduction

Pharmaceutical procurement is a structured process that involves many steps. Efficient procedures should be in place to:

- select the most cost-effective essential medicines to treat commonly encountered diseases;
- quantify the needs through adequate assessment;
- select suppliers by ensuring they meet good distribution practices, quality and regulatory standards;
- ensure good product quality;
- manage procurement and delivery activities, including inspection when necessary;
- monitor the performance of suppliers and the procurement system.

UNHCR's medicines and medical supplies procurement chapter does not replace UNHCR's general procurement guidance as specified in the UNHCR Manual, Chapter 8 on Supply Chain Management and Administrative Instruction on Procurement (AI/2021/05) as well as UNHCR's Procurement Guidelines for Implementing Partners. The specific medicines and medical supplies procurement guidance outlined below needs to be used as a supplement to the general UNHCR procurement regulations to comply with UNHCR's accounting and auditing procedures and standards.

Medicines and medical supplies procurement at UNHCR

It is UNHCR's policy to principally tender for and procure medicines and medical supplies through **international suppliers**. The selected international suppliers are able to ensure quality assured products at reasonable prices. This also mitigates the risk of procuring falsified or substandard medical products which have flooded many unregulated markets. Substandard and falsified pharmaceuticals present a

major health risk and commonly include antibiotics and medicines to treat tuberculosis, malaria and HIV/AIDS. The use of substandard drugs can result in no medical benefit and potentially fatal outcomes. A recent WHO survey of the quality of antimalarials in seven African countries revealed that between 20% and 90% of the products failed quality testing[8].

Due to the complexity, verification requirements and high risk associated with medicine and medical supplies procurement, the following review and clearance process must be followed:

- All medicine and medical supply orders must be technically cleared by the Regional Bureau, who will provide recommendations. In the absence of Regional Public Health staff, the Public Health Section will take this role. The country office will finalize the order based on the feedback received.
- In the rare event that items are required that are not included in the UNHCR EML, the country operation should provide a strong justification and approval by the Public Health Section at headquarters is needed. These exceptional requests should focus on primary and secondary health care level.

Local procurement may be required when international procurement is not feasible due to insurmountable import restrictions, or in case of non-planned emergency needs or if the Government mandates procurement through nominated suppliers. Local procurement requires strong justification in a memorandum to the Regional Bureau, and to be reviewed by the UNHCR Public Health Section for technical recommendations. (see Annex A2)

The approval will take into consideration a specified list of pharmaceuticals from a specified manufacturer in a specified country for a specified period of time based on relevant local market assessment for quality assurance.

Quality Assurance (QA) criteria and procedures must be applied to mitigate the risks of local procurement (see section on UNHCR QA procedures).

Procurement of non-standard medical equipment

When non-standard medical items or equipment are being considered to be procured to support primary or higher levels of care these must: a) be based on ministry of health specifications; b) be equipment or supplies already used in-country; c) be items that the national health system has the capacity to use, maintain and service; d) be items for which the ministry of health will be able to provide reagents or other consumables to maintain their functioning; e) be based on local disease burden; f) be for the benefit of the host community and refugees; g) be compatible with available energy, water supply and connectivity sources; h) be reviewed and approved by the senior regional public health officer and PHS. In the procurement request, training and installation requirements should be included in addition to maintenance and service arrangements which should be for a specified period (usually one to two years) through an in-country agent. The procurement of equipment should be part of a broader health strategy which has primary health care at the centre and in line with health systems strengthening to advance refugee inclusion. UNHCR should avoid procuring highly expensive, complex equipment that will benefit very few people.

Procurement of assistive devices

When assistive devices, technology or products are procured to support primary or higher levels of care these should: a) be based on ministry of health specifications and/or the WHO 'Assistive product specifications and how to use them' document and/or the UNHCR Guideline for Rehabilitation and Assistive Technology (forthcoming); b) be assistive devices, technology or products recommended within the UNHCR Guideline for Rehabilitation and Assistive Technology (forthcoming); c) be items that the national health system or selected partners have the capacity to prescribe and provide through

8. World Health Organization steps up action against substandard and counterfeit medicines (who.int)

trained personnel, and to maintain or service including through the availability of spare parts as needed; d) be based on local prevalence of conditions needing assistive technology e) be appropriate for the local environment; f) be procured locally where available products on the local market meet required specifications and quality if not then procured internationally from approved suppliers under frame agreement with UNICEF and/or WHO ; g) be informed and revised on feedback collected from end-users as regards to quality, safety and usability. For more information about assistive technology and products see the UNHCR need to know guidance on facilitating access to assistive technology, rehabilitation and related services (forthcoming 2023).

UNHCR Quality Assurance (QA) procedures for the procurement and/or supply of medicines and medical supplies

UNHCR will follow **Quality Assurance (QA) procedures** to ensure the quality of medicines and medical supplies during the procurement process (whether internationally or through local procurement). QA ensures that all medicines and medical supplies procured and/or supplied by UNHCR will be of appropriate quality and will not expose persons to avoidable risks (such as falsified or substandard medication or medical supplies).

There are both **legal** and **quality** requirements that apply respectively to the:

1. **products** procured/supplied (medicines or medical supplies),
2. **manufacturer** of the products,
3. **wholesaler/ suppliers** involved in the storage, distribution and transportation of the products.

These requirements are summarized in the table below.

Table1. Summary of legal and quality requirements for procurement of medicines and medical supplies

	Legal requirements	Quality requirements
Product (the individual medicine or supply)	Import and use authorization by the relevant National Regulatory Authority (NRA) in the country of destination	Medicines: • Certificate of pharmaceutical product (CPP) • Reference to WHO PQ list • Batch Certificate of finished pharmaceutical product (FPP) Medical supplies: • WHO prequalified • quality management system (QMS) recognized by the regulatory authority of one of the Global Harmonization Task Force (GHTF) countries

Manufacturer	Authorized by the NRA in country of origin	GMP compliant, GMP certificate issued by: • WHO • WHO Listed Authorities maturity Level 4 (WLA ML4); previously known as strict regulatory authorities (SRA) • Pharmaceutical Inspection Co-operation Scheme (PIC/S)
Wholesaler/supplier	Authorized by the NRA (or recognized authorities) in country of operation	GDP compliant: • WHO Good Distribution / Good Storage practice (GDP/GSP) • Model Quality Assurance System (MQAS) requirements

Public Health staff at country level are responsible for ensuring the QA for any local procurement and that they are in line with QA applied for international procurement.

The key principles of QA procedures are ensuring:

1) **Market authorization:** all medicines and medical supplies procured by UNHCR shall be authorized for marketing and use in the country of import/use by the relevant National Regulatory Authority (NRA). Where such authorization has not been granted, a waiver or exceptional permission to import/use the product should be obtained from the relevant NRA.

   In case of local procurement, the medicine must be registered in the country of use and preferably also by the country of manufacture, (preferably through the WHO Certification Scheme on the Quality of Pharmaceutical Products Moving into International Commerce[9]). Registration may not be required for medical supplies, but it must be confirmed that the supply is authorized in the country of manufacture and import/use.

2) **Procurement from qualified suppliers:**

   - for **international procurement**, the supplier prequalification is based on evidence of compliance with Good Storage and Distribution Practices (GSDP) demonstrated either through inspection by a WHO Maturity Level 4 Authority (previously called strict regulatory authorities, SRA) or audit against WHO GSDP or the WHO Model of Quality Assurance System for procurement agencies (MQAS) by a UN agency, or UNHCR-recognized organizations.
   - in case of authorized **local procurement**, the country technical committee assigned to the technical assessment of the bid offers is responsible to qualify a supplier based on the following criteria:
   - the suppliers must be licensed with the NRA of the country of import.
   - the Quality Assurance system of the supplier must be demonstrated through conducting Good Storage and Distribution Practice (GSDP) technical audit or MQAS audit (by a Local Market Assessment (LMA) conducted by a qualified provider). UNHCR has a global Frame Agreement with an LMA provider which countries should use. The LMA provider has quality assurance experts who conduct on-site technical visits or audits and provide UNHCR with a confidential report with

9. https://apps.who.int/iris/bitstream/handle/10665/63547/WHO_PHARM_82.4_Rev.5.pdf?sequence=1&isAllowed=y

recommendations on compliance of the supplier with GSDP or MQAS. PHS at headquarters can be contacted to provide support to organize an LMA. The cost of the LMA is to be paid by the country operation and the cost estimate can be provided by PHS.

- supplier questionnaire; reference checks; previous record of performance (quality, reliability, timely delivery of supplies). UN prequalified suppliers may also be used.
- for exceptional emergency local procurement when an LMA cannot be organized in time, the country operation must ensure at a minimum that the required medicines and medical supplies are authorized by the NRA and are procured through NRA-licensed suppliers and from authorized manufacturers.

3) Procurement from authorized manufacturers in the country of manufacture and country of use.

All manufacturers of Finished Pharmaceutical Products (FPP) shall:

- be duly authorized by the NRA in the country where all relevant manufacturing sites are located and provide copies of valid licenses for all sites which are concerned (country of manufacture).
- be Good Manufacturing Practices (GMP) compliant. As proof of compliance, the supplier/manufacturer shall provide a GMP certificate issued by a regulatory authority that was previously referred to as SRA (Strict Regulatory Authority) , or WHO Public Inspection Report (WHOPIR report) if applicable or any audit report issued by a UNHCR recognized organization.

  All manufacturers of **Medical Supplies** shall have a valid and certified Quality Management System (QMS), according to the last versions in force ISO 13485 or ISO 9001, when the first is not applicable, or an equivalent. The QMS shall include the scope and the locations and facilities where the relevant activities are performed; the QMS shall be issued by an accredited Conformity Assessment Body/Notified body (CAB/NB) recognized by the Regulatory Authority of one of the IMDRF (International Medical Device Regulators Forum)[10] founding member countries and shall be recognized by such authorities.

4) Procurement of medicines or medical supplies (Finished Pharmaceutical Product (FPP)) and equipment that have demonstrated their "quality":

1. For medicines: the supplier/manufacturer must provide evidence of registration in the country of manufacture and a Certificate of Origin or a Certificate of Pharmaceutical Product (CPP) in accordance with the WHO certification scheme.
2. For medical supplies: the products must comply with recognized guidelines for medical devices and meet necessary requirements and test methods. Please refer to the WHO Certification Scheme document for more information.

Other documents must be provided such as market clearance, evidence that the products are in the WHO PQ lists where applicable, conformance certificate if applicable (i.e., electrical or fire safety), marketing license when applicable, technical specifications (product brochures, user manuals, etc.)

Quantification for medicines procurement

Quantification is the process of estimating the quantities of medicines and medical supplies for annual procurement. The accuracy of an estimation will depend on the accuracy and quality of the information available. There are two main methods used, which can also be combined:

Consumption method

Past consumption is the most reliable way to predict and quantify future demand, provided the supply pipeline has been consistent and that consumption records are reasonably accurate. Consumption data

10. The five GHTF founding members are the European Union, the United States, Canada, Japan and Australia

must be adjusted in light of known or expected changes in morbidity patterns, population size, seasonal factors, service levels, prescribing patterns and patient attendance. The downside of basing quantification only on past consumption is that any existing patterns of irrational medicine use will be perpetuated. Another way to calculate needs using the consumption method is to use issue data from the central distribution point, which shows the amount of medicines distributed to the health facilities over a given period. However, it should be noted that this method may not provide an accurate reflection of actual consumption and may not be the most efficient calculation method available, consumption data is preferred because it provides a direct link with the end-users and therefore efforts to ensure rational medicine use should be prioritized.

See Annex A3 for more detail on quantification by the consumption method.

Morbidity method

In case there is no reliable past consumption information (such as new programmes), the morbidity-based technique may be used to estimate initial requirements. Thereafter consumption data must be collected and used for quantification.

See Annex A4 for more detail on quantification by morbidity method.

Combination of methods

The morbidity-based technique should also be used periodically to countercheck the rationality of past consumption, by comparing actual consumption with the estimated need to treat common diseases based on standard treatment protocols and epidemiological data. This combination of consumption and morbidity methods is also useful in programmes with a high seasonal variation in consumption of certain medicines such as antibiotics or antimalarials.

Estimating the budget for medicines

Estimated prices in USD will be indicated for each item in UNHCR's international order form in order to estimate the annual medicines and medical supplies budget. Note that costs may vary slightly between suppliers depending on which supplier is selected following the secondary bidding process. There may also be instances where an item price will differ from the original LTA prices due to changing market conditions.

Procurement functions at UNHCR

A summary of key UNHCR medicine and medical supplies procurement functions and frequencies is presented in the table below.

Table 2 : Medical procurement routine and accountability functions

ROUTINE PROCUREMENT FUNCTIONS		
	Frequency	**Responsible**
Global/ headquarters		
Revision of UNHCR essential medicine list (EML)	Every 2-3 years	Public Health Section (PHS) at HQ with input from regional senior public health officers

Global Tender for International FA	Every 5 years	SMS/PS Budapest with PHS for technical review
Technically review country medical orders in regions without regional public health staff	Annually	PHS
Review of requests for local procurement and provide recommendations	When required	PHS
Regional Bureau Level		
Technically Review country medical orders and provide recommendations	Annually (and when required)	Regional senior public health officers
Review and approve requests for local procurement	When required	Regional senior public health officers and Regional Bureau director
Country Operation Level		
Establish country procurement plan and budget	Annually	Country Operation (Public Health, Supply and Programme)
Prepare annual order	Annually	Public health personnel
Secondary bidding with FA holders	Annually (and when required)	Country supply personnel or HQ SMS Budapest
Selection of supplier based on offers	Annually (and when required)	Public health personnel with supply
Raise requisition and PO	Annually (and when required)	Public health personnel with programme
Import permit license and green light for shipping	Annually (and when required)	Country supply personnel
Reception of goods and handover to partners	Annually (and when required)	Country supply personnel
Processing of payment to supplier	After each order, Process the payment of the invoice(s) timely in accordance with the contract provisions (within 30 days for current FAs)	Country supply personnel

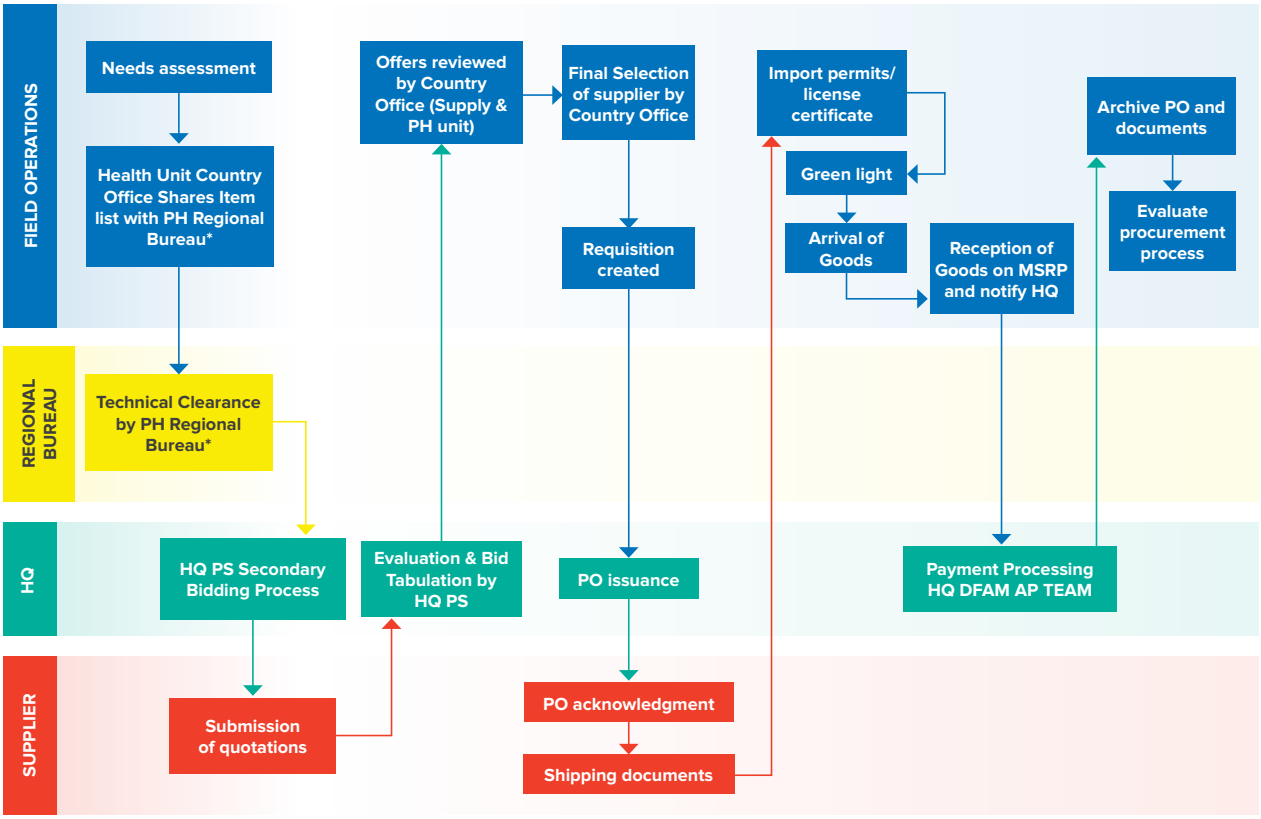
Ordering procedures for international procurement

The following steps need to be followed for international procurement:

- After the review of the consumption/ morbidity data, an order for medicines and medical supplies is prepared in the field by the public health staff of the partner agency in coordination with UNHCR's country Public Health Officer (where present).
- In country operations, with multiple partner agencies delivering health programmes, UNHCR must compile the requirements and procure centrally for the entire programme for all partner agencies at the same time, once per year.
- The order should be discussed with the UNHCR Programme Officer to confirm the budget availability.
- The standard international order form for medicine and medical supplies should be used to prepare the order. In addition, the form in Annex 1 should be filled for all items ordered that are not in UNHCR's EML.
- The order must be sent to the regional public health officer for review and recommendations. For countries without a regional public health officer, the order is sent to the PHS.
- Regional bureau (or PHS as above) provides technical review, feedback and recommendations to country office.
- Country office revises order as appropriate and places order.
- SMS/PS or the Country office supply (when entitled to do so) will then process the order.
- For planning purposes, it is important to bear in mind that the time between placing the order of essential medicines and medical supplies with Frame Agreement holders (issuance and dispatch of POs) and the delivery at country level may take an average of 4 to 12 months. Each country should prepare an annual chronogram for medicine procurement with timelines and tasks defined to ensure orders are placed timely taking into account unforeseen challenges that may occur throughout the process. The time for each step should be estimated conservatively to be as realistic as possible also taking into account the local clearance and green light processes.

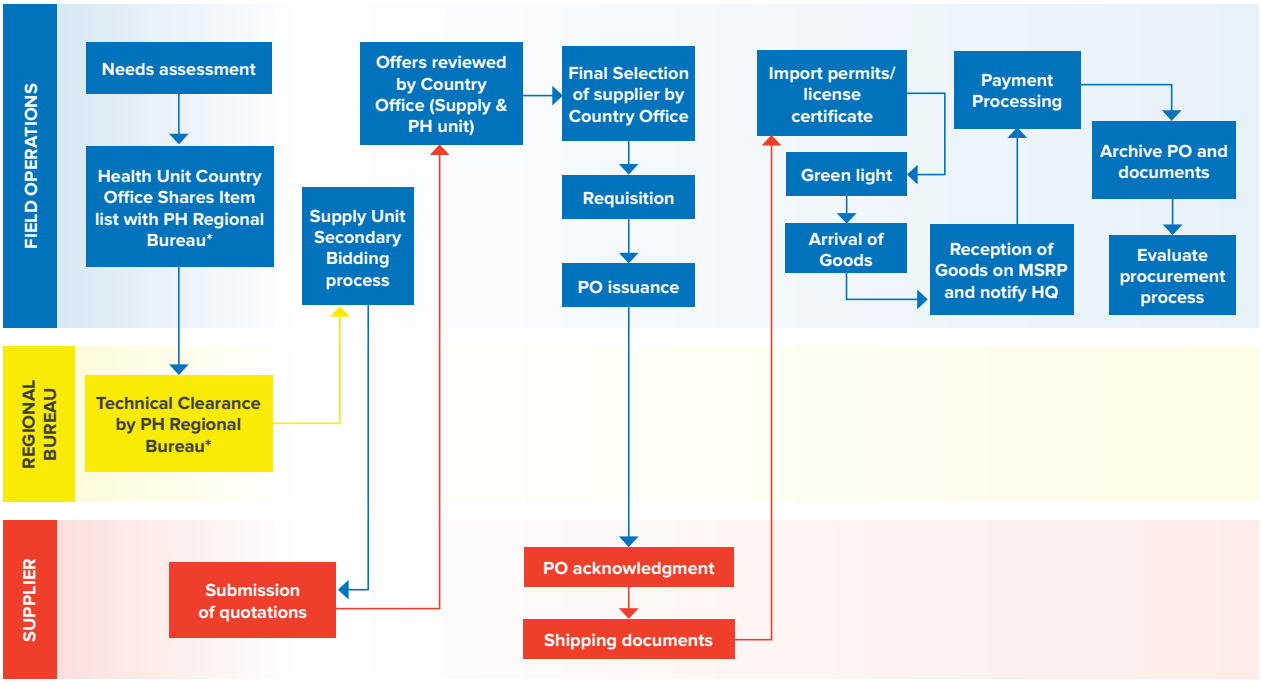
The following figures demonstrates the process for countries authorized to place orders with the international suppliers (Fig 1.) and for those who place their orders through SMS/PS in Budapest (Fig 2) :

Fig 1: Flow chart of procurement of essential medicines and medical supplies – UNHCR Global Frame Agreements POs issued by HQ



In the absence of Regional Public Health staff, the Public Health Section will take this role

Fig 2: Flow chart of procurement of essential medicines and medical supplies – UNHCR Global Frame Agreements – for countries entitled to place POs directly to FA holders



In the absence of Regional Public Health staff, the Public Health Section will take this role

To ensure efficiency of the supply chain and management of committed funds, procurement section (PS) will endeavor to ensure that most international orders are placed as per Free Carrier (FCA) (Incoterms® 2020), where the delivery will be organized by UNHCR designated freight forwarders. However, whenever necessary and for low volume, UNHCR may require that the goods supplier also handles the transport. In such case, the relevant orders will be placed as per Delivered at Place (DAP) (Incoterms® 2020). However, UNHCR needs to assist in the customs clearance process by providing the necessary import and exemption certificates to facilitate the shipments. Since medicines are very sensitive commodities, procedures on receiving the medicines should be carried out promptly and thoroughly.

To ensure timely payment, colleagues must perform the receiving activity as soon as goods are handed over to UNHCR. In case of FCA (Incoterms® 2020) delivery terms, the operation will receive the goods based on the FCR (Forwarder certificate Receipt) and relevant shipping documents. Whereas on DAP (Incoterms® 2020) terms, goods should be inspected upon delivery and the Delivery Note / GRN (Good Receipt Note) should be duly signed if the consignment is in accordance with the packing list. In case the goods are still under clearance, it should be clearly marked on the Delivery Note, "Not inspected, still in Customs". This will be immediately followed by the creation of a receipt in MSRP which will enable payment to the supplier. The MSRP receipt will be communicated to PS which will process payment for orders placed at headquarters. UNHCR or the partner can pay the supplier and still have the option to claim damaged or missing items. Any supporting document that is necessary to back up the claim that loss or damage took place before UNHCR took delivery. Hence, it is important to note any damage to boxes, missing boxes, etc. and have all parties involved in sign-off. For International deliveries, the PS in Budapest should be informed immediately if anything is missing or damaged.

Receipt and inspection of consignments upon arrival

On reception at the warehouse, the number of boxes and the state in which they have been received should be checked immediately (note any signs of damage or tampering). If the contents cannot be checked immediately, which is often the case for large shipments, the sealed and undamaged boxes should be quarantined until inspection. The contents of the boxes that are damaged or that have a broken seal should be inspected immediately against the packing list. Ensure that the items delivered correspond to the items ordered, and that the quantities conform to those on the Delivery Note.

Discrepancies, variations, and damages are noted on the invoice. The annotated invoice is signed and dated by a senior staff member. Observations are summarized on the delivery report. One copy of the delivery report is filed according to the purchase order to which it corresponds (invoice matching).

Measures should be taken to ensure that rejected materials and pharmaceutical products cannot be used. They should be stored separately from other supplies while awaiting destruction or return to the supplier.

Communication and Supplier Relationship Management activities

All communication concerning a shipment under the global frame agreement purchased through PS Budapest should have PS in copy. If the country is raising the PO directly with the supplier, they will directly communicate with the supplier to follow up on the shipment.

To ensure adequate monitoring of medical items orders, specifically for significant orders, PHS and PS highly recommend that the supply team in collaboration with the public health team (from the Ordering Operations) hold regular meetings with the awarded supplier, preferably on a monthly basis. The aim is to review the status of the order, monitor goods readiness dates and shelf life, review supplier's performance, and identify/address bottlenecks in the green light and import processes.

© UNHCR/Lilly Carlisle - The one pharmacist working at the health centre in Kiziba camp distributes medicines and prescriptions to a refugee from DRC.

PART B:
PHARMACY STOCK MANAGEMENT, DISPENSING AND RATIONAL USE OF MEDICINES

Chapter 3.

Pharmacy stock management

Key points to remember

UNHCR hands over stock of procured medicine directly to the health partner who becomes responsible for its storage, management and use. UNHCR should ensure that partners apply appropriate management of medicine and medical supplies as stipulated in Article 8 for Partnership Agreements (PAs) in health and nutrition:

- Comply with the timelines in the annual procurement plan for annual quantification, ordering and distribution of medicines and medical supplies.
- Ensure appropriate management of the medical stocks through staff with adequate training and qualifications.
- Have in place tools and processes to guarantee that stock levels are closely monitored.
- Stock management tools (stock cards) should be in place for every item in the stock.
- Periodic complete inventories are conducted in every store and compiled in a report, clearly showing and explaining any discrepancies found.
- Ensure the adequacy of storage arrangements.

Introduction

Medicines and medical supplies are procured by UNHCR and handed over directly to health partner(s) who are responsible for the management of stocks, pharmacies and dispensing in the health programmes. UNHCR health personnel at country level maintain a role in the oversight of medicines management by partners, and capacity building through monitoring visits and training. UNHCR has no expertise in the management of pharmacies or warehouses with stocks of medicines and this should be done by relevant partners.

Organization of medical stores and pharmacies

Layout of medical warehouses and pharmacies:

- The **dimensions** of the warehouse or pharmacy must be according to storage needs:
  - the number of medicines and supplies to be stocked;
  - the number and activities of facilities;
  - the frequency of distribution and receiving.

Sufficient space is needed as a cramped warehouse is difficult to work in and any increase in stock or activity is difficult to manage in a limited space. For $1m^2$ of storage space plan on $3m^2$ of floor space. Ensuring the **security** of medical stocks is essential to prevent theft, loss, or damage. This requires the use of solid doors, locks, windows, and ceilings in the medical store or pharmacy. Access to the keys must be controlled to prevent unauthorized access. Access to the medical store or pharmacy should also be restricted to authorized staff members who are listed in advance. To enhance security, it is advised to install an alarm system or have security personnel monitoring the warehouse. Appropriate fire control practices should be in place to prevent the outbreak of fires including training staff and having fire extinguishers available.

- The **interior layout** should be logical and correspond to the circuit of reception, storage, and distribution:
    - **Reception area:** for stocking parcels before unpacking and checking freight and quality control. The reception area should be near access doors in order to facilitate handling.
    - **Distribution area:** for stocking peripheral orders before distribution. Each destination should have a designated area where parcels are stocked before distribution. Distribution areas should be near access doors in order to facilitate handling.
    - **Storage area:** It is recommended to plan a stocking area for empty boxes, used to prepare orders for peripheral health facilities.
    - A **workspace** should be set up in the reception area and in the distribution area to verify deliveries and prepare orders.
    - For the person in charge of the pharmacy, a **desk** near a light source should be set up for administrative work and for keeping documents.
    - **Damaged and expired products** must be separated from the usable stock without delay and disposed of using established disposal procedures.
- Location of items must be clearly identified with signposts/ labels.
- In big medical stores, it is recommended to design and display a simple plan or layout of the store, detailing the different areas and the location of the items.
- In order to protect items from degradation and moisture, all medicines and medical supplies should be kept on **shelves or pallets**. No product or packaging, even large-sized, should be stored on the floor. No product should be in direct contact with the wall. Metal structures are preferred (to avoid degradation and to facilitate adjustment of the storage space). Please note that a pharmacy or medical store without shelves or pallets is not a pharmacy.
- When **arranging health commodities**, and in order to improve ventilation, the following should be respected:
    - At least 10cm off the floor;
    - At least 30 cm away from the walls and other stacks;
    - No more than 2.5m high;
    - All liquid products should be place on the lower shelves or bottom of stacks.
- Arrange cartons so arrows point up and identification labels, expiry dates, and manufacturing dates are visible. If not possible then write the product name and expiry date clearly on the side of the box.
- As a general rule, **follow the manufacturer's or shipper's directions** when stacking, and follow labels for storage conditions.
- The medical store should be used exclusively to store medicines and medical supplies. Other non-medical items, such as food (which will attract pests), fuel, construction materials etc. should be kept in a separate store.

- The medical warehouse or pharmacy should be regularly cleaned and cleaning records must be available.
- Pest control measures must be in place.

Arranging Health commodities

- Medicines are to be arranged according to the following **classification**:
  - oral medicines
  - injectable medicines
  - infusions
  - medicines for external use
  - disinfectants
- Within each category, products (oral, injectable, external use etc.) are classified **alphabetically** using the generic name or International Nonproprietary Name (INN).
- Medical supplies and materials should be grouped by subcategory:
  - dressings
  - injection materials
  - sutures
  - reagents and laboratory materials etc.
- Each product should have a **designated place**, well identified by a fixed label. The label should indicate the generic name or INN, form and dosage, e.g. AMOXICILLIN 250 MG TABLET.
- Store **attractive and controlled** products in appropriately secured areas.
  - Controlled substances should be kept in a **locked cupboard** or in a safe to which only limited authorised persons have access. Every entry and exit should be recorded in a register, which can be found in the cupboard or safe. Narcotic drugs, also called “dangerous drugs” are governed by special legislation and regulations that control import, export, production, supply, possession, prescribing, record keeping, and retention of documents.
  - Some **non-controlled items** are particularly prone to theft, abuse, or misuse. These include **expensive drugs**, certain **antibiotics and some medical equipment**. Such items should be stored in a separate locked area and require stricter record keeping and more frequent stock taking than other items. Periodic audits should be made of consumption against actual recorded use to expose any theft or misuse.
- A small working stock of **flammables** (such as alcohol, ether, acetone) may be kept in a steel cabinet in well-ventilated premises, away from open flames and electrical appliances. The cabinets should be marked “highly flammable liquid” and bear the international hazard symbol. In addition, the shelves of the cabinet should be designed to contain and isolate spillage. Always store flammables in their original container and to store them in the coolest location possible and never in direct sunlight.
- Products needing a cold chain should be stored in a refrigerator (between 2-8 °C). See section on Cold chain for more information.
- **As far as possible, do not divide** stocks of the same product over different locations.
- **Storage of bulky materials:** put a few boxes in their normal place and, on a label, indicate where the rest of the stock is kept. Do not disperse the rest of the stock in several places.

- Arrangement of all products must respect the FEFO principle (First Expiry First Out): stocks that expire sooner are more accessible and easier to reach than stocks expiring later

  Remember: the order in which products are received is not necessarily the order in which they will expire. Products received more recently may expire sooner than products received earlier. So, it is extremely important to always check expiration dates and make sure the dates are visible whilst the products are in storage.

- **The storage arrangement should allow fast inspection. An empty space behind a label means a stock rupture.**

Expired and damage products

- Measures should be put in place to avoid expiry or overstock by performing a monthly overstock check (can be done during the periodic inventory done monthly). Upon completion of the check:
  - list all medicines and medical supplies expiring in less than 6 months,
  - compare current stock with average monthly consumption and highlight items (regardless of their residual shelf life) which will unlikely be consumed before expiry date,
  - look for mitigation measures (stock transfer, donation, etc.) in order to consume most of the stock before expiry date and to reduce losses.

- Regularly remove all damaged and expired products from the usable stock. A specific space should be allocated to store those products.
- An updated record of expired and damaged quantities should be kept in the medical store.
- All damaged and expired quantities should be recorded and disposed of sharing the list of the items with UNHCR for disposal approval. Disposal of items should be done following established national procedures.

Storage conditions of medicines and medical supplies

Temperature and humidity

- If no specific storage instructions are given, normal storage conditions apply. Normal storage conditions for drugs have been defined as “storage in dry, well-ventilated premises at temperatures of +15°C to +25°C, or, depending upon climatic conditions, up to +30°C. Extraneous odors, other indications of contamination and intense light must be excluded” (WHO 1990).
- In the store, relative humidity should not be above 65%.

- To reduce the effects of humidity and temperature consider:
  - **Ventilation:**
    - Open the windows or air vents of the storeroom to allow air circulation. Ensure all windows have screens to keep out insects and birds, and either have bars or are not open wide enough for anyone to climb in.
    - Put boxes on pallets and ensure there is space between pallets and the walls of the storeroom.
    - Consider installing a ceiling underneath the roof to reduce the ambient temperature; the space between the ceiling and roof must be ventilated.
  - **Packaging:** Secure all lids. Never open a new container unless necessary. Keep products in cartons. Opening containers long before the use of drugs should be avoided.

- **Circulation:** Use a fan to circulate fresh (outside) air. In bigger storerooms you may need a ceiling fan. Standing fans can be used in smaller storerooms.
- **Air conditioners:** If possible, use an air conditioner. This requires electricity and regular maintenance. Depending on climatic conditions, a dehumidifier may be considered. It requires regular attention to empty the water containers or to install automatic water drainage system.
- **Floors** should be covered in cement (slightly inclined, if possible, to facilitate cleaning).

- Protect products from sunlight. Windows and openings should be shaded to avoid exposure of drugs to direct sunlight.

- Temperature monitoring:
  - Consistently monitor the temperature of the different areas within the storeroom.
  - It is recommended to monitor room temperature twice a day, at the beginning and at the end of a working day.
  - Keep records of the storeroom temperatures. Use the standard Temperature and Humidity record sheet (Annex A5).

Cold Chain

- Some medicines and medical supplies need to be stored and transported in the temperature range of 2°C to 8°C in order to protect them from degradation and loss of efficacy. These are commonly known as "**cold chain items**".
- For the detailed list of cold chain items, please refer to the UNHCR EML.
- The temperature in every fridge and cold box storing cold chain items needs to be monitored continuously and recorded twice a day. For that purpose, it is recommended to equip every fridge and cold box with a thermometer and a continuous temperature-monitoring device.
- Temperature records should be clearly displayed outside every refrigerator, freezer and cold box in use. Please refer to (Annex A6) for a sample of a refrigerator temperature monitoring chart.
- For hygiene and temperature maintenance reasons, do NOT put any food or drinks in the vaccine and drugs fridge. Those items can also make the inside of the fridge too warm.
- In medical warehouses where large quantities of cold chain items are stored, it is recommended to keep enough cold boxes and frozen ice packs (in a freezer). Those must be used as a cold chain **contingency plan** in the event of a power failure or breakdown of fridges.

Management of medical warehouses and pharmacies

UNHCR has no expertise in the management of pharmacies or warehouses with stocks of medicines and this should be done by relevant partners.

Responsibilities

- The management of a medical warehouse/pharmacy should be entrusted to a single person having received adequate training (ideally a pharmacy technician), helped by assistants depending on the workload.
- This person is the only person in possession of keys to the medical store and narcotics cupboard.
- Tasks and responsibilities should be clearly defined. One assistant should be able to replace the person in charge if necessary.

- It is recommended to set up a calendar detailing when the different activities at the medical store will take place (distribution of medicines, inventories, receptions etc.).

Stock management

- **Stock cards** are the main instruments for stock control in any medical store. The objectives of the stock card are to:
  - record all stock movement IN and OUT;
  - give an indication at any moment of the theoretical level of stock;
  - provide information on the distribution;
  - determine losses (expired drugs, discrepancies between theoretical and actual stock).

- Every medical item, including the items stored in the cold chain, must have a stock card in regional and central warehouses and at pharmacies (not dispensaries) of health facilities.

- The following should be always noted on a stock card (refer to (Annex A7) for a sample of a stock card:
  - the INN, form and strength;
  - batch number and expiry date;
  - all movements (in, out, origin, destination, loss due to expiration, damages) and dates;
  - inventories and dates: the physical quantity counted during the inventory should be recorded on the stock card. Every difference between the physical quantity counted and the recorded quantity in the stock card should be explained under the "Remark" column.

- The following may also be included on the stock card:
  - average monthly consumption;
  - stock levels: buffer stock, running stock;
  - other stock areas for a product;
  - unit price;
  - current orders and dates.

- All quantities reported in stock cards are always recorded in the smallest unit available (e.g., in tablets, ampoules, needles) and never in number of boxes.
- **Note: stock cards are always required in a warehouse/ medical store, even when computer assisted stock management is used.**

Physical Inventories

- Actual quantities of each product in stock must be periodically verified. Inventories are essential to manage a medical store. Differences between theoretical stock (recorded in stock cards) and counted quantities may be due to several reasons such as errors in recording, theft etc.

- Complete physical inventories of current stock quantities and expiry dates should be conducted in every medical store:
  - **Before every new medicine order.**
  - On a **quarterly basis** in big medical stores (e.g., medical warehouses).
  - On a **monthly basis** at the camp medical health facilities/pharmacies

- Physical inventories should be compiled in a report and recorded on the stock cards.
- All the discrepancies found should be checked and explained with a written justification on the stock cards and inventory reports.
- During an inventory, the medical store should be closed (no stock movements).
- If the medical store is well arranged, only a few hours should be needed to do a complete inventory.
- Use the periodic inventory stock report template as per (Annex A8).

Reporting

- Dispensers should record individual prescriptions and maintain prescription or dispensing registers on a daily basis. (**daily dispensing tally sheets** -see template (Annex A9).
- **Monthly consumption reports** should include at least information of the quantities consumed for every item during the month (monthly consumption sheets).

1. Medical stock levels and consumptions need to be regularly reported through:
   a. **Regular orders:** the frequency of those orders should be established by UNHCR and the implementing partner managing the project, and it is subject to different factors such as: storage conditions at the service point, storage capacity etc. (see example of request form (Annex A10).
   b. Periodic inventories: please refer to the previous section to know more about the frequency of the inventories.

2. All this information should be reported to the medical coordination level of the partners and to UNHCR public health teams.

3. This information is essential to maintain accurate data on stocks and consumption in order to plan orders.

Monitoring of medical warehouses and pharmacies of health centers

1. UNHCR must monitor medical warehouses and pharmacies as part of its regular partner monitoring.

2. There are two checklists to facilitate monitoring:
   a. One for pharmacies at health centre level (unit providing medicines directly to patients) included in the UNHCR Balance Score Card.
   b. One for medical warehouses (all other facilities storing medicines excluding the end provider unit as above) available on the UNHCR intranet Medical warehouse monitoring check list.

3. The checklists are intended to be used and completed jointly by UNHCR and partner staff with or without a medical or stock management background.

4. Each of the checklists is made up of two different sections: a "Questionnaire" and a "Verification of stock records". At the end of each checklist there is a score allocated to measure the performance of the medical warehouse or health facility.

5. The frequency of pharmacy or medical warehouse monitoring is minimum once a year but can be more frequently according to the performance score.

Chapter 4.

Good dispensing practices and rational use of medicines

Good dispensing practices

Good dispensing means ensuring that an effective form of the correct drug is delivered:

- to the right **patient**;
- in the **prescribed dosage and quantity**;
- with **clear instructions**;
- in a **package** that maintains potency.

Good Dispensing Practices (source MSH 1997):

1. Safe, clean and organized working environment.
2. Disciplined use of effective procedures.
3. Qualified and trained staff, regular performance monitoring.
4. Safe and clean dispensing/ labeling.
5. Ensuring patients' understanding.

Working environment

Dispensing environments must be clean and the working area must be hygienic and uncontaminated. The environment must also be organized so that dispensing can be performed accurately and efficiently. The dispensing environment includes:

- **Staff** must maintain good personal hygiene and should wear clean protective clothing and have facilities to wash and dry hands.
- **Physical surroundings** must be kept free of dust and dirt. Daily cleaning of floors and working surfaces is necessary.
- **Shelving and storage areas** should only contain medicines and kept tidy and clean.
- **Surfaces used during work** mut be kept clean, food and drinks are not allowed.
- **Dispensing equipment** used for measuring liquids (measuring cylinder) or counting tablets or

capsules (spoons, tablet counters) should be cleaned between different products, between patients and at the end of the day.

Stock containers and pre-packed medicines must be stored in an organized way. **ALL STOCK CONTAINERS IN USE MUST BE CLEARLY AND ACCURATELY LABELED.**

The repacking of one medicine in a container of another medicine should be discouraged and if it needs to be done, the name, dosage and batch number and expiry date should be clearly indicated.

Dispensing Process

The consistent and repeated use of a good dispensing procedure is vital so that any errors are noticed and corrected. The dispensing process is as follows:

1. Receive and check the prescription- confirm the name of the patient. There is a risk of mixing-up prescriptions if people have similar names.

2. Understand and interpret the prescription-read the prescription and make sure that it is complete. A prescription consists of 7 parts:
   - Name of the patient.
   - Name of the medicine and the strength to be administered (e.g., Paracetamol 500 mg). Write the full name of the medicine. (e.g., Do not write 'para 500 mg', but 'paracetamol 500 mg').
   - Dosage of the medicine (e.g., 500 mg).
   - Route by which the medicine is to be administered (e.g., PO).
   - Time and/or frequency of administration (e.g., 3 times a day).
   - Date and time when the order was written.
   - Signature of the person writing the prescription.

   If the prescription is not complete, go back to the prescriber and ask him/her to complete the prescription before dispensing.
   - Correctly interpret any abbreviations used by the prescriber.
   - e.g., IM (Intra Muscular); o.d. means once a day.
   - Confirm that doses are in the safe range (check age/weight.
   - Correctly perform any calculations of dose and issue the quantity.
   - Identify any common drug-drug interactions.

3. Prepare items for issue:
   - Write on the label.
   - Select stock container.
   - Select by reading the label of the original container and check it with the prescription. Do not keep too many containers open at the same time.
   - Measure or count quantity from the stock container.
   - Hands must never be in direct contact with the medicine! Counting can be done with a clean piece of paper and spatula, a tweezer, a tablet counter, lid of the container in use or another clean surface. Immediately after counting, the container should be closed again and the container label should be rechecked for the drug name and strength.
   - Pack and label the medicine.

- Tablets and capsules should be packed in a sealed plastic dispensing bag. Liquids require clean bottles with effective caps. Never mix two liquids together.
- The label should indicate: name of the patient, medicine name and strength, dose (amount and frequency), quantity dispensed. Symbols might be necessary to indicate amount and frequency of dosage (for patients who cannot read).
- Check dispensed medicine against prescription and against stock containers used.
- Especially in dispensaries with a high patient-load, it is better to work in teams of two for dispensing in order to double-check prescriptions; the first prepares the medicines prescribed, the second then double checks and gives them to patients with the necessary explanations.

Record keeping

Good records are an essential part of dispensing and can be used to monitor proper practices and serve as consumption data necessary for proper stock management.

The personnel in charge of the dispensing at the health facility should use the daily dispensing tally sheet (see annex A9) to record the number of units (tablets, ampoules, etc.) which have been given to each patient on that day.

Quantities are always recorded in units (e.g., 50 tablets, 8 ampoules) and never in number of boxes. Every day, a new daily consumption tally sheet should be used. At the beginning of the day the person in charge of dispensing will indicate the initial quantity of stock. At the end of the day the person in charge will calculate the total quantity dispensed and the remaining quantities.

The daily quantity should then be summed up and reported in weekly or monthly consumption tools and integrated with the consumption of other facilities at central level.

Issue medicines to patients with clear instructions and advice

The patient must be given clear information on the correct use of the medicine to ensure it has its intended effects. Advice should focus on:

- **When** to take the medicine (particularly in relation to food and other medicines) and for how long;
- **How** to take the medicine (chewed, swallowed whole, taken with plenty of water);
- **How** to store and care for the medicine.

Common but harmless side effects (nausea, mild diarrhea, urine changing color) should be mentioned. It is very important to explain why antibiotic treatments must be taken completely (to treat the infection and avoid development of resistance) while painkillers (analgesics) should be stopped when the pain has gone. Medicines which interact with alcohol should also be mentioned (e.g., antihistamines, anti-depressants, metronidazole).

In case of a mono-dose treatment, ideally the drugs should be taken on the spot under supervision. In other cases, the first dose can also be given on the spot.

Every effort should be made to confirm that the patient understands the instructions. To check if a patient really understands, have them repeat what they were told.

Dispensing staff

Dispensing staff have a major responsibility in the distribution of medicines, since some patients do not know the correct use or cannot judge the quality of medicines received and are therefore completely dependent on the dispenser.

Dispensers should have:

- Knowledge about the medicines being dispensed (common use, common dose, precautions about the method of use, common side effects, common interactions with other drugs or food, storage needs);
- Good calculation and arithmetic skills;
- Skills in assessing the quality of preparations;
- Attributes of cleanliness, accuracy, and honesty;
- Attitudes and skills required to communicate effectively with patients.

Dispensers need regular training and performance checks.

Rational use of Medicines

Rational use of medicines requires that patients receive medications appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community.

Irrational use of medicines is a major problem worldwide. WHO estimates that more than half of all medicines are prescribed, dispensed or sold inappropriately. https://www.who.int/news-room/fact-sheets/detail/access-to-medicines “World Health Organization's (WHO) "Fact sheet on access to medicines" published in November 2016.

Some examples of irrational use are:

- Use of too many medicines per patient (polypharmacy);
- Inappropriate use of antimicrobials (inadequate dosage and for non-bacterial infections);
- Overuse of injections when oral formulations would be effective;
- Failure to prescribe in accordance with clinical guidelines;
- Self-medication of prescription-only medicines;
- Non adherence to dosing regimens.

The effective use of medicines in all refugee settings depends on:

- Rational prescribing;
- Appropriate indication: The decision to prescribe a medicine is entirely based on the medical rationale and that the medicine is an effective and safe treatment;
- Appropriate medicine: The selection of a drug is based on efficacy, safety, suitability, and cost considerations;
- Appropriate patient: No contraindications exist, the likelihood of adverse reactions is minimal, and the drug is acceptable to the patient.
- Correct dispensing, including appropriate patient information: Patients are provided with relevant, accurate, important and clear information regarding their condition and the medication that is prescribed. Medicines are dispensed in a safe and hygienic manner.
- Adherence to treatment: Adherence is the degree to which patients adhere to medical advice, and take medicines as directed. A patient adheres to the treatment if he/she understands and appreciates the value of taking specific medicines for specific indications and if drugs are dispensed in a form that is acceptable to the patient.

Promoting rational use of medicines is the responsibility of medical staff of partner organizations and UNHCR public health staff. Staff should refer to the WHO website on promoting rational use of medicines to learn more on how to tackle this issue.

The prescribing indicators to monitor rational use of medicines at health facility level are:

- Average number of drugs per encounter.
- Percentage of encounters with an antibiotic prescribed.
- Percentage of encounters with an injection prescribed.

Source: WHO/DAP 1993 WHO Drug Use Indicators (Outpatient Facilities)

Impact of irrational use of medicines

The impact of irrational use of drugs can be seen in many ways:

- Reduction in the quality of drug therapy and overall quality of health care leading to increased morbidity and mortality.
- Waste of resources leading to reduced availability of other vital medicines and increased costs.
- Increased risk of unwanted effects such as adverse drug reactions and the emergence of drug resistance, e.g., malaria or multi-drug resistant tuberculosis.
- Psychosocial impacts, such as when patients come to believe that there is “a pill for every ill.” This may cause an apparent increased demand for drugs.

Antimicrobial Resistance (AMR)

One of the consequences of the irrational use of medicines is the development of Antimicrobial Resistance (AMR).

Antimicrobial resistance happens when microorganisms (such as bacteria, fungi, viruses, and parasites) change when they are exposed to antimicrobial drugs (such as antibiotics, antifungals, antivirals, antimalarials, and anthelmintics). As a result, the medicines become ineffective and infections persist in the body, increasing the risk of spread to others.

WHO considers tackling antibiotic resistance a high priority. A global action plan on antimicrobial resistance, including antibiotic resistance, was endorsed and aims to ensure prevention and treatment of infectious diseases with safe and effective medicines. More information on AMR is on the WHO website .

Health professionals have a role to play to prevent and control the spread of AMR. They can:

- Prevent infections by ensuring hands, instruments, and environment are clean.
- Only prescribe and dispense antibiotics when they are needed, according to current guidelines.
- Report suspected antibiotic-resistant infections to surveillance teams.
- Talk to patients about how to take antibiotics correctly, antibiotic resistance and the dangers of misuse.
- Talk to patients about preventing infections (for example, vaccination, hand washing, safer sex, and covering nose and mouth when sneezing).

USEFUL RESOURCES

- Guidelines for the Storage of Essential Medicines and Other Health Commodities 2003. John Snow, Inc. in collaboration with the World Health Organization.
  https://reliefweb.int/sites/reliefweb.int/files/resources/B3E50E41B7274108C1257392004CD977-Guidelines%20for%20the%20Storage%20of%20Essential%20Medicines.pdf
- MSF MEDICAL GUIDELINES
  https://medicalguidelines.msf.org/en
- MSF :Essential drugs. 2022.
  https://medicalguidelines.msf.org/viewport/EssDr/english/essential-drugs-16682376.html
- MSH: Managing Access to Medicines and Health Technologies.2012.
  https://msh.org/resources/mds-3-managing-access-to-medicines-and-health-technologies/
- UNICEF: e-learnings on cold chain management
  https://agora.unicef.org/local/catalogue/index.php?query=cold%20chain
- WHO: Safe Management of Wastes from Healthcare activities
  https://www.euro.who.int/__data/assets/pdf_file/0012/268779/Safe-management-of-wastes-from-health-care-activities-Eng.pdf
- WHO: Promoting rational use of medicines
  https://www.who.int/activities/promoting-rational-use-of-medicines
- WHO: Antimicrobial resistance (AMR)
  https://www.who.int/news-room/fact-sheets/detail/antibiotic-resistance

ANNEXES

Annex A1
Order form for non-Essential Medicines

Annex A2
Sample Template for Local Procurement Waiver and PHS Comments

Annex A3
Operating Instruction Quantification consumption method

Annex A4
Operating Instruction Quantification morbidity method

Annex A5
UNHCR Temperature and Humidity Log for temperature-controlled room

Annex A6
UNHCR Temperature record for refrigerator

Annex A7
UNHCR Stock Record (Stock Card)

Annex A8
UNHCR Periodic Inventory report

Annex A9
UNHCR daily dispensing tally sheets

Annex A10
UNHCR Monthly Requisition and Consumption Reporting Form

Annex A11
Sample template for country standard operating procedure

ANNEX A1
Order form for non-Essential Medicines

ORDER FORM

Request for items not included on the UNHCR Essential Medicines List.

PLEASE COMPLETE ALL RELEVANT SECTIONS OF THIS FORM

Note: Procurement and delivery time may be longer than medicines on the Essential Medicine List.

Country: _____

Location: _____

Camp: _____

Refugee population: _____

1. **Generic name(s):** _____

2. **Specify the dosage form and strengths or specifications.**

Item	Description (dosage form, strength, specs)	Quantity

3. **Clinical Indications for use of medicine:**_____

4. **State reasons for request, and explain why UNHCR list analogues not appropriate.**

5. **List contra-indications, precautions and side- effects associated with use/abuse of proposed medicine:**_____

6. **Specify conditions under which the items will be used:**_____

   - Camp(s) where it will be used:_____

     _____

   - Level(s) of health worker(s) authorized to prescribe the medicine:_____

     _____

   - Health facilities in which it will be used:_____

     _____

   - Access to personnel skilled in used of medicine:_____

     _____

(Name and title of person making request).

_____

Signature:_____

Date:_____

NB. *This form is to be submitted for clearance to the PHS at Headquarters and Regional Senior Public Health Officer.*

ANNEX A2

Sample Template for Local Procurement Waiver and PHS Comments

Memorandum

UNHCR

Address of Office

To:

_____**Director,**_____**Bureau, HQ**

From:

_____**Representative, UNHCR Country Office**_____

File Code:

_____

Subject: Waiver Request for the local procurement of medicines and medical supplies.

Date:_____

1. Background:_____

_____

_____

2. Justification:_____

_____

_____

_____

3. Tendering Procedures and Evaluation Proposed:

4. Summary:

5. Attachments:

Public Health Section (Division of Resilience and Solutions) comments:

Name

Signature

Date

ANNEX A3

Operating Instruction Quantification consumption method

United Nations High Commissioner for Refugees	
Consumption-based quantification of essential drug procurement	
Nr. Of pages: 6	Procedure number: SOP P1 Version 2, Date 08 Sep 2021

Objective:

Estimating the quantities of specific medicines needed for procurement to avoid shortage and excess stock based on past consumption data, adjusted for stock-outs, avoidable wastages and projected changes in utilization.

Responsibility:

UNHCR country public health personnel with health partner(s).

Resources:

Essential data are:

- general data: location, partner, name of responsible officer with UNHCR and with partner.
- data on population size.
- consumption and/or issue data.
- data on frequency and duration of stock-outs.
- projected drug costs
- review period versus desired coverage period.

Consumption data	Issue data
• dispensing records • monthly consumption reports	• stock records central distribution point • distribution records

Note that the consumption from a stock record card is calculated by adding up all the quantities issued. The formula is:

Recorded consumption = Opening stock + Drug Received - Closing Stock.

Procedures:

Step 1: Prepare a list of drugs to be quantified.

Step 2: Determine the period of time to be reviewed for consumption.

The simplest and most practical period for which to calculate consumption is one year. This ensures that the morbidity variations of all seasons are covered. If data are available, the longest period of data should be used as can improve the reliability of the results.

The **timing** of placing an order is critical in order to avoid stock-outs. It needs to take into account the lead-time (time for procurement and delivery). For example, if an order is being placed for January – December 2006, the order must arrive in December 2005. Taking into account an average lead-time of 3 months, the order must be prepared and sent in September 2005 (or even earlier if possible).

Step 3: Enter consumption data for each drug.

For each drug, enter:

- The total quantity used during the review period (in basic units).
- The number of days (or months) that the drug was out of stock in the review period.
- The average lead-time from the last several procurements.

Step 4: Calculate the Average Monthly Consumption and adjust for stock-out.

The average monthly consumption is a key variable in the quantification formula and should be as accurate as possible. The simple approach is to divide total consumption by the number of months reviewed. If there were stock-outs during that period, the average must be adjusted to include the consumption that would have occurred if stock had been available.

Adjusted average monthly consumption:

CA = CT ÷ [RM – (DOS ÷ 30.5)]

CA = Average monthly consumption adjusted for stock-outs

CT = Total consumption during review period, in basic units

RM = Review period in months

DOS = Number of **days** an item was out of stock during the review period

Note that one must divide by 30.5 to convert to months. If the total consumption of ampicillin 250 mg capsules for a six-month review period was 89000 capsules and the drug was out of stock for 34 days during that period, the (adjusted) average monthly consumption is:

CA = 89000 ÷ [6- (34 ÷ 30.5)] = 18218

Step 5: Calculate the lead-time stock needed for each drug.

This is the quantity of drug consumed during the delivery time. So if delivery time is 3 months, the lead-time stock is the monthly consumption x 3.

Step 6: Calculate the safety stock needed.

The safety stock is a reserve stock that can avoid stockout in case of unplanned situation as increase in consumption, delivery delay, losses.

Safety stock can be calculated as the consumption during half of the review period or half of the lead time or 20% of total order.

When demand is stable and logistics system is functioning the safety stock can be lower. In case of a new system or unstable context and non well functioning system the safety stock may be higher. Then the Safety Stock can be lower when more data is available. Remember, however that higher safety stock will result in higher quantity to be stored and will require sufficient financial capacity.

Step 7 : Calculate the quantity to be ordered.

QO = CA x (LT + PP) + SS – (SI + SO)

Important Note:

Expiry date of the medicine in stock (and if available on order) should also be considered. Indeed, if a batch of a medicine cannot be consumed before it reaches its expiration date, non-consumed quantities at expiration date should be reduced from the stock on hand.

Step 8: Convert the quantity into order pack.

Total quantities required divided by order pack size.

Step 9: Estimate costs for each drug and total costs.

In order to estimate procurement costs, multiply the price by estimated quantity for each drug by the purchase price. If for example the price per pack of Amoxicillin 250mg of 1000 capsules is 30 USD and the annual total estimated requirement is 40 packs then the cost will be =40 x 30 USD= 1200 USD.

Estimate the total cost of all drugs and add everything up.

Step 10: Prepare annual drug budget.

The annual drug budget shall include:

- All the estimated cost of the drugs & medical supplies required.
- Estimates of the cost for transportation, procurement & distribution.

Formulas for Consumption-Based Calculations

Formula Number	Objective of Formula	Calculations
1	Adjusted average monthly consumption (preferred)	CA = CT ÷ [RM – (DOS ÷ 30.5)]
2	Adjusted average monthly consumption (alternative)	CA = CT ÷ (RM – MOS)

3	Projected average monthly consumption	CP = CA x AU
4	Basic safety stock requirements	CP x LT
5	Quantity to order	QO = CP x (LT + PP) + SS – (SI + SO)

CA = Average monthly consumption, adjusted for stockouts CT = Total consumption during review period, in basic units RM = Total consumption review period in months

DOS = Number of days an item was out of stock during the review period

MOS = Estimated number of months an item was out of stock during the review period

CP = Projected average monthly consumption AU = Utilization adjustment

LT = Average lead time (for projected supplier or worst case), in months

QO = Quantity to order in basic units, before adjustment for losses or program change

PP = Procurement period (number of months to be covered by order)

SS = Quantity needed for safety stock

SI = Stock now in inventory, in basic units

SO = Stock now on order, in basic units

Figure 1 Example of a Consumption-Based Forecast

Drug	Strength	BU	Pack Size	Total Consumption in Period (BU)	Days Out of Stock	Adjusted Average Monthly Consumption (BU)	Projected average monthly Consumption (BU)
Ampicillin	500 mg	capsule	1,000	59,500	0	9,917	10,413
Ampicillin	250 mg	capsule	1,000	89,000	34	18,218	19,129
Ampicillin sodium injection	500 mg	ampoule	100	3,879	0	647	679
Ampicillin suspension 100 mL	125 mg/	bottle	1	4,128	0	688	722
Antihistamine decongestant elixir	5 Ml	bottle	1	853	29	169	177
Antihistamine decongestant	250 mL	tablet	500	50,000	0	8333	8,750
Bacitracin antibiotic ointment	(any)	tube	1	2,414	31	484	509
Bendrofluazide	—	tablet	500	141,500	30	28,208	29,618
Benzathine benzyl- penicillin injection	5 mg	ampoule	50	1,318	0	220	231
Cephradine injection	2.4 M.U.	ampoule	100	2,695	0	449	472
Chlorhexidine gluconate solution (Hibitan)	500 mg	Liter	5	302	0	50	53
Chlorhexidine/ cetrimide (Savlon)	5%	Liter	5	438	0	73	77
Chlorpropamide	5 liter	tablet	1,000	162,000	0	27,000	28,350
Cimetidine (Tagamet) injection	250 mg	ampoule	10	1,090	0	182	191
Cimetidine	200 mg	tablet	1,000	24,000	0	4,000	4,200
Cloxacillin suspension 100 mL	125 mg/ 5 mL	bottle	1	882	0	147	154

Note: BU = basic unit, Consumption period = 6 months, Lead time = 3 months, Procurement Period = 6 months, Utilization adjustment for 6 months = 2.5%, Losses adjustment = 10%

Stock on Hand (BU)	Stock on Order (BU)	Lead-time Stock Level (BU)	Suggested Quantity to Order (BU)	Adjusted Order Quantity	Order Quantity (Packs)	Probable Pack Price (US$)	Value of Proposed Order (US$)
32,000	42,000	31,238	50,950	56,045	57	69.30	3,950.10
81,000	58,000	57,387	90,548	99,603	100	35.10	3,510.00
111	7,600	2,036	435	478	5	29.95	149.75
1,513	3,000	2,167	4,156	4,571	4,572	0.75	3,429.00
351	929	532	849	933	934	1.57	1,466.38
0	62,500	26,250	42,500	46,750	94	12.00	1,128.00
3,400	100	1,526	2,603	2,864	2,864	0.54	1,546.56
142,000	50,000	88,854	163,415	179,756	360	1.90	684.00
1,486	0	692	1,282	1,410	29	25.00	725.00
2,300	1,100	1,415	2,260	2,485	25	75.00	1,875.00
433	0	159	201	221	45	17.95	807.75
418	250	230	252	277	56	14.70	823.20
169,000	0	85,050	171,200	188,320	189	8.99	1,699.11
2,580	0	572	0	0	0	8.36	0
23,500	25,000	12,600	1,900	2,090	3	42.00	126.00
1,446	0	463	406	447	447	1.00	447.00

ANNEX A4

Operating Instruction Quantification morbidity method

United Nations High Commissioner for Refugees	
Morbidity-based quantification of essential drug procurement	
Nr. Of pages: 5	Procedure number: SOP P2 Version 2_ Date 08Sept2021

Objective:

- Estimating the quantities of specific drugs needed for procurement to avoid shortage and excess stocks in new programs or programs where no past consumption data is available.
- Countercheck procurement quantities as estimated by the consumption method.

Responsibility:

UNHCR public health personnel with health partner(s).

Resources:

Essential data are:

- data on population and patient attendances.
- actual or projected incidence of health problems.
- standard treatments (ideal, actual).
- projected drug costs.

Procedures:

Step 1: Prepare Average Standard Treatment Schedules (ASTS).

In preparing ASTS the following information should be included:

- The name of the health problem and code number of the diagnosis.
- The patient's age and sex.
- The generic name, strength and dosage form each drug used to treat the disease.
- The average dose, number of doses/day and duration of treatment (the number of days these doses are given).
- The total average quantity of each drug used for a standard course of treatment.

ICD Code No.	Diagnosis	Treatment	Dose	Number of doses per day	Duration (total treatment days)	Quantity for course of treatment
	Pneumonia -adults	Amoxicillin 500 mg capsule	1 capsule	3	7	21 capsules
	-children	Amoxicillin 250 mg/ 5 ml suspension	5 ml	3	7	100 ml

Step 2: Estimate number of treatment episodes for each health problem.

A treatment episode is a patient contact for which a standard course of treatment is required.

The following information helps estimate the number of treatment episodes:

- Obtaining the total number of patient contacts by diagnosis.
- Recognize the diagnosis according to the health problems defined in the average standard treatment.
- Within health problems, breakdown the number of patient contacts by age, sex and severity.
- Determine the proportion of contacts for which standard treatments are required.

All patient contacts/visits may not give rise to a treatment episode as may not require a standard course of drug treatment.

A single patient contact or visit may give rise to more than one treatment episode.

Step 3: Calculate total quantity of each drug required.

a.) Calculate the total quantity of each drug required for each health problem.

A total quantity of drug for each health problem can be calculated using the following formula:

Total quantity of each drug =	**No. of treatment episodes of each health problem** **X**	**Quantity of the drug specified for the health problem for a standard course**

If the number of treatment episodes for acute diarrhea treated annually by a certain health facility was 10,000 of which 65% were children and cases were treated with ORS, the quantity can be determined as follows:

ICD Code	Diagnosis	Number of Treatment Episodes (a)	Quantity per average standard treatment (b)	Total Quantity (a x b)
	Acute diarrhea -Adult	10000 x 35% = 3500	ORS 2 sachets per 24hrs.	3500 x 2 = 7000 sachets
	-children	10000 x 65% = 6500	ORS 1 sachet per 24 hrs.	6500 x 1 = 6500 sachets
			Total	**13500 sachets**

b.) Calculate the total quantity of drug required.

When a drug is indicated for more than one standard treatment, add the quantities required for each treatment to obtain the total quantity of the drug. These all are combined to project the quantity of each drug needed for each treatment episode in each standard treatment.

Illustrative example

Drug code No.	Generic name	Health problem	Total quantity of all treatments		
			No. of treatment episodes	Qty. per average STS	Total quantity
	Metronidazole 250 mg capsule	Amoebiasis Adult Children Giardiasis Trichomoniasis	600 400 1000 1000	45 15 21 8	27000 6000 15000 8000
Total					**56000**

STS^ means Standard Treatment Schedule

Step 4: Increase the quantity obtained to allow for possible for service expansion.

Step 5: Convert the quantity into the required order pack.

The quantity can be converted into the required number of order packs/pack size.

The Formula is:

$$\text{No. of order packs} = \frac{\text{Total quantities required}}{\text{Pack size (counting unit)}}$$

N.B: The quantity can be increased by, for example, 5% allowances for changes in consumption pattern and losses.

Step 6: Estimate the cost of the drug quantities required.

After calculating the total number of packs of each drug required, the next step is to estimate the total cost of the drug required using the formula shown below and then adding up the total costs of all drugs.

Total cost of each drug =	**Number packs required x**	**Price per pack**

Step 7: Prepare Annual Drug Budget.

Preparing the annual budget requires:

- Adding up the estimated cost of all drugs required;
- Estimating the cost for transportation, procurement and distribution;
- Estimating costs for preparing/printing of stock cards, bin cards, consumption reporting forms.
- Prescription Registration Book, and other necessary working documents.

ANNEX A5

UNHCR Temperature and Humidity Log for temperature-controlled room

UNHCR
The UN Refugee Agency

UNHCR Temperature and Humidity LOG for room controlled temperature Version 1 dated 23 July 2021

Guidance:

In the storage room, temperature (15°C ≤ T° ≤25°C or 15°C ≤ T° ≤30°C) and relative humidity (RH≤65%) must be maintained on a 24-hour basis.

On the Log, keep the correct range of temperature to be followed and cross out the range which is not applicable. If in the stock you must store some medicines for which the manufacturer recommends to store below 25°C then you need to choose range 15°C ≤ T° ≤25°C.

Pharmacy personnel must record the storage temperature and the relative humidity within the storage room twice daily at the beginning and at the end of the day, except for non-working days, on the temperature and humidity logs for room .

To measure temperature if you do not have continuous monitoring device, use a mini-maxi thermometer and do not forget to reset the mini/max once read.

The temperature and relative humidity log should be displayed in the room.

The record logs must be archived once completed.

In case of excursion, the pharmacist or pharmacy technicien is responsible for assessing the significance of the excursion, informing supervisor and initiating report and corrective and preventive action plan if deemed necessary.

Estimate Total time to complete: Few minutes twice a day.

Temperature and Humidity LOG for ROOM CONTROLLED TEMPERATURE

Country: _____

Location: _____

UNHCR or Implementing Partner (provide IP name)

"Required storage temperature range: 15°≤T°≤25°C or 15°≤T°≤30°C (cross out the range which does not apply).

Required storage humidity range: RH≤65%."

Date	Time read	Temperature (°C)			Relative Humidity (%)			Both T° and RH in range? (Y/N)	If no, supervisor informed? (Y/N)	Staff (initials)
(dd/ Mm/ yyyy)	(00:00 am/ pm)	current	min	max	current	min	max			

ANNEX A6

UNHCR Temperature record for refrigerator

UNHCR
The UN Refugee Agency

UNHCR Temperature LOG for fridge
Version 1 dated 27 July 2021

Guidance:

In each fridge or cold box, temperature (**2°C ≤ T° ≤8°C**) must be maintained on a 24-hour basis.

All primary thermosensitive products stores are required to have a continuous temperature-monitoring device with an alarm that records temperature at time intervals of 10 minutes or less for 30 consecutive days (as 30 days Temperature Recorder (30 DTRs)). Stem thermometer (with Min/Max) should be used only as a backup option.

Where 30 DTRs are used, staff members should be checking the devices in each refrigerator twice daily, at the beginning and at the end of the day and recording temperature readings and alarms on the temperature Log for fridge.

In fixed-storage locations, manual record logs should be displayed on the door of each piece of cold-chain equipment.

The record logs must be archived once completed.

In case of **alarm/excursion** (monitoring device recording an out of range value for temperature), put all concerned stored items in quarantine (still keep the prodcuts in the fridge). These items cannot be distributed until a confirmation is received from the supervisor on whether these items can be used or not.

The pharmacist or pharmacy technician is responsible for assessing the significance of the excursion, informing supervisor and initiating report and corrective and preventive action plan if deemed necessary. Impact of the cold chain breach on the quality of the items in the fridge or cool box must be assessed and decision to keep or dispose the product taken. Data from the monitoring device can be uploaded for further investigation.

Estimate Total time to complete: Few minutes twice a day.

UNHCR
The UN Refugee Agency

Country: _____

Location: _____

UNHCR or Implementing Partner (provide IP name)

Required storage temperature range: 2°≤T°≤8°C

Date (dd/ Mmm/ yyyy)	Time read (00:00am/ pm)	Temperature (°C)			T° in range? (Y/N)	If no, supervisor informed? (Y/N)	Staff (initials)
		current	min	max			

ANNEX A7
UNHCR Stock Record (Stock Card)

UNHCR
The UN Refugee Agency

UNHCR Stock Record Template
Version 1 dated 15 July 2021

Guidance:

The stock card is the principle instrument for stock control. A stock card is established for each product (medicines and supplies) and updated at each movement.

The Objective of the stock card is:

- To record all stock movement IN and OUT.
- To give an indication at any moment of the theoretical level of stock.
- To provide information on the consumption.
- To determine losses resulting from expired drugs or discrepancies between theoretical and actual stock levels (checked during inventory).

The instruction to complete the stock card are the following:

1. Establish a stock card for each product and batch (medicines and supplies).
2. Indicate INN, form, strength, batch and expiry date.
3. Update the stock card at each movement IN and OUT.
4. **Quantities IN and OUT are always recorded in units** (e.g. 5,000 tablets, 80 ampoules) and never in number of boxes.
5. Systematically calculate and record the balance.
6. **Write a single operation per line**, even if several operations take place the same day.
7. Sign after each record.
8. Write the result of the physical inventory and the date in one color and be sure to use a different color when completing the stock card.
9. Maintain stock cards even when computer assisted stock management is used.

Note: When you make a mistake, you can correct your mistake folowing Good Documentation Practice rules:

- Draw a single line through the mistake (Do not black out, obscure or erase the mistake - Do not use correction fluid, erasers, or tape - The original data must be readable).
- Enter the correct information close to the mistake.
- Write your initials and date by the new information.

- Correct mistakes as quickly as possible.
- If the stock records are unreadable after multiple corrections, you can copy all the data in a new sheet but you must always keep the orginal sheet together with the new one.

Estimate Total time to complete: The stock records are continuously completed. It must be updated at each movement IN and OUT. For the health facility pharmacy the total dispensed medicines can be compiled and recorded at the end of the day on the stock record.

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The UN Refugee Agency

STOCK RECORD

Country:_____

Location:_____
(Camp- Health facility/site - medical store)

UNHCR or Implementing Partner_____

Name (INN)	Strength	Form	Batch number	Expiry date Mmm/yyyy
				_____/_____

Date (dd/Mmm/yyyy)	Received From/ Issued To	IN (unit qty)	OUT			Balance	Remarks/ Signature (initials)
			Distributed	Damaged	Expired		
_____/_____							
_____/_____							
_____/_____							
_____/_____							
_____/_____							
_____/_____							
_____/_____							
_____/_____							
_____/_____							
_____/_____							

ANNEX A8
UNHCR Periodic Inventory report

UNHCR
The UN Refugee Agency

UNHCR Periodic Inventory report template
Version 1 dated 14 July 2021

Guidance:

Actual quantities of each product in stock should be periodically verified.

Complete physical inventories of current stock quantities and expiry dates should be conducted in every medical store:

- **before every new drug order;**
- on **quarterly basis in big medical stores;**
- on **monthly basis at camp medical health facilities/pharmacies.**

1. During an inventory, the medical store should be closed.
2. To be accurate, **two people should do separate physical counts** and then compare them. If the two counts are not the same, a recount should be made of the items in question until the cause of the discrepancy is discovered.
3. Physical counts should be done without knowledge of the theoretical stock.
4. Physical inventories should be compiled in a report and recorded in the stock cards.
5. All the discrepancies (Differences between theoretical stock (recorded in stock cards) and counted quantities) found should be clarified and explained with a written justification in the stock cards and inventory reports. Discrepancy may arise due to several reasons, like errors in recording, theft etc.

Any damaged or expired supplies should be recorded on a separate sheet specifically for this purpose. These supplies are removed from the stock.

Expiry dates for every item should be recorded and nearly-to-expire drugs should be marked.

Estimate Total time to complete: If the medical store is correctly arranged, only a few hours should be needed to do a complete inventory.

PERIODIC INVENTORY REPORT

Review period : _____

Date (dd/Mmm/yyyy): _____

Location: _____

Country _____

Camp - Health facility/site - medical store _____

Implementing Partner (or UNHCR) _____

Item	Batch	Expiry date (MM/YYYY)	Quantity counted	Quantity on stock record	Difference	Remarks/ Justification

Done by :						
	Name and position			Signature		

Checked by :						
	Checked by :			Signature		

ANNEX A9

UNHCR daily dispensing tally sheets

UNHCR daily consumption tally sheet
Version 1 dated 27 July 2021

Guidance:

Personnel in charge of the **dispensing** at the health facility should on **daily basis** and for **each dispensing episode** record in the **daily consumption tally sheet** the number of units (tablets, ampouls, etc.) which have been given to the patient.

Quantities are always recorded in units (e.g. 50 tablets, 8 ampoules) and never in number of boxes.

Every day, a new daily consumption tally sheet should be issued. At the begining of the day the person in charge of the dispensing will indicate the initial quantity. At the end of the day the personnel in charge will calculate the total quantity dispensed during the day and the remaining quantities.

Estimate Total time to complete: Record of quantities dispensed during the day will required few minutes for each patient.

DAILY CONSUMPTION TALLY SHEET

Date (dd/Mmm/yyyy):_____

Location:_____

Country_____

Camp - Health facility/site - medical store_____

Implementing Partner (or UNHCR)_____

Recorded by:_____ **Aaaa-B----**_____

Name, Position _____

Signature_____

Item (INN, strength and dosage form)	Initial stock	Quantity dispensed												Total dispensed	Remaining stock
Amoxicillin 500mg capsule	338	21	28	21	28	21	21	28	21	28	21			238	100

ANNEX A10

UNHCR Monthly Requisition and Consumption Reporting Form

UNHCR
The UN Refugee Agency

UNHCR Monthly requisition and consumption reporting form Version 1 dated 27 July 2021

Guidance:

Pharmacist or pharmacy technician in charge of the pharmacy at health facility level should send a requisition order to the responsible personnel of the Medical Store at upper level by using the form "Monthly requisition and consumption reporting form".

The quantity used during the past month can be a compilation of the daily consumption tally sheet or can be taken from the stock card of the requesting health facility pharmacy. Quantities are always recorded in units (e.g. 5,000 tablets, 80 ampoules) and never in number of boxes.

The original "Monthly requisition and consumption reporting form" should be sent to the Medical Store for filing and order preparation, and a copy should be retained at the pharmacy of the requesting health facility. Personnel in charge of the Medical Store must use the same order form to record the quantities of medicines or medical supply to deliver to the requesting health facility.

Personnel in charge of the Medical Store must deliver the medicines and/or medical supply to the pharmacy of the requesting health facility and verify the quantity of supplied medicines or and medical supplies against the quantity ordered on the form with the personnel in the pharmacy of the health facility. In case of discrepancies, the form must be corrected on-site with the responsible personnel's initials and date.

As the "Monthly requisition and consumption reporting form" is taken back to the Medical Store, the distribution is considered completed. A copy of the completed form must be kept at the pharmacy of the requesting health facility. Completed documents must be archived at both location level.

Personnel in charge of the Medical Store and of the pharmacy of the health facility should document the supply on their respective stock cards as below:

- Responsible Medical Store personnel should record the quantities distributed in the "OUT" column on the "Stock card " of the Medical Store.
- Responsible health facility pharmacy personnel should record the quantities received in the "IN" column on the "Stock card" of the health facility pharmacy.

Estimate Total time to complete: Monthly requisition and consumption reporting form will request few hours to be completed by the requesting structure. Few hours will also be needed for the supplying structure to prepare, supply the order and complete the form.

MONTHLY REQUISITION AND CONSUMPTION REPORTING FORM

Review period : _____ **Date (dd/Mmm/yyyy) :** _____

Location (requesting): _____

Country _____

Camp - Health facility/site - medical store _____

Implementing Partner (or UNHCR) _____

Location (supplying): _____

Country _____

Camp - Health facility/site - medical store _____

Implementing Partner (or UNHCR) _____

Item (INN, strength and dosage form)	Quantity used during the past month	Closing balance (dd/Mmm/yyyy)	Quantity requested	Quantity issued/ supplied	Quantity received	Remarks

Requested by :						
	Name and position			Date dd/ Mmm/yyyy		Signature
Approved by :						
	Name and position			Date dd/ Mmm/yyyy		Signature

Supplied by :						
	Name and position			Date dd/ Mmm/yyyy		Signature
Received at location by						
	Name and position			Date dd/ Mmm/yyyy		Signature

ANNEX A11

Sample template for country standard operating procedure

STANDARD OPERATING PROCEDURES FOR THE MANAGEMENT OF MEDICINES, MEDICAL SUPPLIES AND MEDICAL EQUIPMENT

UNHCR ....COUNTRY OPERATION

VERSION X, **DATED** ....

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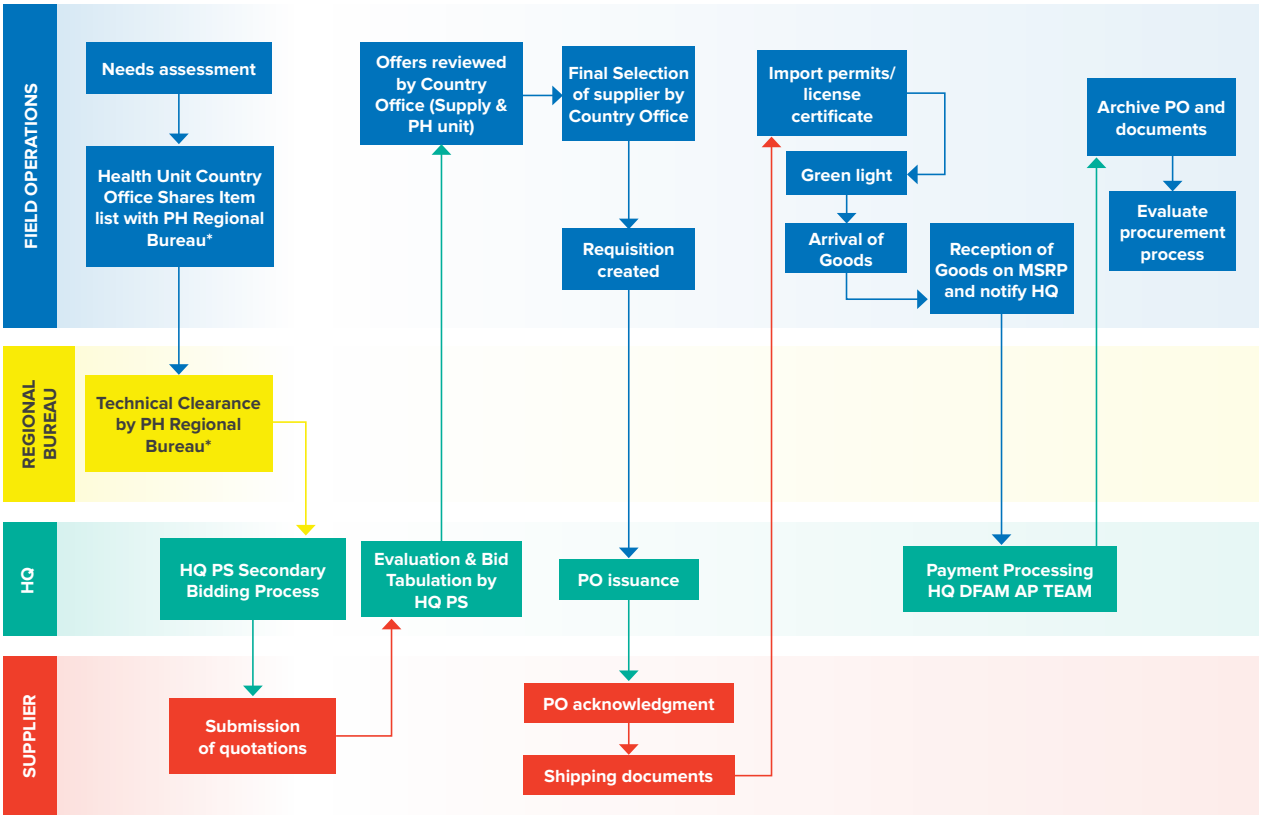

** If the country is entitled to place the PO directly, they should use the corresponding figure provided in the UNHCR Essential Medicine and Medical Supply guideline, instead of the one above.*

ANNEXES

I. **Sample daily consumption tally sheet**

II. **Sample stock record card**

III. **Inventory reporting form**

IV. **Medical Warehouse tool / BSC tool etc..**

V. **Country EML and order files**

V. **Other documents used in the procurement process / pharmacy management**


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