

INDO-PACIFIC HEALTH & SUPPLY CHAIN DTAC

# WAREHOUSES

STANDARD OPERATING PROCEDURES

2020

Prepared by the Indo-Pacific Health & Supply Chain Data & Technical Assistance Centre (DTAC)  
in consultation with The mSupply Foundation and Beyond Essential Systems



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# INTRODUCTION

## Purpose

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The Standard Operating Procedures (SOPs) for Warehouses are a step-by-step guide to everyday practices undertaken by warehouse staff managing health supplies in Pacific Island Countries (PICs).

The SOPs are targeted at PICs using the Electronic Logistics Management System (eLMIS) mSupply to manage health supplies and aims to improve and standardise warehouse practices across the region.

The SOPs are carefully designed to both reflect current practices and incorporate procedures to improve, optimise and standardise health commodity management across PICs.

Implementing the SOPs is a matter of both:

1. Ensuring that day-to-day activities are being done correctly all the time by all staff
2. Introducing the new activities to improve accuracy and efficiency of the local supply chain

## Measuring Performance

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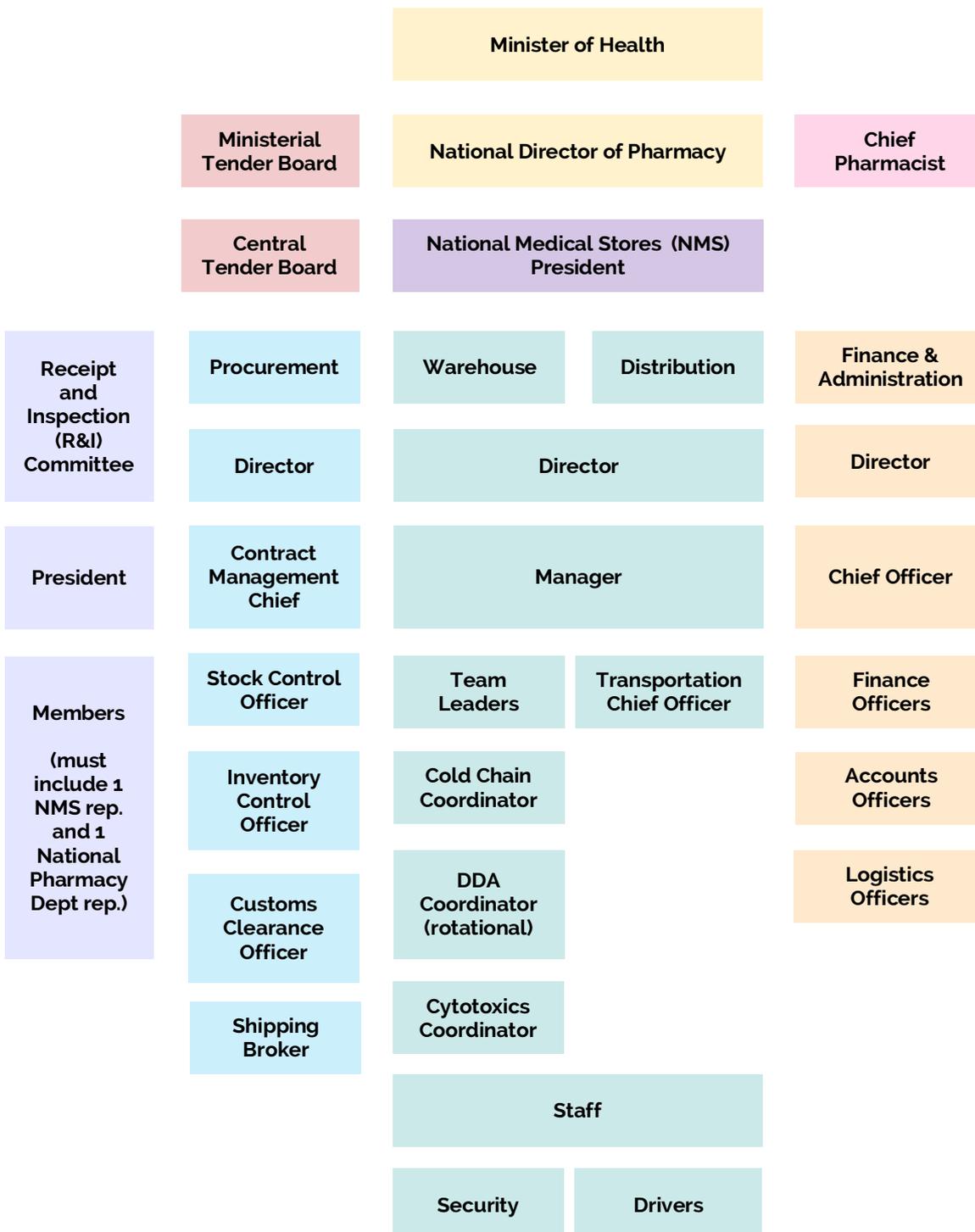
As part of improving our systems, it is important to measure our performance. These Performance Indicators should be publicly displayed in the National Medical Warehouse and updated monthly.

1. Percentage (%) of stock stored on the ground (measured by value of stock on ground/total stock value)
2. Average time from orders being received to dispatch
3. Accuracy of stock in mSupply (measured by monthly audit of 20 random items)
4. Number of daily spot-check stocktakes performed each month
5. Percentage (%) availability of 100 critical items (measured by number of critical items in stock/100)

We specify suggested Performance Indicators for monitoring performance against each SOP in these guidelines.

## Persons Responsible

The following chart shows the general structure of Procurement, Warehouse and Distribution systems within a National Pharmacy Division. Of course, the actual structure will vary from country to country, but this aims to provide a general overview of the key staff in a well-structured and efficient system. To ensure accountability, we specify which staff within the overall structure are responsible for executing each Standard Operating Procedure (SOP) in these guidelines.

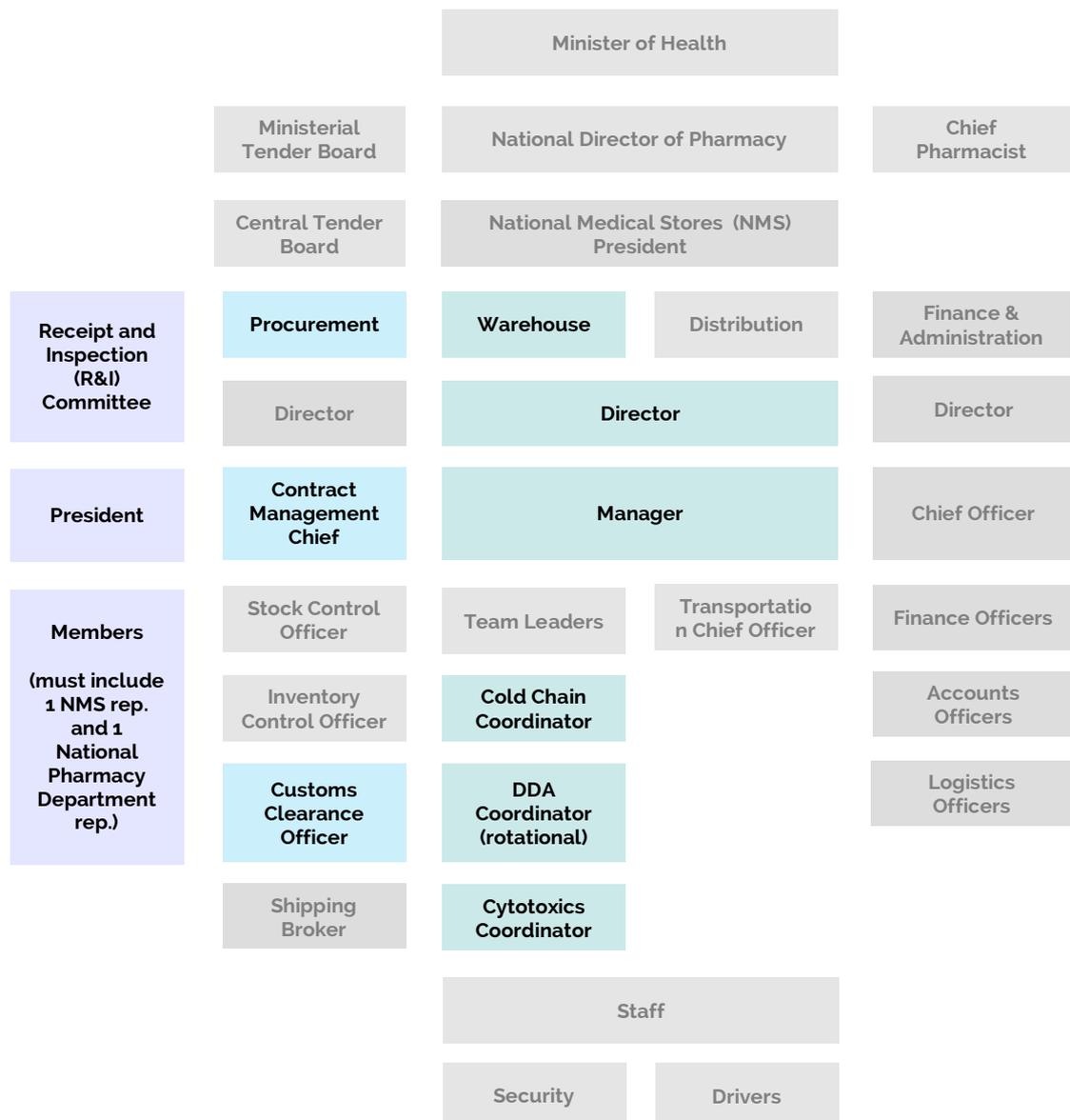


# PREPARATION FOR GOODS RECEIPT

## Purpose

To ensure that stock receipt occurs in an organised, efficient manner with sufficient time for planning for all stakeholders.

## Persons Responsible



## Procedure

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1. Supplier informs Contract Management Chief two weeks before a consignment of goods is due to arrive at the wharf or airport (in writing).



2. Contract Management Chief collates the following documents in preparation for delivery receipt and checks them against the original **Purchase Order** (this should have been created in mSupply when the order was made) :

- Invoice
- Bill of Lading (sea freight) or Airway Bill (air freight)
- Packing List
- Supporting documentation (such as Certificates of Analysis, Dangerous Goods Declarations)
- Contract

3. Contract Management Chief emails the following people the above documents and informs them about the expected delivery date, time and nature of the delivery:

- Warehouse Director
- Warehouse Manager
- Customs Clearance Officer
- Receipt and Inspection (R&I) Committee
- **Cold chain**: Also notify Cold Chain Coordinator
- **Controlled substances**: Also notify DDA Coordinator
- **Cytotoxic or hazardous**: Also notify Cytotoxics Coordinator

4. Warehouse Director ensures there will be enough staff available that day to assist with unloading and preparation for inspection.



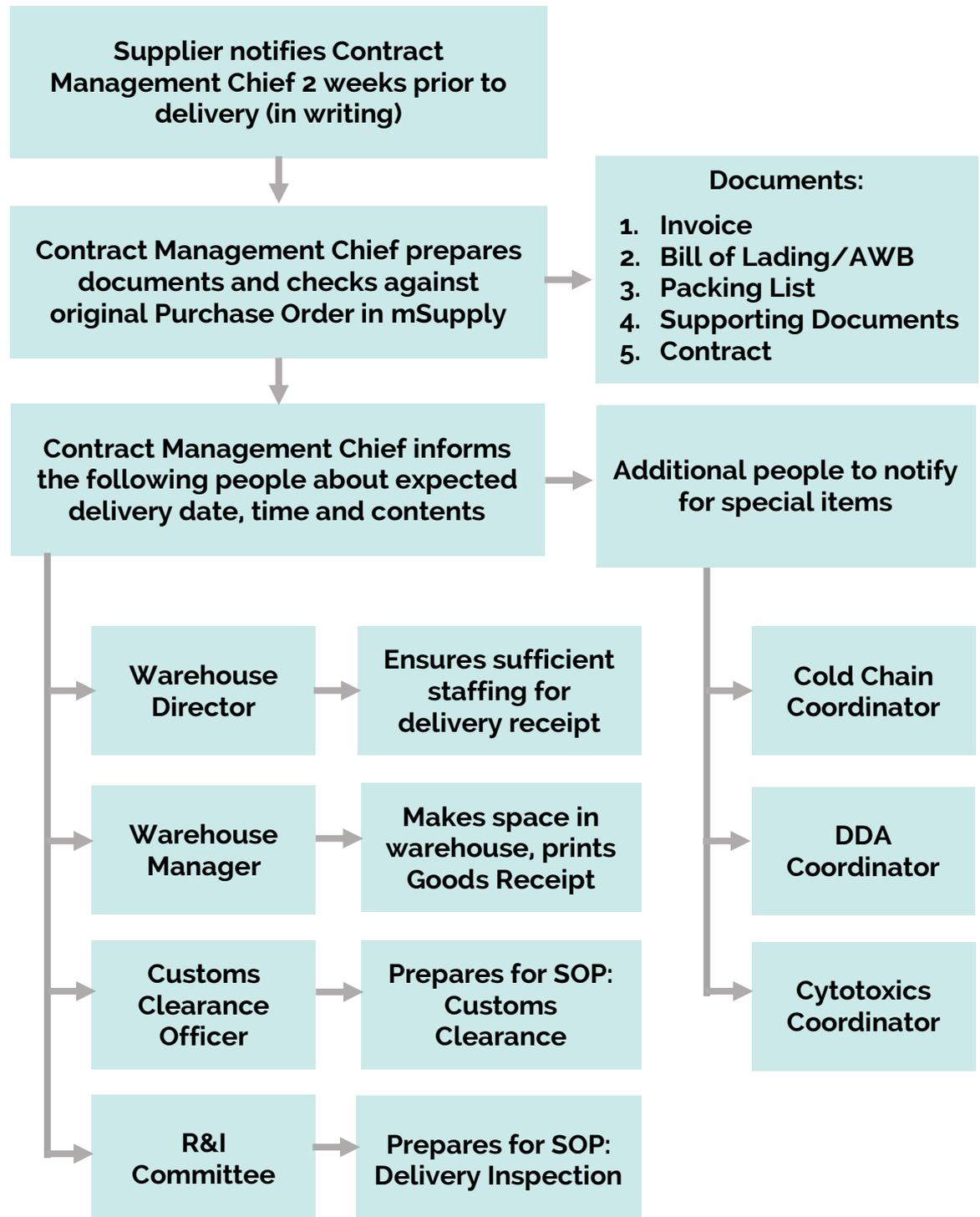
5. Warehouse Manager prints the **Goods Receipt** from mSupply and coordinates clearance of warehouse space in preparation for the incoming stock.

## Performance Indicators

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1. Time taken on goods receiving.

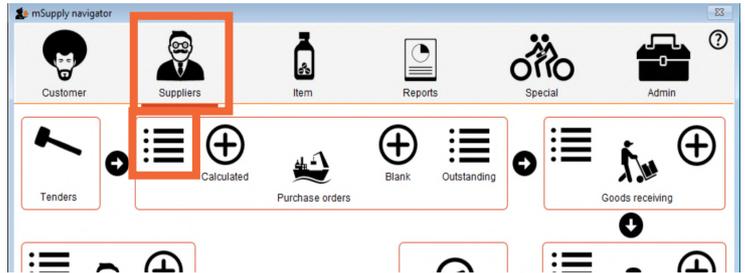
## Process Summary: Preparation for Goods Receipt





## mSupply Procedure: Finding a Purchase Order

1. Navigate to the **Suppliers** tab.
2. Click the **Purchase Orders List** button.
3. Find the relevant **Purchase Order** and double click on the line to open it.
4. Compare the **Purchase Order** details to the documents sent by the supplier.



No. co...	Statut	Date	Fournisseur	Verrou...	Mois cibles	Lignes	Date confir...	Commentaire
43	cn	30/8/19	NPSP AGENCE D'ABIDJAN	<input type="checkbox"/>	0	14	30/8/19	
42	cn	30/8/19	NPSP AGENCE D'ABIDJAN	<input type="checkbox"/>	0	14	30/8/19	
41	cn	30/8/19	NPSP AGENCE D'ABIDJAN	<input type="checkbox"/>	0	16	30/8/19	
40	cn	28/8/19	NPSP AGENCE D'ABIDJAN	<input type="checkbox"/>	0	6	28/8/19	
38	sg	28/8/19		<input type="checkbox"/>	0	0		
37	sg	5/8/19		<input type="checkbox"/>	0	0		
36	cn	2/8/19	NPSP AGENCE D'ABIDJAN	<input type="checkbox"/>	4	2	2/8/19	
19	fn	18/7/19	NPSP AGENCE D'ABIDJAN	<input type="checkbox"/>	0	2	18/7/19	
18	cn	2/8/19	NPSP AGENCE D'ABIDJAN	<input type="checkbox"/>	4	26	2/8/19	
13	cn	17/6/19	NPSP AGENCE D'ABIDJAN	<input type="checkbox"/>	0	2	17/6/19	
12	cn	6/6/19	NPSP AGENCE D'ABIDJAN	<input type="checkbox"/>	0	14	6/6/19	
11	fn	24/5/19	NPSP AGENCE D'ABIDJAN	<input type="checkbox"/>	0	2	24/5/19	
7	cn	22/5/19	NPSP AGENCE D'ABIDJAN	<input type="checkbox"/>	0	5	28/5/19	
5	cn	21/5/19	NPSP AGENCE D'ABIDJAN	<input type="checkbox"/>	0	38	28/5/19	
2	sg	10/5/19	NPSP AGENCE D'ABIDJAN	<input type="checkbox"/>	0	0		

Order num : 11    Name: NPSP AGENCE D'ABIDJAN    05019AC0001    Internal requisition    Black

Confirm date : 24/5/19    Reference :    Status fn

Requested delivery : 24/5/19    Store: YAMOISSOUK

General    Details    Goods Received    Supplier Invoices    Log    Location

Print    Category: None    Currency: XOF    Forex rate: 1

Line	Item code	Item	Orig Qty	Pack	Adj. Qty	Tot. rece...	Stock on...	On Order	Cust.b/o...	Price Ext	Requested...	Expect
1	AM21190-	SODIUM CHLORURE 0.9% 500 ML	2400	1	2400	0	232	0	0	0.00	22/5/19	
2	AM21140-0	RINGER LACTATE 500 ML SOL INJ	200	1	200	0	690	0	0	0.00	22/5/19	

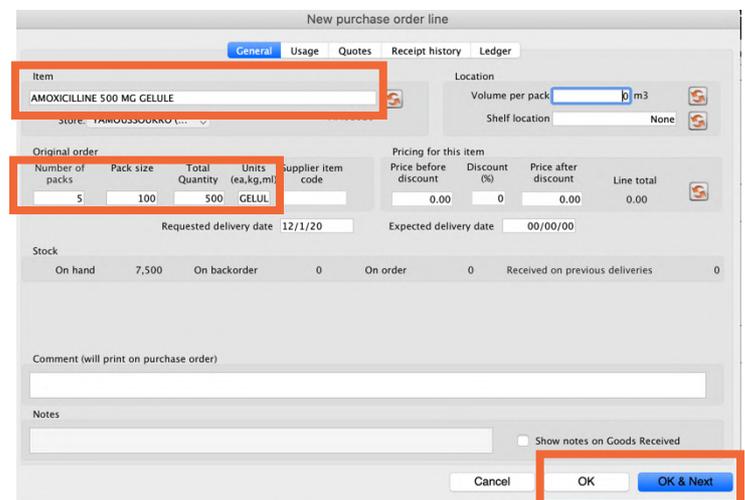
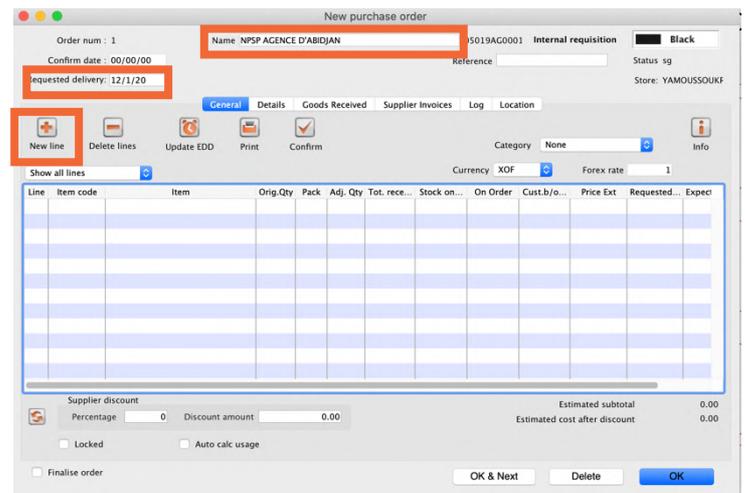
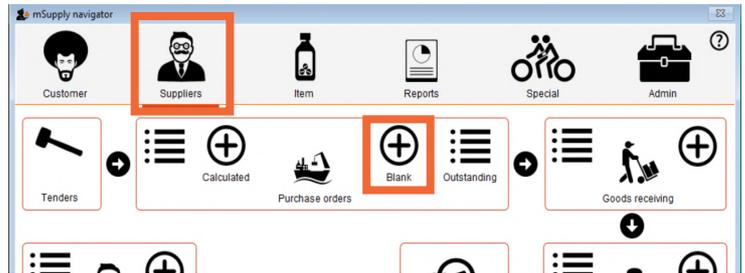
Supplier discount: Percentage 0    Discount amount 0.00    Estimated subtotal 0.00    Estimated cost after discount 0.00

Locked     Auto calc usage

Finalise order    OK & Next    Delete    OK

## mSupply Procedure: Adding a Purchase Order (if not previously entered)

- Navigate to the **Suppliers** tab.
- Click the **New Blank Purchase Order** button.
- Enter the **Supplier**. You can:
  - Type the first few letters and press tab
  - OR
  - Type the supplier code and press tab
  - OR
  - Type @ and press tab to choose from a list of ALL suppliers
- Enter the **Requested Delivery** date.
- Click **New Line** to start items to the order.
- Enter the **Item** to order. You can:
  - Type the first few letters and press tab
  - OR
  - Type the item code and press tab
  - OR
  - Type @ and press tab to choose from a list of ALL items
- Enter **Number of Packs** and **Pack Size** to order (the **Total Quantity** will be automatically calculated). When entering quantities, pay close attention to the **Units**.
- Click **OK & Next** to keep ordering more items. When you are finished adding items, click **OK** to return to the main Purchase Order screen.



9. When your order is complete, click **Confirm**. When prompted, click **Yes** → **Confirm**.

The screenshot shows the 'New purchase order' window. At the top, it displays 'Order num : 1', 'Name NPSP AGENCE D'ABIDJAN', '05019AG0001', 'Internal requisition', and 'Black'. Below this, there are fields for 'Confirm date : 00/00/00', 'Reference', 'Status sg', and 'Store: YAMO USSOUKF'. The 'Requested delivery' is set to '12/1/20'. The window has several tabs: 'General', 'Details', 'Goods Received', 'Supplier Invoices', 'Log', and 'Location'. The 'Confirm' button, which has a checkmark icon, is highlighted with a red box. Below the tabs is a table with columns: 'Line', 'Item code', 'Item', 'Orig Qty', 'Pack', 'Adj. Qty', 'Tot. rece...', 'Stock on...', 'On Order', 'Cust.b/o...', 'Price Ext', 'Requested...', and 'Expect'. The first row contains: '1', 'AM01020', 'AMOXICILLINE 500 MG GELULE', '500', '100', '500', '0', '7500', '0', '0', '0.00', '12/1/20'. At the bottom, there are fields for 'Supplier discount' (Percentage: 0, Discount amount: 0.00), 'Estimated subtotal' (0.00), and 'Estimated cost after discount' (0.00). There are also checkboxes for 'Locked' and 'Auto calc usage', and buttons for 'Finalise order', 'OK & Next', 'Delete', and 'OK'.

10. Click **OK** to close the window.

This screenshot is similar to the previous one, but the 'Status' field is now 'cn' and is highlighted with a red box. The 'Finalise order' checkbox at the bottom left is highlighted with a blue box. The 'OK' button at the bottom right is also highlighted with a red box. A blue arrow points from the 'Finalise order' checkbox down to a text box.

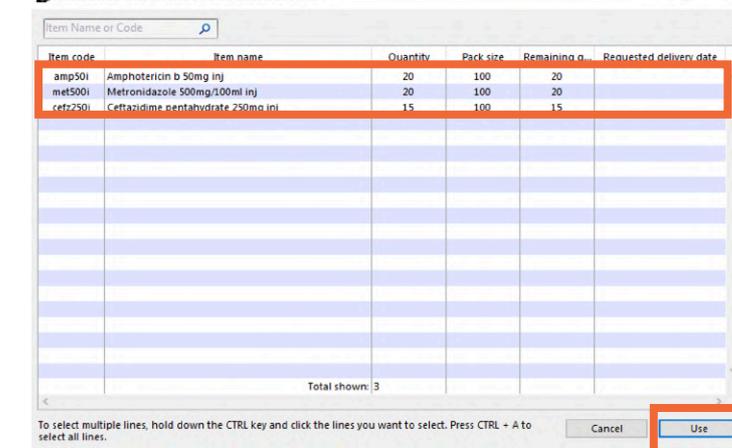
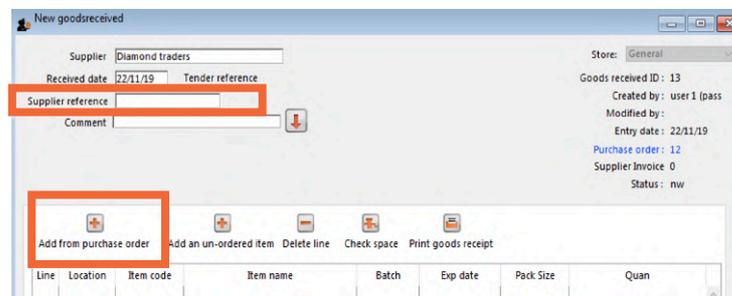
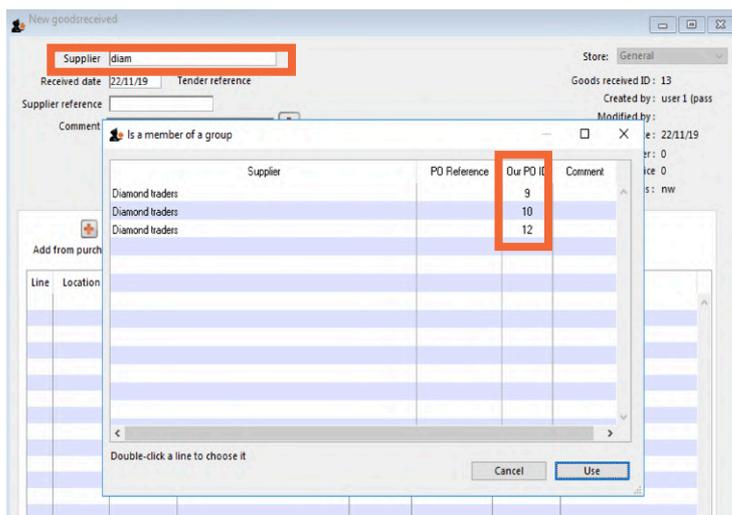
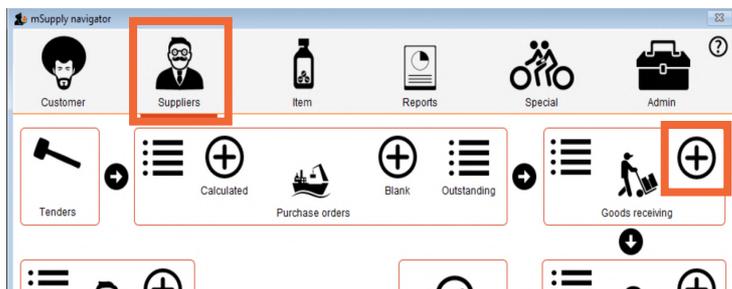
**Do NOT finalise the Purchase Order.**  
Once finalised, you can no longer connect a Goods Receipt to the Purchase Order (i.e. you cannot receive any more items from that order in mSupply).  
You will be prompted with an alert if you try to finalise the Purchase Order!

The alert dialog box has a title bar 'Alert...'. On the left is a warning icon (a triangle with an exclamation mark). The text reads: 'You will no longer be able to receive goods for this order if you chose to finalise this order.' At the bottom right is a blue 'OK' button.

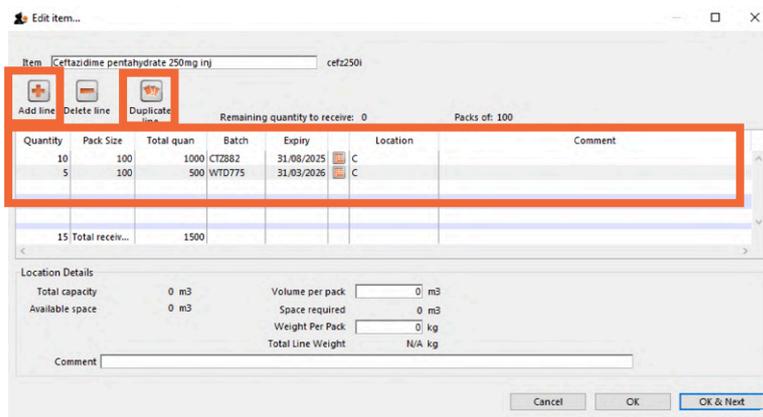
# mSupply Procedure: New Goods Receipt

1. Navigate to the **Suppliers** tab.
2. Click the **New Goods Receiving** button.
3. Enter the **Supplier**. You can:
  - Type the first few letters and press tab
  - OR
  - Type the supplier code and press tab
  - OR
  - Type @ and press tab to choose from a list of ALL suppliers
4. Select the correct purchase order (**Our PO ID**) by cross-checking against the local purchase order code (**PO Reference**) which should have been entered when the order was placed. This is also on the invoice, attached to the Goods Receipt Form.
5. Enter the supplier's invoice number in the **Supplier Reference** box. This is also on the invoice, attached to the Goods Receipt Form.
6. Click **Add from Purchase Order** to show a list of items from the purchase order you selected.
7. Select the items you wish to receive, then click **Use**. You can receive multiple items at once (and change the quantity received later).

Items are added individually as orders can be split, arrive separately or be different from the original order. mSupply can monitor all of this for you.



8. For each item, a detailed window appears allowing you to update the received **Quantity, Pack Size, Batch, Expiry** and the **Location** where you will keep the stock.



If you have ordered 1 million amoxicillin tablets and only 200,000 have arrived in this delivery, mSupply will record how many have arrived and remember how many are still on the way.

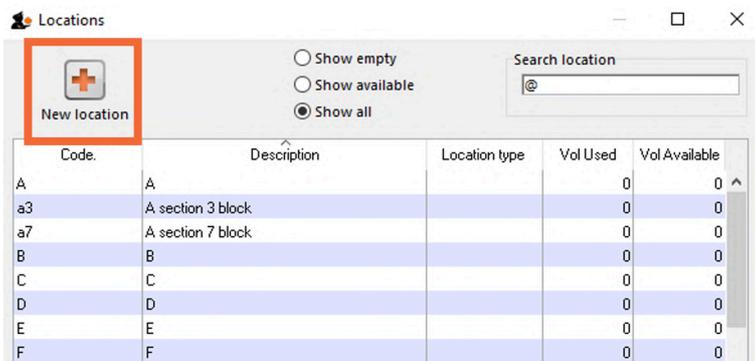
If you are splitting the delivery into separate locations or multiple batches have arrived, you can enter the details in this screen.

- If an item has multiple batch numbers or expiries, click **Add Line** and enter the details of each item received.
- If an item will be stored in different locations or if you already have some stock of the same batch, highlight the line and click **Duplicate Line** to copy the information to a new line, then edit as required.

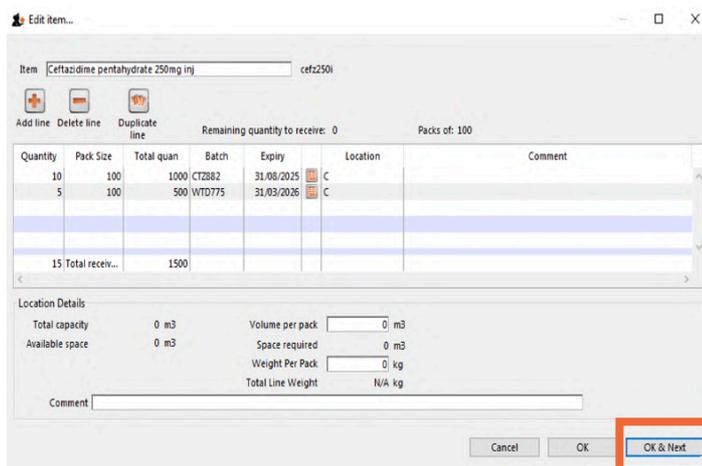
9. To specify a **Location**, you can:

- Type the first few letters and press tab OR
- Type the location code and press tab OR
- Type @ and press tab to choose from a list of ALL locations

If the location is not listed, you can add a **New Location**.



10. To move to the next item, click **OK & Next** or press **Enter** on the keyboard.



11. When you are finished specifying details of all received items, you will return to the main goods receiving window.

If the supplier has sent an item that is not on the Purchase Order, click **Add an Un-Ordered Item** and enter all details.

When you are finished, review the goods receipt carefully, then click **OK** and **Confirm** when prompted.

Line	Location	Item code	Item name	Batch	Exp date	Pack Size	Quan
1	C	amp50i	Amphotericin b 50mg inj	CTO887	28/02/2026	100	20
2	M	met500i	Metronidazole 500mg/100ml inj	MTR200	31/08/2025	100	20
3	C	cefz250i	Ceftazidime pentahydrate 250mg inj	CT2882	31/08/2025	100	10
4	C	cefz250i	Ceftazidime pentahydrate 250mg inj	WTD775	31/03/2026	100	5

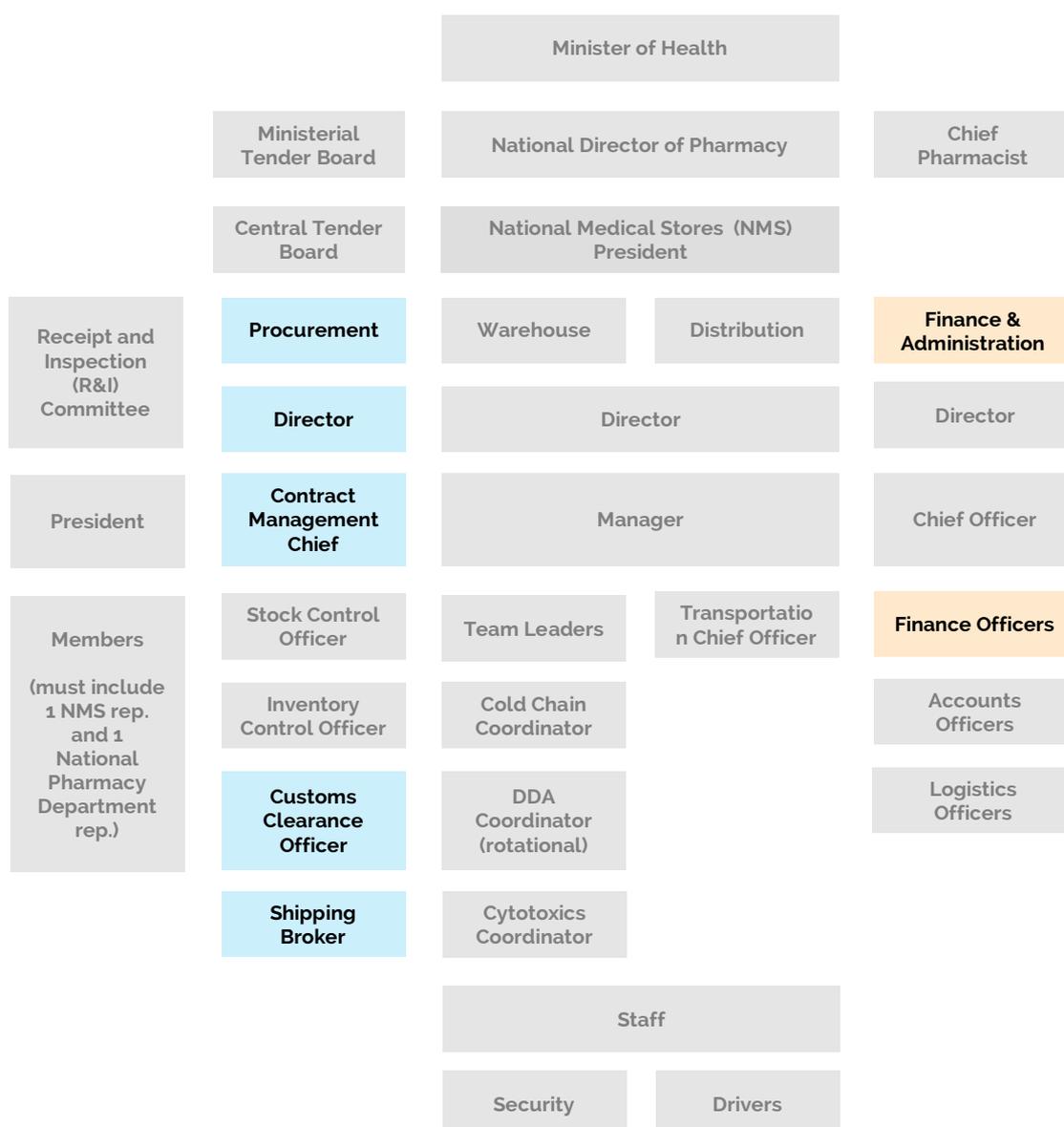
**Do NOT finalise the Goods Receipt until the items have physically arrived and have been inspected, accepted and brought into the warehouse.**

# CUSTOMS CLEARANCE

## Purpose

To ensure that all incoming stock is cleared from the receiving facility (wharf or airport) efficiently and in accordance with all legal requirements and manufacturer instructions on item handling.

## Persons Responsible



## Procedure: Customs Clearance

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1. Following **SOP: Preparation for Delivery**, the Customs Clearance Officer receives delivery documents from Contract Management Chief (2 weeks before a consignment of goods is due to arrive at the wharf or airport).
2. Customs Clearance Officer:
  - a. Checks the estimated delivery date with the Shipping Agency.
  - b. Sends the documents to the Shipping Broker.
3. Shipping Broker:
  - a. Records details in the Customs computer system.
  - b. Calculates the taxes and fees payable.
  - c. Returns the assessment to the Customs Clearance Officer.
4. Customs Clearance Officer:
  - a. Confirms that calculated amounts (Tax Declaration) are correct. If there are any discrepancies or questions, these are clarified with the Contract Management Chief.
  - b. Notifies the Shipping Broker to go ahead.
5. Shipping Broker submits the documents to Customs:
  - a. Customs confirms the amounts, stamps the documents and issues a Declarant Reference Number and Assessment Notice for NMS to pay.
  - b. Shipping Broker forwards the Assessment Notice to the Contract Management Chief.
6. Contract Management Chief attaches an explanatory cover letter to the Assessment Notice and gives it to the Procurement Director:
  - a. Procurement Director signs and forwards to the NMS President
  - b. NMS President signs and forwards to a Finance Officer to issue a payment, as per local protocols.
7. Finance Officer pays Customs for the Assessment Notice.
8. Customs issues a payment receipt and relevant local paperwork, such as a release form indicating whether goods will be released with no inspection, X-ray scanning or full inspection (which may require NMS to provide daily labour hire to assist).

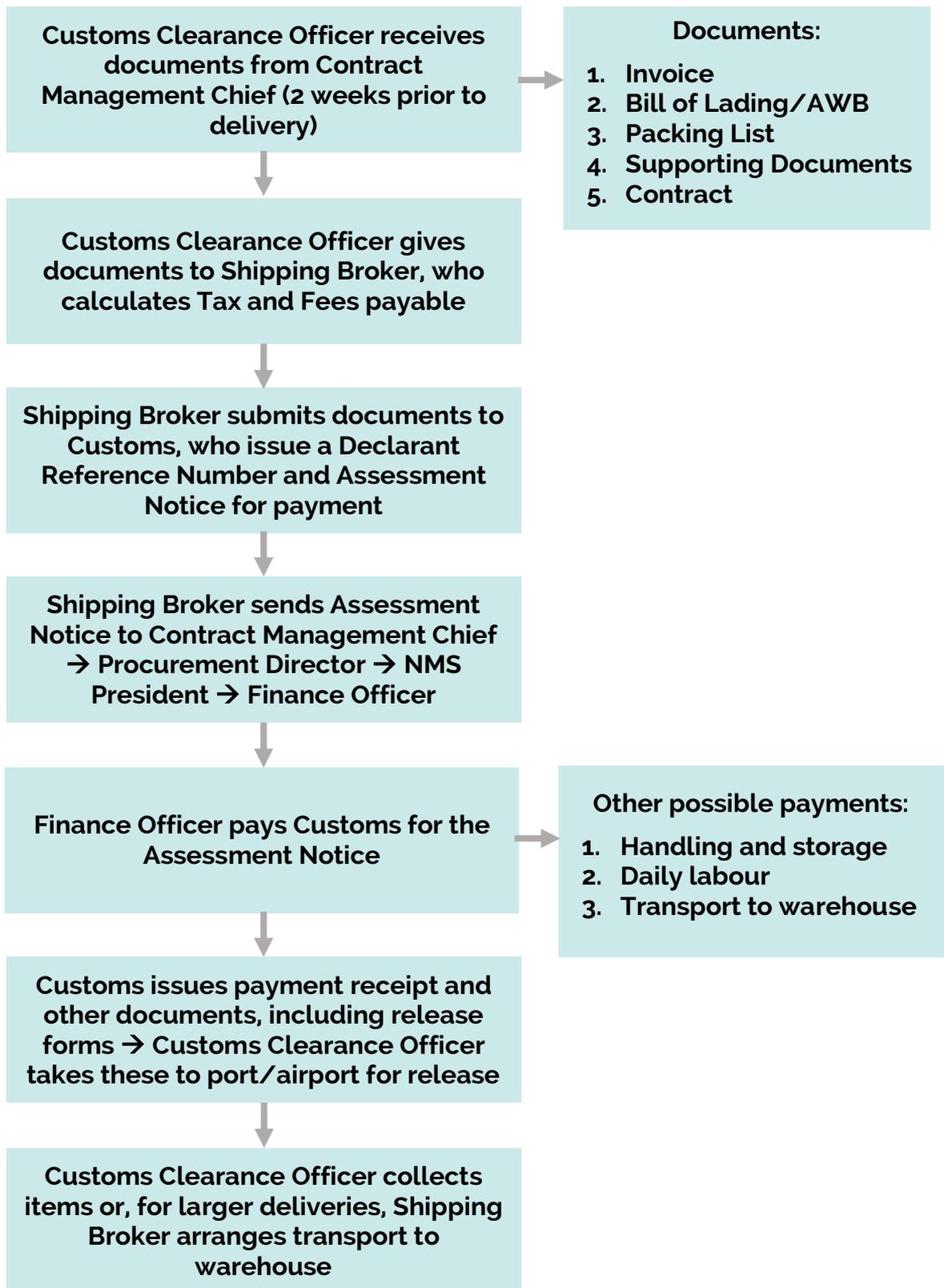
- g. Customs Clearance Officer takes the payment receipt and relevant local paperwork to the airport or ports, clears the item and collects it. For large orders, Shipping Broker arranges transportation to the warehouse.
10. Additional fees:
  - a. Storage and handling (particularly if the process takes too long). Usually, clearance and transport are expected to take only two days.
  - b. Transportation to the warehouse.

## **Performance Indicators: Customs Clearance**

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1. Proportion of inward goods cleared customs within 7 days.

## Process Summary: Customs Clearance

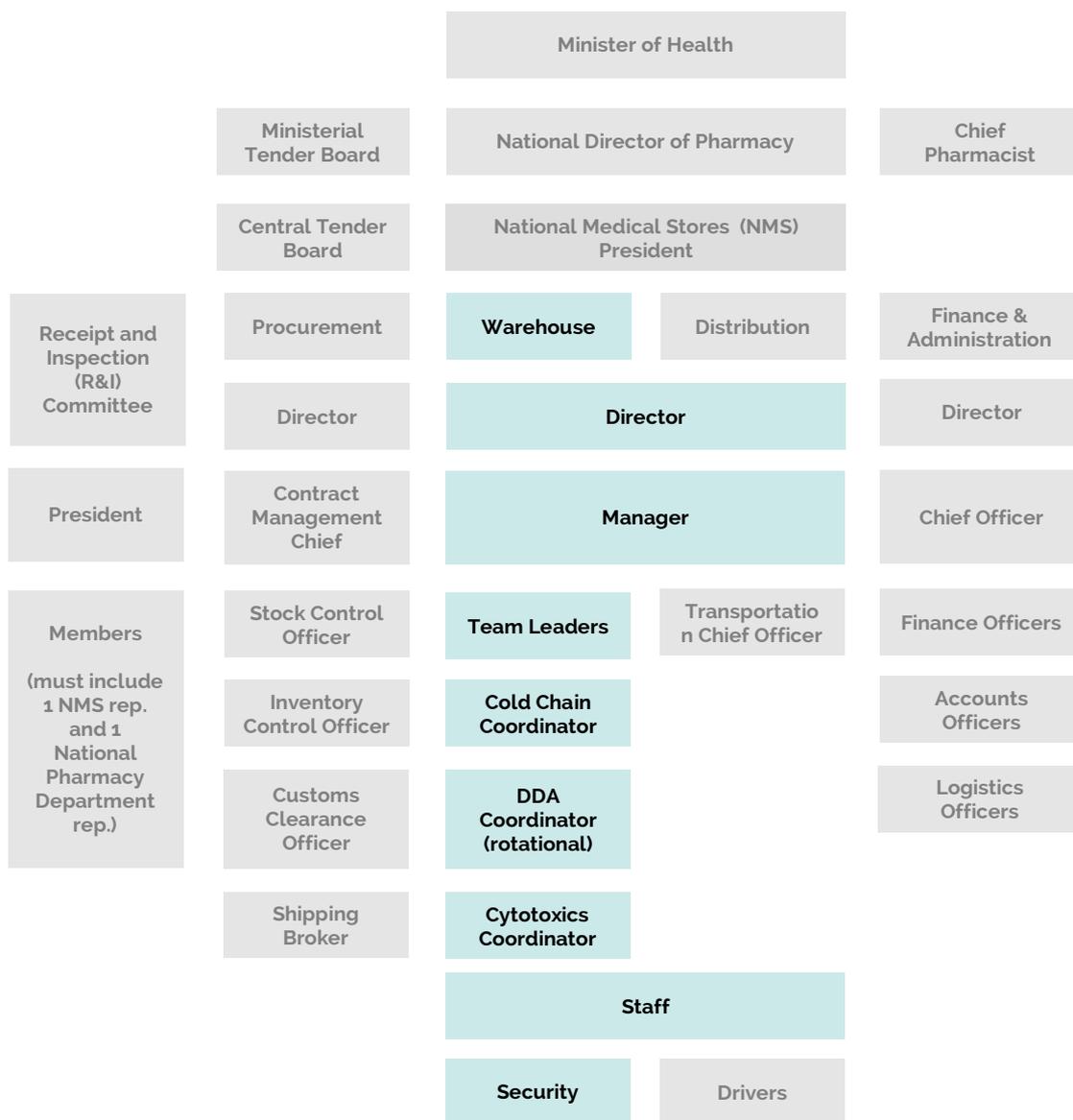


# GOODS ARRIVAL

## Purpose

To ensure that all incoming stock is intended for the warehouse and prepared efficiently for inspection.

## Persons Responsible



## Procedure: Goods Arrival

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1. Following **SOP: Customs Clearance**, the delivery arrives at the warehouse. Security performs a preliminary inspection of the delivery documentation to confirm:
  - NMS is the correct customer
  - The number of containers matches the Clearance Document and Invoice
  - The items are not obviously damaged
2. **If the stock has arrived by a returnable shipping container:** A standard form is completed to track the shipping container while it is at the warehouse, recording the Container Number, Owner, Date of Arrival, Estimated Date of Pick-Up and Penalty Rates.
3. **If the stock is delivered directly to Procurement** (e.g. for very small orders or where goods have been collected directly from the airport or wharf): A standard form is completed when handing over stock to the warehouse to create a paper trail of product custody.
4. **If a major contamination, infestation or breakage has occurred during transit:** A Team Leader must contact the Warehouse Director before unloading begins.
5. Warehouse Staff offload the consignment and move stock to the Goods Receipt area for inspection. Goods should be placed onto suitably sized pallets in a configuration consistent with local inspection requirements and good practice.
  - Separate goods according to item, then batch number.
  - Batch numbers and expiries (where possible) should face outwards for easy reference.
  - Handle all goods with care to prevent damage.
6. If special items have arrived, the Team Leader receiving the delivery must prioritise these items and immediately notify the relevant people:
  - **Controlled substances:** Inform the DDA Coordinator and ensure the items are never left unattended. The DDA Coordinator must take the items to the warehouse safe without delay.

- **Cytotoxic or hazardous:** Inform the Cytotoxics Coordinator, who uses safe handling procedures to move stock to the designated hazardous drugs area.
  
  - **Cold chain:** Inform the Cold Chain Coordinator, who must immediately:
    - Check the temperature monitor inside each box, and the quantity and condition of stock against the invoice.
    - Move the stock to the cool room.
    - For vaccines:
      - Complete a Vaccines Arrival Report (VAR) and email it to the supplier within 36 hours of receipt.
      - If a temperature monitor in any carton is too low (below 20°C), the entire carton must be subject to a Shake Test.
      - If the temperature monitor in any carton is too high, each individual Vaccine Vial Monitor (VVM) must be checked.
      - If the secondary test also fails (too high or too low), that carton must be rejected and a thorough inspection of all remaining cartons must be carried out.
7. When the items are ready for inspection, the relevant Team Leader (or, where relevant, Coordinator) notifies the Warehouse Manager, who then contacts the R&I Committee.

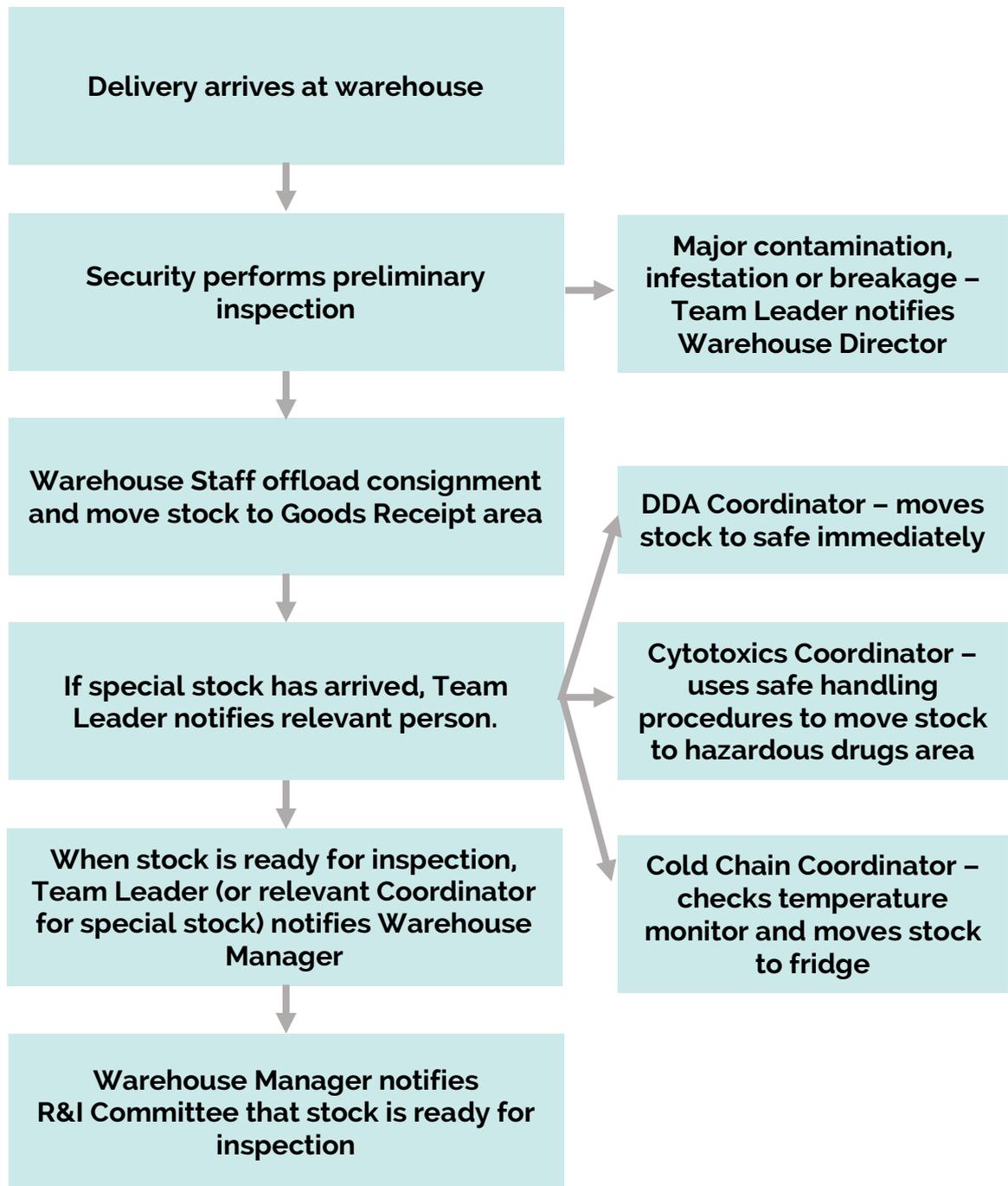
## Performance Indicators

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1. Time taken for goods receiving.

## Process Summary: Goods Arrival

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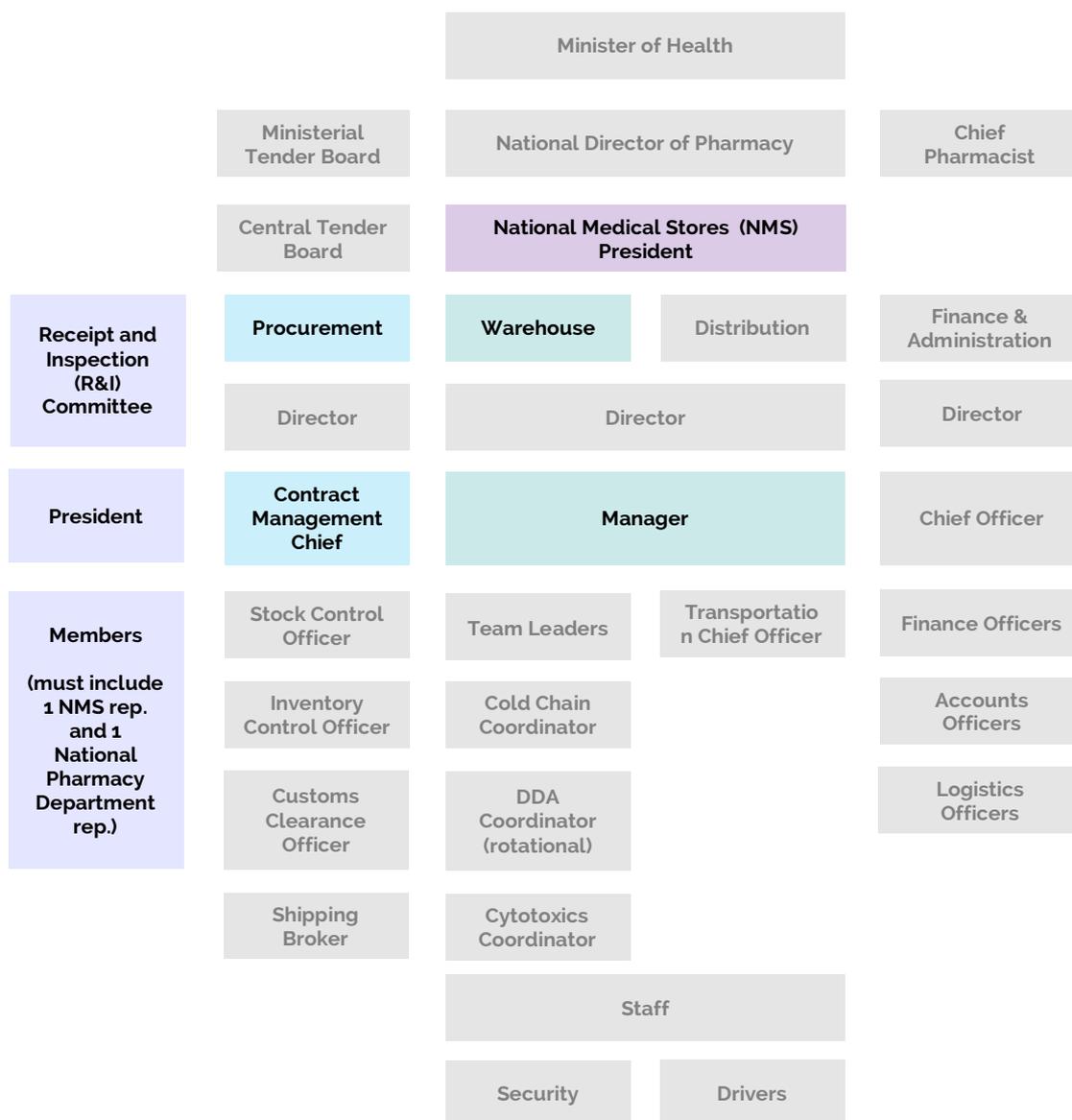


# GOODS INSPECTION

## Purpose

To ensure that all incoming stock is inspected consistently and comprehensively to support quality assurance of national medical supplies.

## Persons Responsible



## Procedure: Goods Inspection

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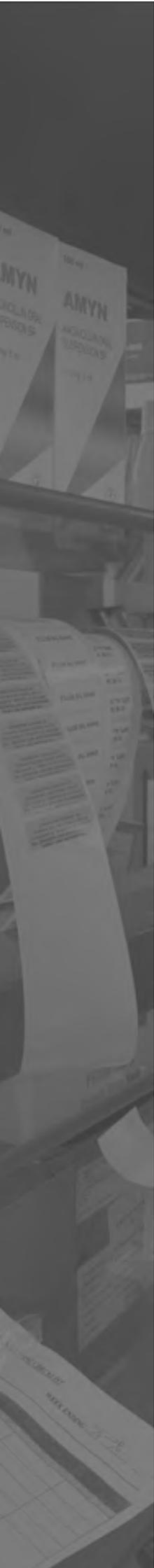
1. Following **SOP: Goods Arrival**, the Warehouse Manager notifies the R&I Committee that goods are ready for inspection.
2. The R&I Committee inspects **all** received stock against the invoice. This includes:
  - a. Ensuring the correct quantities and items have been supplied.
  - b. Verifying the received products are approved for procurement.
  - c. Verifying the descriptions in the product packaging and supplier documents are identical.
3. The R&I Committee chooses a random sample of each batch being received and uses a standard form to check:
  - a. Item matches invoice
  - b. Invoice matches original order
  - c. Drugs are BP/USP formulation (or equivalent), as appropriate
  - d. Packaging clearly labelled in English and easy to understand
  - e. All items labelled using INN nomenclature
  - f. Expiry dates meet the specifications in the contract terms
  - g. Condition
  - h. Colour
  - i. Damage
  - j. Packaging of sufficient strength, quality and still intact
  - k. **Cold chain items:** evidence provided that items have been kept at an appropriate temperature for the entire journey
4. The outcome of the inspection – product **approval** or **rejection** – must be recorded on a standard form (including details of any problems). Each report must be signed by 2 people: the R&I Committee President and another committee member.

### ***Inspection: Product Approval***

5. If the item satisfies all criteria, the R&I Committee notifies the Warehouse Manager, who proceeds with the next **SOP: Goods Receipt**.
6. **Controlled substances:** Immediately after R&I Committee approval, the DDA Coordinator enters stock into the DDA Register and this is counter-signed by another staff member.

### ***Inspection: Product Rejection***

7. If the item fails any point on the checklist, the product is rejected.
8. R&I Committee immediately moves the item to the quarantine area. Each carton must be clearly marked 'Not For Use –Quarantined'.
-  9. R&I Committee immediately notifies the Warehouse Manager, who removes the rejected product from the **Goods Receipt** in mSupply. This means it will not appear on the Supplier Invoice but it will still be on the Purchase Order. A comment can be added to the item on the Purchase Order to explain why it has not been received into stock yet.
10. R&I Committee immediately notifies the Contract Management Chief, who notifies the company of the problem (including a copy of the R&I inspection report).
  - a. If minor, the issue can be resolved and the company simply notified. The item is released into the system.
  - b. If significant and the item needs to be replaced, the Contract Management Chief liaises with the company. The item may either be destroyed or returned; all costs are to be borne by the supplier.
  - c. Replacement stock is ordered at no additional charge. If the original supplier cannot satisfactorily replace the stock, they must refund any money already paid on the contract, giving a credit to NMS. They may also forfeit a percentage of their performance security, depending on the terms of the contract. In general:
    - i. Companies are given 30 days to remove the rejected stock and replace it. If removed before 30 days, no further warehousing fees should be charged.
    - ii. Penalties may be payable, depending on the specific contract conditions.
    - iii. If the company refuses to replace the product, the Warehouse Manager should also remove the product from the Purchase Order in mSupply. Procurement and Finance commence dispute processes according to the specific contract conditions.
    - iv. In those circumstances, the stock is then sourced elsewhere by the Contract Management Chief.

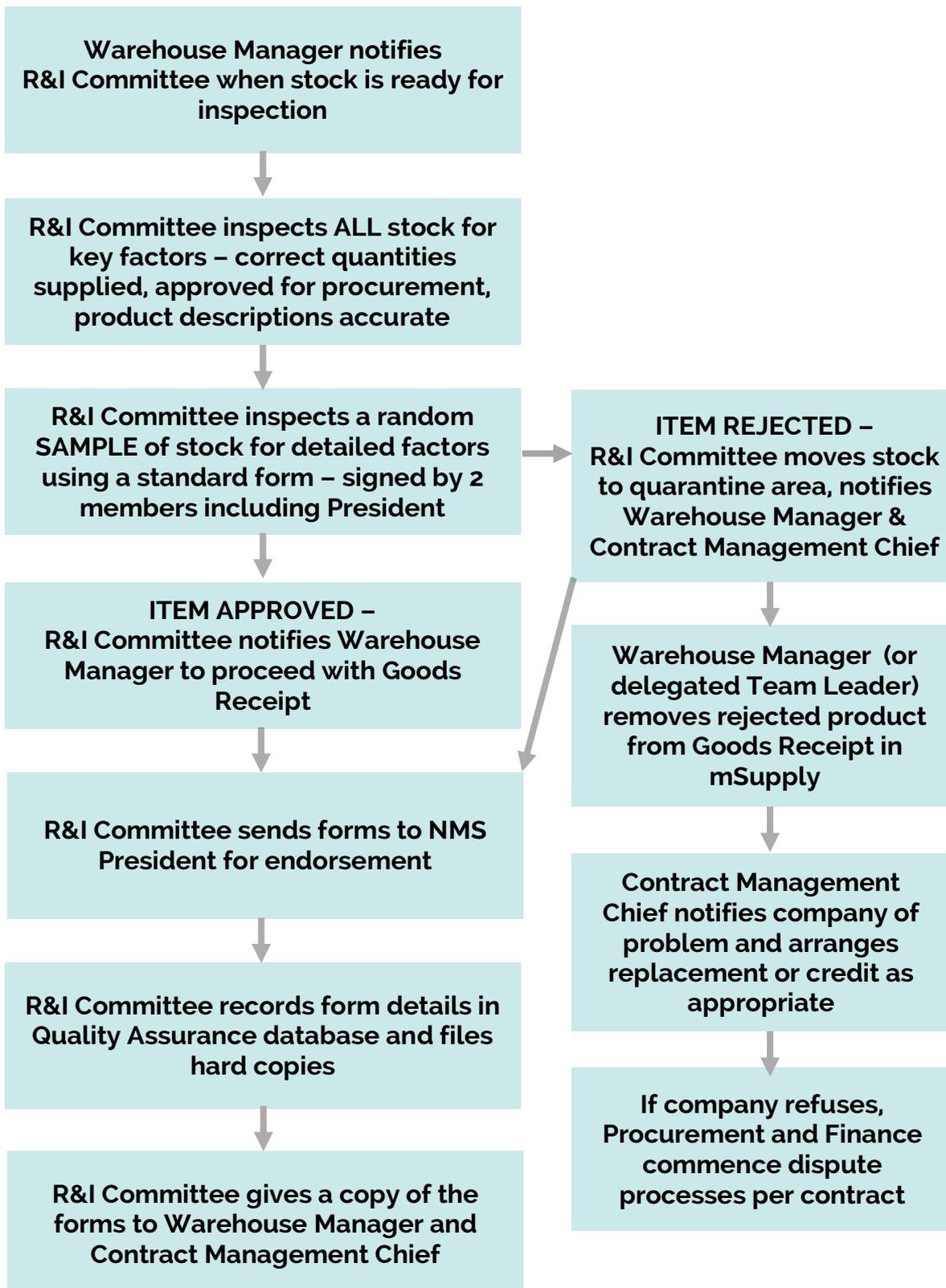
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11. R&I Committee sends the report to the NMS President, who endorses it. Alternatively, if procurement was carried out by the Ministry of Health, the report is sent to the Minister of Health for endorsement.
  12. R&I Committee enters the forms into a Quality Assurance database and files all hard copies. If a manufacturer has supplied defective products, this is recorded for later use in the tender assessment process.
  13. R&I Committee send copies of the forms to:
    - a. Warehouse Manager, who commences SOP: Goods Receipt.
    - b. Contract Management Chief, who liaises with Finance to arrange payment per local procedures.

## Performance Indicators

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1. Time taken for goods receiving.
2. Proportion of items received that fail quality standards.

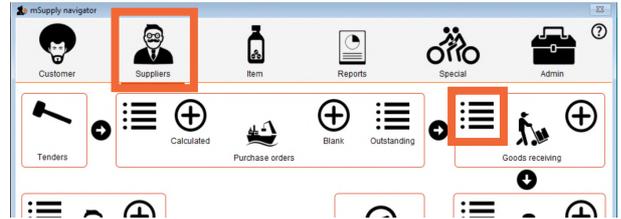
## Process Summary: Goods Inspection



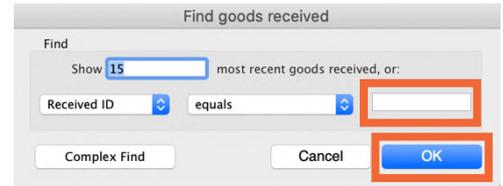


## mSupply Procedure: Editing a Goods Receipt

1. Navigate to the **Suppliers** tab.
2. Click the **Goods Receiving List** button.



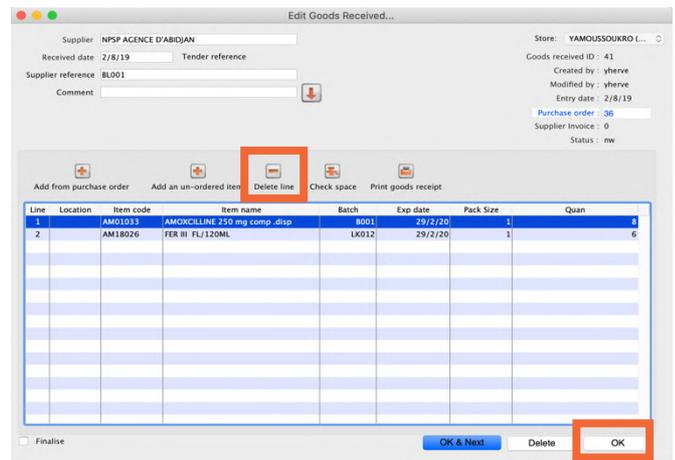
3. If known, enter the **Goods Receiving ID**, otherwise just press **OK** to show a list of all Goods Receipts. Double click on the relevant line to open the Goods Receipt.



Goods Received

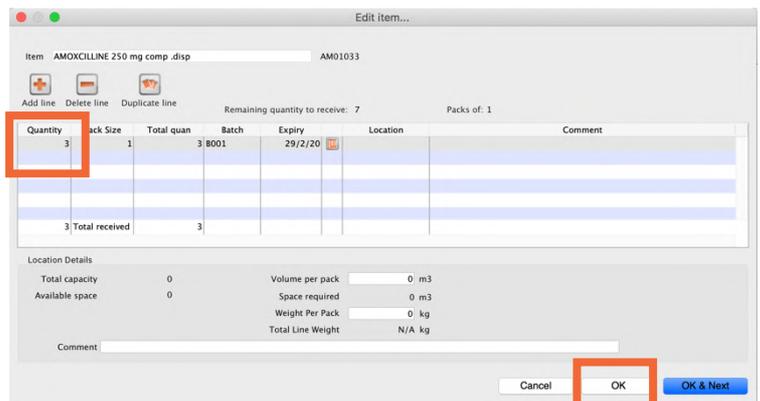
Supplier	Status	Goods ID	Purchase or...	Supplier ref	Entry date	Received date
NPSP AGENCE D'ABIDJAN	nw	21	5		18/7/19	18/7/19
NPSP AGENCE D'ABIDJAN	nw	22	5		18/7/19	16/7/19
NPSP AGENCE D'ABIDJAN	nw	24	13		18/7/19	16/7/19
NPSP AGENCE D'ABIDJAN	fn	28	13		18/7/19	18/7/19
NPSP AGENCE D'ABIDJAN	fn	29	5		18/7/19	16/7/19
NPSP AGENCE D'ABIDJAN	fn	30	5	CTC CHR YK	18/7/19	18/7/19
NPSP AGENCE D'ABIDJAN	fn	32	5	CTC CHR YK	18/7/19	16/7/19
NPSP AGENCE D'ABIDJAN	fn	33	5	RECOLVRABL	18/7/19	16/7/19
NPSP AGENCE D'ABIDJAN	nw	41	36	BLO01	2/8/19	2/8/19
NPSP AGENCE D'ABIDJAN	fn	43	40		28/8/19	24/8/19
NPSP AGENCE D'ABIDJAN	fn	46	43		28/8/19	24/8/19
NPSP AGENCE D'ABIDJAN	fn	48	41		30/8/19	24/8/19
NPSP AGENCE D'ABIDJAN	fn	50	42	ARV/IO	1/9/19	24/8/19
NPSP AGENCE D'ABIDJAN	nw	51	5		26/9/19	26/9/19
NPSP AGENCE D'ABIDJAN	nw	52	43		26/9/19	26/9/19

4. To remove an item completely, highlight the line then click **Delete Line**. For example, if an entire batch is damaged on receipt.



5. To edit an item, double click the line to open the item details. For example, if you need to edit the quantity being received due to damage of some stock.

Click **OK** to return to the main Goods Receiving screen.



6. When you are finished editing, click **OK**.

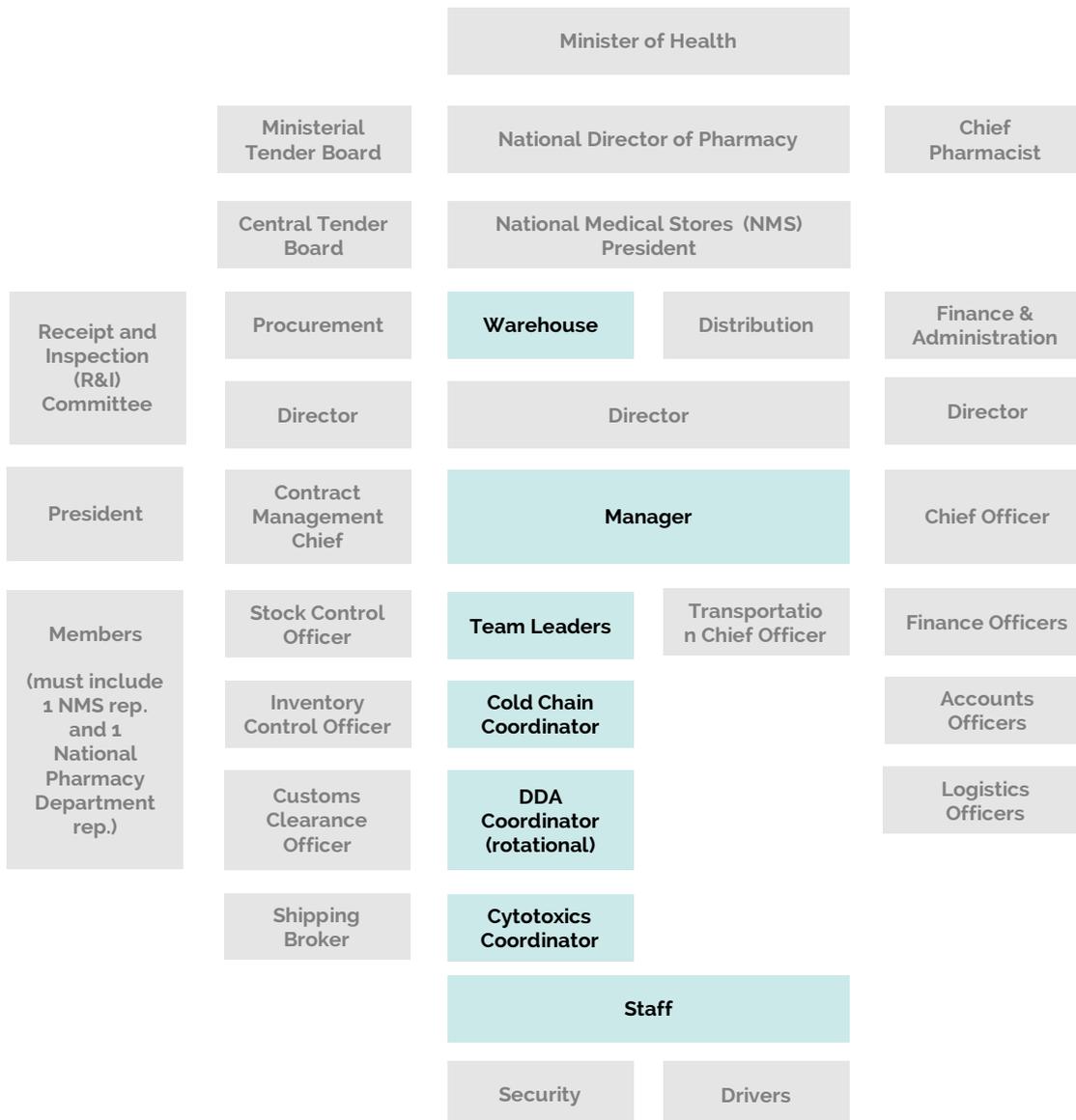
**Do NOT finalise the Goods Receipt until the items have physically arrived and have been inspected, accepted and brought into the warehouse.**

# GOODS RECEIPT

## Purpose

To ensure that all incoming stock is stored in the warehouse efficiently and that item details are recorded accurately.

## Persons Responsible



## Procedure: Goods Receipt

---

1. Following **SOP: Goods Inspection**, R&I Committee notify Warehouse Manager when inspection is complete.
2. Warehouse Manager communicates results of inspection with Team Leaders and coordinates goods receipt activities.



3. Delegated Team Leader opens the **Goods Receipt** in mSupply and enters the proposed location of each item. Batches and expiry dates should have already been entered when the shipment notice arrived and the Goods Receipt was created (approx. 2 weeks ago). These must be double checked now and edited/added if required.



4. Team Leader prints the completed Goods Receipt and gives it to the Warehouse Manager.
5. Warehouse Manager walks through the warehouse to ensure the proposed locations have sufficient space for the incoming products.



6. When the Warehouse Manager is satisfied everything is correct, they finalise the Goods Receipt in mSupply – this will generate a **Supplier Invoice**.

7. Warehouse Staff physically bring the items into the warehouse in preparation for storage. Bulk items are placed on pallets.
  - a. Items are methodically placed in their correct locations according to the printed mSupply Goods Receipt form.
  - b. If changes to location are necessary, Warehouse Staff note this on the Goods Receipt form.
  - c. When a batch must be stored in different locations due to insufficient space in any single location, the quantities must be counted and noted accurately.
  - d. Team Leader updates changes in the mSupply Goods Receipt.



8. When all stock has been placed in their correct locations in the warehouse, Team Leader informs the Warehouse Manager.



9. Warehouse Manager confirms the **Supplier Invoice** in mSupply – this brings the items into stock, allowing them to be issued later.



10. Warehouse Manager prints the confirmed **Supplier Invoice** and sends it to the Warehouse Director who finalises it in mSupply. This prevents further editing and completes the goods receipt process.
11. Warehouse Director prints and sends finalised Supplier Invoice to Contract Management Chief for payment per next **SOP: Basic Payments**.

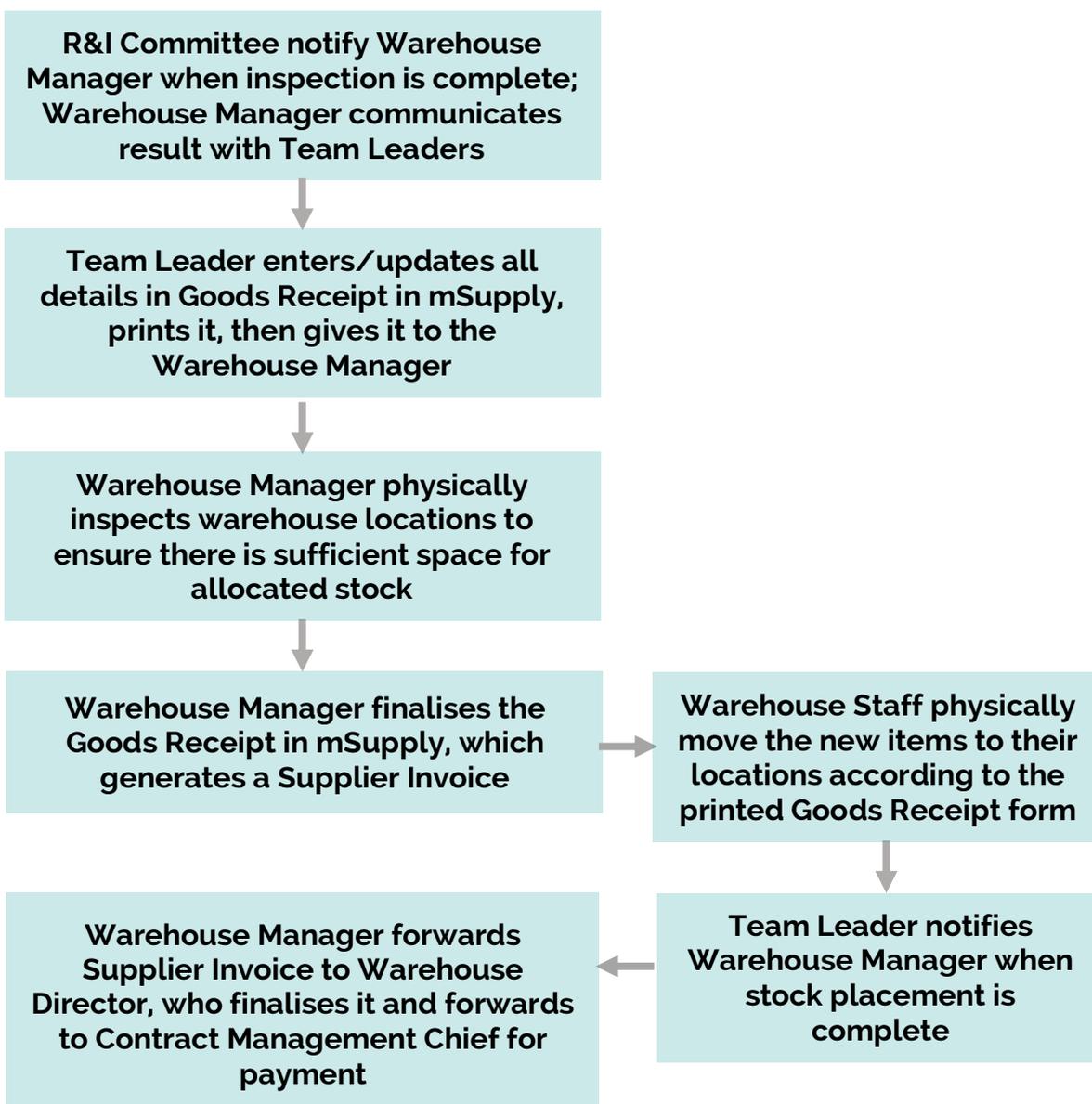
## Performance Indicators

---

1. Time taken for goods receiving.
2. Proportion of items correct on physical stocktake.

## Process Summary: Goods Receipt

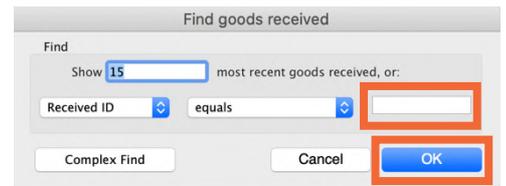
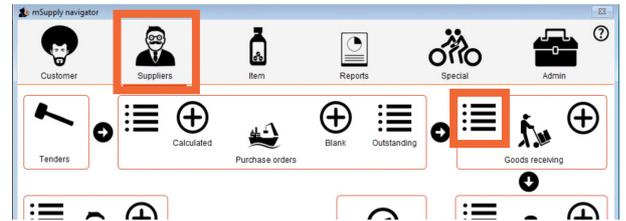
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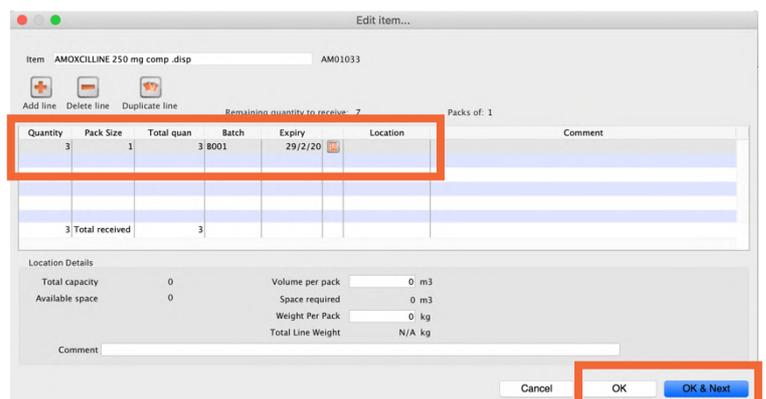
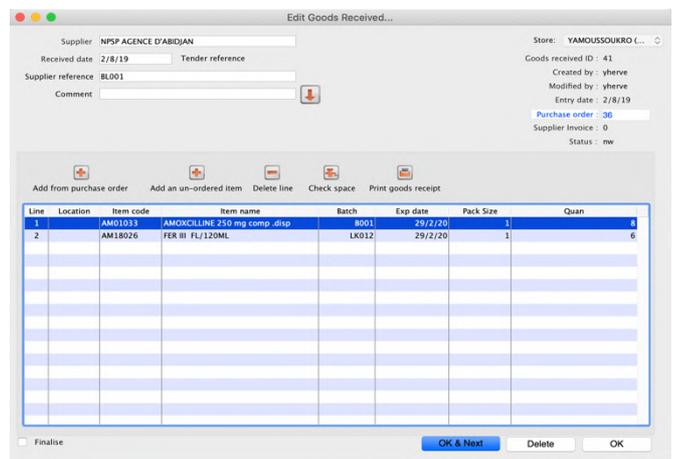


## mSupply Procedure: Editing, Printing and Finalising a Goods Receipt

1. Navigate to the **Suppliers** tab.
2. Click the **Goods Receiving List** button.
3. If known, enter the **Goods Receiving ID**, otherwise just press **OK** to show a list of all Goods Receipts. Double click on the relevant line to open the Goods Receipt.
4. To edit an item's batch, expiry date or location, double click the line to open the item details.
5. Click **OK & Next** to move to the next item, or click **OK** to return to the main Goods Receiving screen.



Supplier	Status	Goods ID	Purchase or...	Supplier ref	Entry date	Received date
NPSP AGENCE D'ABIDJAN	nw	21	5		18/7/19	18/7/19
NPSP AGENCE D'ABIDJAN	nw	22	5		18/7/19	16/7/19
NPSP AGENCE D'ABIDJAN	nw	24	13		18/7/19	16/7/19
NPSP AGENCE D'ABIDJAN	fn	28	13		18/7/19	18/7/19
NPSP AGENCE D'ABIDJAN	fn	29	5		18/7/19	16/7/19
NPSP AGENCE D'ABIDJAN	fn	30	5	GTC CHR YK	18/7/19	18/7/19
NPSP AGENCE D'ABIDJAN	fn	32	5	GTC CHR YK	18/7/19	16/7/19
NPSP AGENCE D'ABIDJAN	fn	33	5	RECOUVRABL	18/7/19	16/7/19
NPSP AGENCE D'ABIDJAN	nw	41	36	BL001	2/8/19	2/8/19
NPSP AGENCE D'ABIDJAN	fn	43	40		28/8/19	24/8/19
NPSP AGENCE D'ABIDJAN	fn	46	43		28/8/19	24/8/19
NPSP AGENCE D'ABIDJAN	fn	48	41		30/8/19	24/8/19
NPSP AGENCE D'ABIDJAN	fn	50	42	ARV/IO	1/9/19	24/8/19
NPSP AGENCE D'ABIDJAN	nw	51	5		26/9/19	26/9/19
NPSP AGENCE D'ABIDJAN	nw	52	43		26/9/19	26/9/19



6. To print, click **Print Goods Receipt**.

Line	Location	Item code	Item name	Batch	Exp date	Pack Size	Quan
1	Shelf A	AM01033	AMOXICILLINE 250 mg comp .disp	B001	31/8/23	1	3
2	Shelf F	AM18026	FER III FL/120ML	LK012	31/5/26	1	7

7. When prompted, select your preferred printing option then click **OK**.

Form to use: Consignment receipt report GR

Message:

Destination:

- Printer
- Preview
- PDF file on disk
- Email PDF
- Export to Excel

Buttons: Cancel, OK

8. When you are sure no further changes will be made, check the **Finalise** box and click **OK**.

Finalise

Buttons: OK & Next, Delete, OK

9. When prompted, click the **Finalise** button.

10. This will generate a **Supplier Invoice** (continued in next procedure).

Confirm...

Are you sure you want to finalise this goods receipt? If you finalise then you will not be able to edit this goods receipt any further.

Buttons: Finalise, Cancel

# mSupply Procedure: Editing, Printing and Finalising a Supplier Invoice

1. When you finalise a Goods Receipt (see previous procedure), a Supplier Invoice is automatically generated and opened.

The Supplier Invoice is automatically placed on **Hold**.

2. Double click on a line to edit details, make any changes and then click **OK**.

3. To confirm the Supplier Invoice, **uncheck** the **Hold** box and click **OK**. Then click **Confirm** when prompted. This is performed by the Warehouse Manager, who then forwards the Supplier Invoice to the Warehouse Director.

4. To block further editing, check the **Finalise** box and click **OK**. This is performed by the Warehouse Director as the final step in goods receipt.

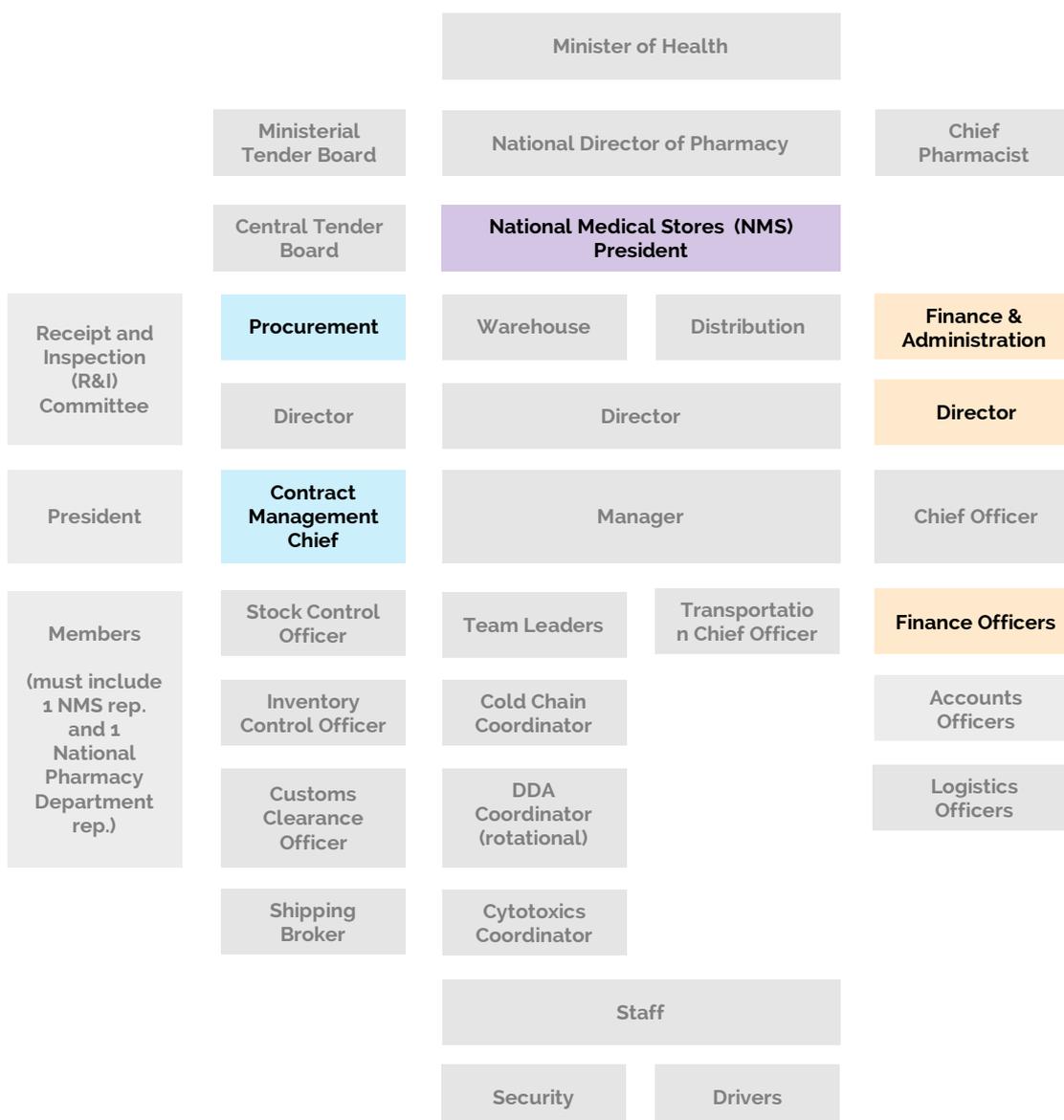
5. At any stage, the Supplier Invoice can be printed by checking the **Print** box before clicking **OK**.

# BASIC PAYMENTS

## Purpose

To ensure payments are made in a transparent manner and in a timely fashion. This helps to ensure that suppliers have confidence in our ability to pay them.

## Persons Responsible



## Procedure: Basic Payments

---

1. Following **SOP: Goods Receipt**, Contract Management Chief receives finalised Supplier Invoice from Warehouse Director, which initiates the payment process.
2. Contract Management Chief double checks payment amount on Supplier Invoice with information recorded in other local systems.
3. Contract Management Chief creates a payment request according to local procedures, and attaches the Supplier Invoice, Purchase Order, contract and other relevant local documents. These documents are sent to the NMS President for endorsement.
4. After endorsement by the NMS President (usually in the form of a signed cover letter), documents are returned to the Contract Management Chief who forwards them to a Finance Officer.
5. Finance Officer arranges payment according to local procedures, including obtaining relevant approvals from the Finance Director and others. Thorough documentation is required.
6. When payment is made, Finance Officer informs Contract Management Chief (including a copy of receipts).
-  7. Contract Management Chief records the payment in mSupply.

## Performance Indicators

---

1. % Annual budget executed
2. Total value of invoices received
3. Total value of invoices paid

## Process Summary: Basic Payments

---



## mSupply Procedure: Supplier Payments

1. Navigate to the **Suppliers** tab.
2. Click the **New Payment** button.
3. Enter the **Name** of the supplier you are paying.
4. View the outstanding invoice payments in the table and the **Total Outstanding** below. An alert will appear if there are no outstanding payments due.
5. Choose the **Payment Currency** from the dropdown list, if applicable.
6. Enter the **Payment** amount and press **tab** on the keyboard.
7. Click **Distribute**. This will automatically distribute the payment to each outstanding invoice. If necessary, you can redistribute the payment amounts manually.
8. Click **OK** to finalise the payment. To print, check the Print box before clicking OK.



The screenshot shows the 'Supplier payment' form. The 'Name' field is set to 'Gold medical supplies' and is highlighted with a red box. The 'Payment currency' is set to 'NPR' and is highlighted with a red box. The 'Payment' amount is set to '176.00' and is highlighted with a red box. The 'Distribute' button is highlighted with a red box. The table below shows the outstanding invoices and the total outstanding amount.

Entry date	Confirm date	Invoice	Their ref	Comment	Total	Currency	Outstanding	Payment
23/11/2019	23/11/2019	15			97	NPR	97	97
23/11/2019	23/11/2019	16			79	NPR	79	79

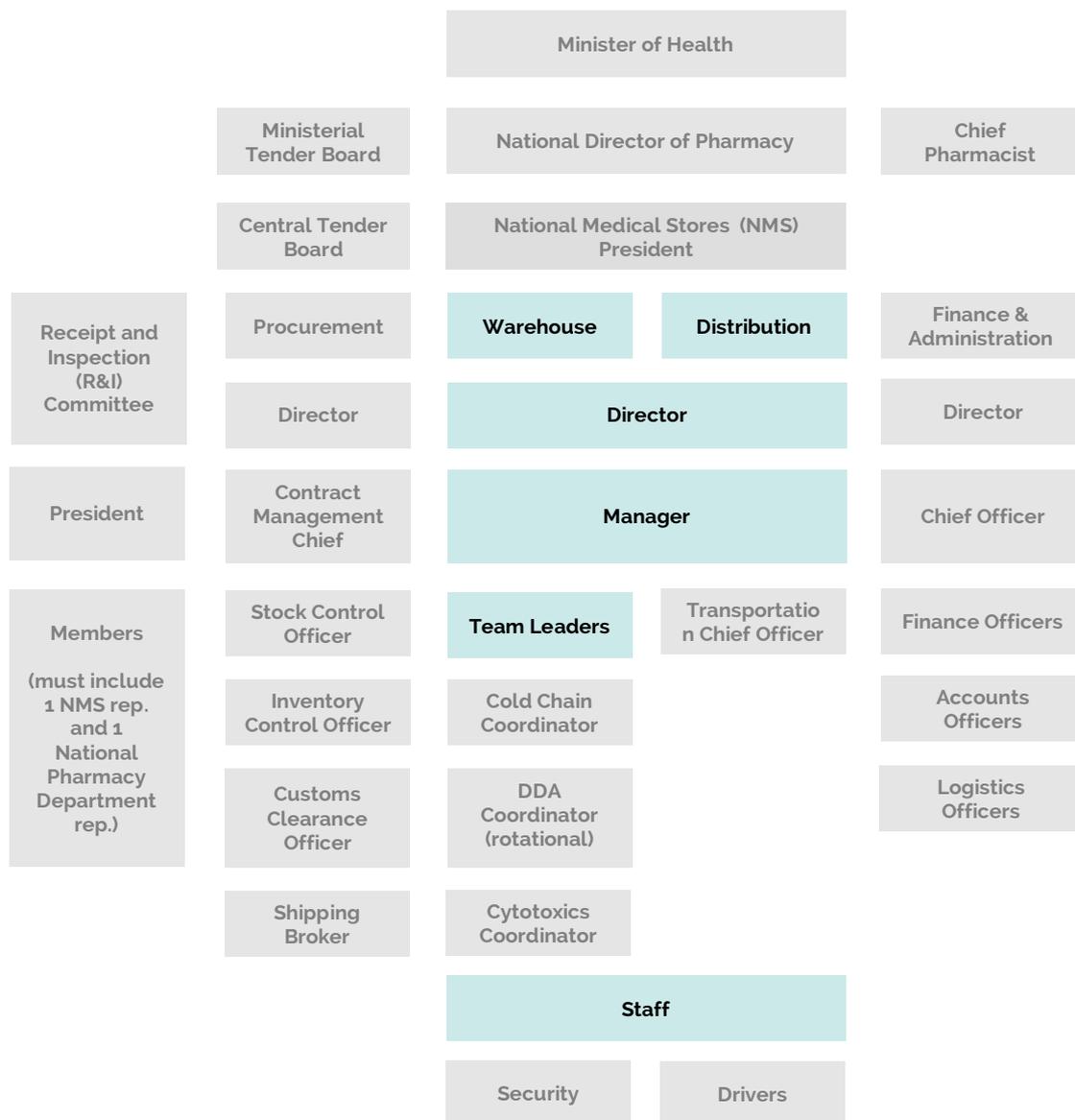
The 'Total outstanding' is 176.00, which is highlighted with a red box. The 'Total payment in local currency' is also 176.00. The 'OK' button is highlighted with a red box.

# ORDER PROCESSING

## Purpose

To ensure that customers are ordering stock in a standardised manner and that orders are received and managed efficiently.

## Persons Responsible



## Procedure

---



1. Facilities place their orders in mSupply according to published schedules:

- a. mSupply Desktop = Internal Order
- b. mSupply Mobile = Supplier Requisition
- c. Not using mSupply = paper order



2. Authorisation by specific people may be required before orders are sent according to local policy (e.g. National Director of Pharmacy, NMS President).

- a. An authorisation request may be approved or denied, either remotely or by logging into mSupply.
- b. If an authorisation request is not attended to within a predetermined period (e.g. 4 days), the request is automatically authorised.



3. Internal Orders appear as Requisitions in mSupply at NMS.

- a. Team Leaders monitor incoming Requisitions for their allocated facilities or programs.
- b. If a facility is not using mSupply, the relevant Team Leader must manually enter the paper order as a Requisition in mSupply.



4. Relevant Team Leader creates a Customer Invoice and uses mSupply to automatically allocate stock according to FEFO ("First Expiry, First Out").

- a. If items are available, they are supplied at the discretion of NMS.
- b. If items are not available, they cannot be supplied.



5. Team Leader prints the **unconfirmed** Customer Invoice – this is used as the Picking Slip.

6. Team Leader annotates and signs the Picking Slip with the following note: "Ready for assembly – given to [Warehouse Staff Name] DD/MMM/YY".

7. Team Leader gives the Picking Slip to the Warehouse Staff member responsible for assembling the order. Other staff may help, but ONE staff member takes responsibility for assembling the order as efficiently and accurately as possible as per SOP: Picking & Assembling Orders.

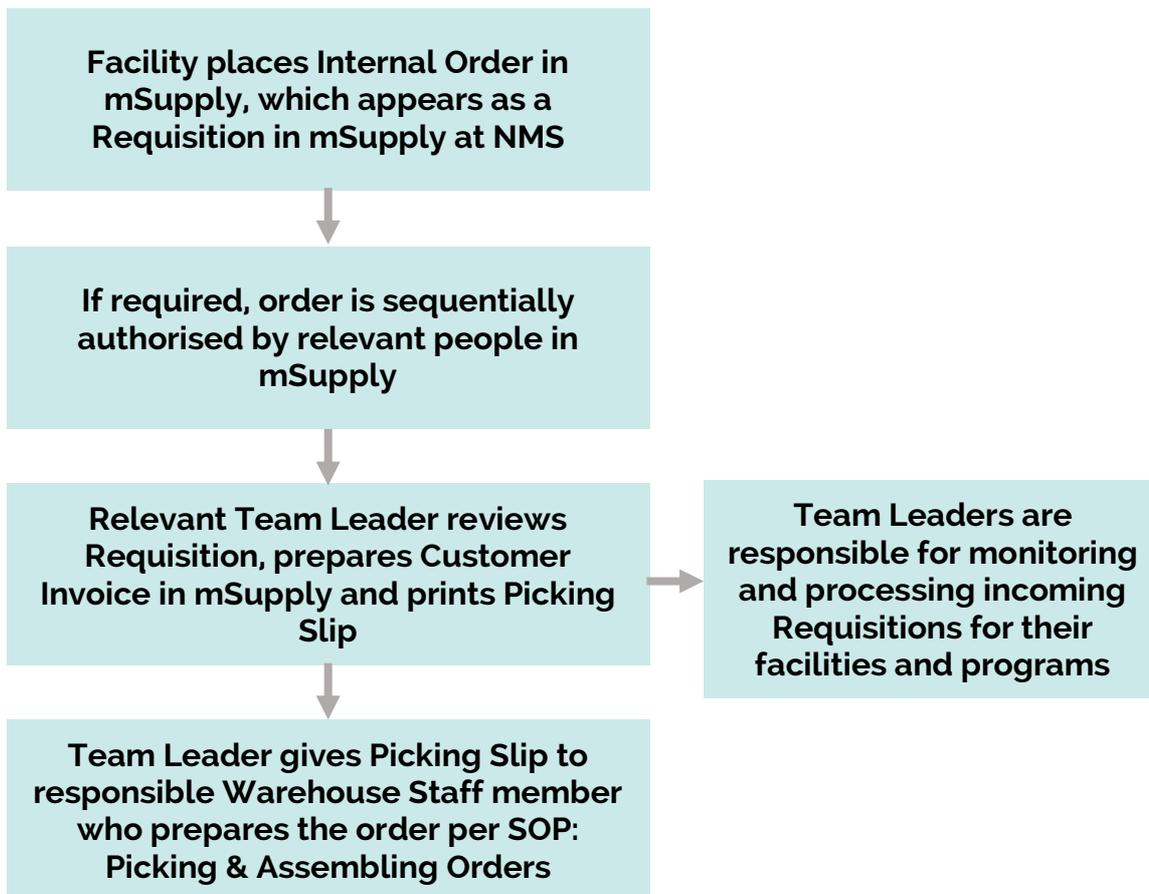
## Performance Indicators

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1. Average time from order receipt to picking.
2. Average time from order receipt to dispatch.
3. Total number of orders filled and dispatched.

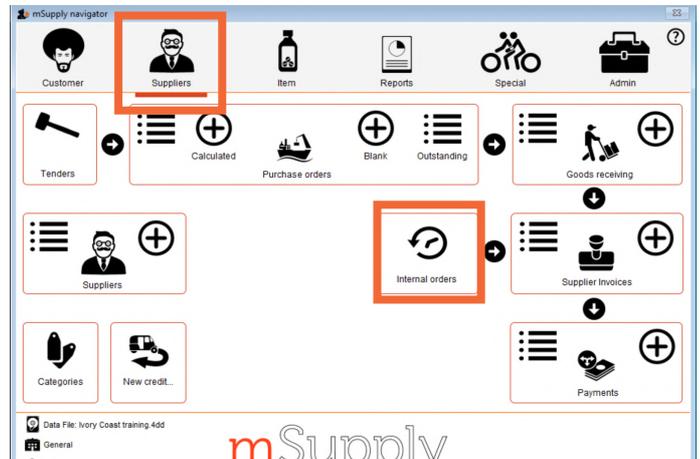
## Process Summary: Order Processing

---



# mSupply Procedure: Creating an Internal Order (Procedure for NMS Customers)

1. Navigate to the **Suppliers** tab.
2. Click **Internal Orders**.
3. Click **New Internal Order**.



4. If your store uses programs, choose whether to create a **Program** or **General** order. (If your store does not use programs, a General order will automatically be created).

Order type

Program  General

Order details

Program: TB Program

Requisition type: Regular

Supplier: First, enter a supplying store name

Period: Jan - Jun 2020

Start date: 01/01/2020

End date: 30/06/2020

Cancel OK

Order type

Program  General

Order details

Program: [empty]

Requisition type: [empty]

Supplier: [empty]

Period: [empty]

Cancel OK

If you create a **Program** order, enter the **Supplier** and select the **Program**, **Requisition Type** and **Period**, then click **OK**. If you create a **General** order, just click **OK**.



5. This will create a **Supplier Requisition**.

A supplier requisition is a *request* to the supplier to give you some items. It is up to the supplier to decide whether to give you the items and, if so, to create a stock transfer.

6. Enter the name of the **Name** of the store you wish to order from. Your regular supplier is prefilled but can be changed if necessary.

7. To add items one-by-one, click **New Line**. To add items from a master list, click **Add from Master List**.

If you created a Program order, all the items in that program will automatically be added to your order and you will not be able to add other items.

8. Search for the item to order. Remember, you can:

- Type the first few letters and press tab
- OR
- Type the item code and press tab
- OR
- Type @ and press tab to choose from a list of ALL items

You obviously do not have to select batch or expiry. Remember, you are just requesting these items. The supplying store will choose which stock to supply.



- mSupply will automatically calculate your order for you.

Order date: 17/03/19    **Black**    Comment: \_\_\_\_\_

Max MOS: 3.0    Threshold MOS: 0.0     Hide stock over threshold

New line    Add from master list    Delete line(s)    Filter items: Filter by item name or code    Print

Data entry    Log

Li...	Item code	Item name	Unit	Our stock on hand	Average monthly consumpt...	Months of stock	Calculated quantity	User requested quantity	Comment
1	Amo250	AMOXICILLIN 250mg CAPS		8	3	2	2	2	

The **Calculated Quantity** is what the system recommends you should order based on your average usage, current stock on hand and maximum months of stock (MOS) you wish to keep. The calculated quantity will change if you adjust the **Max MOS** field.

You can also set a rule to *not* order an item if you already have more than a certain amount in stock. For example, if you don't want to order any items that already have at least 2 months' worth of stock, you can set this rule by entering 2 into the **Threshold MOS** field.

The **User Requested Quantity** is what you actually want to order. Usually, this will be the same as the Calculated Quantity but you can change it if necessary (e.g. a recent disease outbreak).

- Review your order carefully.
- When you are ready to send your order, check the **Finalise** box and click **OK**. This will send your requisition to your supply store and block any further editing.

Finalise    Cancel    OK & Next    OK

**OR**

If your facility requires authorisation before orders can be sent, click the **Authorisation** tab then click **Request Authorisation**. This will send an alert to the authoriser to review the order. You can check the status of authorisation requests by returning to this screen at any time. Once all the relevant people have given approval, the Finalise box will be available – check the **Finalise** box and click **OK** to send the order.

Enter new requisition...

Name: District Sainaire de Yamoussoukro    C2045    Reference: \_\_\_\_\_    ID: 6

Order date: 30/3/20    **Black**    Comment: \_\_\_\_\_    Status: mw

Max MOS: 3.0    Threshold MOS: 0.0     Hide stock over threshold    Type: request

Entry date: 30/3/20    Entered by: Admin    Store: YAMOUSSOUKRO

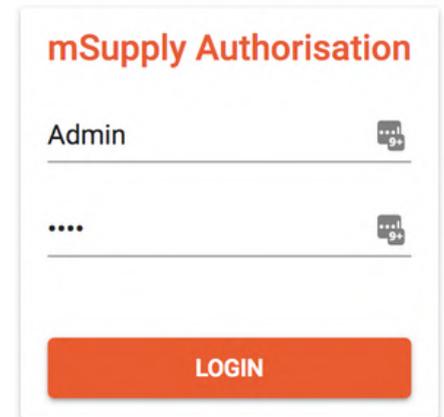
Data entry    **Authorisation**    Finalise    Request authorisation

Authorise	Status	Date	Comment

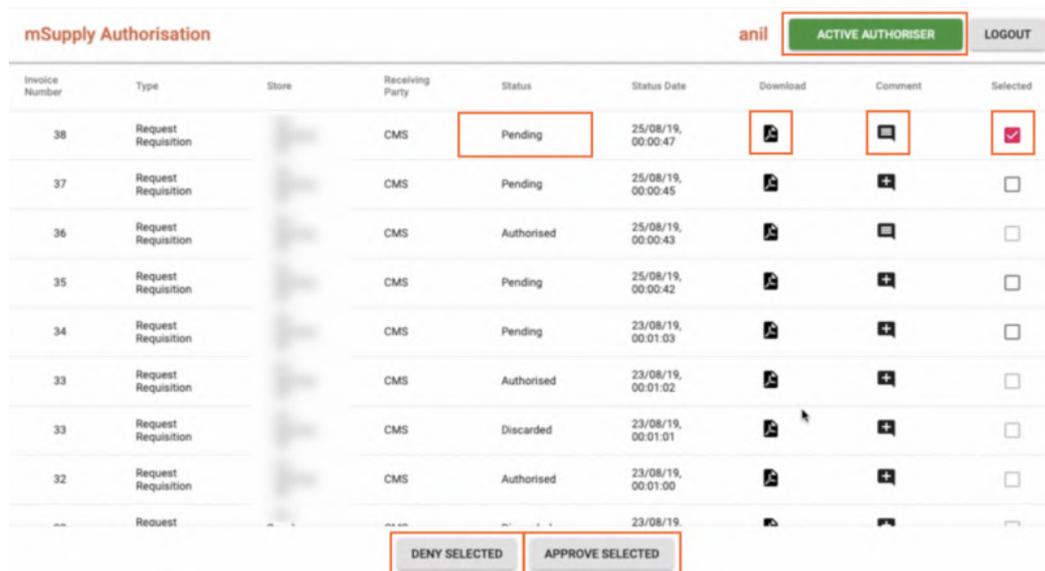
Cancel    OK & Next    OK

## mSupply Procedure: Authorisation Request Responses (Process for Authorisers)

1. When an authorisation request is made, authorisers receive an email containing a link to the web app.
2. Authorisers log in using their mSupply username and password.
3. Once logged in, the authoriser can see all pending (and previous) authorisation requests.
  - To **view** a transaction, click the **Download** icon. A PDF will open in a new tab.
  - To **comment** on a transaction, click the icon in the **Comment** column. The comment you enter will be shown on the **Authorisation tab** in mSupply.
  - To **approve** transactions, check the box(es) in the **Selected** column then click **Approve Selected**.
  - To **deny** transactions, check the box(es) in the **Selected** column then click **Deny Selected**. You must enter a comment explaining why the transaction has been denied.



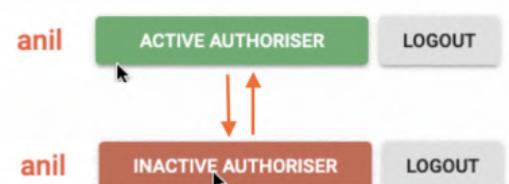
The login form is titled "mSupply Authorisation". It features a username field with "Admin" entered, a password field with four dots, and a prominent orange "LOGIN" button at the bottom.



The dashboard shows a table of authorisation requests. The user "anil" is logged in as "ACTIVE AUTHORISER". The table has columns for Invoice Number, Type, Store, Receiving Party, Status, Status Date, Download, Comment, and Selected. The first row (Invoice 38) is highlighted with a red box around its "Pending" status and the "Download" and "Comment" icons. Below the table are buttons for "DENY SELECTED" and "APPROVE SELECTED".

Invoice Number	Type	Store	Receiving Party	Status	Status Date	Download	Comment	Selected
38	Request Requisition		CMS	Pending	25/08/19, 00:00:47			<input checked="" type="checkbox"/>
37	Request Requisition		CMS	Pending	25/08/19, 00:00:45			<input type="checkbox"/>
36	Request Requisition		CMS	Authorised	25/08/19, 00:00:43			<input type="checkbox"/>
35	Request Requisition		CMS	Pending	25/08/19, 00:00:42			<input type="checkbox"/>
34	Request Requisition		CMS	Pending	23/08/19, 00:01:03			<input type="checkbox"/>
33	Request Requisition		CMS	Authorised	23/08/19, 00:01:02			<input type="checkbox"/>
33	Request Requisition		CMS	Discarded	23/08/19, 00:01:01			<input type="checkbox"/>
32	Request Requisition		CMS	Authorised	23/08/19, 00:01:00			<input type="checkbox"/>

4. If you will be unable to authorise transactions (e.g. going on leave), click the **Active Authoriser** button to change yourself to an **Inactive Authoriser**. Click again to change yourself back to an **active** authoriser when you resume your regular duties.





## mSupply Procedure: Processing a Requisition (Creating a Customer Invoice)

1. Navigate to the **Customer** tab.
2. Click **Requisitions**.
3. Requisitions that have been sent by customers will automatically appear in this list.



All requisitions that have *not* been processed will have a suggested (sg) status.

If your customer has sent a paper order, you must manually enter it by clicking **New Customer Requisition**.

4. Double click the requisition you wish to process.
5. Review the customer's order. For each item, you can see:

- **Our Stock on Hand:** the stock in your store
- **Customer Current Stock on Hand:** the customer's stock
- **Customer Monthly Usage:** the customer's average monthly consumption
- **Our Suggested Quantity:** the quantity mSupply thinks they should be ordering
- **Customer Requested:** the actual quantity requested
- **Already Issued:** how much stock has already been issued from this requisition on previous customer invoices
- **Remaining to Supply:** how much stock still needs to be supplied to fulfil this requisition
- **Comments:** if ordering a different quantity to what mSupply has suggested, the customer may leave a comment explaining why

ID	Name	Date entered	Requisition date	Status	Type	Comment
30	Abidjan	6/03/2019	6/03/2019	sg	response	
29	Abidjan	6/03/2019	6/03/2019	sg	im	
26	Abidjan	6/03/2019	6/03/2019	sg	sh	
21	Abidjan	6/03/2019	6/03/2019	sg	sh	
19	Abidjan	6/03/2019	6/03/2019	sg	im	
17	Abidjan	6/03/2019	6/03/2019	sg	im	
13	Abidjan	6/03/2019	6/03/2019	sg	im	
39	Abidjan	9/03/2019	9/03/2019	sg	response	
38	Northcote	8/03/2019	8/03/2019	sg	response	From request requisition 8
3	Northcote	13/03/2018	13/03/2018	sg	im	

LI...	Item code	Item name	Unit	Our stock on hand	Customer current stock on hand	Customer monthly usage	Our suggested quantity	Customer requested	Already issued	Remaining to supply	Supply this invoice	Comment
1	amosusp1	Amoxicillin Suspension 125mg/5ml		2,985	400	8	0	400	0	400	0	Notes here
2	para1	Paracetamol 500mg tabs		0	6,356,150	12,404	0	500	0	500	0	Notes there



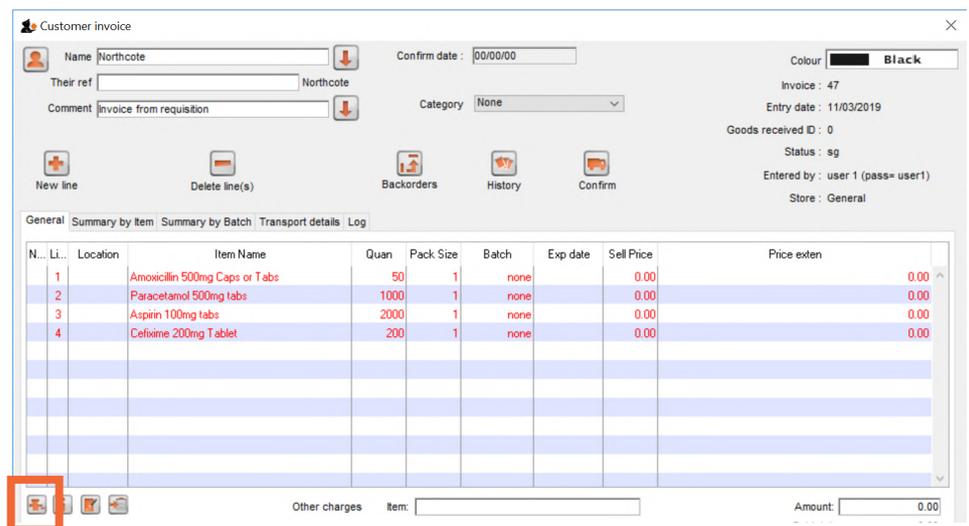
- Enter the quantities you will supply in the **Supply this Invoice** column. If required, you can also edit the **Comments** section.
- When you have entered all quantities to supply, click **Create Customer Invoice**.
- A customer invoice will be created based on the quantities you entered in the requisition screen.

**All items will appear in red.**  
**These are placeholder lines: you now need to allocate specific stock to be issued.**

9. To allocate specific stock to issue, you have 2 choices:

- Double click each line and choose stock manually; or
- Use the **Magic Button** to automatically allocate stock to all item lines according to FEFO (First to Expire, First Out)!

Click the Magic Button, then click **Issue Stock for all Placeholder Lines**.



10. Instantly, all the items are allocated according to FEFO.

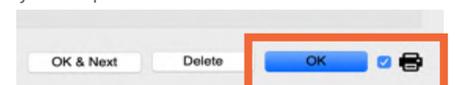
- Items that are not available remain in red.
- Items that did not have enough quantity in one batch will automatically be allocated across two batches (as you can see here with aspirin).

N...	Li...	Location	Item Name	Quan	Pack Size	Batch	Exp date	Sell Price	Price exten
1			Amoxicillin 500mg Caps or Tabs	50	1	none		0.00	0.00
3			Paracetamol 500mg tabs	1000	1			0.00	0.00
3			Aspirin 100mg tabs	300	1	GDFDI	31/05/2019	0.00	0.00
4			Aspirin 100mg tabs	1700	1	uinuin	31/01/2022	0.01	17.00
5	1216		Cefixime 200mg Tablet	200	1			4.00	800.00

11. Review carefully. To make any changes, double click the line to open the detailed window. To delete a line, select it and click **Delete Line(s)**.



12. To print a Picking Slip, check the **Print** box and click **OK**. Select your preferred printing method when prompted.

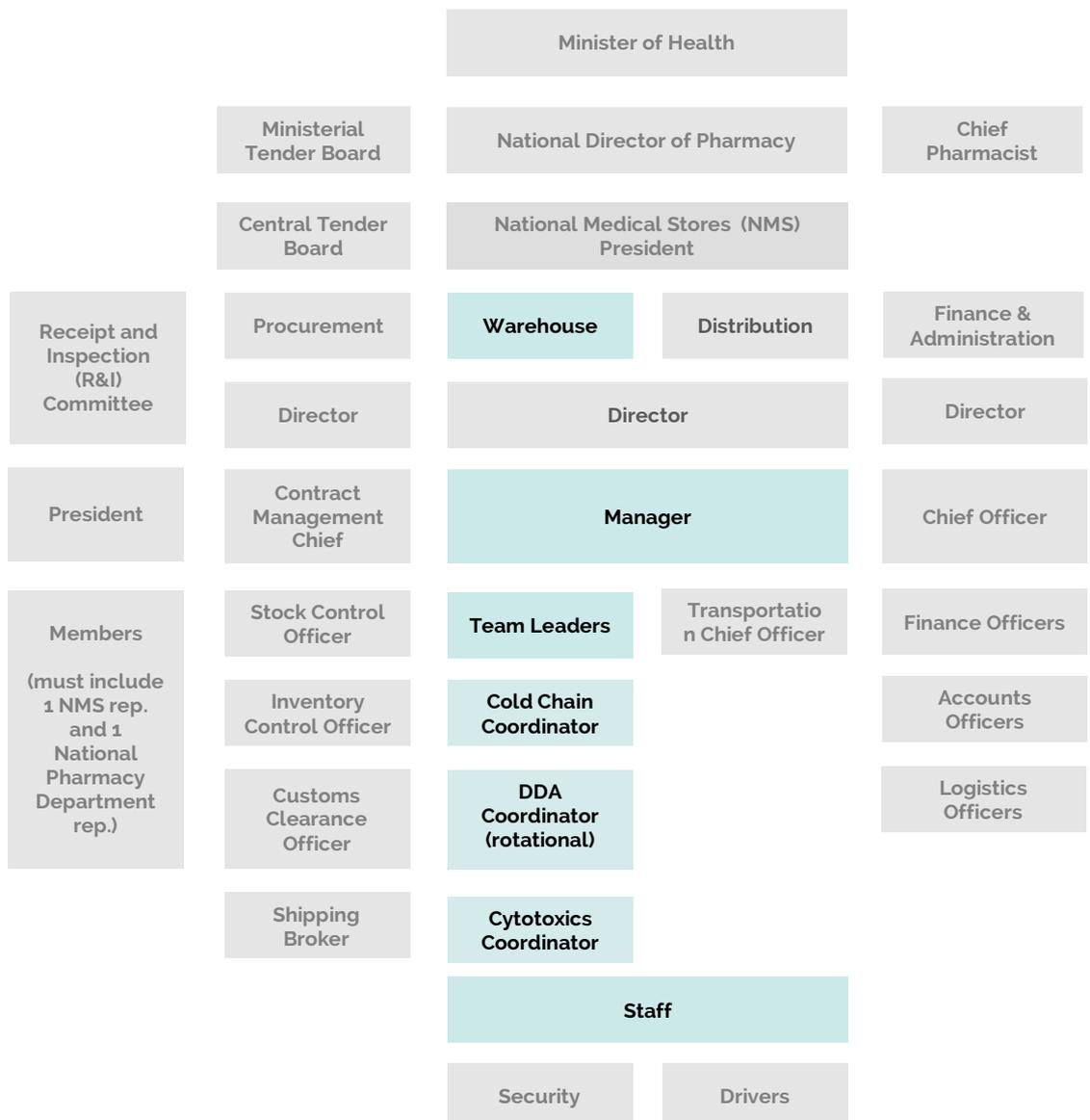


# PICKING & ASSEMBLING

## Purpose

To ensure that orders are picked and assembled in a timely and accurate manner.

## Persons Responsible



## Procedure: Picking & Assembling

---

1. Following **SOP: Order Processing**, Team Leader gives responsible Warehouse Staff member a printed Picking Slip. Other staff may help, but ONE staff member takes responsibility for assembling the order as efficiently and accurately as possible.
2. Team Leader coordinates the picking process and supervises Warehouse Staff, ensuring orders are assembled efficiently and accurately.
3. As stock is picked off the shelves, Warehouse Staff:
  - a. Tick the Picking Slip to indicate they have completed that line.
  - b. Clearly mark the Picking Slip wherever there is a discrepancy or change (e.g. different quantity, location or batch number, or if the stock on Picking Slip is unavailable).
4. Stock picked from the shelves is placed in a box clearly marked with the customer's name to prevent confusion and errors. Stock being assembled for an order must be clearly separated from warehouse stock.
5. If using recycled boxes for assembling orders, Warehouse Staff must clearly mark that the box no longer contains its original contents. They should use a dark marker to cross out previous markings on all sides of the box and write 'REPACKED' in large letters.
6. The Team Leader should consult relevant staff for the following:
  - a. **Forklift required:** Forklift-accredited member of staff.
  - b. **Cold chain:** Cold Chain Coordinator.
    - i. Assemble immediately prior to dispatch. Vaccines should only be packed when transport is fully arranged and departure is imminent.
    - ii. The packing container used for cold chain items depends on the mode of transport.
      - **Polystyrene cool-boxes.** May be used for flights or transport that will arrive at the destination within 6-12 hours.
      - **Large, hard-bodied cold-boxes.** Must be used if using ships or long-distance transport. These can keep vaccines at an appropriate temperature for up to 72 hours in normal conditions.
      - **Small vaccine carriers.** May be used if walking or using other means to reach difficult-to-access communities, where large containers are impractical.



- iii. All packaging must be used following the manufacturer's specifications. Before use in packing, ice packs should be removed from the freezer and left at room temperature until no longer solid inside. When the ice pack is shaken, movement should be felt inside. This indicates they are ready to be used and packed inside cool containers.
- iv. Prepared ice packs are used to line containers and only then should vaccine vials be removed from the cool room and placed in the cool container. The container is then immediately closed and all seals are firmly taped.
- v. Where necessary, separate diluents (for reconstitution) and droppers (for oral vaccines) must also be packed. These may be packed within the cool container (if space allows) or packed separately (but sent together).
- vi. Once the cool container is sealed, it is then labelled. Labels should clearly indicate they are cool items and not part of normal stock. If available, pre-prepared stickers may be used. If not, template labels should be made, printed and clearly affixed to the container.

c. **Controlled substances:** DDA Coordinator.

- i. Assemble immediately prior to dispatch and package separately to other stock.
- ii. DDA Coordinator and Team Leader notify the Warehouse Manager, who gives them the DDA safe key.
- iii. DDA Coordinator picks the required stock from the safe and makes an entry in the DDA Register, recording the item, quantity removed, quantity remaining, date, invoice number, time and place of issue.
- iv. The DDA Register entry is counter-checked and counter-signed by the second staff member. Both officers must physically count the remaining stock before signing.
- v. When the stock is removed from the safe, both staff members also counter-sign the Picking Slip.
- vi. The signed Picking Slip is given directly to the Responsible Officer for distribution of that delivery, who takes responsibility for it until it reaches the receiving facility.

d. **Cytotoxic or hazardous:** Cytotoxics Coordinator.

- i. Assemble using safe handling/packaging methods.
- ii. Package separately to other stock and clearly mark box with a cytotoxic or hazardous label.

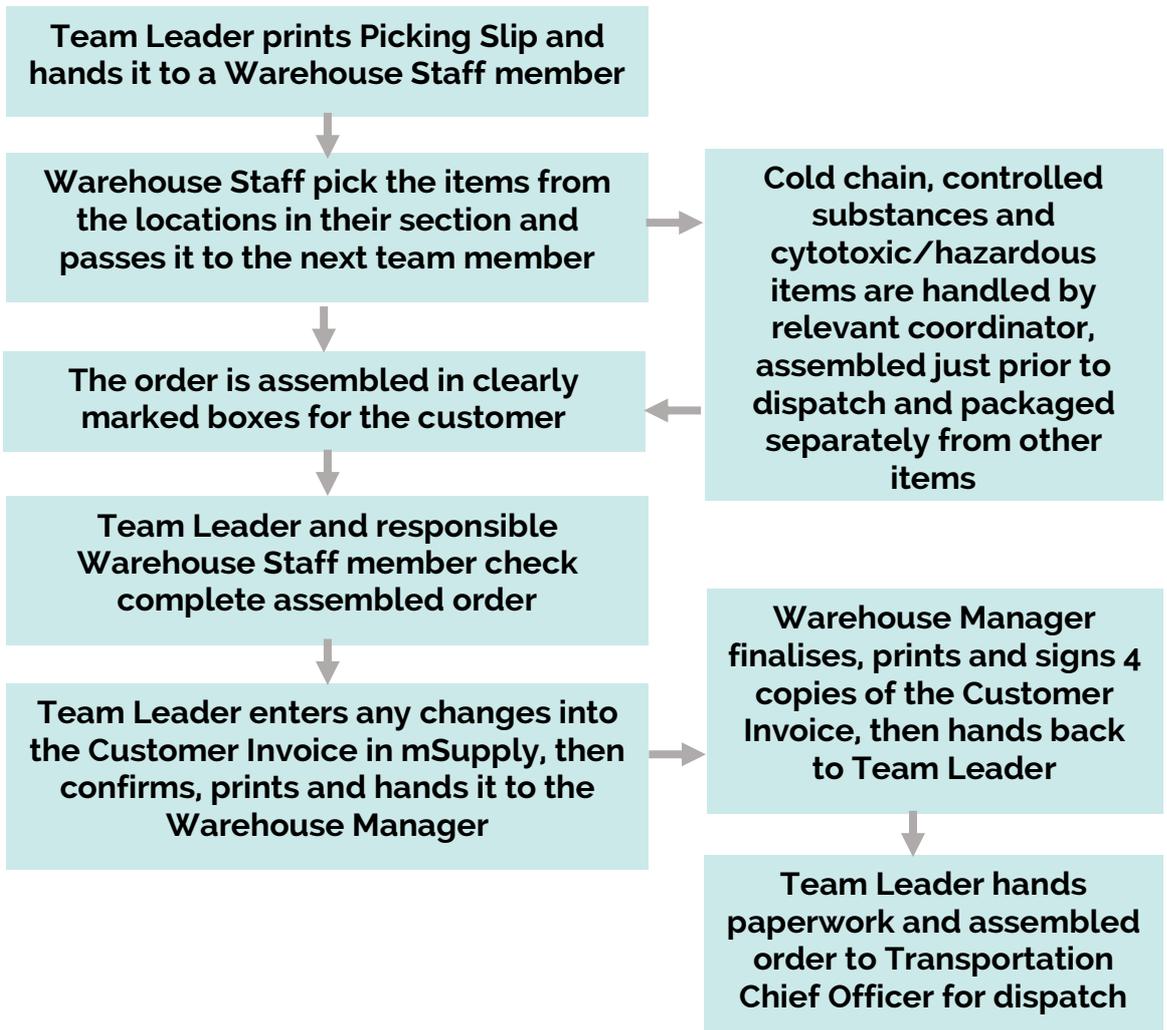
7. The last Warehouse Staff member to pick stock for the order informs the Team Leader when it is ready for inspection.
8. Team Leader and the responsible Warehouse Staff member jointly check the assembled order against the Picking Slip. When verified (and any errors corrected), both sign the Picking Slip.
-  9. Team Leader reopens the Customer Invoice in mSupply, updates it with any changes noted on the Picking Slip, and confirms it.
-  10. Team Leader prints and signs the confirmed Customer Invoice.
11. Team Leader hands the confirmed Customer Invoice to the Warehouse Manager, who finalises it in mSupply.
12. Warehouse Manager prints and signs 4 copies of the finalised Customer Invoice and returns them to the Team Leader.
13. Team Leader hands paperwork and assembled order to the Transportation Chief Officer for dispatch (see next **SOP: Dispatch & Distribution**).

## Performance Indicators

---

1. Average time from order receipt to picking.
2. Average time from order receipt to dispatch.
3. Total number of orders filled and dispatched.
4. Proportion of orders with 100% picking accuracy.

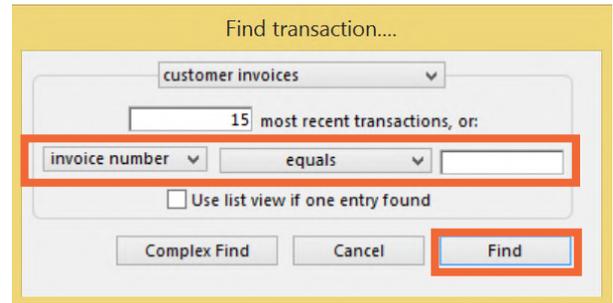
## Process Summary: Picking & Assembling



# mSupply Procedure: Editing, Confirming, Finalising & Printing a Customer Invoice

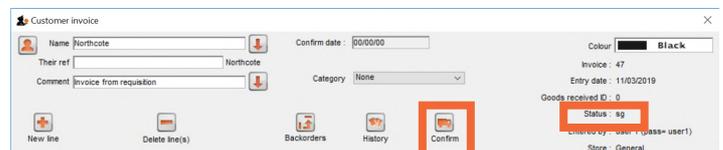
1. Navigate to the **Customer** tab.
2. Click the **Customer Invoices List** button.
3. Search for the **Invoice Number** and click **Find** to open it.

If you don't know the Invoice Number, leave the box blank and click **Find** to show a list of the most recent transactions, then double click the relevant Customer Invoice to open it.



Type	Name	Type	Sta	Entered	Confirmed	Insum	Total	their ref	PS printed	dt	Comment	Exp dt
Supplier Invoices	24 HOUR EMERGENCY PHARMACY	oi	16	23/05/2016	23/05/2016	1	0	From PO n			Invoice from internal req.	0
Inventory adjustments	Dispensary	oi	16	23/05/2016		2	0					0
Supplier credits	COMMON DHC	oi	16	23/05/2016		2	0	04BC123		23/05/2016	Main order	0

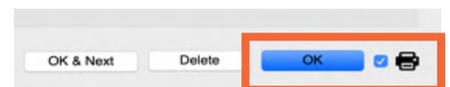
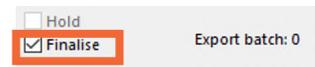
4. After the order has been assembled, Team Leader makes any required changes to the Customer Invoice, then clicks **Confirm** → **Yes**.



The Customer Invoice status will change to Confirmed (cn).

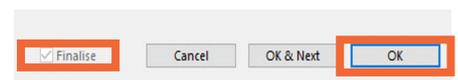


5. Warehouse Manager checks the **Finalise** box and clicks **OK** to prevent further editing.
6. To print at any time, check the **Print** box before clicking **OK**.



7. When the Customer Invoice window closes, you will return to the Requisition window. If you didn't have enough stock to fulfil the Requisition and intend to issue more Customer Invoices from it later, click **OK** to keep the Requisition unfinalised.

If you have supplied everything off the Requisition (or you do not intend to supply any more), check the **Finalise** box and click **OK** to block other Customer Invoices from being created from it.



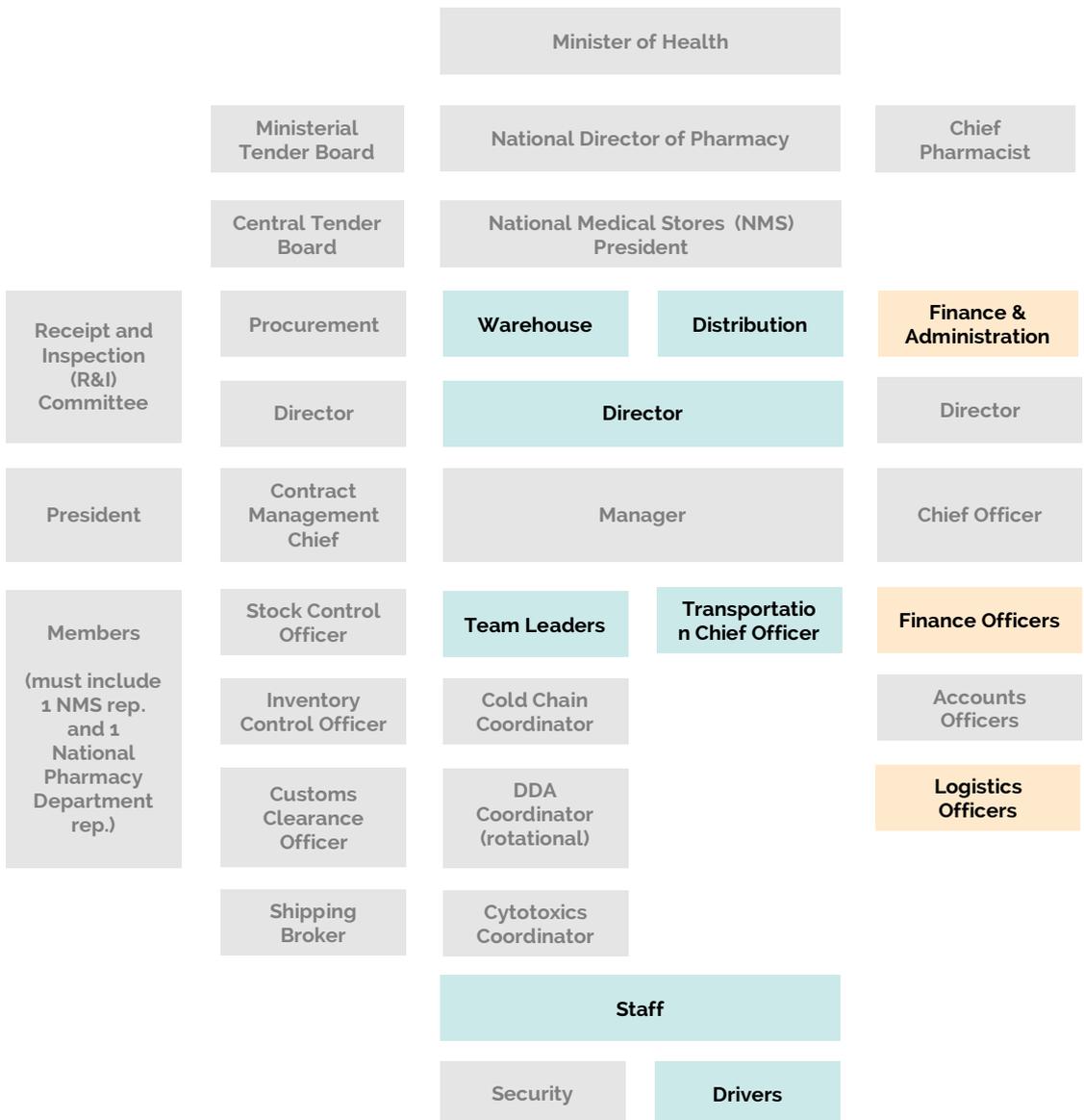
# Standard Operating Procedure: Processing & Distributing Customer Orders

## DISPATCH & DISTRIBUTION

### Purpose

To ensure that orders are dispatched in a timely fashion and arrive at their destination complete and in good condition

### Persons Responsible



## Procedure: Dispatch & Distribution

---

At the end of each year (November or December), the Warehouse Director prepares a schedule of deliveries for each customer for the next year. This should be based on the National Distribution Plan.

1. Following **SOP: Picking & Assembling**, Team Leader hands paperwork (4 copies of finalised Customer Invoice) and assembled order to Transportation Chief Officer for dispatch.
2. All boxes are clearly labelled with their destination and moved to the dispatch area of the warehouse.
3. Transportation Chief Officer allocates the dispatch of the order to a Driver.
4. Warehouse Director allocates a Team Leader or Warehouse Staff member to accompany the order as the Responsible Officer.
5. Special items require additional considerations by the Responsible Officer during dispatch:
  - a. **Cold chain:** Ensure the container is appropriately stored in transit.
  - b. **Controlled substances:** Responsible for security of controlled substances until arrival at the destination.
  - c. **Cytotoxic or hazardous:** Ensure items are stored securely in the vehicle to avoid spills or breakage during transit.
6. Warehouse Director prepares a per-diem approval document for the Driver and Responsible Officer, who take this to a Finance Officer.
7. Finance Officer issues a cash per-diem according to standard rates for a same-day trip or overnight trip.
8. Logistics Officer issues a fuel voucher to the Driver, which is given to staff at the petrol station and used for reconciling the fuel account. Logistics Officer is responsible for maintaining accounts at appointed fuel stations.
9. Before leaving the warehouse, Responsible Officer calls receiving facilities to ensure they will be open upon arrival and that there will be additional staff to help unload larger orders.
10. Upon arrival at the facility, the Driver and Responsible Officer help to unload the order with local staff and then count it, in the presence of the Pharmacy Officer or Nurse in Charge.
  - a. **Cold chain:** Responsible Officer is responsible for ensuring goods are placed in fridges immediately upon arrival. Cold Chain items cannot be offloaded or stored in shipping warehouses. Responsible

Officer must also communicate the arrival time to the Cold Chain Coordinator; this should also be noted on each copy of the Customer Invoice.

- b. **Controlled substances:** Responsible Officer and facility staff member must sign each copy of the Customer Invoice to note handover of each controlled substance. At this point, facility staff take custody of the products. Controlled substances must not be left unattended at any stage and must be taken straight to the safe where it is entered into the DDA Register and signed by two staff members.
11. There are 4 copies of the Customer Invoice. Each one is marked as correct and signed by the facility staff member and the Responsible Officer.
    - a. If something is missing or incomplete, facility staff note this on the invoice.
    - b. If items with short expiration have been included, the facility may reject it and mark this on the invoice.
  12. One copy of the signed Customer Invoice remains at the facility, and the Responsible Officer takes the remaining 3 copies back to the warehouse.
  13. Upon return to the warehouse, the Driver updates the vehicle logbook and the Responsible Officer distributes the 3 signed Customer Invoices to the relevant people.
    - a. Transportation Chief Officer
    - b. Warehouse Manager
    - c. Finance Officer

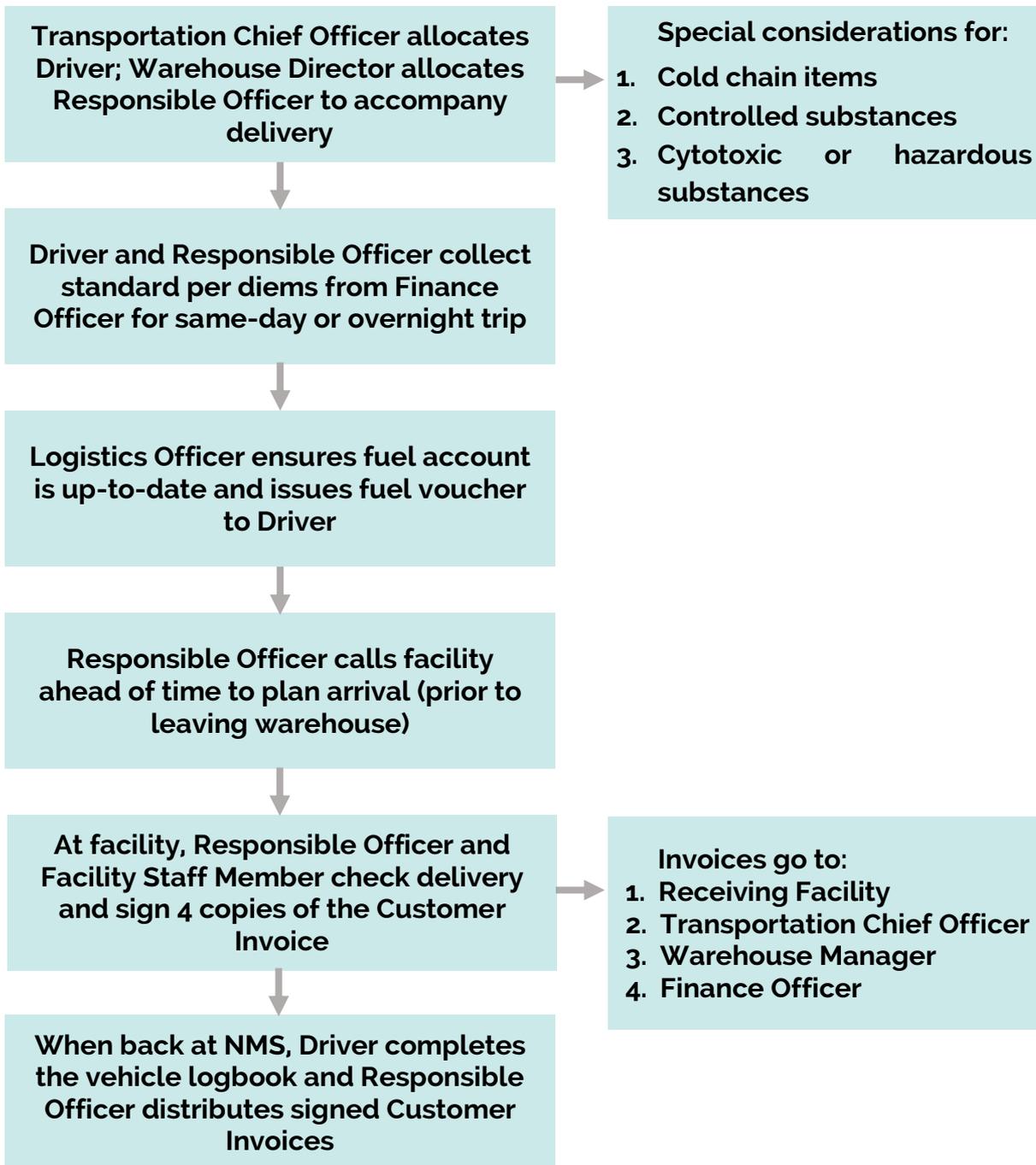
## Performance Indicators

---

1. Total number of orders filled and dispatched.
2. Proportion of orders with 100% picking accuracy.
3. Average time from order receipt to picking.
4. Average time from order receipt to order filled.
5. Average time from order receipt to order dispatched.

## Process Summary: Dispatch & Distribution

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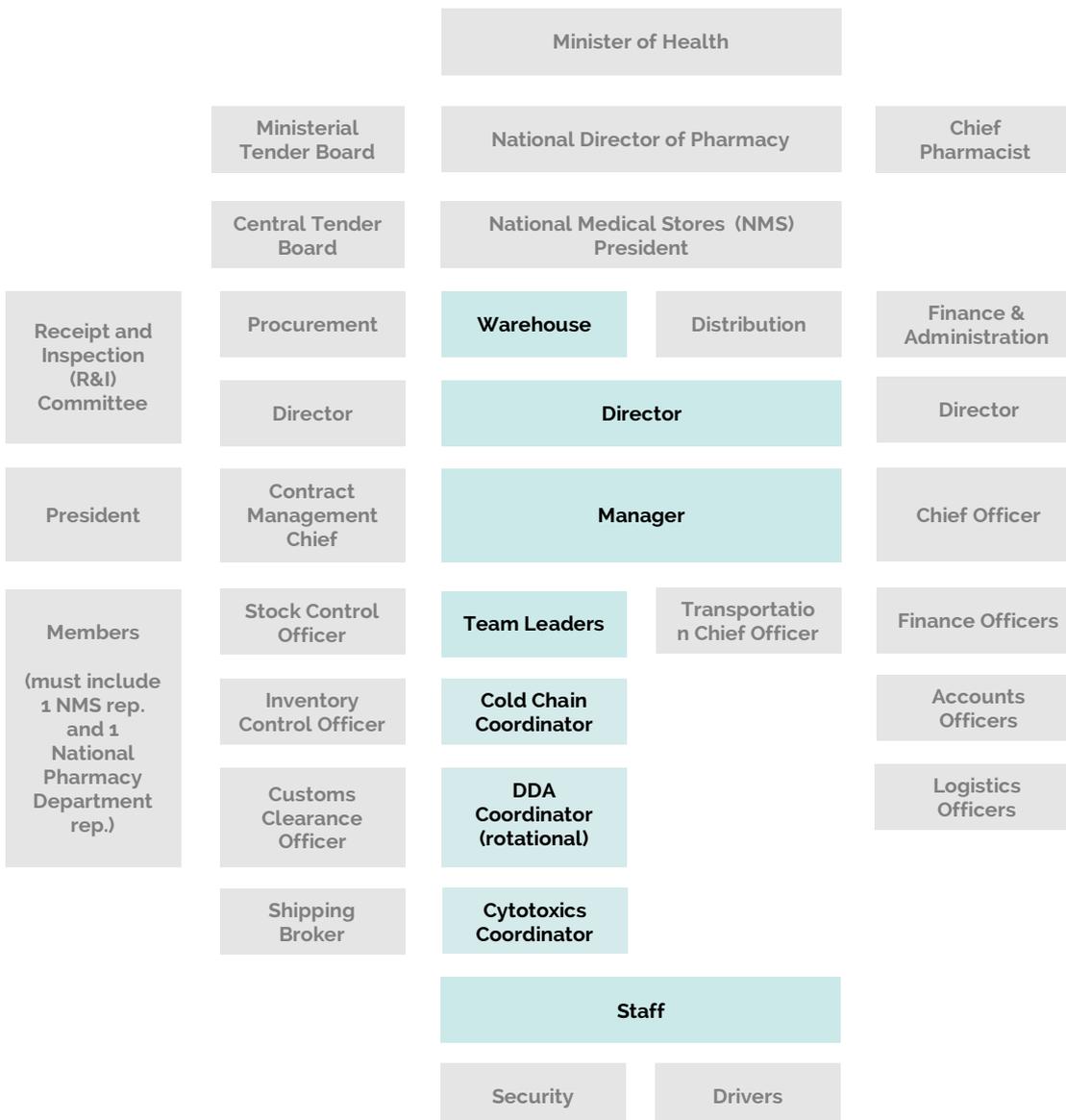


# WAREHOUSE STORAGE

## Purpose

To ensure all stock items are stored appropriately and can be easily located within the warehouse at all times.

## Persons Responsible



## Procedure: Warehouse Storage

---

### General Storage

1. Items should be stored on shelves. If absolutely necessary, only waterproof, non-perishable items may be stored on the floor.
2. Items with short expiry dates should be stored in easily accessible, low-shelf locations. Bulk items with long expiry dates may be stored in higher, more inaccessible areas.
3. Fragile items should be moved by hand where possible.
4. Stock marked 'This Side Up' should be stored accordingly.
5. Team Leaders and Coordinators of special stock (Cold Chain, DDA, Cytotoxics) are responsible for their own sections in the warehouse. This may be overseen by the Warehouse Manager and/or Director.

Specifically, they should regularly inspect their areas to:

- a. Ensure mSupply reflects actual storage in the warehouse.
  - i. If a discrepancy between mSupply and the warehouse is found, Warehouse Staff must immediately inform their Team Leader.
  - ii. The Team Leader should:
    - Cross-check other batches and locations to determine if an error has occurred
    - Undertake physical inspections of batches to ascertain the cause and extent of the error
  - iii. All items in the warehouse should be added to mSupply, even if they were not ordered (e.g. donated stock accepted by the NMS President or sample stock sent by a supplier).
- b. Ensure stock is being stored efficiently.
  - i. Small amounts of stock stored in different locations → consolidate stock into the same area
  - ii. 'Next to expire' stock stored in a high, inaccessible location → move to a low, accessible location
  - iii. Insufficient space for incoming goods → rearrange stock to make room for incoming goods
  - iv. If stock needs to be moved, determine the new location and work with Warehouse Staff to physically move the stock.

- c. Ensure stock is not expired, damaged or otherwise subject to removal (e.g. deletion from Essential Medicines List, product recalled).
  - i. Work with Warehouse Staff to physically move such stock to the Quarantine Area or Expired Items Area.
  - ii. Every container must be clearly marked: 'ITEMS FOR DESTRUCTION – DO NOT USE.'
  - iii. Items should be destroyed as per the local policy for disposal of pharmaceutical waste.
  - iv. One Team Leader is also responsible for regularly monitoring and coordinating removal of expired stock throughout the warehouse: see **SOP: Expiring Items**.



- 6. In addition to local documentation, the Team Leader (or Coordinator of special stock) must make the appropriate updates in mSupply:

Warehouse Issue or Change	Update in mSupply
<b>Discrepancy Between mSupply and Warehouse</b>	
Item found in the wrong location (but correct batch number, expiry date, quantity)	Update Location
Item discovered in warehouse but not in mSupply at all	Stocktake (single-item) OR Positive Inventory Adjustment
Item in mSupply but cannot be found anywhere in the warehouse after an extensive search	Stocktake (single-item) OR Negative Inventory Adjustment
Unordered item entering warehouse (e.g. donated stock, sample stock from supplier)	Supplier Invoice (manual)
<b>Stock Movement</b>	
Moving all stock of one batch to a different location	Update Location
Moving some stock of one batch to a different location	Split Stock
Moving stock of one batch currently stored in different areas to the same location	Consolidate Stock
<b>Stock Destruction</b>	
Destroying damaged or expired stock	Negative Inventory Adjustment

## Performance Indicators

---

1. Proportion of items correct on physical stocktake
2. Proportion of items stored on the ground
3. Proportion of orders with 100% picking accuracy
4. Time to prepare orders



## mSupply Procedure: Moving Stock

1. Navigate to the **Item** tab.

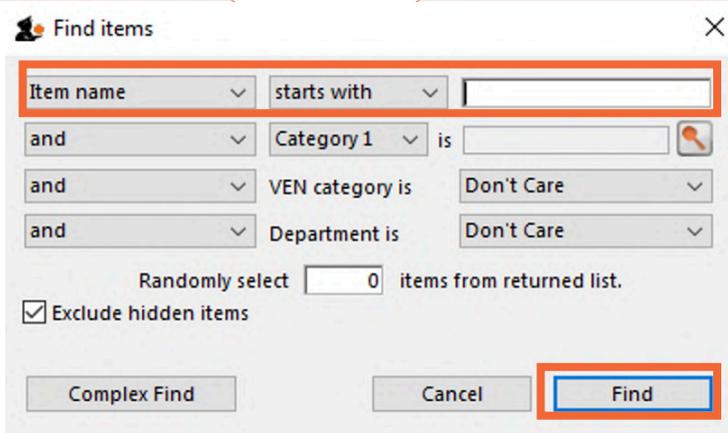


2. Click the **Item List** button.

3. Search for the item, then click **Find**.

The default search is by **Item Name**, but you can change this to **Item Code**.

There are many filters to help you search (e.g. **Starts With, Contains...**)



4. Double click the item to be moved.

Item Code	Item name	Default pack	User 1	Flags
amoc500t	Amoxicillin + clavulanic ac 500mg tab	100		
amo125tab	Amoxicillin 125mg Tab	100		
amo250t	Amoxicillin 250mg tab/cap	100		
amo500t	Amoxicillin 500mg tab/cap	100		

5. Click the **Stock** tab to see all the available stock of that item, separated by batch and location.

In this example, there are 3 batches of amoxicillin all stored in the same location (Blue Shelf).

Line	Available packs	Total packs	Hold	Pack size	Batch	Expdate	Supplier	Manufacture	Location	Cost Price	Sell Price	Status	Tot. volur
1	36	36		100	AMO1	01/01/2026	leaf		BLUE SHELF	300.00	300.00		
2	1	1		100	YRT445	31/01/2024	102294...		BLUE SHELF	100.00	100.00		
3	30	30		100	MNY778	30/04/2025	gold		BLUE SHELF	6.80	6.80		



## Update Location

If you want to move *all* stock from one location to another, you need to change the location of the entire item line.

1. Complete Steps 1-5 above, then double click the line to move. This will open a detailed window.
2. Enter the new **Location** for all the stock in the line.
3. Click **OK**.

Item stock line details...  
 Item code: amo500t    Item name: Amoxicillin 500mg tab/cap  
 General    Ledger    Status    Reference documents

Quantity according to stock: Total Quantity 30    Available 30

Cost price: 6.8    Hold:     Volume per pack: 0 m3  
 Sell price: 6.8    Location: RED SHELF  
 Expiry date: 30/04/2025    Pack size: 100  
 Batch: MNY778    Quan per inner: 0    Initial quantity: 0  
 Supplier: Gold medical supplies    Inners per Outer: 0

Note:

Custom stock fields:

Cancel    OK

## Split Stock

If you want to move some stock of the *same batch* to a *different location*, you need to **Split** the stock. This is used when you have stock of the same batch that need to be stored in different locations because, for example, they don't all fit in one place.

1. Complete Steps 1-5 above, then click the line to split.
2. Click **Split**.
3. Enter the **Quantity to Split** (i.e. the quantity to move).
4. Enter the **New Shelf Location** of the moved stock.  
In this example, 5 of 30 packs are being moved to the Red Shelf.
5. Click **OK**.

Item details  
 Item name: Amoxicillin 500mg tab/cap    Store: General  
 Item code: amo500t

Show zero lines    Print    Split    Update sell prices    Show related invoices    Consolidate    Labels    Print barcode labels

Line	Available packs	Total packs	Hold	Pack size	Batch	Expdate	Supplier	Manufacturer	Location	Cost Price	Sell Price	Status	Tot vol
1	36	36	<input type="checkbox"/>	100	AM01	01/01/2026	leal		BLUE SHELF	300.00	300.00		
2	1	1	<input type="checkbox"/>	100	YRT445	31/01/2024	102294...		BLUE SHELF	100.00	100.00		
3	30	30	<input checked="" type="checkbox"/>	100	MNY778	30/04/2025	gold		BLUE SHELF	6.80	6.80		

Stock  
 Minimum stock: 0    Total stock value: 11,104.00  
 Stock on hand: 6,700    Average unit cost: 1.65  
 Stock on order: 0    Total Volume: 0.00

Months Cover  
 Based on: 0 months usage    Calculate  
 For stock on hand: 0 (months cover)  
 Including stock on order: 0 (months cover)

Non stock items  
 Non stock item:   
 Default customer:

Delete    OK & Previous    OK & Next    Cancel    OK

New repack

Quantity to split: 5 of 30  
 New shelf location: RED SHELF  
 New pack size: 100

When you click OK a new repack transaction that reflects the change in stock will be created automatically  
 Print location movement report

Cancel    OK



We can see 5 packs are now stored in the Red Shelf, while the remaining 25 packs of the same batch are still in the Blue Shelf. The total quantity is still 30.

Line	Available packs	Total packs	Hold	Pack size	Batch	Expiry date	Supplier	Manufacturer	Location	Cost Price	Sell Price	Status	Tot. vol.
1	1	1		100	YBT445	31/01/2024	102234		BLUE SHELF	100.00	100.00		
2	25	25		100	MNY778	30/04/2025	gold		BLUE SHELF	6.80	6.80		
3	5	5		100	MNY778	30/04/2025	gold		RED SHELF	6.80	6.80		
4	36	36		100	AM01	01/01/2026	leaf		BLUE SHELF	300.00	300.00		

## Consolidate Stock

If you want to move stock of the *same batch* to the *same location*, you need to **Consolidate** the stock. This is used when you have stock of the same batch stored in two locations, and you want to bring them together.

1. Select the two lines to consolidate (press **Control** on the keyboard + click the lines).
2. Click **Consolidate**.

Line	Available packs	Total packs	Hold	Pack size	Batch	Expiry date	Supplier	Manufacturer	Location	Cost Price	Sell Price	Status	Tot. vol.
1	1	1		100	YBT445	31/01/2024	102234		BLUE SHELF	100.00	100.00		
2	25	25		100	MNY778	30/04/2025	gold		BLUE SHELF	6.80	6.80		
3	5	5		100	MNY778	30/04/2025	gold		RED SHELF	6.80	6.80		
4	36	36		100	AM01	01/01/2026	leaf		BLUE SHELF	300.00	300.00		

3. Choose which location to **Keep** (green) – this is where all selected stock will be moved. Note that the other location will automatically switch to **Merge** (red).

In this example, we will move all stock to the Red Shelf.

Batch	Quantity	Available
MNY778	25	25
MNY778	5	5

Batch	Quantity	Available
MNY778	25	25
MNY778	5	5



4. Click **OK**.

We can all 30 packs are now stored in the Red Shelf. None of this batch is stored in the Blue Shelf.

Line	Available packs	Total packs	Hold	Pack size	Batch	Expiry date	Supplier	Manufacturer	Location	Cost Price	Sell Price	Status	Total volume
1	1	1	<input type="checkbox"/>	100	YRT445	31/01/2024	102234		BLUE SHELF	100.00	100.00		
2	30	30	<input checked="" type="checkbox"/>	100	MNY778	30/04/2025	paid		RED SHELF	6.80	6.80		
3	36	36	<input type="checkbox"/>	100	AMD1	01/01/2026	leaf		BLUE SHELF	300.00	300.00		

**Stock:**  
Minimum stock: 0    Total stock value: 11,104.00  
Stock on hand: 6,700    Average unit cost: 1.65  
Stock on order: 0    Total Volume: 0.00

**Non stock items:**  
Non stock item:   
Default customer:

**Months Cover:**  
Based on: 0    months usage: Calculate  
For stock on hand: 0 (months cover)  
Including stock on order: 0 (months cover)  
Exclude stock with expiry date less than: 3 months  
Generating an order for: 0 months stock  
will order a quantity of: 0



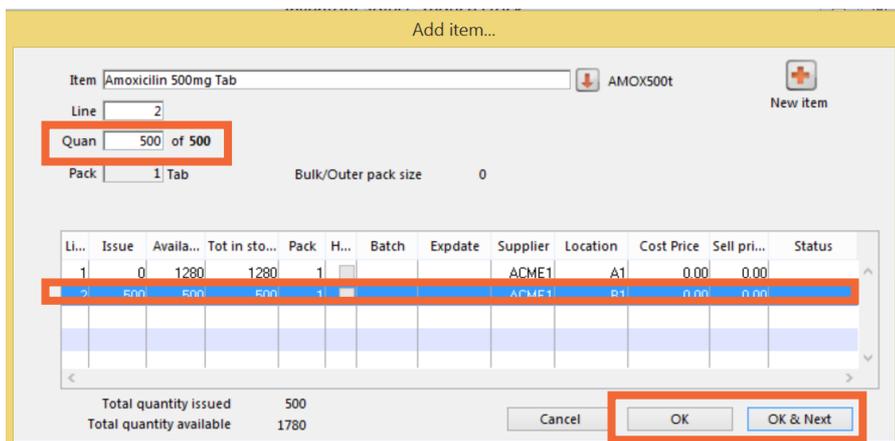
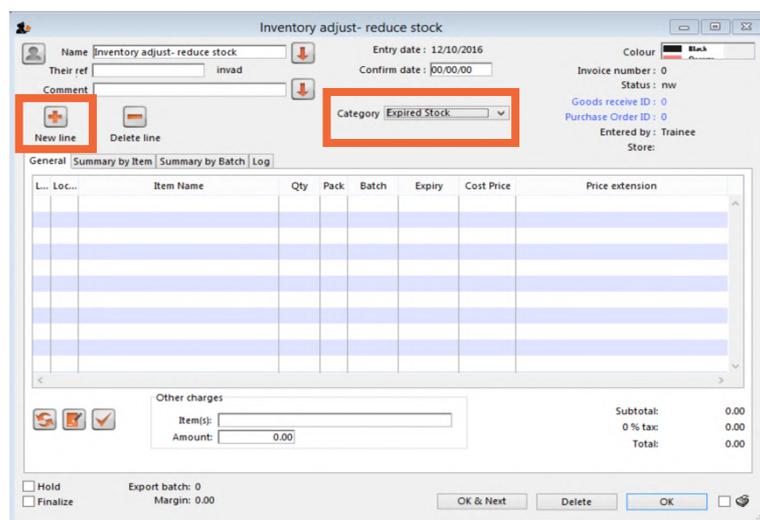
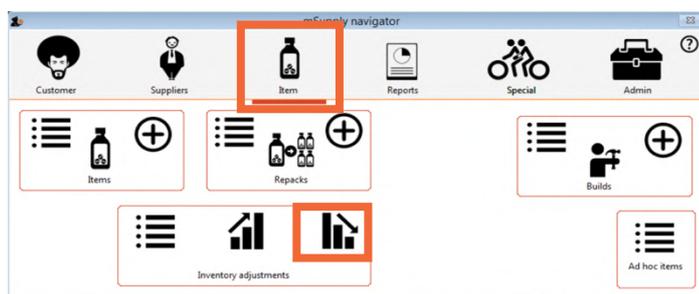
## mSupply Procedure: Removing or Destroying Stock

If you want to remove stock from the warehouse for destruction or quarantine, you need to perform either a **Negative Inventory Adjustment** (enter the quantity *removed*) OR **Stocktake** (enter the quantity *remaining* after stock is removed).

### Negative Inventory Adjustment

*Use this option if you want to enter the quantity of stock being removed.*

1. Navigate to the **Item** tab.
2. Click the **Inventory Adjustment – Reduce Stock** button.
3. Select a **Category** from the dropdown list to explain why stock is being reduced.
4. Click **New Line** to start selecting items requiring adjustment.
5. For each item, double click the relevant **Line** requiring adjustment, making sure the **Batch** and **Location** are correct.
6. Enter the **Quantity** of that item line being removed.



**In a Negative Inventory Adjustment, you are entering the quantity being removed from stock.**



7. Click **OK & Next** to keep entering items to adjust, or click **OK** to return to the main inventory adjustment screen.

8. Check that all information entered is correct. When you are sure you don't want to make any more changes, check the **Finalise** box and click **OK**.

If you want to print a record of the transaction, check the **Print** button before clicking **OK**.

Inventory adjust- reduce stock

Name: inventory adjust- reduce stock | Entry date: 12/10/2016 | Colour: Black

Their ref: invad | Confirm date: 00/00/00 | Invoice number: 5

Comment: Expired stock for September 2016 | Category: Expired Stock | Status: nw

Goods receive ID: 0 | Purchase Order ID: 0

Entered by: Trainee | Store:

L...	Loc...	Item Name	Qty	Pack	Batch	Expiry	Cost Price	Price extension
1	B1	Amoxicilin 500mg Tab	500	1			0.00	0.00

Other charges: Item(s): | Amount: 0.00

Subtotal: 0.00 | 0% tax: 0.00 | Total: 0.00

Export batch: 0 | Margin: 0.00

Buttons: Finalize (checked), OK & Next, Delete, OK (checked)

## Stocktake

*Use this option if you want to enter the quantity of stock remaining after*

1. Navigate to the **Item** tab.

2. Click **Stocktakes**.

3. Click **New Stocktake**.

mSupply navigator

Customer, Suppliers, **Item**, Reports, Special, Admin

Items, Repacks, Builds

Inventory adjustments

**Stocktakes**, Stock, Locations, Departments, Item categories, Master lists

4. Search for the item you want to update, then click **OK**.

Stocktake list...

New stock take, New blank stock take, Delete stock take | Show: Current

ID	Description	Stock take date	Status

Select items to stock take...

Item filter...

Search for items whose...

Item code starts with

and Category 1 is

and VEN category is Don't Care

and Department is Don't Care

And Program is Don't Care

And Stock location equals

And Expiry date is on or before 00/00/00

Randomly select 0 items from returned list.

Buttons: Cancel, OK



- Find the item line requiring adjustment, making sure it has the correct **Batch** and **Location**.
- Review the **Snapshot Quantity** (what mSupply thinks you have).

Enter the new correct quantity in the **Enter Quantity** column.

**In a Stocktake, you are entering the *total remaining quantity* of stock (i.e. after the unusable goods have been removed or destroyed)**

- To finish the stocktake and update mSupply stock levels, click **Create Inventory Adjustments** and **Confirm** when prompted.

Description: 8/30/2018 Stock take  
Spare 11  
Stock take entered date: 8/30/2018  
Stock take status: sg

Stock take date: 8/30/2018

New line, Delete line(s), Print, Create inventory adjustments, Order by

Search by item name and code

Ln...	Location	Item code	Item name	Batch	Expiry	Snapshot	Pack Size	Enter Quantity
1	AL2	100150	Quinine 300mg	111	11/03/2024	0	1	150

Description: 8/30/2018 Stock take  
Spare 11  
Stock take entered date: 8/30/2018  
Stock take status: sg

Stock take date: 8/30/2018

New line, Delete line(s), Print, Create inventory adjustments, Order by

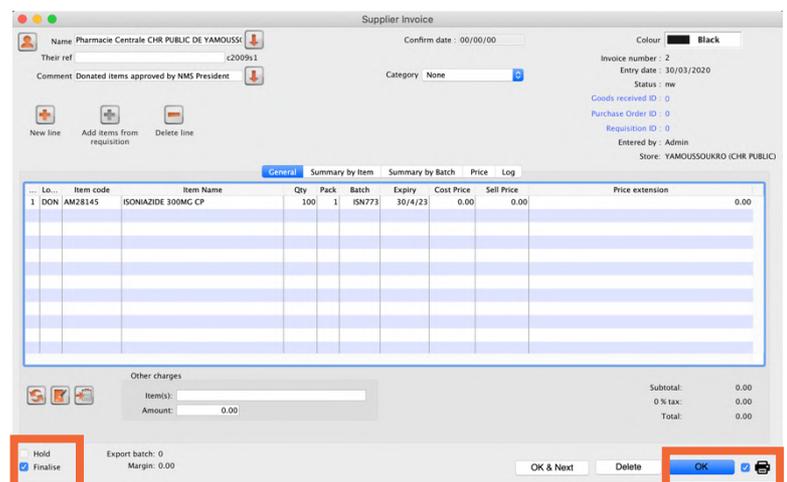
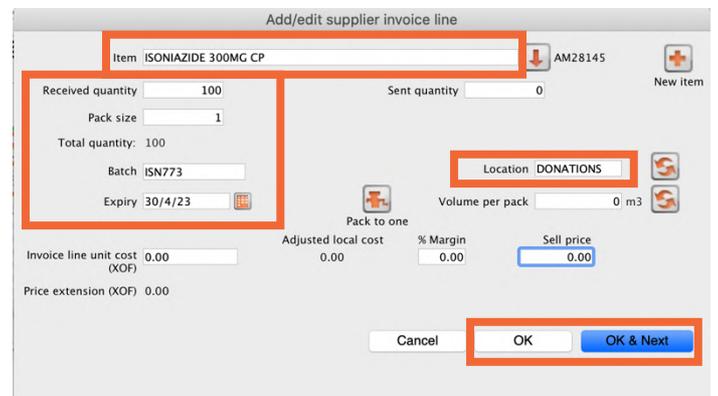
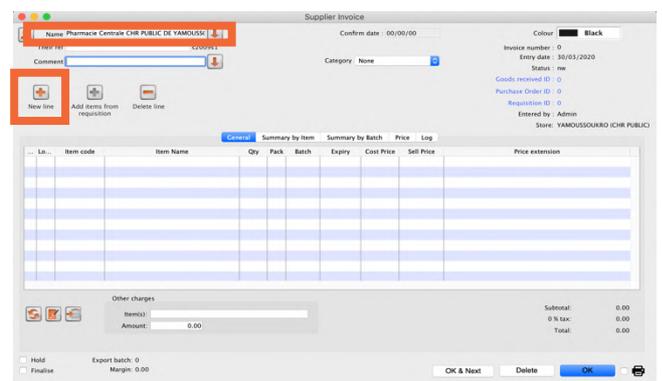
Search by item name and code

Ln...	Location	Item code	Item name	Batch	Expiry	Snapshot	Pack Size	Enter Quantity
1	AL2	100150	Quinine 300mg	111	11/03/2024	0	1	150



## mSupply Procedure: Adding Unordered Stock (e.g. Donations or Samples)

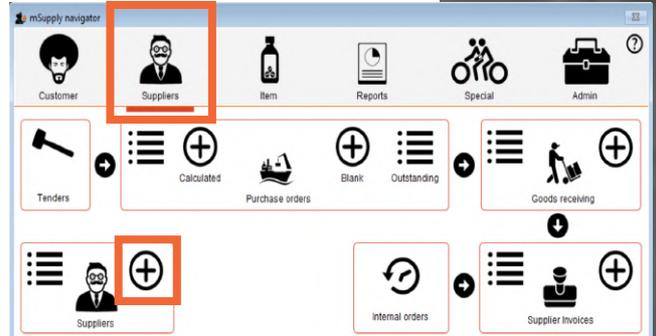
1. Navigate to the **Suppliers** tab.
2. Click the **New Supplier Invoice** button.
3. Enter the **Supplier**.\* You can:
  - Type the first few letters and press tab
  - OR
  - Type the supplier code and press tab
  - OR
  - Type @ and press tab to choose from a list of ALL suppliers
4. Click **New Line** to start entering received items.
5. Enter the received **Item** details. You can:
  - Type the first few letters and press tab
  - OR
  - Type the item code and press tab
  - OR
  - Type @ and press tab to choose from a list of ALL items
6. Enter **Number of Packs** and **Pack Size** received (the **Total Quantity** will be automatically calculated). Carefully enter the **Batch**, **Expiry**, **Location** and other details as appropriate.
7. Click **OK & Next** to keep entering more received items. When you are finished adding items, click **OK** to return to the main Supplier Invoice screen.
8. When you are sure no further changes will be made, check the **Finalise** box and click **OK**. If you want to print the Supplier Invoice, check the **Print** box before clicking **OK**.



\* If you are receiving stock from someone who isn't a regular supplier (e.g. an organisation donating stock), you will need to add them as a new Supplier in mSupply first.

**To add a new Supplier:**

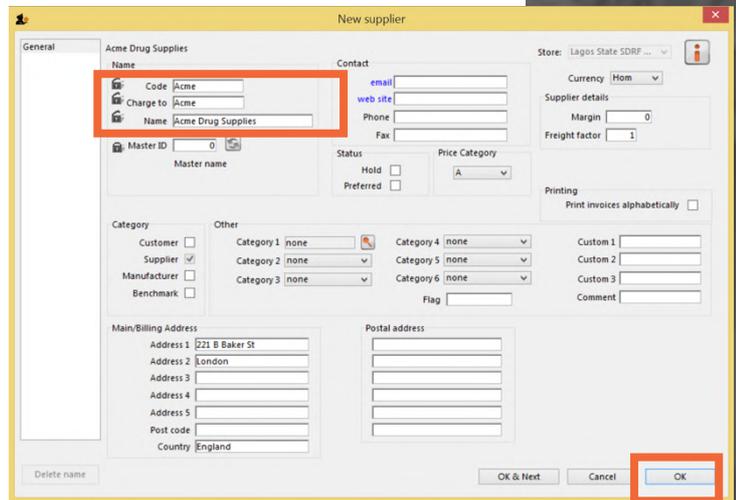
1. Navigate to the **Suppliers** tab.
2. Click the **New Supplier** button.
3. Enter the details of the new supplier.



The minimum details to enter are the **Code**, **Charge To** (automatically completes when you enter the code) and **Name**.

4. Enter as many details as you can now to save you time later.

If you use supplier **Categories**, enter them here too. Note that the **Supplier checkbox** is already ticked.



5. When you are finished, click **OK**.

Now you can receive stock from this Supplier.



## Procedure: Storage Conditions

---

### Room Temperature

1. The temperature of the main warehouse should be below 25°C whenever possible and should never exceed 30°C. Common storage terms on product labelling:
  - a. Store at room temperature: 15-25°C.
  - b. Store at ambient temperature: 15-25°C, up to maximum 30°C.
  - c. Keep cool: 8-15°C.
2. To monitor warehouse temperature, a series of thermometers are to be installed throughout the facility, in various locations and at different heights. These thermometers should automatically report data to an electronic database, which should be monitored periodically by the Cold Chain Coordinator.
3. To facilitate room temperature regulation, the following measures should be strictly adhered to by all staff:
  - a. The main roller doors should only be opened when receiving or dispatching stock.
  - b. Keep all external doors and windows closed unless in use.
  - c. The air conditioning system must be regularly maintained, with filters to be cleaned monthly and repairs carried out immediately as required. A comprehensive program of maintenance must be contracted to a reliable and suitable local supplier who is familiar with all air conditioning infrastructure in use at the warehouse.
  - d. Ensure there are gaps between pallets stored on shelves to allow air flow.
  - e. Do not store items on the ground, wherever possible.
  - f. Never store items in front of air conditioners or ventilation ducts.

## Cold Chain

1. The temperature in the fridge(s)/cold room must be maintained at 2-8°C. Common storage terms on product labelling:
  - a. Refrigerate, do not freeze: 2-8°C.
  - b. Store frozen: -20°C.
2. Store cold chain items in fit-for-purpose cool rooms. Sometimes, it may be necessary to use additional refrigerators due to space issues or where cool rooms are not available.
  - a. Refrigerators that open on the top are more efficient than vertical ones, because hot air rises while cold air falls.
  - b. The coldest part of vertical refrigerators is at the bottom.
  - c. Store products that are sensitive to freezing or very low temperatures on the upper shelves.
  - d. Always have enough frozen icepacks to transport cold chain items in cold boxes and/or vaccine carriers. Use only icepacks filled with water. Do not use icepacks prefilled with other liquids, which are usually blue or green. When ordering cold chain equipment, larger facilities should reassess the needs for icepacks and icepack freezer space.
  - e. If there is enough space, place a few plastic bottles of water in the refrigerator. This will help maintain the temperature for a longer period of time if the power is cut off.
  - f. To increase air circulation, ensure there is adequate space between multiple refrigerators and freezers, and that they are placed about an arm's length away from the wall.
  - g. If air conditioning is not possible, install fans around the equipment to increase airflow. Place fans so that the air also flows in the spaces behind the refrigerators.
  - h. Ideally, larger facilities should have a cold room rather than numerous refrigerators.
3. To facilitate cold chain temperature regulation, the following measures should be strictly adhered to by all staff:
  - a. Ensure adequate space between items to allow air flow.
  - b. Where possible, all individual items should be removed from large packing containers or boxes and stored on shelves – this does not mean individual vials should be removed from small boxes but items should be unpacked from large shipping boxes.

- c. Items should not be placed on the floor, stored near the compressor, too close to the door or at extreme highs or lows in the cool room. If a multi-log temperature monitoring system is in place, this may be used to guide placement of stock.
  - d. In smaller fridges, ice packs or water bottles may be placed at intervals between the items. This can help mitigate temperature increases in the event of power outages.
4. Ideally, the temperature in the fridge(s)/cold room is monitored constantly by a multi-log temperature monitoring system which uses 16 sensors to constantly record temperatures and feed data into a software system. This can be monitored via mSupply Mobile, with thresholds set to alert the Cold Chain Coordinator of any temperature breaches.
5. Alternatively, the Cold Chain Coordinator manually monitors the temperature in the fridge(s)/cold room twice daily (morning and afternoon before departure) and records these on a standard Fridge Temperature Monitoring Chart.
6. A contract will be signed with an external service company for an agreed program of fridge/cool-room maintenance, servicing and calibration of measuring devices. All fridges, cool-rooms and freezers must be serviced bi-annually and repaired immediately whenever a problem is noticed.
7. Measuring devices should be part of a calibration program.
  - a. Any instrument used to measure a parameter such as temperature or humidity, in any storage area must be calibrated.
  - b. Each instrument will have a unique number.
  - c. The documented list will indicate where on the premises the instrument can be found. This record will be held by the Cold Chain Coordinator and the external service provider.
  - d. Calibration will be conducted by a service company who has standards that are traceable to an internationally recognised standard (such as the national standard in Australia or New Zealand), or as agreed in accordance with the cool-room manufacturer specifications.
  - e. A copy of the method of calibration needs to be given to the Cold Chain Coordinator with the calibration certificate.
  - f. All thermometers should be calibrated initially when purchased and continue to do so annually.

- g. All chart recorders and fixed temperature gauges are to be calibrated annually.
- h. Should malfunction of any measuring device be suspected, the device should immediately be calibrated.
- i. A log of maintenance/repair is to be kept on the Calibration Log of each instrument being calibrated.
- j. **Limits.** All temperature gauges should be accurate to within 0.5°C.
- k. **Calibration Stickers.** Each portable device should be marked with its unique number and contain a sticker with the following:
  - i. Instrument/device number
  - ii. Date of calibration
  - iii. Date of next calibration
- l. Certificates of Servicing and Calibration are to be retained with the Master Calibration Log for a minimum of 5 years

### Additional Considerations for Storage in Tropical Areas

The following are examples of common medicines that have poor stability under tropical (hot, humid) conditions. It is not an exhaustive list.

#### *Oral solids (tablets)*

- Acetylsalicylic acid
- Amoxicillin
- Ampicillin
- Penicillin V (Phenoxymethylpenicillin)
- Retinol

#### *Oral liquids (syrups or mixtures)*

- Paracetamol

#### *Injections*

- Adrenaline (Epinephrine)
- Ergometrine
- Methylethergometrine
- Reconstituted antibiotics

### **Humidity**

When a product label states, "Protect from Moisture", store the product in a space with no more than 60% relative humidity.

To reduce the effects of humidity 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, ensuring there is space between pallets and walls and leaving room between rows of stacked boxes.
- **Packaging:** Secure all lids. Never open a new container unless necessary.
- **Circulation:** Use a fan to circulate fresh (outside) air. In smaller storerooms, standing fans may be sufficient. In bigger storerooms, a ceiling fan may be necessary. This requires electricity and some maintenance.
- **Air conditioners:** If possible, use an air conditioner. This is costly, depends on a constant supply of electricity, and requires regular maintenance. Depending on climatic conditions, a dehumidifier may be a less costly option. However, they also need a constant supply of electricity and require regular attention to empty the water containers.

## **Sunlight**

Some products are photosensitive and will be damaged if exposed to light. These include multiple vitamins, furosemide, chlorpheniramine maleate, hydrocortisone, latex products (such as male condoms), and x-ray film.

To protect products from sunlight:

- Keep direct sunlight out of the storeroom by shading the windows or using curtains.
- Keep products in cartons.
- Do not store or pack products in sunlight.
- Use opaque plastic or dark glass bottles for products that require them.
- Maintain trees on the premises around the facility to help provide shade, but check them regularly to ensure that there aren't any branches that can damage the facilities.

## **Heat**

Heat affects many products. It melts ointments and creams and causes other products to lose their efficacy.

- Protecting products from humidity and sunlight as described previously will also help protect them from heat.

- It is important to have thermometers in various parts of the storeroom to monitor temperature.
- Even if thermometers are not available, you can still monitor the heat. If you feel hot, your products are probably hot, too.

## Performance Indicators

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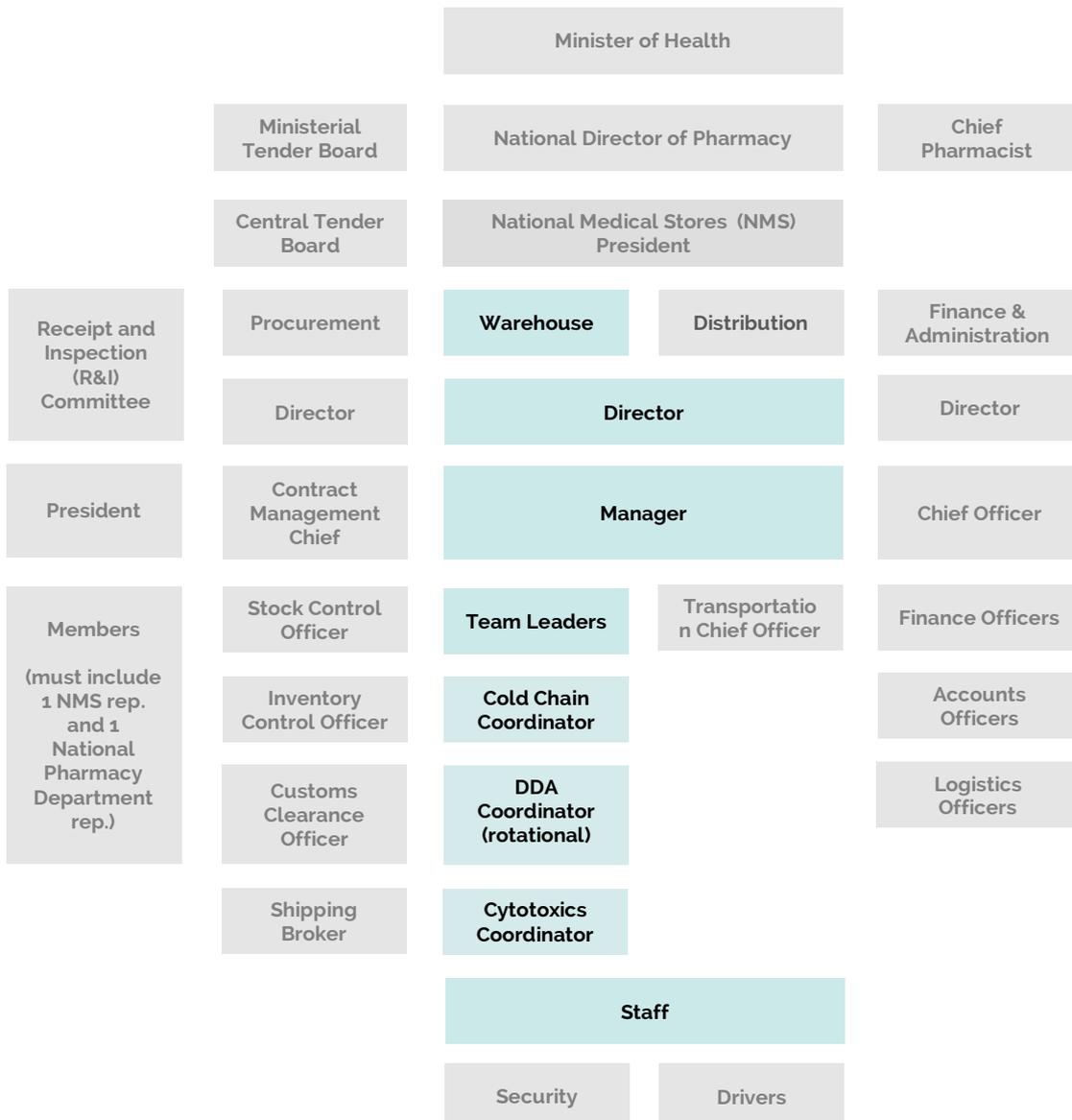
1. Number of days per year of cold chain integrity
2. Proportion of items that fail Quality Assurance standards

# STOCKTAKES

## Purpose

To ensure the information in mSupply accurately matches the actual stock in the warehouse at all times. This is beneficial for finding stock quickly, auditing, quantification and procurement processes, and quality assurance purposes

## Persons Responsible



## Procedure

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A full stocktake must be conducted at the start of every year (January or February). The aim is to capture the most accurate assessment of stock in the warehouse at that time, to allow Procurement to confidently run the annual tender.

Rolling stocktakes (or spot-checks) occur periodically throughout the year for auditing purposes and to ensure errors in the inventory are corrected. This supports regular stock management techniques and is useful for reporting to the Ministry of Health and donor partners.

Though the outputs and scope of each stocktake are different, the procedure is largely the same.

### ***General Requirements for All Stocktakes***

For the item(s) being stocktaked:

1. Before the stocktake:
  - a. Every pending order must be processed.
  - b. Every outstanding Goods Receipt must be processed.
  - c. Every order awaiting dispatch must be processed and excluded from the stocktake.
2. During the stocktake:
  - a. No new Customer Invoices can be created.
  - b. Any items processed but not dispatched before the stocktake must be clearly set aside and not counted; in addition, those Customer Invoices should be confirmed.
  - c. No stock is to be moved. Expired items or stock in the wrong location should be counted, and then moved or destroyed at the end of the stocktake.
  - d. Any item not on the list but on the shelf must be recorded.

## **Full Stocktake**

1. The full stocktake schedule is determined in advance by the Warehouse Director and Warehouse Manager. A full stocktake should take up to 5 working days.
2. Contract Management Chief provides a forecast of all imminent deliveries to the Warehouse Manager.
3. Warehouse Manager determines an appropriate date to stop all Goods Receipts and notifies the following people of the stocktake date:
  - a. Clearance Officer
  - b. Team Leaders
  - c. Team Leaders will notify customers of their upcoming closure as soon as the date is confirmed and again in the week before the stocktake.
-  4. Warehouse Manager prepares and prints stocktake sheets at close of business on the working day before commencement. To ensure stock is not counted twice, each location should only be printed once.
5. On the first morning, the Warehouse Manager distributes stocktake sheets (organised by location), calculators and pens to the Team Leaders.
6. Under the Warehouse Manager's supervision, Team Leaders coordinate the stocktake in their areas.
  - a. Team Leaders divide their team into groups of 3 and allocate each group a leader.
  - b. As the stocktake sheets are organised by location, each team should start in a different location, so as not to overlap or crowd areas.
7. Counting then commences:
  - a. Each item is counted by batch and location.
  - b. The stocktake sheets have two columns – the Snapshot Quantity (what mSupply thinks is available) and a blank space for the Actual Quantity (what is actually counted on the shelf).
  - c. Warehouse Staff count each line and fill in the Actual Quantity, which may be different from what mSupply thinks is on the shelf.
8. Once a stocktake sheet is completed, it is given to the Team Leader, who gives the group a new stocktake sheet for another location.
-  9. The Team Leader periodically takes the completed stocktake sheets to the Warehouse Manager, who enters the actual quantities and location in the mSupply Stocktake screen. This is done consistently throughout the week, not at the very end.

- 
10. If necessary, the Warehouse Manager may request Team Leaders to assist in updating mSupply. However, the mSupply Stocktake screen can only be opened by one person at a time, so it is a good idea to have someone entering data at most times during the week, so that data entry does not become a major bottleneck at the end of the stocktake.
  11. Counting and data entry is carried out until every sheet has been filled in and every item counted.
  12. At the conclusion of the stocktake and when every item has been entered in the mSupply stocktake, the Warehouse Manager informs everyone to re-open the warehouse.
  13. Team Leaders notify customers. Warehouse Manager notifies the NMS President, Warehouse Director, Procurement and the Clearance Officer.
  14. The final stocktake report is printed and given to the NMS President and the Warehouse Director.
  15. NMS President organises a meeting of all staff to discuss the results of the stocktake and go through key training points arising. Any major discrepancies are discussed.
  16. Procurement meets immediately after the stocktake to assess urgent procurement needs arising from the stocktake (if any). Data is also used in monthly and annual reports.
  17. Warehouse Manager files the physical stocktake sheets for auditing purposes.

### ***Spot-Check (Rolling) Stocktake***

1. Each day, each Team Leader conducts a stocktake on one item (medicine, consumable or laboratory).
2. The Warehouse Manager coordinates and allocates the items to be stocktaked. Some items will take only 3 or 4 minutes to count. Others may take up to an hour or more. Team Leaders should try to count high-volume items only when they are sure they will have time.
3. Before commencing the stocktake, the Team Leader checks if there are any outstanding Customer Invoices on that item.
  - a. If there are no outstanding Customer Invoices, the stocktake can proceed.
  - b. If there is a Customer Invoice that has nearly been completed, they may help to complete it and confirm the Customer Invoice.
  - c. If there are several outstanding invoices containing that item or if the outstanding invoice is not near completion, they may choose another item to stocktake.



4. Team Leader generates and prints a stocktake for that item in mSupply, and gives it to Warehouse Staff.
5. Warehouse Staff perform the stocktake.

**Spot-check stocktakes may be difficult, as they do not necessarily capture 'missing stock' that has not been recorded properly and is in an unknown location. This stock is captured in a full stocktake, as eventually someone will come to count that location and 'find' the missing stock. With that in mind, the spot-check team should look out for large discrepancies or missing batches while they do their count.**



6. If Warehouse Staff notice a large discrepancy (e.g. missing stock or batch), they should investigate and try to find it. This might work by asking all staff members if they have seen it, or by spreading out and doing a visual search. If found, details should be noted and communicated to the Team Leader for updating in mSupply.
7. When the stocktake is complete, Warehouse Staff return the sheet to the Team Leader who enters the data in mSupply.
8. Team Leader gives the stocktake sheet to the Warehouse Manager for filing.

### ***Warehouse Audit***



1. In the middle of each month, a warehouse audit should be undertaken to determine the accuracy of the data in mSupply. This is carried out by 2 non-warehouse staff from the National Pharmacy Division.
2. A stocktake is generated with 20 randomly selected items (medicines and consumables) in mSupply and printed. For items with multiple locations, one location may be selected for the purpose of the audit, so that a total of 20 items/locations are checked.
3. The two auditors check the selected 20 items in the warehouse. If the item location, batch, expiry and quantity are correct, this item is marked as correct.
4. The two auditors calculate the % accuracy:  
$$\% \text{ Accuracy} = \frac{\text{Number of correct items}}{\text{Total number of items checked (20)}} \times 100\%$$
5. The % accuracy is graphed each month and displayed in the warehouse for all staff to see.

## ***Controlled Substances Audit***

Periodic stocktakes of controlled substances against the DDA Register should take place at least once every 3 months and are to be conducted by two staff members: the Warehouse Manager and the DDA Coordinator, who is selected on a rotational basis. Any discrepancies must be immediately reported to the NMS President and the National Director of Pharmacy to initiate an investigation.

## **Performance Indicators**

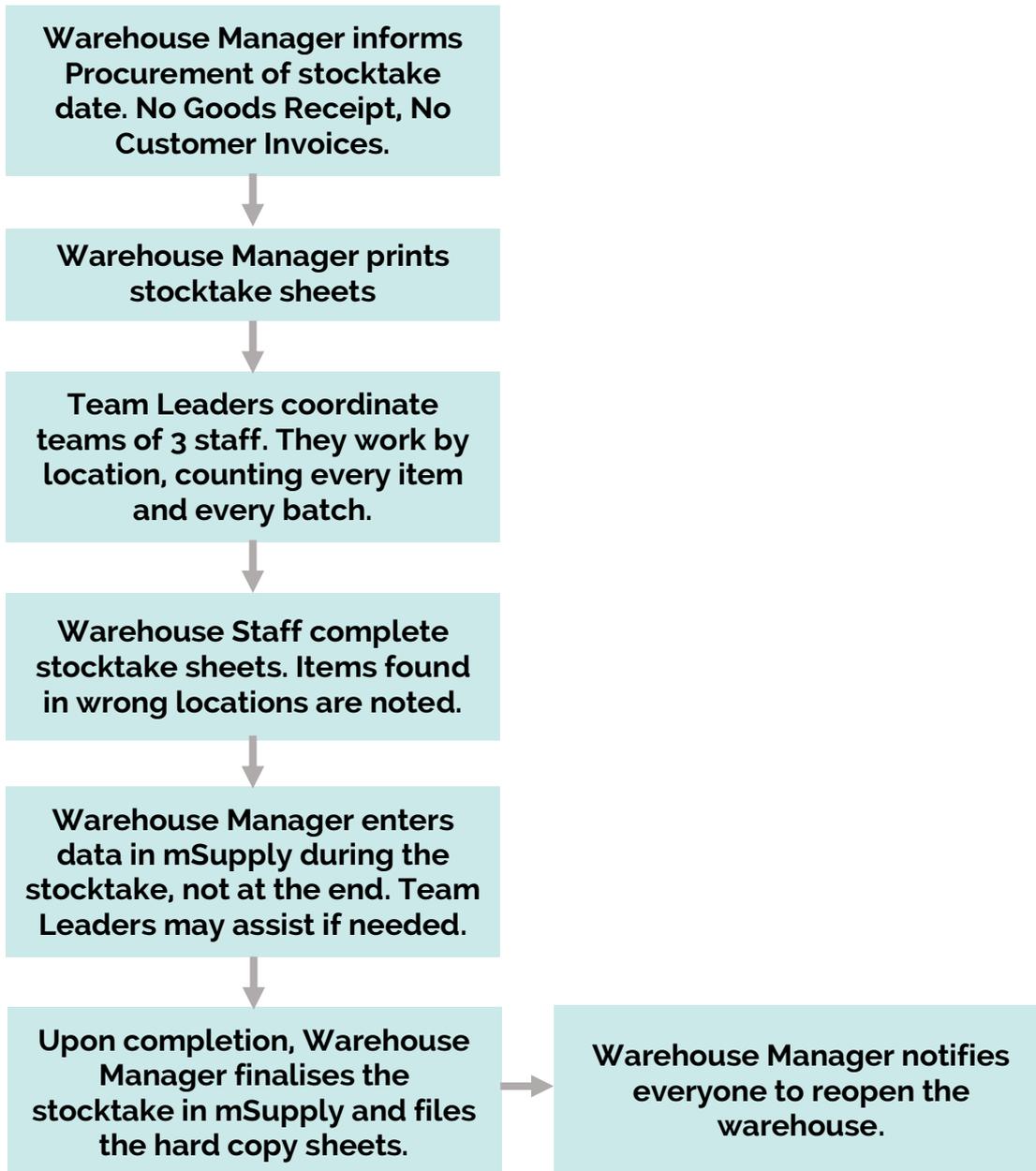
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1. Proportion of items correct on physical stocktake =  
(Value of Items as Checked / Total Expected Value) x 100%
2. Proportion of physical stocktakes carried out according to schedule.
3. Value of total stock on hand.
4. Proportion of expired stock.

## Process Summary

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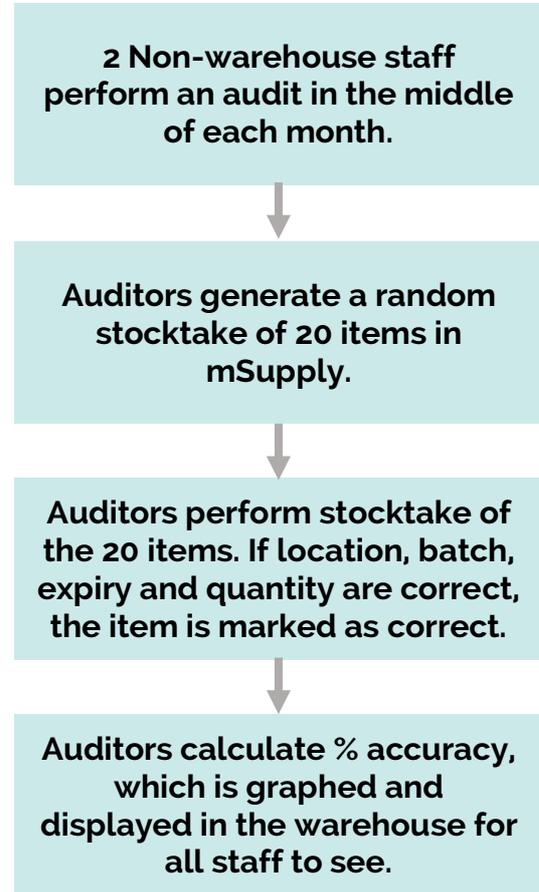
### *Full Stocktake*



## *Rolling Stocktake*



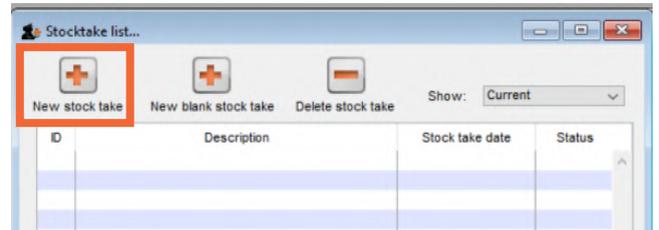
## *Warehouse Audit*



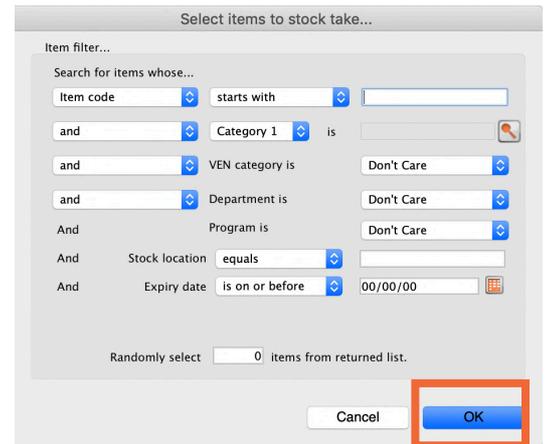


## mSupply Procedure: Full Stocktake

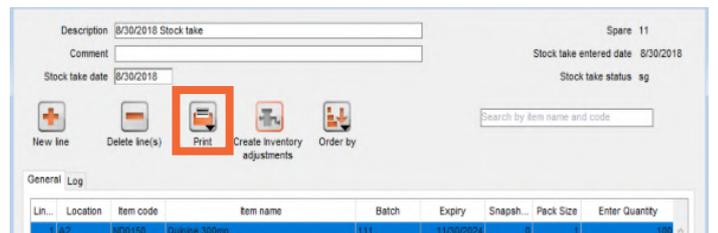
1. Navigate to the **Item** tab.
2. Click **Stocktakes**.
3. Click **New Stocktake**.



4. Leave all fields blank and click **OK**. This will automatically generate a list of all the items in your store, including batches, expiry dates and the quantity mSupply thinks you have in your store.

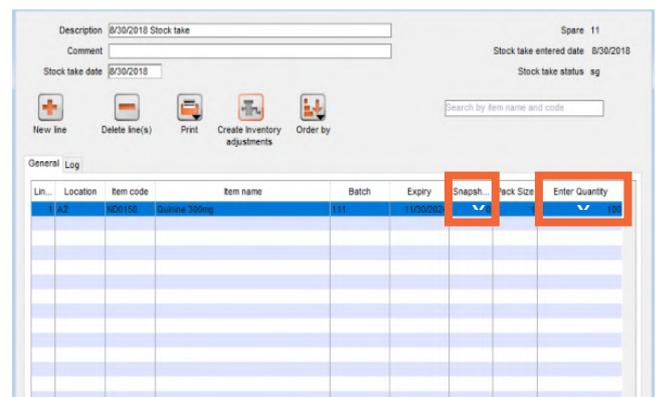


5. Print the stocktake list to help warehouse staff perform physical stock counts. Click **Print > General > select a print destination > OK**.
6. Once the physical stock count is complete, compare these values with the **Snapshot Quantity** (what mSupply thinks you have).



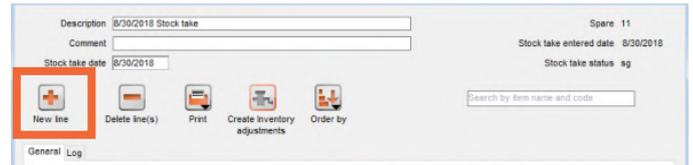
Update any incorrect levels in the **Enter Quantity** column. If you want to correct other details such as batch or expiry date, double click on the line to open a detailed window.

Hint: Use the **Tab** button on the keyboard to move between lines quickly.



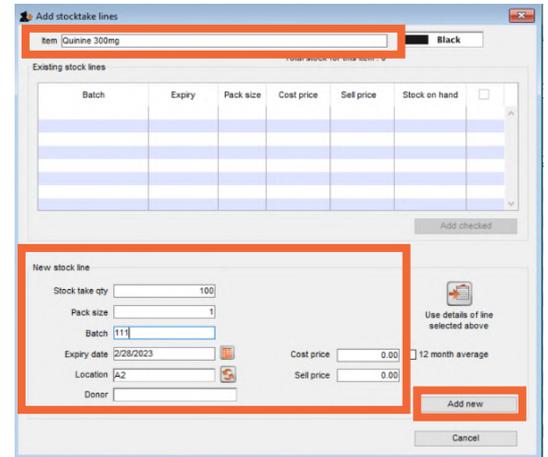


7. To add an item that is physically in your store but not in the stocktake list, click **New Line**.



8. Find the **Item** you want to add. You can:
- Type the first few letters and press tab OR
  - Type the item code and press tab OR
  - Type @ and press tab to choose from a list of ALL items

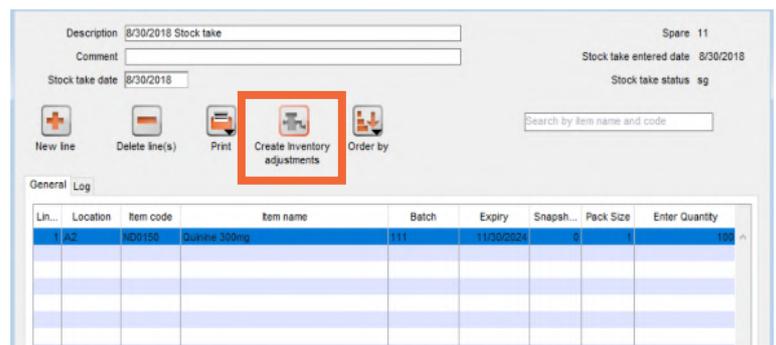
9. Enter the **Stocktake Quantity, Pack Size, Batch, Expiry Date, Location** (if applicable), **Donor** (if applicable), **Cost Price** and **Sell Price**.



10. Click **Add New**.

11. Review your stocktake carefully.

12. To finish the stocktake, click **Create Inventory Adjustments** and **Confirm** when prompted.



This will finalise the stocktake and update your stock in mSupply.

13. After the stocktake is finalised, two new buttons appear at the bottom of the stocktake screen: **Show added adj** and **Show reduced adj**.



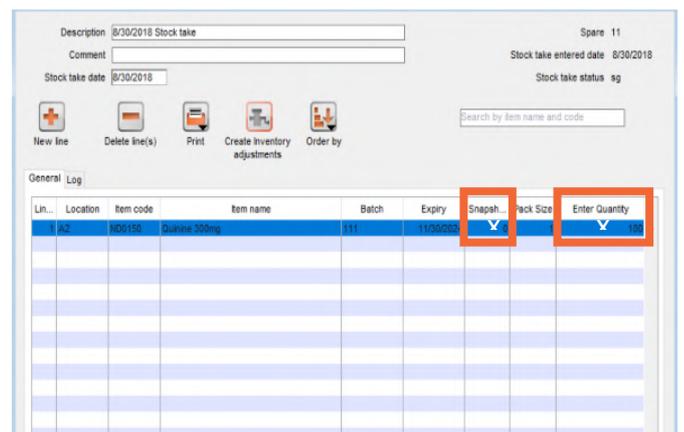
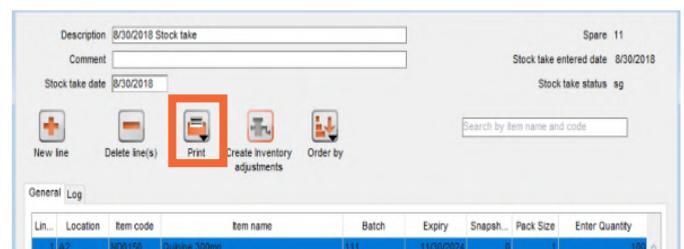
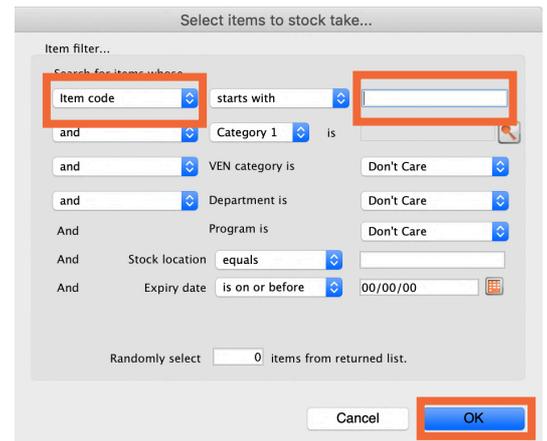
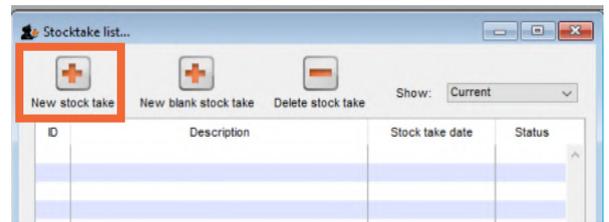
These are summaries of the inventory adjustments made during the stocktake and can be used for reporting purposes.



## mSupply Procedure: Spot-Check (Rolling) Stocktake

1. Navigate to the **Item** tab.
2. Click **Stocktakes**.
3. Click **New Stocktake**.
4. Enter the **Item Code** to find the exact item you want to stocktake, then click OK.
5. This will display a stocktake list of every batch and location of that item in the warehouse.
6. To print the stocktake list, click **Print > General > select a print destination > OK**.
7. Once the physical stock count is complete, compare these values with the **Snapshot Quantity** (what mSupply thinks you have).

Update any incorrect levels in the **Enter Quantity** column. If you want to correct other details such as batch or expiry date, double click on the line to open a detailed window.





8. To add a line that is physically in your store but not in the stocktake list, click **New Line**.

9. Find the **Item** you want to add. You can:
- Type the first few letters and press tab OR
  - Type the item code and press tab OR
  - Type @ and press tab to choose from a list of ALL items

10. Enter the **Stocktake Quantity, Pack Size, Batch, Expiry Date, Location** (if applicable), **Donor** (if applicable), **Cost Price** and **Sell Price**.

11. Click **Add New**.

12. Review your stocktake carefully.

13. To finish the stocktake, click **Create Inventory Adjustments** and **Confirm** when prompted.

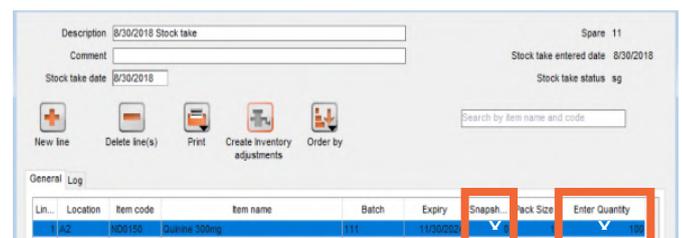
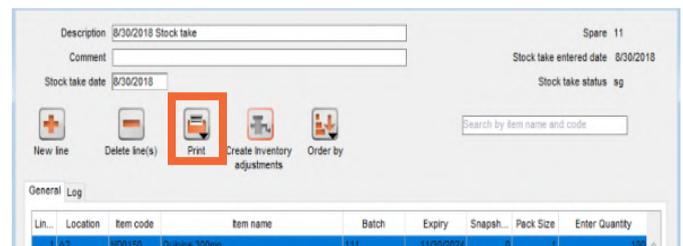
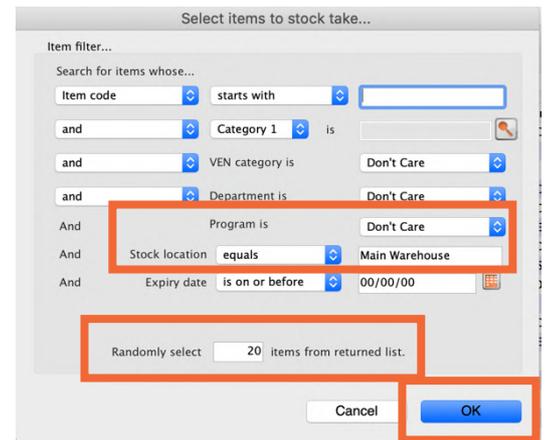
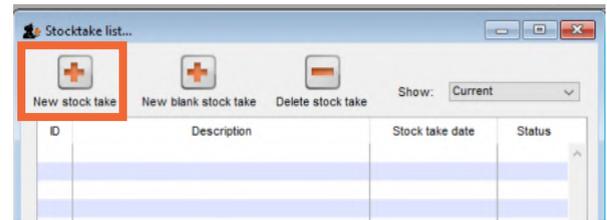
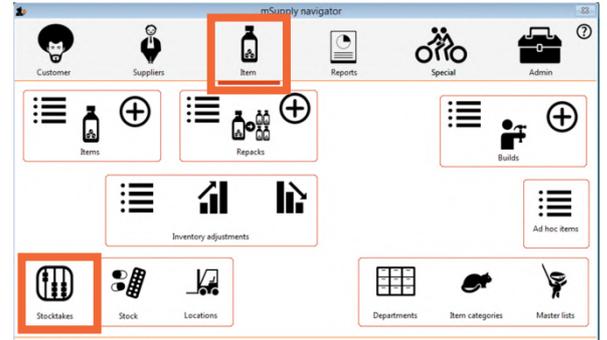
14. This will finalise the stocktake and update your stock in mSupply.



## mSupply Procedure: Warehouse Audit (Random Stocktake of 20 Items)

1. Navigate to the **Item** tab.
2. Click **Stocktakes**.
3. Click **New Stocktake**.
4. Specify to **Randomly Select 20 Items**. You can also specify a **Program**, **Stock Location** or other parameter to narrow down the items from which mSupply will randomly generate the list.
5. Click **OK**.
6. This will display a stocktake list of 20 random items in the warehouse.
7. To print the stocktake list, click **Print > General > select a print destination > OK**.
8. Once the physical stock count is complete, compare these values with the **Snapshot Quantity** (what mSupply thinks you have).

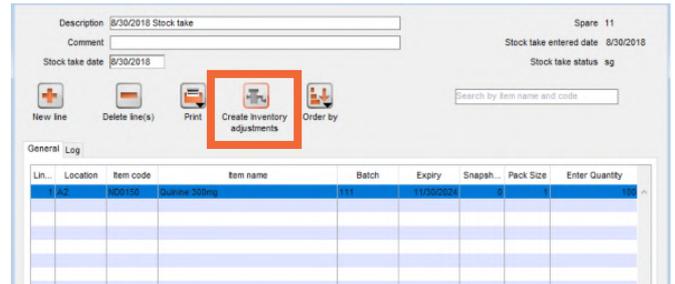
Update any incorrect levels in the **Enter Quantity** column. If you want to correct other details such as batch or expiry date, double click on the line to open a detailed window.



9. Review your stocktake carefully.

10. To finish the stocktake, click **Create Inventory Adjustments** and **Confirm** when prompted.

This will finalise the stocktake and update your stock in mSupply.



Description: 8/30/2018 Stock take  
Comment:   
Stock take date: 8/30/2018  
Spare: 11  
Stock take entered date: 8/30/2018  
Stock take status: 9g

New line Delete line(s) Print **Create Inventory Adjustments** Order by

Search by item name and code

General Log

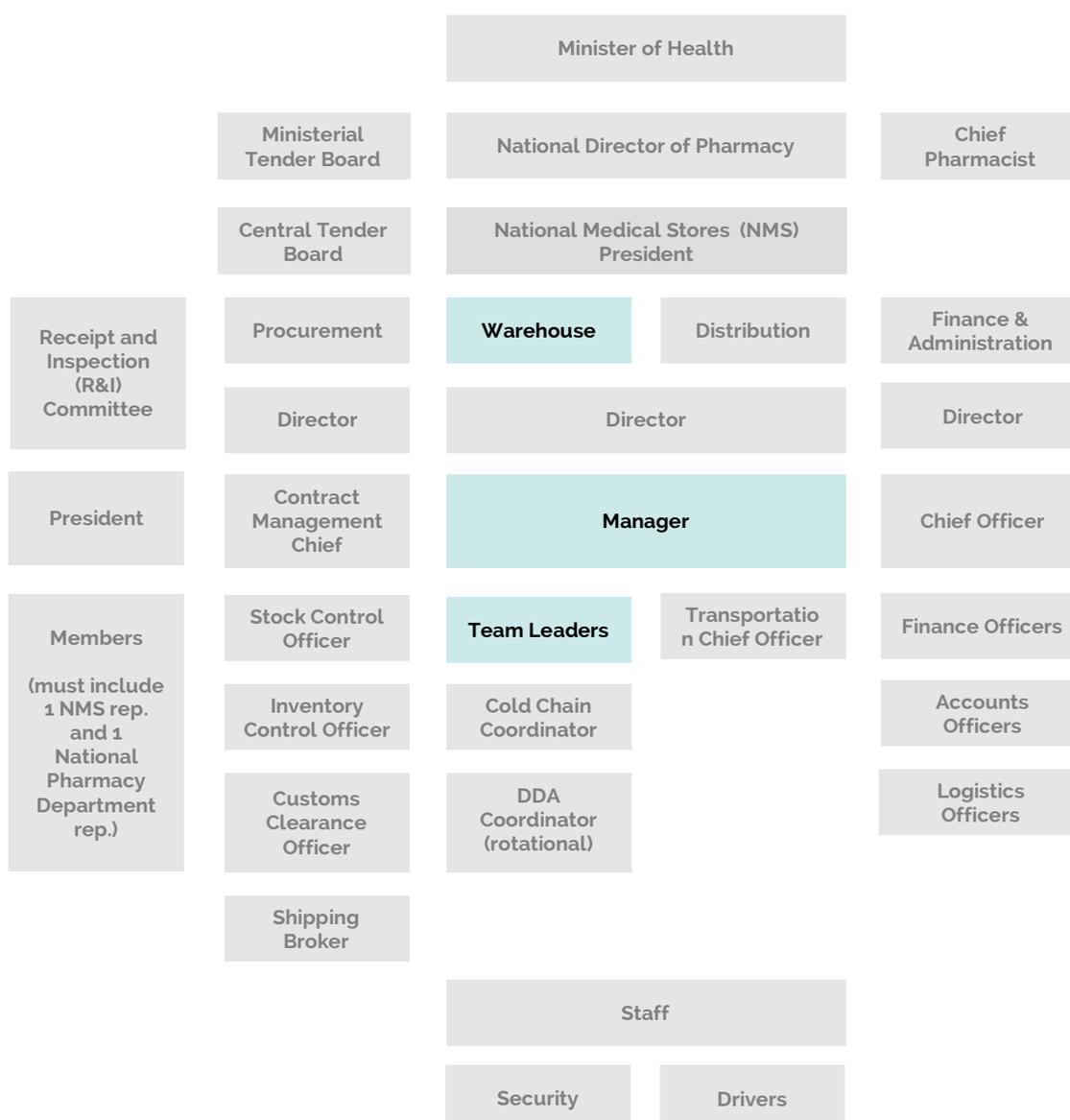
Lin.	Location	Item code	Item name	Batch	Expiry	Snapshot	Pack Size	Enter Quantity
1	A2	ND0155	Gusane 300mg	111	11/02/2024	5	5	150

# EXPIRING ITEMS

## Purpose

To minimise the amount of expired items in the warehouse and to help reduce overall item expiration through better stock management.

## Persons Responsible



## Procedure

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1. Each Team Leader is responsible for monitoring and managing the expiring items in their section: they are expected to take action without waiting for the nominated Team Leader for Expired Goods (a rotational role). This includes regularly checking that the expiry date of items on the shelf matches the expiry recorded in mSupply. This may be done during daily spot-checks or when mistakes are noted on Picking Slips.



2. In the middle of each month, a nominated Team Leader for Expired Goods prepares and prints an Expiring Items Report in mSupply.
3. Team Leader for Expired Goods identifies all items due to expire that month. All items that have previously expired should have been removed already but, if not, they should now be included in the report and removed.
4. Team Leader for Expired Goods physically checks each expiring item in each location. Warehouse Staff may be required to assist.
5. Team Leader for Expired Goods physically removes expiring or expired stock from the shelf and puts it in the Expired Items area.
6. If the data is incorrect, the Team Leader for Expired Goods fixes the location and/or expiry date in mSupply.
7. Team Leader for Expired Goods records items that have been physically removed from the warehouse in mSupply by doing a negative inventory adjustment.
8. The Expiring Items Report is added to a summary Excel report that lists all the expired items removed from the warehouse that year.
9. (If an item's expiry or location was found to be incorrect and was NOT removed from stock, it should obviously not be included in the summary.)
10. The Expired Items shipping container is periodically removed and taken to the local tip for disposal (see the 'National Policy on the Disposal of Pharmaceutical and Medical Waste'). Items should be kept after expiry for a minimum of 3 months before destruction, in the event that auditors or Ministry of Health staff wish to inspect or investigate expired goods.

11. Each month following removal of expired stock, the Team Leader for Expired Goods prepares a report showing the items that will expire in the following 6 months and sends it to the National Director of Pharmacy
12. Using the information in this report, the National Director of Pharmacy is responsible for working with stakeholders to:
13. Encourage use of under-utilised products, as appropriate
14. Review products where demand has not met supply, which is an important consideration in national quantification and Quality Use of Medicines initiatives

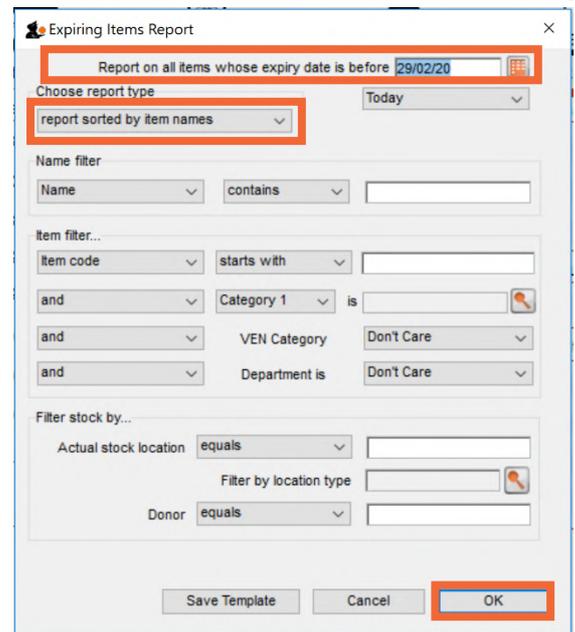
## **Performance Indicators**

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1. Percentage (%) of expired stock in warehouse
2. Total value of expired stock annually

# mSupply Procedure: Expiring Items Report

1. Navigate to the **Reports** tab.
2. Click **Expiring Items**.
3. Enter a date (to **Report on all items whose expiry date is before** that date). Following the SOP, set this to either:
  - End of the month = to show all items expiring before the end of the month; or
  - 6 months = to show all items expiring in the next 6 months
4. Choose to sort the report by item name, expiry date or value.
5. To search for all items, leave all other fields blank. Alternatively, to search for specific items, by location, or another variable, set relevant **Filters**.
6. Click **OK**.
7. The report will open in Excel, which is then printed and used to physically check the stock on the shelf (example shown)



Report title (name may be edited)

Expiring items - sorted by item name, for store(s) General (SAMES)								
Item code	Location	Item	Batch	Value	Cost price	Quantity	Pack size	Exp date
74_7590	09-3-4	Antiseptic Cetrimide/Chlorhexidine Gluconate Solution 15%/1.5% Bot/500ml	2107439	810	15	54	1	301016
20_7910	02-6-4	Bandage Plaster of Paris 10cm wide x 2.75m	1309048	1560.6	0.34	4590	1	300916
20_7910	03-10-1	Bandage Plaster of Paris 10cm wide x 2.75m	1308045	312.8	0.34	920	1	310816
20_7910	03-10-1	Bandage Plaster of Paris 10cm wide x 2.75m	1309048	61.2	0.34	180	1	300916

Item Code    Location    Item Name    Batch    Value    Cost Price    Quantity    Pack/Size    Expiry Date  
 (all items with expiry date on or before the date you selected are included)

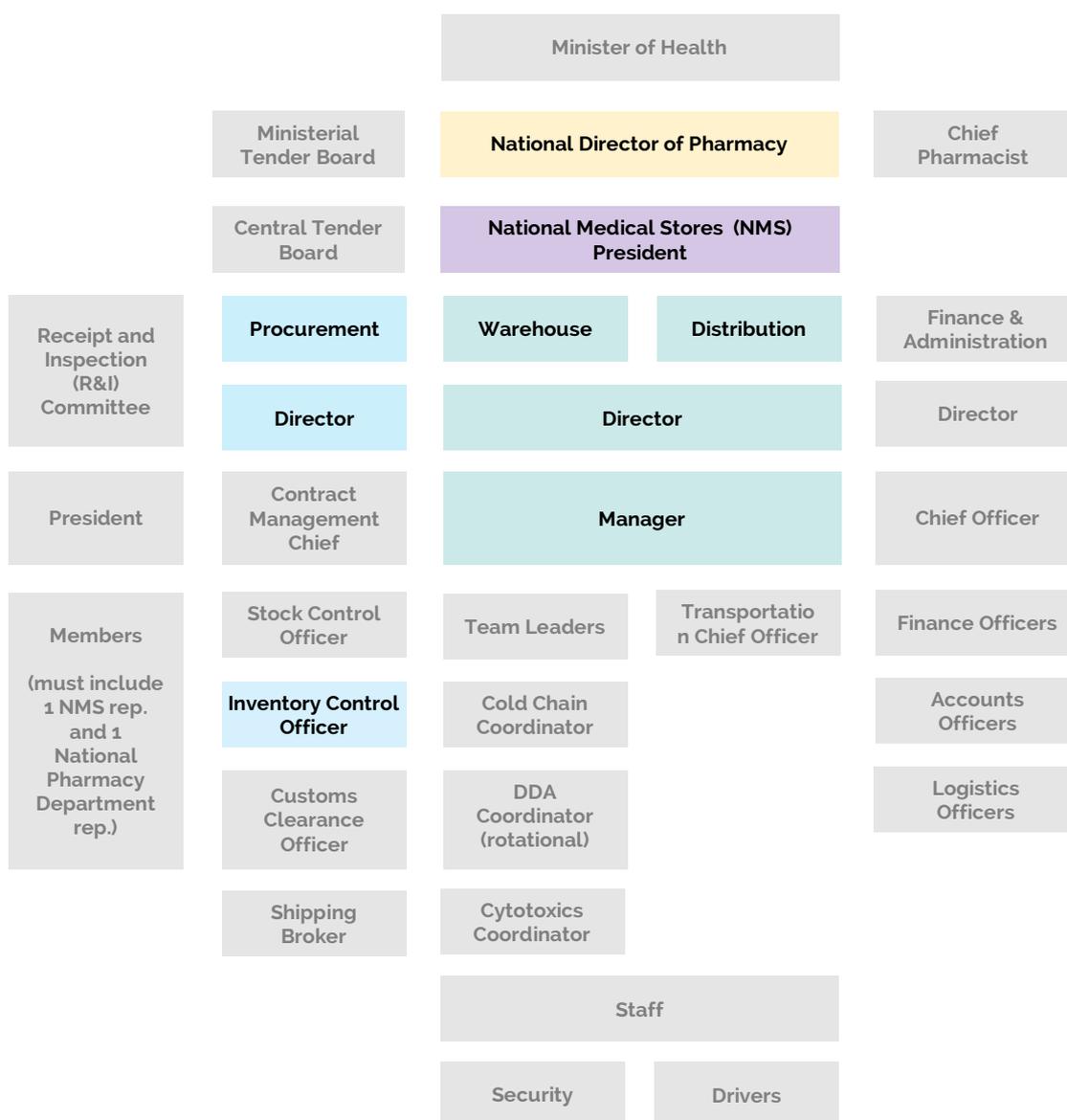
8. Add an additional 'Justification' column to include a brief explanation about why stock expired and confirming it had been distributed during this period.
9. Add monthly report into an aggregated annual report of expired stock in Excel.

# SUPPLEMENTARY ORDERS

## Purpose

To ensure appropriate quantities of stock are available at the national warehouse at all times, while also minimising stock wastage.

## Persons Responsible



## Procedure

The national warehouse should have 3 to 15 months cover of all Normal Items in stock at all times. To achieve this, annual tenders shall be placed with quantification based on a 12-month minimum with 3-months buffer stock. All orders should be placed as per local procurement plans and annual tender guidelines.

A **Normal Item** is any item on the Essential Medicines List or the Essential Medical Supplies List (consumables and basic equipment). It does NOT include laboratory items, other medical equipment, specialist departmental purchases or other items.

A **Critical Item** is any item the Ministry of Health determines cannot be out of stock at any time.

Stock holdings may, however, still be affected by fluctuations in usage, delays in delivery schedules, errors in quantification, changes to clinical treatment guidelines, stock damage, theft and unforeseen events.

It is therefore necessary to monitor stock levels on an ongoing basis and place 'supplementary orders' as required. Annual and rolling stocktakes are essential for inventory control and are covered separately in **SOP: Stocktakes**. This SOP defines the process for stock monitoring and quantification for supplementary orders.



1. Once a month, the Warehouse Manager runs reports in mSupply to find:
  - a. All **Normal Items** with less than **3 months** available stock remaining
  - b. All **Critical Items** with less than **6 months** available stock remaining
2. Warehouse Manager consolidates the reports and sends them to the Warehouse Director and Procurement Director.
3. Procurement Director schedules a meeting in the same week with the 'NMS Commission', which must include (at a minimum) the National Director of Pharmacy, NMS President, Chief Pharmacist, Warehouse Director and Procurement Director.
4. At the meeting, the Procurement Director presents the following information:

### Normal Items



- a. A list of Normal Items that are out of stock
- b. A list of Normal Items with <3 months available stock on hand
- c. A summary of those items that are already on order and the Estimated Date of Arrival (EDA) of each.

## Critical Items



- a. A list of Critical Items that are out of stock
- b. A list of Critical Items with <6 months available stock on hand
- c. A summary of those items that are already on order and the Estimated Date of Arrival (EDA) of each.

5. The NMS Commission must assess each item on the following:

Criteria	Considerations
Is the information accurate?	<ul style="list-style-type: none"> <li>Warehouse Manager should verify any information that seems incorrect.</li> </ul>
Is the item still in use according to the EML?	<ul style="list-style-type: none"> <li>National Director of Pharmacy should verify if unclear.</li> <li>If the item is no longer in use but still listed on the EML, it should be referred to the National Medicines and Therapeutics Committee (NMTC) and flagged for removal from the EML. Once removed from the EML, the item can be removed from mSupply.</li> </ul>
Does the usage data reflect actual usage trends?	<ul style="list-style-type: none"> <li>Some items have sporadic usage or declining usage, due to changing treatment guidelines.</li> <li>Monthly averages in mSupply may therefore be accurate but not reflective of true usage trends.</li> <li>For example, some items may have had a spike in usage due to an MDA program but are no longer in high use. Other items might have recently changed from first-line therapy to second-line therapy. These items do not need to be removed from the EML but ordering quantities should be decreased. mSupply may suggest that &lt;3 months stock is available while the stock will actually last for much longer.</li> </ul>
Is this a long-term item for NMS inventory?	<ul style="list-style-type: none"> <li>Some disease outbreaks or vaccination campaigns prompt large orders of short-term items that are not regularly used (e.g. Tamiflu<sup>®</sup> during the H1N1 virus scare of 2009).</li> <li>These items do not necessarily get removed from the EML but may not be ordered regularly. Other examples include very sporadically used items, such as snake anti-venom.</li> </ul>



Is the item already on order?	<ul style="list-style-type: none"><li>• Procurement Director is responsible for providing updates on the status of orders.</li><li>• If the order status is satisfactory, a supplementary order may not be required.</li><li>• If an item has passed its estimated date of arrival, the Procurement Director must follow up with the supplier.</li></ul>
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6. If a supplementary order for an item is required, the NMS Commission must determine the quantity to order. To calculate the quantity, they must first determine if a large order for the item has already been placed.

a. If a large order for the item has already been placed:

**Supplementary Order Quantification**

= Cover up to EDA of the larger order + 3-month buffer

b. If there is no current order for the item:

**Supplementary Order Quantification**

= Cover up to EDA of the next annual tender + 3-month buffer  
(may be up to 12 months away)

7. Procurement Director summarises the item list and arranges for supplementary orders to be placed.

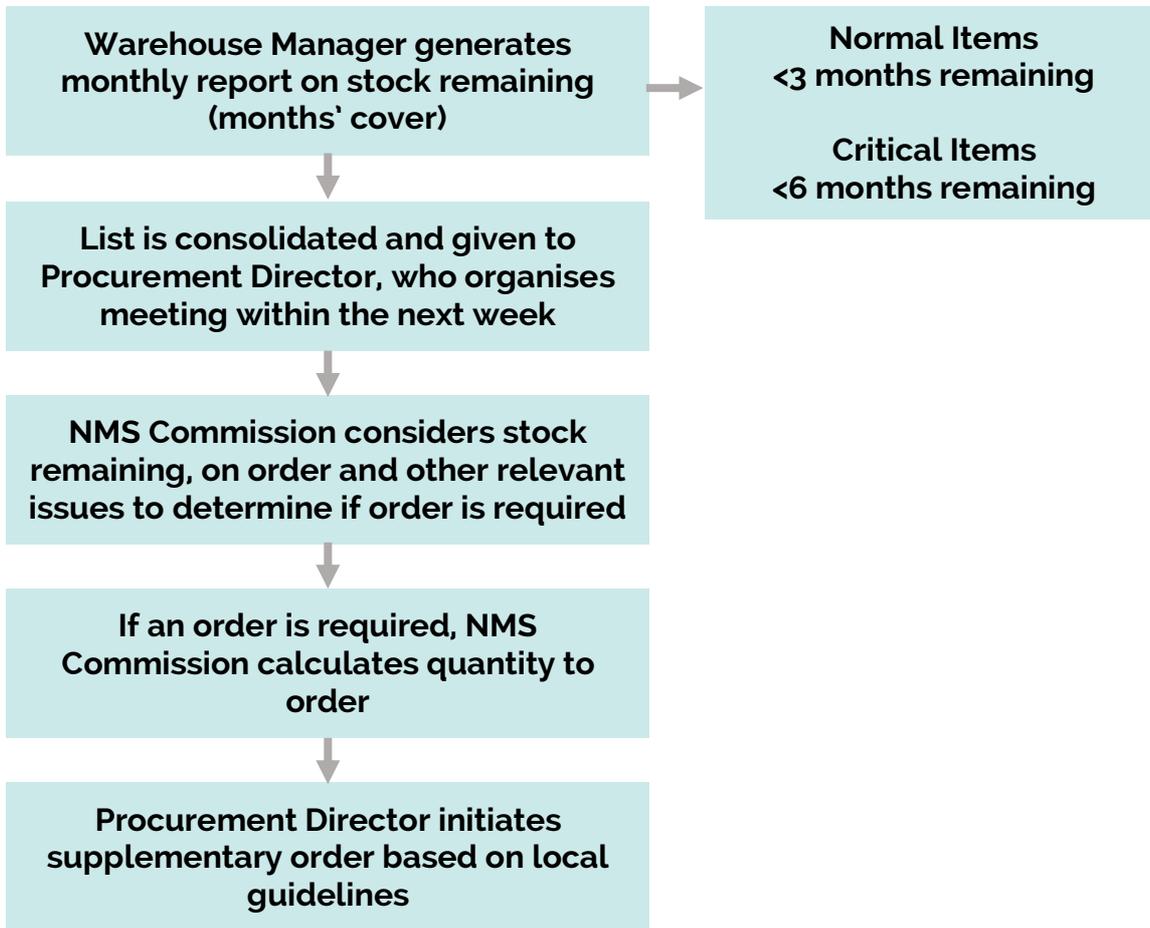
## Performance Indicators

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1. Number of days' cover of stock
2. Minimum stock level days' cover
3. Value of total stock on hand
4. Value of expired stock
5. Proportion of expired stock
6. Percentage (%) of Critical Items in stock

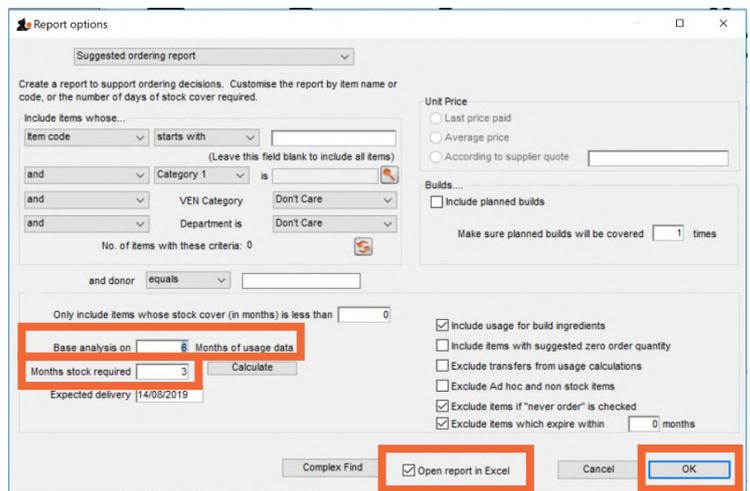
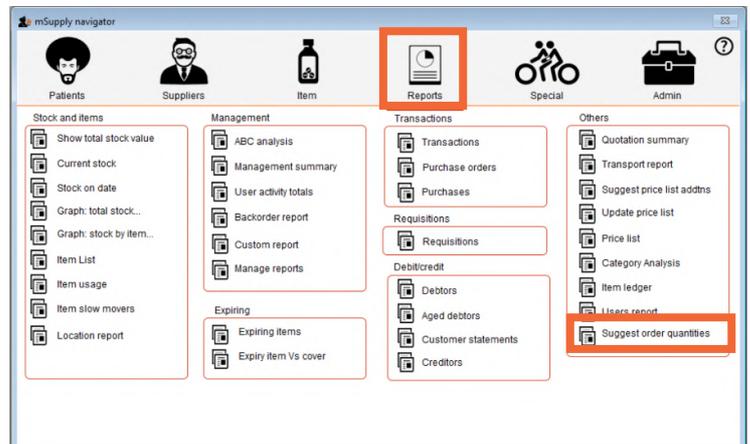
## Process Summary: Supplementary Orders

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## mSupply Procedure: Months Cover Report

1. Navigate to the **Reports** tab.
2. Click **Suggest Order Quantities**.
3. Enter the number of months of usage data to **Base Analysis On** (e.g. 6, 12, 18, 24 months).
4. Enter the **Months Stock Required**:  
Normal Items = **3** months.  
Critical Items = **6** months.
5. Check boxes according to local requirements.
6. Ensure the **Open report in Excel** box is ticked.
7. Click **OK**.
8. The report will open in Excel (example shown)



Report title (name may be edited)

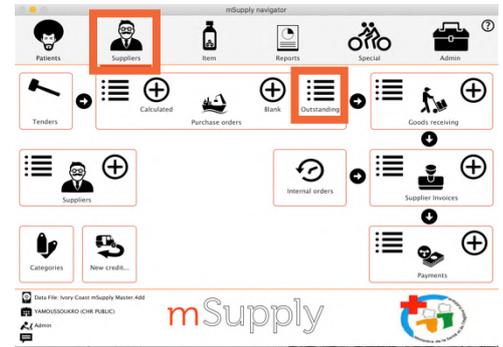
Item Code	Item Name	VEN	Item category	Stock on hand	Backorder	12 months average	24 months average	Monthly usage for the last 12 months	Months Cover	Quantity on Order	Ordered quantity in use	Suggested order	Forecast used
Amosyr	Amoxicillin 125mg/5ml susp	V	06.2.1 Beta Lact	4120	0	3297	3673	3549	1.2	40012	40012	41052	N
Amo500	Amoxicillin 500mg cap	V	06.2.1 Beta Lact	129000	0	90300	92159	96633	1.3	600000	600000	1590200	N

Item      Stock on Hand      Usage Data      Months Cover      Quantity Already on Order      Suggested Order Quantity



# mSupply Procedure: Items Already on Order & Estimated Date of Delivery

1. Navigate to the **Suppliers** tab.
2. Click the **Outstanding Purchase Order Lines** button.
3. A list of all ordered items still awaiting delivery is displayed.



4. If the item's **Expected Delivery Date (EDD)** has been entered in the Purchase Order, it is displayed here and the **Days to EDD** will be automatically calculated.
5. Items in **red** are overdue (or do not have an EDD entered).

Outstanding purchase order lines

PO #	Supplier	Supplier Name	Item name	Order Confirm Date	Requested	Expected date	Days to EDD	Order Qty	Qty Outstanding	Qty Received
3	AM020901	Pharmacie Centrale CHR PUBLIC C	CRISODIFULVINE 250 MG CP	31/3/20	2014/20	2014/20	0	200	4000	4000
3	AM020901	Pharmacie Centrale CHR PUBLIC C	FLUCLOXACILINE 500 MG CELLE	31/3/20	2014/20	2014/20	0	200	5000	5000
3	AM020901	Pharmacie Centrale CHR PUBLIC C	INDOLINE BIOGENETIQUE INTERMED.	31/3/20	2014/20	2014/20	0	200	100	100
3	AM020901	Pharmacie Centrale CHR PUBLIC C	BENZYLPERICILLINE 1 MILI AMP INJ	31/3/20	2014/20	2014/20	0	200	200	200
3	AM020901	Pharmacie Centrale CHR PUBLIC C	NYSTATINE 0.1 MILI SUSP BUFL/30 ML	31/3/20	2014/20	2014/20	0	200	200	200
3	AM020901	Pharmacie Centrale CHR PUBLIC C	IBUPROFENE SUSPENSION BUVALE	31/3/20	2014/20	2014/20	0	200	200	200
3	AM020901	Pharmacie Centrale CHR PUBLIC C	PHENOBARBITAL 40 MG / 2 ML AMP INJ	31/3/20	2014/20	2014/20	0	100	100	100
3	AM020901	Pharmacie Centrale CHR PUBLIC C	METRONIDAZOLE 515 MG / 5 ML SUSP FLJ	31/3/20	2014/20	2014/20	0	200	1000	1000
2	AM020901	Pharmacie Centrale CHR PUBLIC C	AMOXICILINE + AC CLAVULANIQUE SCZ	31/3/20	6/4/20	6/4/20	0	200	210	210
3	AM020901	Pharmacie Centrale CHR PUBLIC C	RANITIDINE 150MG SOL INJ	31/3/20	2014/20	2014/20	0	2	2	2
1	AM018400	NHSP AGENCE D'ABRIDJAN	AMOXICILINE 500 MG CELLE	29/1/20	12/1/20	0	0	500	500	0
6	AM018400	NHSP AGENCE D'ABRIDJAN	TRICLOXACILIN 300 SUSPENSION SOL	30/01/16	24/01/17	0	0	0	0	0

6. You can double click on a line to open the **Purchase Order** it is related to.

Edit Purchase order

Order num : 3 Name Pharmacie Centrale CHR PUBLIC DE YAMOUSSOUKRO (2009) Internal requisition Black

Confirm date 31/3/20 Requested delivery 20/4/20

Line	Item code	Item	Orig Qty	Pack	Adj. Qty	Tot. rec.	Stock on	On Order	Cost/bil.	Price Ext.	Requested...	Event
1	AM02100-0	METRONIDAZOLE 515 MG / 5 ML	100	1	100	0	0	0	0.00	0.00	20/4/20	2014
2	AM11550	PHENOBARBITAL 40 MG / 2 ML AMP	10	1	10	0	0	0	0.00	0.00	20/4/20	2014
3	AM12117	IBUPROFENE SUSPENSION BUVALE	200	1	200	0	113	0	0.00	0.00	20/4/20	2014
4	AM01250-0	NYSTATINE 0.1 MILI SUSP BUFL/30 ML	100	1	100	0	0	0	0.00	0.00	20/4/20	2014
5	AM12306	RANITIDINE 150MG SOL INJ	2	1	2	0	0	0	0.00	0.00	20/4/20	2014
6	AM01080	BENZYLPERICILLINE 1 MILI AMP INJ	200	1	200	0	0	0	0.00	0.00	20/4/20	2014
7	AM18130	INDOLINE BIOGENETIQUE INTERMED.	150	1	150	0	280	218	0.00	0.00	20/4/20	2014
8	AM01325	FLUCLOXACILINE 500 MG CELLE	5000	10	5000	0	0	0	0.00	0.00	20/4/20	2014
9	AM01490	CRISODIFULVINE 250 MG CP	4000	20	4000	0	0	0	0.00	0.00	20/4/20	2014

7. If you want to change the EDD for a single item: Double click on it and enter the new **Expected Delivery Date**, then click **OK**.

Edit order line...

Item NYSTATINE 0.1 MILI SUSP BUFL/30 ML Location AM01250-0 Shelf location None

Original order Number of packs 100 Pack size 1 Total Units 100 Supplier item code FLACC

Requested delivery date 20/4/20 Expected delivery date 1/5/20

Stock On hand 0 On backorder 0 On order 100 Received on previous deliveries 0

Adjusted order Number of packs 100 Pack size is same as for original order Total Quantity 100

Buttons: Cancel, **OK**, OK & Next

8. If you want to change the EDD for multiple items: Highlight the relevant lines and click **Update EDD**.

Edit Purchase order

Order num : 3 Name Pharmacie Centrale CHR PUBLIC DE YAMOUSSOUKRO (2009) Internal requisition Black

Confirm date 31/3/20 Requested delivery 20/4/20

Line	Item code	Item	Orig Qty	Pack	Adj. Qty	Tot. rec.	Stock on	On Order	Cost/bil.	Price Ext.	Requested...	Event
1	AM02100-0	METRONIDAZOLE 515 MG / 5 ML	100	1	100	0	0	0	0.00	0.00	20/4/20	2014
2	AM11550	PHENOBARBITAL 40 MG / 2 ML AMP	10	1	10	0	0	0	0.00	0.00	20/4/20	1/5
3	AM12117	IBUPROFENE SUSPENSION BUVALE	200	1	200	0	113	0	0.00	0.00	20/4/20	1/5
4	AM01250-0	NYSTATINE 0.1 MILI SUSP BUFL/30 ML	100	1	100	0	0	0	0.00	0.00	20/4/20	1/5
5	AM12306	RANITIDINE 150MG SOL INJ	2	1	2	0	0	0	0.00	0.00	20/4/20	1/5
6	AM01080	BENZYLPERICILLINE 1 MILI AMP INJ	200	1	200	0	0	0	0.00	0.00	20/4/20	1/5
7	AM18130	INDOLINE BIOGENETIQUE INTERMED.	150	1	150	0	280	218	0.00	0.00	20/4/20	1/5
9	AM01490	CRISODIFULVINE 250 MG CP	4000	20	4000	0	0	0	0.00	0.00	20/4/20	1/5

Buttons: Update EDD, OK, OK & Next

Enter the new EDD and click **Update**.

Enter Estimated Delivery Date

Enter a new Expected Delivery Date for the highlighted rows

01/05/20

Buttons: Update, Cancel

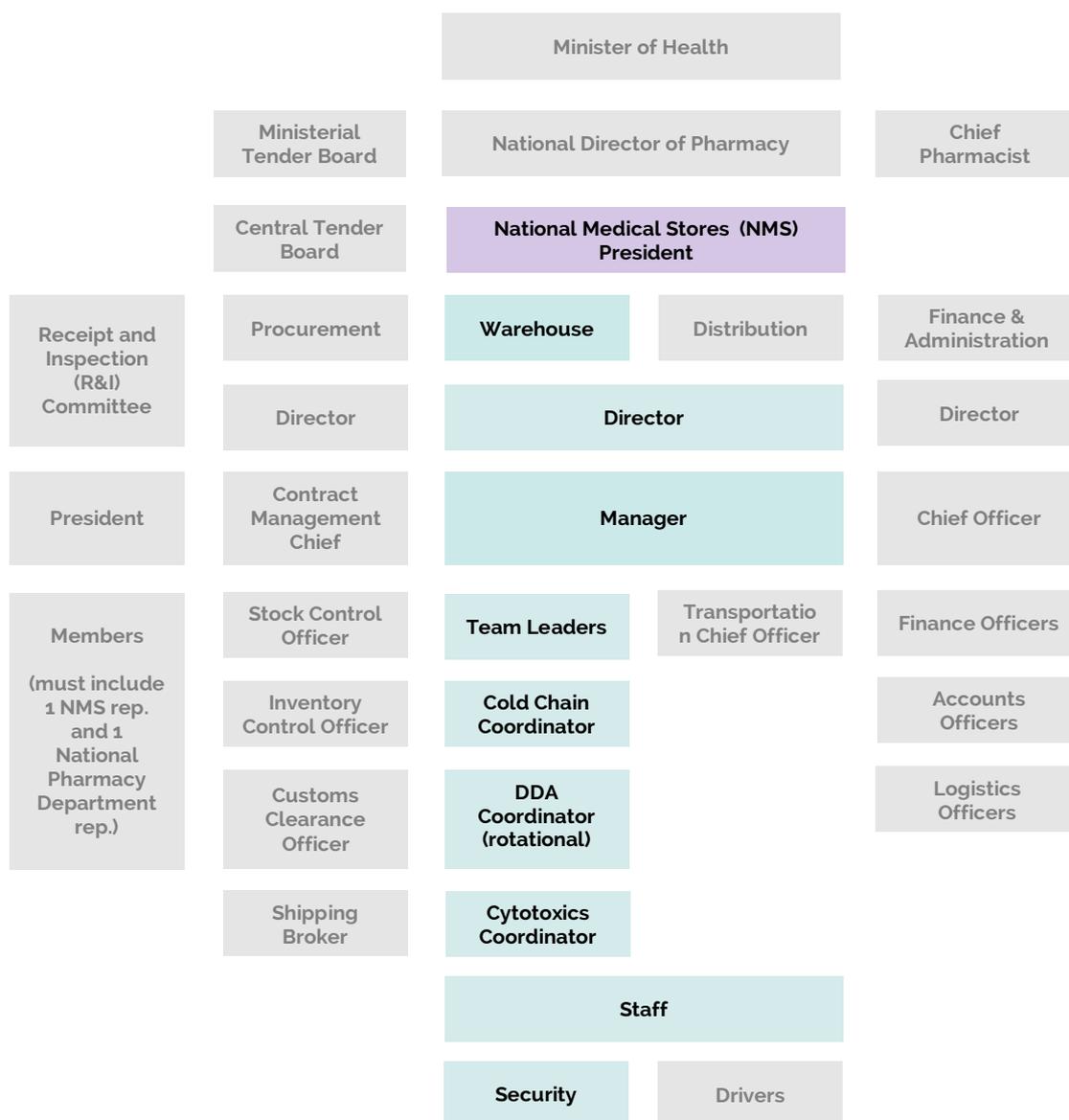
# Standard Operating Procedure: Warehouse Maintenance

# SECURITY

## Purpose

To keep the warehouse facility secure and safe for both staff and commodities. The scope of this SOP is only to outline basic minimum standards. The actual day-to-day operations of security staff is guided by local procedures.

## Persons Responsible



## Procedure

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1. 24-hour security staff must be available and:
  - a. Wear a clearly recognisable uniform at all times.
  - b. Be responsible for granting access to staff members and – where necessary – inspecting credentials. Security staff have the right to challenge any person seeking entry and ask them what their business is at the facility.
  - c. Inspect the paperwork for every delivery vehicle arriving to ensure the delivery is for the facility. Security staff will receive training in how to properly assess the delivery paperwork and redirect the vehicle to the correct site.
  
2. The facility should have:
  - a. A working phone and radio.
  - b. Adequate external lighting for night staff.
  - c. Fire extinguishers at convenient points throughout the facility, particularly in the warehouse. Staff should know the locations of all fire extinguishers.
  - d. Amenities, including a guardhouse and toilet, which must be available to security staff and not accessed by non-staff members.
  - e. A well-maintained perimeter fence made entirely of concrete (or with concrete footings and solid metal bars) to prevent penetration by vehicles or large groups
  - f. A well-constructed gate, which must remain closed and locked at all times outside of business hours. During business hours, a security staff member is to be actively on duty at the entrance.
  
3. All staff are responsible for ensuring warehouse access is appropriately restricted:
  - a. The main roller doors to the warehouse should remain closed at all times, unless stock is being received or dispatched.
  - b. The warehouse and all office facilities should be locked outside business hours and not accessible by security staff. The facility should also be lockable from the inside for staff working alone.
  - c. External visitors must be accompanied at all times when inside the warehouse. They must fill in the visitor's log, recording their name, organisation, reason for entry, date of entry, time in , time out and signature.



- d. No stock may be removed by any person at any time without the express permission of the NMS President. Only stock for which an invoice and cargo receipt have been generated may be dispatched from the facility. Any staff member suspected of inappropriately removing stock must be reported immediately to the Warehouse Director or Manager.
4. A comprehensive Closed-Circuit TV (CCTV) system should be set up with video stored on a local server.
    - a. Data storage, backup and monitoring is the responsibility of the local IT Department.
    - b. Access to the server should be restricted and the room should remain locked whenever IT staff are not present.
    - c. If footage needs to be reviewed, IT staff should prepare the relevant video and watch it in the presence of senior staff members.