

**TO DESIGN THE IDEAL VALIDATED LOGISTICS SYSTEM FOR
DISTRIBUTION OF FINISHED PRODUCTS FOR PHARMACEUTICALS
MANUFACTURING PLANT BASED ON STUDYING EXISTING SYSTEM
IN OPERATION IN MUMBAI BASED COMPANY**

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ABSTRACT

It is very important to regulate pharmaceutical industry as it directly deals with the human life. As we will see details under history of GMP, so many tragedies took place involving many deaths as the Q.A practices were not followed. In this study, conducted on the shop floors of pharmaceutical industry, distributor and the retailer, it was found that the practices are not GMP-Validation compliant. A lot remains to be corrected. This project represents the ideal logistics system for the pharmaceutical industry. For any new entrant in the pharmaceutical manufacturing, this project could serve best for the ideal logistics.

KEYWORD: Validated Logistics System, Distribution, Finished Products, Pharmaceuticals Manufacturing Plant.

INTRODUCTION

It is very important to regulate pharmaceutical industry as it directly deals with the human life¹. As we will see details under history of GMP, so many tragedies took place involving many deaths as the Q.A practices were not followed. Logistics deals with the planning and control of

material flows and related information in organizations, both in the public and private sectors^{2,3}. Broadly speaking, its mission is to get the right materials to the right place at the right time, while optimizing a given performance measure (e.g. minimizing total operating costs) and satisfying a given set of constraints (e.g. a budget constraint)^{4,5}. The quality of pharmaceuticals has been a concern of the World Health Organization (WHO) since its inception^{6,7}. Without assurance that these medicines are relevant to priority health needs and that they meet acceptable standards of quality, safety and efficacy, any health service is evidently compromised^{8,9}. In developing countries considerable administrative and technical effort is directed to ensuring that patients receive effective medicines of good quality¹⁰. Equally important is the GMP and legally complaint and validated logistic system to that same quality is maintained from the factory to consumer¹¹. A Standard Operating Procedure (SOP) is a set of written instructions that document a routine or repetitive activity followed by an organization.

LOGISTICS DISTRIBUTION SYSTEM

The big challenge is to manage the whole logistics system in such a way that orders fulfillment meets or exceeds customer expectations. Focus of this chapter is upon the individual firm's logistics system but also recognizing that no logistics system operates in a vacuum.

Logistics Activities: Transportation, Storage, Packaging,, Materials handling, Order fulfillment, Forecasting.

The purpose of a logistics system is simple: to obtain and move supplies and equipment in a timely fashion to the places where they are needed, at a reasonable cost. Matters are complicated by the fact that equipment and supplies usually cannot go directly from their source to the end user; they frequently must be held as inventory at one or more intermediate points along the way.

Any system that stores inventory for reasons other than these is a candidate for streamlining. It is important to remember the overriding principle of logistics system design: the system must be simple. Its purpose is to move supplies, not to create paperwork.

There are two general types of logistics systems:

- **Allocation or “push” systems**
- **Requisition or “pull” systems**

Information Flow As the earlier discussion implies, only three things happen in a logistics system: commodities move down through the system, commodities are held in inventory at various points, and commodities are dispensed to users for subsequent consumption.

Logistics and Systems Analysis

Cost Perspective: Keep in mind that the most efficient systems are not always comprised of each system component operating at its lowest possible cost. The critical concern is to have the entire system operating at its lowest total cost.

Level of Optimality: There are often constraints working which result in sub-optimal outcomes. Additionally, logistics systems must work in harmony with marketing, finance, production, etc.-- - this may also result in sub-optimal logistics performance.

Good Distribution Practice (GDP)

Good Distribution Practice (GDP) deals with guidelines for the proper distribution of medicinal products for human use. GDP is a quality warranty system, which includes requirements for purchase, receiving, storage and export of drugs intended for human consumption.

Bottom-Line Benefits: Companies that enact change will position themselves to realize true bottom-line benefits, which typically include a 10 to 20 percent cost reduction. We help our clients generate benefits such as Reduced distribution and transportation costs and carbon footprints, Gained focus on product movement patterns vs. mere cost containment, Enhanced end-to-end supply chain visibility from logistics and transportation costs to goods in transit, Improved customer loyalty by focusing supply chain distribution strategy on the customer's service objectives, Increased in-stock position and decreased total inventory by building a process that more accurately reflects supply and demand trends.

One existing pharmaceutical factory based in Mumbai at M.H. was visited. I observed all aspects including design, operation system and documents specifically and discuss the matter with the concert expert staff. The based on the non GMP/efficiency complaint parameters, I have redesigned relocated departments/process to make an ideal Logistics Distribution System for pharmaceutical distribution facilities.

EXISTING SYSTEM/ DOCUMENT OBSERVATION DURING VISIT COMPANY SYSTEM

Finished Good Storage of ABC Company in Mumbai

(A) Design & Storage Condition:

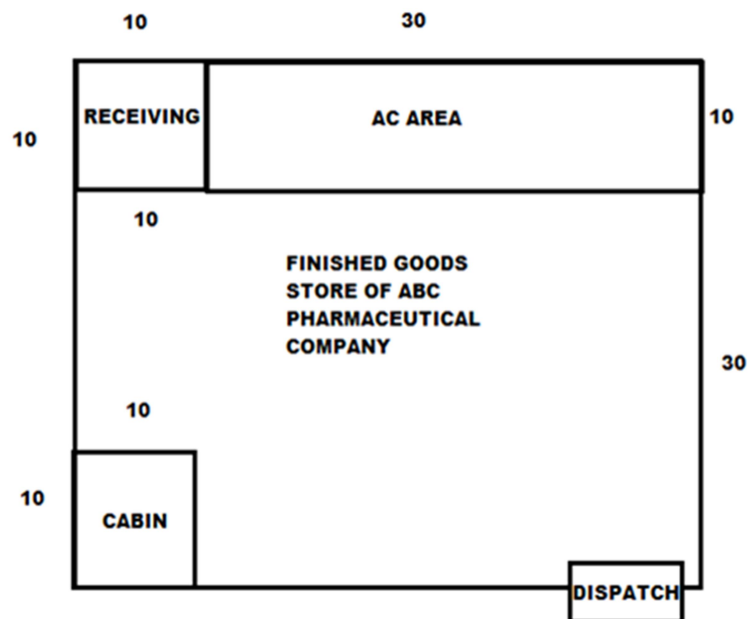


Figure 1: Existing Finished Good Storage Company

- No separate record room
- No separate potent drugs storage
- No separate returned goods (quality product / expired)

(B) Procedure:

- The FG (FINISHED GOOD) is transferred to FGS (FINISHED GOOD STORE) at the end of the first / general shift under the GTN (Goods Transfer Note) with copies to other concerned departments.
- The FGS receives the goods, gives receipt by signing the duplicate GTN.
- FGS makes GTN's entries in its stock register.
- FGS makes dispatches as per instructions and makes entries in its stock register.

Additional Points:

- On the receipt of goods, the same were not entered in the stock register immediately, giving chance for errors.
- The products were not stored and dispatched on First in First Out basis.
- The FDA License was not displayed on the premises.
- The entry was not restricted to workers alone. The transport workers were also found wandering in FGS.
- There are no specifications of the vehicles hired and other parameters like travel time to the different destinations in order to establish the impact of vehicles and such parameters on the safety of medicines.

(C) Documentation (Company)

Licenses: a) Form no 25 (rule 70) manufactured for sale or distribution of drug other than those specified schedule C,C(1) & Schedule x b) Form no 25B (rule 70) repack

Renewal Licenses:

- Form no 26 (rule 73 & 83) schedule X
- Form no 26B (rule 26) repack
- Form no 28 (rule 76) Schedule C,C(1) & Schedule X
- Form no 28A (rule 76A)
- Form no 28B(rule 76) Schedule C,C(1) Schedule X
- Form no 29(rule 89) licenses manufacture drug for purpose of exam test and analysis

Record of inspection:

- Sample take- record / receipt of payment by DC (Drug Controller) or receipt.
- Government analyst reports
- Stocks summery-receipt by DI.(Drug Inspector)

Finished Good Storage of ABC Company in Branch Bhopal**(A) Design & Storage Condition:**

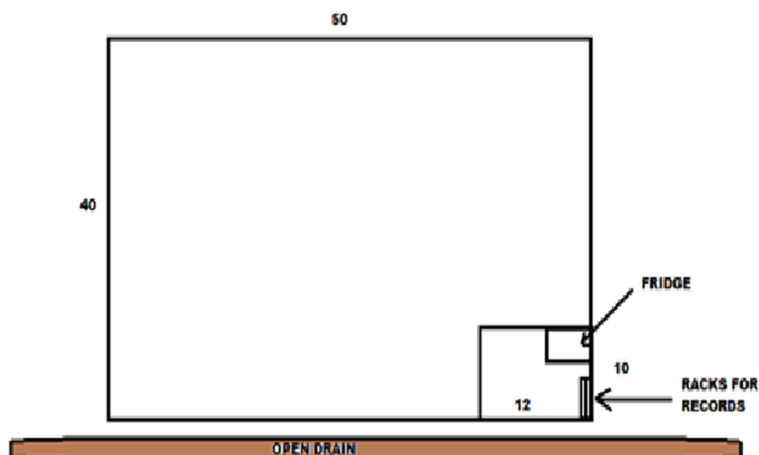


Figure : Existing Finished Good Storage Warehouse

- Distribution good warehouse/office.
- Open drain in front of Godown.
- No AC area.
- No separate area for potent drug.
- No pallets for shippers

(B) Procedure:

- The Distributor collects the orders from all his retailers by telephone, to be confirmed by a note in due course.
- The Distributor checks his stocks of various products in his **Stock Register** and prepares his requirement and gives it to the company's AFM. (Area Field Manager).
- On receipt of FG from company, the same are checked for accuracy against the company's challan / excise documents for products and quantity as well as for breakage.
- The report is prepared for short receipt and breakage if any and is certified by the transporter.
- The FG is entered in the **Stock Register**.
- The FG is stored in the godown.
- The dispatches are made to the retailers as per the orders, under supply challans and the stock register is entered for the same.

Additional Points:

- On the receipt of goods, the same were not entered in the stock register immediately, giving chance for errors.
- The products were not stored and dispatched on First in First Out basis.
- The FDA License was not displayed on the premises.

(C) Documentation (Warehouse)

Licenses: Form no 21 BB (rule 62D) To distribution & other than those specified quality person
Schedule C.C(1) from motor vehicle.

Renewal Licenses: Form no 21CC (rule 63B) to drug from a motor vehicle.

Record of inspection: Sample take- record/receipt of payment by DC or receipt, Government analyst reports, Stocks summary-receipt by DI.

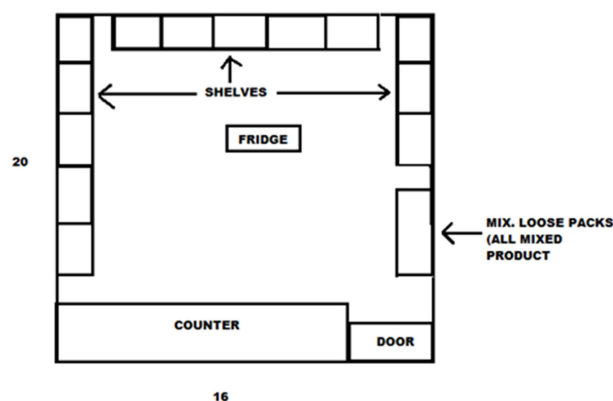
Finished Good Storage of Stockiest ABC Company At Sagar**(A) Design & Storage Condition**

Figure.no.6.3 Existing Finished Good Storage Retailer

- One fridge is provided.
- Shelves are provided for storage.
- No seat for pharmacist.
- One chamber contains all mixed products (1's-2's-3's-4's etc).
- No AC area.

- No schedule x drugs area.

(B) Procedure:

- The retailer maintains stock register for Company-wise products.
- He places the orders with the PSR of the respective company on his order book sheet..
- On the receipt of the supply, the same is checked for accuracy against order (including physician samples, bonus, frees and other incentive schemes applicable)
- The supply is also checked for breakage. (All the breakage and shortages are certified by the respective company's PSR)
- The stocks are entered in the stock register.

Additional Points:

- On the receipt of goods, the same were not entered in the stock register immediately, giving chance for errors.
- The products were not stored and sold on First in First Out basis.
- The Registered Pharmacist was only on the payroll and did not attend the duties.

(C) Documentation-(Retailer)**Licenses:**

- Form no 20 (rule 67)
- Form no 20A (rule 61(3)) schedule x
- Form no 20C (rule no 67C)) Homeopathic Medicine by retail.
- Form No 20f (Rule 61(3)) Schedule X
- Form No 21 (Rule 61(2)) Schedule C, C (1) Schedule X

Restricted licenses: Form no 21A (rule no 61(2)) schedule C(1)) schedule x(***) dealer who do not engaged the service of a quality person.

Renewal licenses: Form no 21C (rule 63A) SCHEDULE C.C(1)

Record of inspection: Sample take- record/receipt of payment by DC or receipt, Government analyst reports and Stocks summery-receipt by DI.

RESULTS AND DISCUSSION

THE IDEAL VALIDATED DISTRIBUTION/LOGISTICS SYSTEM FOR FINISHED PHARMACEUTICAL GOODS

7.1 Finished Good Storage of ABC Company

(A) Design & Storage Condition

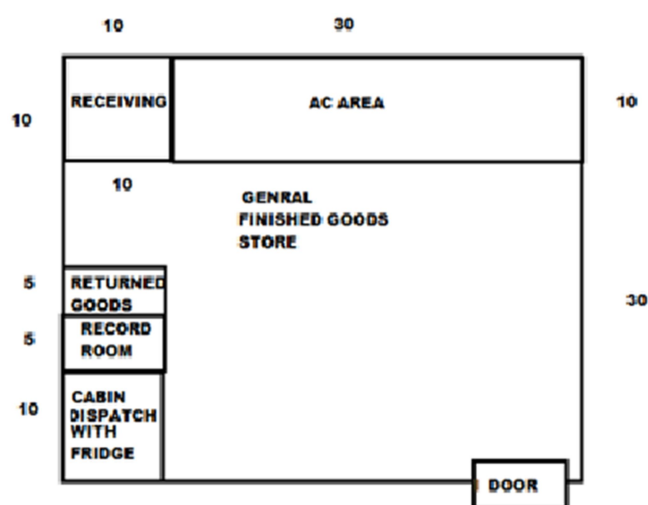


Figure 7.1 Ideal Distribution Storage Area of Company

(B) Procedure:

- Production Manager sends the intimation in the morning to the FGS about the tentative list of products and quantities of FG likely to be transferred at the end of shift.
- FGS informs back to PM about its urgent needs of FG based on dispatches to be made.
- Both depts. confer to arrive at mutually suitable priorities of FG based on possibilities.
- By the lunch time, the PM transfers to FGS whatsoever FG are ready under GTN.
- The FGS receives the goods, gives receipt by signing the duplicate GTN.
- FGS makes GTN's entries in its BIN CARDS.
- FGS makes dispatches as per instructions of the Distribution Department and makes entries in its BIN CARDS. (Including, physician samples, bonus, frees and other incentive schemes applicable)
- By the shift's end, the PM transfers to FGS the balance FG under GTN.

- The FGS receives the goods, **gives receipt** by signing the duplicate GTN.
- FGS makes GTN's entries in its BIN CARDS.
- FGS makes additional dispatches as per instructions physician samples of the Distribution Department and makes entries in its BIN CARDS. (Including physician samples, bonus, frees and other incentive schemes applicable)
- Separate files as well as storage area are maintained for breakage, returned and expired finished goods as well as for different schedule products.

Additional Points:

A. Company Finished Good Stores:

- On the receipt of goods, the same should be entered in the bin cards/stock register immediately, giving no chance for errors.
- The products should be stored and dispatched on First in First out basis.
- The FDA License should be displayed on the premises.
- The entry must be restricted to concerned workers only.
- The specifications of the vehicles hired and other parameters like travel time to the different destinations should be established and adhered to for the safety of medicines.

(C) Documentation (Company)

DOCUMENT 7.1

ABC Pharmaceuticals Limited Company Mumbai:

Tel.: Fax. :
 Name & Address of the Stockiest:
 Pin Code E-mail ID. :
 Mobile No.: Telephone No.
 Fax No. : With S.T.D. Code.....
 Drug Licence No. : Valid Upto:
 CST/ST/VAT No. : Date:.....

Dear Sir,

We have pleasure in appointing you as our Stockist for products marketed, sold and/or distributed by (the "Company") other than Vaccines ("the products") for the following terms and conditions:

1. As such Stockist, you shall render and perform, apart from the other obligations hereunder contained, the following services:

- a) Secure and execute orders from retailers/doctors promptly and efficiently;
- b) Arrange for adequate and satisfactory cool room facilities for specific product groups/ranges as may be specified/required us, and as identified on the pack of each individual product.
- c) Arrange for adequate and satisfactory warehousing and storage facilities for the products under such conditions as may be specified/required under any law in force;
- d) Maintain at your own cost, a suitable office with internet connectivity and appoint salesmen for sale of the products and book orders for the same;

2. In order to keep adequate stocks and prevent scarcities and also for economic convenience of handling and efficiency of operations, your total monthly order shall be of a value as mutually agreed. All orders placed by you with us shall be on your letterhead I purchase order form and shall be duly signed by an authorized person on your behalf against the stamp of your firm.

3. We shall be entitled to terminate this Agreement forthwith upon the happening of all or any of the following events namely.

- a) Upon the breach by you of any terms, conditions or stipulations herein contained, including dishonored or non-payment of any cheque.
- b) If your firm shall, at any time, be dissolved or wound-up or any partners thereof be adjudged insolvent or commit an act of insolvency or a compromise or arrangement shall be entered into by him/them with his/theirs creditors or if a distress execution or other process shall be levied upon or if any encumbrances shall take possession of or a Receiver shall be appointed of any part of the assets or property belonging to you.

- c) If we for any reason what so ever, cease to manufacture, market, sell or distribute the products.
- d) You act in a manner prejudicial to our interests, or you fail to make adequate sales of the products, or your performance is found unsatisfactory.
- e) You distribute spurious/ counterfeit drugs.

Upon termination of this Agreement for any reason whatsoever, you shall not be entitled to any compensation or payment of any kind whatsoever in this behalf.

4. This Agreement may also be terminated without cause by either party at any time by giving one month's notice in writing in that behalf. In the event of termination by us, you shall not be entitled to compensation or payment of any kind whatsoever nor shall we be liable to take back any products sold to you.

5. This Agreement supersedes and determines all previous Agreements(s) if any, between the parties.

We are sending this Agreement in duplicate and would request you to sign and return to us at the earliest, the duplicate copy thereof in token of your having accepted the aforesaid terms and conditions.

Looking forward to a fruitful and satisfactory association.

Yours faithfully,

ABC Pharmaceuticals Limited

Constituted Attorney

The above terms and conditions are hereby accepted by us.

Signature of all Partners/Sole Proprietor

Stockist firm & Rubber Stamp of the firm

DOCUMENT 7.2**ABC Pharmaceuticals Limited**

ABC Pharmaceuticals Limited

Regd. Office: Sagar:

Tel. No. : Fax:

To: All Stockists

Date:

C.C.: RBMs/ABMs

Dear Dealer,

Please find attached the New Agreement Forms for the Year 2012. You are kindly requested to do the following

- ❖ The Agreement Forms are to be neatly filled in with required details in CAPITAL LETTERS i.e.

1. Complete Address.....
2. PIN Code No.....
3. E. Mail ID.....
4. Mobile No.....
5. Telephone No/Fax Nos with STD Code
6. Drug License Nos.....
7. VAT / ST/CST Nos:

- ❖ The Agreement Forms in triplicate should be Rubber Stamped & Signed by all Partners / Directors & Proprietor of the Firm.
- ❖ One Original copy will be retained by you and other two original copies are to be returned duly **Signed & Stamped** along with Profile to respective CF A at the earliest.
- ❖ Common Stockist for Pharma & Vaccines need to sign both the Agreement Forms.
- ❖ Please attach Xerox copies of valid Drug Licenses, VAT Registrations & Banker's Name Oil letter head while sending Agreement Forms to the CFA.

Should you need any further clarifications, please be in touch with your respective CFAs.

Wishing you all the very best in the year - 2012.

Warm Regards,

For ABC Pharmaceuticals Ltd

7.2 Finished Good Storage of ABC Company in Branch Bhopal

(A) Design & Storage Condition:

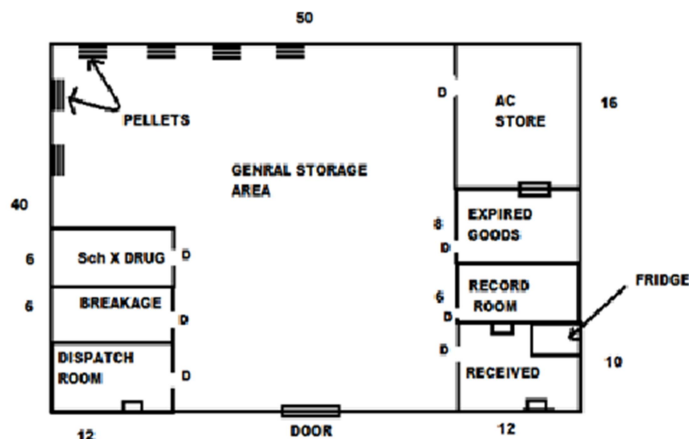


Figure 7.2: Ideal Distribution Storage Area of Warehouse

- The open drain has been covered.
- Pallets for storage, stocking, shippers have been introduced.
- Separate dedicated areas have been provided in

(1) Receipt of goods (2) Dispatch of goods (3) Ac storage (4) Broken goods
(5) Expired goods (6) Records (7) Schedule x drugs (8) Potent drugs

(B) Procedure:

- The Distributor collects the orders from all his retailers through the various PSRs (Professional Sales Representatives)
- The Distributor checks his stocks of various products in his BIN CARDS and prepares his requirement and sends to the Distribution Department of the company through the company's AFM. (Area Field Manager).
- On receipt of FG from company, the same are checked for accuracy against the company's challan / excise documents for products and quantity as well as for breakage. (Including physician samples, bonus, frees and other incentive schemes applicable)
- The report is prepares for short receipt and breakage if any and is certified by the transporter.
- This shortage cum breakage report is further certified by AFM / PSR and then sent to the company by AFM for claims.

- The FG (finished good) is entered in the BIN CARDS.
- The FG is stored in the assigned space, based on AC / RH and other needs.
- The dispatches are made to the retailers as per the orders under supply challans and bin cards are entered for the same.
- Separate files as well as storage area are maintained for breakage, returned and expired goods.
- There is system of sale based on First Expiring First Sale.

Additional Points:

- On the receipt of goods, the same should be entered in the bin cards / stock register immediately, giving no chance for errors.
- The products should be stored and dispatched on First in First Out basis.
- The FDA License should be displayed on the premises.

(C) Documentation (Stockiest)

DOCUMENT 7.3

Confidential Information

Absolute Solutions in Infertility

(1) COMPANY / FIRM NAME:

(a) PROPRIETARY (b) PARTNERSHIP (c) PVT. LTD.....

(2) ADDRESS: YEAR OF ESTABLISHMENT:

(3) CONTACT PERSON (I) MOBILE No: (1)..... (2)

FAX No: E-MAIL ID:

TELEGRAPHIC ADDRESS:

(4) D.L.No.: 20 20-B W.E.F. _____
21 21-B W.E.F. _____

(5) SALES TAX No:

(a) STATE SALES No: W.E.F. _____

(b) CENTRAL SALES No: W.E.F. _____

(6) INCOME TAX PERMANENT A/C No:

(7) BANKER'S:

(a) NAME: (b) ADDRESS:

(c) PIN CODE / STATE: (d) BANK A/c No:

DOCUMENT 7.4

Absolute Solutions in Infertility

Terms & Conditions for Appointment of Stockiest

1. Business: A Stockiest will have to give a minimum business of Rs. 50,000/- (Net Value) PER MONTH AND SUBMIT sales and Stock Statement along With "Annexure" (as provided) every month regularly if they are to be continued as a Stockiest.

2. Supply: The Stockiest should submit their order either on Company's Order Form or their letterhead and the same should be duly stamped and signed.

All orders are subject to CBC confirmation, which will be executed on first-come-first-serve basis at the prices and the schemes prevailing on the date of execution of the order.

3. Discounts: To avail 2% cash Discount Stockiest has to pay in advance by Demand Draft! Current dated Cheque payable at Mumbai.

4. Payments: Initially, any Stockiest on appointment as CBC Stockiest will have to give post dated cheque of 21 days against Order only. For any new product launch the post dated cheque can be given of 45 days with order.

5. Breakages and Shortages:

- **In Transit:** Goods are forwarded only at customers risk although adequate care is always taken at our end, before dispatch of goods ;in order to avoid breakage, damages, shortage etc. however, in case of breakage and shortage during transit, Stockist should inform the Consignee Depot within 3 days from the receipt of goods along with a copy marked to Head Office. Your claim should consist of the following documents.
 - a) Copy of invoice from Consignee Depot.
 - b) Documents showing proof of delivery of damaged/ broken goods from the Courier duly Notarized.

The claim will be forwarded to the Insurance Company and if the claim is approved by them then CBC will replace such broken and damaged goods.

- **In Premises of Stockiest**

(8) Do You Have Any Retail Counter?

If Yes, Give Details.

(9) As a wholesaler which are the other companies you deal with give names with last years approximate turn over

NAME OF ORGANISATION	YEAR 1	YEAR 2	YEAR 3 (LAST Y)

(10) Do you have computer system or any specific invoicing & inventory programme (software) name installed in your business? give details.

(11) Give details of your area allocated for storing goods at

(1) +2° C..... (2) 015° - + 25° C..... (3) ROOM TEMP.....

(12) Do you OCTROI applicable in your town?

If yes, give the rate of OCTROI.

(13) No: of Employee's Presently Working:

(14) Preferable Dispatch Mode:

(a) Transport:

(b) Courier:

(15) Any Two References from Pharma Industry

(1) _____

(2) _____

(16) Remark & Suggestions of RSM / NSM.

Whatever be the circumstances CBC will not be responsible for any breakage, damage or loss of whatsoever nature which may occur in the premises of Stockiest.

6. Inventory Level: Stockiest must lift stock strictly as per their requirement only, so that return of goods can be avoided. Stockiest's inventory should be about 1.5 times of the previous month's sales. Accordingly, Stockiest should place the current month's order as per the formula i.e. Previous month's sale x 1.5 times (minus) Closing Stock = Order for the current month.

If party is outstation the inventory levels should be maintained 2 times.

If you are over stocked for whatever reasons, Company shall not entertain any request for talking back such goods within 90 days from the date of purchase.

7. Return of Goods:

- Products falling in the category of +2°C to + 8°C storage conditions will not be taken back under any circumstances.
- Non- moving* and slow - moving** goods will be taken back subject to fulfilling the following conditions by the preferred dealer.
 - i) The goods are properly, stored at specified storage temperatures in their premises and the same is certified by a Notary.
 - ii) Products should have at least minimum 9 months shelf-life left before I expiry and the products should be saleable condition.
 - iii) Stockiest should submit the Purchase details in respect of Invoice.

No., Date, Batch No, and Expiry Date.

No claim for return goods Price difference will be entertained if the above conditions are not met in to.

8. Short Expiry: Products having shelf life of less than 9 months and are in saleable condition can be considered as Short Expiry.

Such short expiry items can be returned back by the Stockiest to the Super Stockiest **minimum 3 months before the expiry date subject to fulfilling the conditions.**

9. Stockiest shall and send reminders to Head Office, If any claim is not settled/ rejected within 21 days from the date of submission.

10. Stock Transfers: Stock Transfers of any kind from one Stockist to another Stockist are **NOT ALLOWED** under any circumstances.

11. Transaction with Marketing Field Force: All the transactions involving finance and inventory should be delta directly with Head Office or the concerned Super Stockist/Consignee Depot. Stockist shall not hand over any goods, cash cheque, demand draft, Form-H with CBC field staff, the company shall not be responsible for the same under any circumstances, CBC field force are not responsible for carrying stocks and making deliveries to the doctors, Institutes or collecting payments on behalf of Stockist.

12. Storage Conditions: The Stockist will be required to provide necessary infrastructure for meeting the following storage conditions round the clock for our products, so that the products retain their potency and efficacy.

- Storage condition of +2°C +8°C temperature for which a Refrigerator or Walk in Cooler will be required.
- Controlled temperature of +15°C +25°C for certain products as specified in price circular from time to time.

The Stockist shall make provision to keep the power supply 'ON' round the clock for storing temperature controlled products. In other words when the shop is closed after the business hours, Stockist will ensure that the Air Conditioners and the Walk-in-Coolers are kept in 'ON' position. In case of Power failure, Stockist should make provision for Generator.

Due to non-compliance of storage conditions as specified above, in case we receive any products complaint from either Medical Profession or our Field Force then the liability solely lies with our Stockist and in such case the Party will cease to be our Stockist, without notice.

For, **ABC PHARMA PVT. LTD.**

Authorized Signatory,

Division

DOCUMENT 7.5

**ABC Pharmaceuticals
Limited**

ORDER FORM

Name of the party: _____ Date : _____
Address: _____ Order To: _____
Bankers name: _____ Party DL No. _____
Address: _____ CST No.: _____
Order booked by: _____ Mode of Dispatch: _____

Product name	Unit pack	Quantity Ordered	Product name	Unit pack	Quantity Ordered

This order will be executed by one invoice only.

Copy: SM /ABM / STOCKIST

SIGNATURE

DOCUMENT 7.6

PAN NO.: XXXXXXXX

ABC Transport co.

Head office:

<p>The customer has stated that:</p> <ul style="list-style-type: none"> • He has not insured the consignment OR • He has insured the consignment <p>Company.....</p> <p>Policy no.date.....</p>	<p>Truck No.</p> <p>_____</p> <p>G.R. No.</p>
--	---

CONSIGNOUR
'S NAME &
ADDRESS

CONSIGNEE'S
NAME &
ADDRESS

Pack	Description (Said to contain)	Actual weight Kg.	Charged weight Kg.	Rate		AMOUNT	
						Rs.	Ps.
					Freight		
					Hammali		
					St.Ch.		
					Cartage		
		Private mark			P / F		
		Unloading					
		TOTAL					
	Service tax to be paid to GOVT .by CONSIGNOR CONSIGNEE SELF	Service tax regd. No. XXXXXXXXXXXXXXXXXXXXXXX XXXXXX			S. Charge		
G.TOTAL							

FOR ABC Transport co.

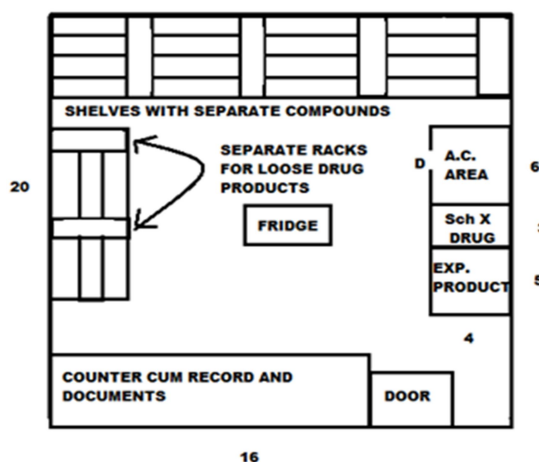
DOCUMENT 7.7**ABC Pharmaceuticals Limited****MONTHLY STOCK STATEMENT**

Name of the party M/s: _____

Place: _____ H.Q. _____ Month: _____

Code no.	Product	Unit pack	Opening stock (A)	Stock received during the month(B)	Total stock (A+B)	Sold during the month (C)	Balance (A+B)-C	Expiry date	Stock in transit	Order pending	Order for next month
Invoice details											
Inv no.			Date		Pending amount		Due date		Retired on		

Date of posting. _____ Signature & stamp of party _____

7.3 Finished Good Storage of Stockiest ABC Company At Sagar**(A) Designe & Storage Condition****Figure no 7.3 Ideal Distribution Storage Area of Retailer**

- Each shelves with mini pocket for loose packs.
- Separate AC stores area has been provided.

- Separate area for pharmacist & records has been provided.
- Separate area for schedule x drugs.

(B) Procedure:

- The retailer maintains Company-wise, product-wise, dosage form-wise and pack size-wise BIN CARDS.
- He also assigns the re-order levels for every product. He orders the products on their inventory reaching the re-order level.
- He places the orders with the PSR of the respective company on his order book sheet.
- He takes acknowledgement of the PSR on the duplicate sheet of the order on the order book.
- On the receipt of the supply, the same is checked for accuracy against order (including physician samples, bonus, frees and other incentive schemes applicable)
- The supply is also checked for breakage. (All the breakage and shortages are certified by the respective company's PSR) The PSR forwards this report to AFM for claims.
- The stocks are entered in the bin cards.
- The products are stored as per the Temp /RH and Schedule needs.
- The products are sold to the customers on OTC or under Prescription of the Medical Doctor as the case may be, under the supervision of the Registered Pharmacist.
- Appropriate files are maintained and duly checked by the Registered Pharmacist for all the prescriptions of different schedules.
- Separate files as well as storage area are maintained for breakage, returned and expired goods.
- x. There is system of sale based on First Expiring First Sale.

Additional Points:

- On the receipt of goods, the same should be entered in the stock register immediately, giving no chance for errors.
- The products should be stored and sold on First in First out basis.
- The Registered Pharmacist must attend duty regularly and dedicatedly.

One more suggestion is to transport the thermo labile pharmaceuticals by the AC vehicles right from manufacturing plant to retailer.

(C) Documentation (Retailer)

1. Form no 20 (Rule 67)
2. Form no 20A (rule 61(3)) schedule x
3. Form no 20C (rule no 67C)) Homeopathic Medicine by retail.
4. Form no 20f (Rule 61(3)) Schedule X
5. Form no 21A (Rule 61(2)) Schedule C, C (1) Schedule X
6. Latter pad of retailer
7. Product demand receipt of Retailer
8. Expiry/Returned drug product record.
9. Delivery memo receipt. (DM)

CONCLUSION

- In this study, conducted on the shop floors of pharmaceutical industry, distributor and the retailer, it was found that the practices are not GMP-Validation compliant. A lot remains to be corrected.
- This project represents the ideal logistics system for the pharmaceutical industry. For any new entrant in the pharmaceutical manufacturing, this project could serve best for the ideal logistics.

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