

Hospital Pharmacy in Ghana - Drug Procurement, Storage And Control

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Drug procurement, storage and control of the various classes and their inventory or stock control are very important in hospital Pharmacy. Drugs are acquired in the various hospitals, urban health centres and clinics by sending requisitions to drug depot, the Central Medical Stores or the Regional Stores in various regional capitals. However, a few big hospitals, the Private and Mission ones do procure some of their drugs by directly purchasing from the drug houses using Local Purchase Orders (L.P.O).

The method for drug requisitioning in the government medical stores is not satisfactory and causes too much delay. Let us examine a requisition from Korle-Bu Hospital, for example, to the Central Medical stores at Tema. The Pharmacist in charge of the Hospital's Medical Stores prepares the requisition which is thoroughly vetted and signed by the Principal Pharmacist. It is then sent to the hospital administrator for his approval and then to the Ministry of Health and further endorsement by the Chief Pharmacist or his representative. From there, it goes to the stores Superintendent at the Central Medical Stores and he finally endorses it before at long last it reaches the Pharmacists responsible for the various sections of the Stores for the supplies to be made. The procedure in the smaller hospitals and Polyclinics is very similar except that the requisition goes finally to the Regional Stores and not to the Central Medical Stores.

I feel this lengthy procedure needs some remedy. Let us examine some of the causes of the delay with requisitioning and some suggestions which could eliminate the delay. The officers responsible in signing of the requisitions are too many and this leads to bureaucratic bottleneck. Most of our record books and other stationary papers in use now are the same as those used 15-30 years ago. Unfortunately, the scientific world is changing so fast that we cannot just continue using these out-dated materials. It is time the Pharmacy Division of the Ministry of Health changed some of the details in the record books used for requisitions, and stock control. In the Daily Issue and Requisition books, for instance, the column for the Medical Officer in charge could be changed to Senior Pharmacist in charge or the Principal Pharmacist who should take full responsibility in the requisition for drugs. He should check possible errors in the books.

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As already mentioned, a lot depends on the Pharmacist too. Some do requisitions without being realistic. Some do not even have any idea as to the average rate at which the various drugs move, e.g. the quantity of antihypertensive, analgesics, antibiotics etc. used daily, weekly or monthly. But we need these data to enable us make realistic requisitions. If correct data on the consumption of drugs are known, problems like 'artificial' shortage resulting from hoarding of slow-moving drugs in a particular hospital whilst there could be none available in the other hospitals could be arrested. A hospital Pharmacist needs to keep adequate records to help him plan ahead and manage his department effectively. There is no need requisitioning for 50,000 capsules Tetracycline instead of 20,000 actually needed or 20,000 Acetylsalicylic Acid Tablets instead of 60,000. It must be kept in mind that stocks should not get to "NIL" before a requisition or order is made. Under normal circumstances, the Medical Stores should have all the items needed but quite often, they don't. In these cases they should be in a position to advise when the requisitioning pharmacist should go back for drugs which are under-supplied. But the Medical Stores themselves also face a dilemma because most often they also run out of many items and do not know when next they are getting fresh stocks of items which were in short supply.

Transportation of drugs from Medical Stores to hospitals pharmacies is another problem. Most of the time, transport is not available in the hospitals when the Medical Stores are ready to supply requisitions and when there is transport, the stores are not ready to supply either as a result of other accumulated requisitions, or shortage of the products needed. It is imperative that the transport system of the Ministry of Health should be re-organised to facilitate quick and regular transportation of drugs and other supplies between the Medical stores and Hospitals.

One other method of obtaining drugs for the use of hospitals is "local purchasing" which is the ad hoc buying of much needed supplies in small quantities from individual drug houses for use in the hospital concerned without going to tender which is the normal way by which the Medical Stores obtain their supplies. As said before, this method of requisitioning should also be the prerogative of the Pharmacist.

A leading advocate of the school of thought that pharmaceuticals and related items constitute specialities which require the technical skills of a formally trained individual for their proper selection and purchase is Dr. Malcolm T. Mac Eachern who states "... the purchase of drugs and pharmaceuticals is a speciality which can be carried out to the best advantage by a pharmacist trained in managing a hospital pharmacy... this is the only department in the hospital in which it is usually not advisable to have purchasing done by a general purchasing agent."¹.

One of the principles enunciated in the American Society of Hospital Pharmacists' 'Minimum Standard for Pharmacies in Hospitals' is that "...the pharmacist in charge shall be responsible for specifications both as to quality and source for purchase of all drugs, chemicals, antibiotics, biologicals and pharmaceutical preparations used in the treatment of patients..."²

STORAGE AND CONTROL

It is most frustrating to find that a Pharmacist who knows, by his training, that drugs have to be kept in a store with adequate facilities like shelves, locks, burglar proof air-conditioners for temperature and humidity control, etc. finds himself storing drugs under very appalling conditions because the Ministry of Health which he serves cannot afford or would not bother to provide adequate storage facilities. This needs urgent attention in order to cut down drugs decomposing because of poor storage conditions. We must remember that many drugs decompose under high temperature and humidity as found in a Tropical country like Ghana. Dispensing a decomposed drug could also be a health hazard to the public. We cannot afford at this time of world economic crises to spend our hard earned foreign exchange on drugs just to allow them to deteriorate. For both short and long term benefits, it is in our interest to have our medical stores fully air-conditioned.

The drugs in the store could be arranged in such a way that it will be easy to pick up any wanted item easily. The most useful method is by arranging drugs according to Pharmacological activities, e.g. analgesics, antihypertensives, antibiotics, etc. within pharmacological group, drugs can be arranged alphabetically. It should however be stressed that inflammable and volatile substances should always be kept separately. Below is another suggested grouping for a Medical Store:

1. Narcotics- to be under lock.
2. Capsules and tablets.
3. Injections and Intravenous Infusions.
4. Eye, Ear, Nose preparations.
5. Powders
6. Galenicals and Bulk Liquids.
7. Ointments
8. Vaccines, Sera, Biologicals and other Pharmaceuticals needing refrigeration.
9. Other miscellaneous products.
10. Volatile and Inflammable products.
11. Equipment and machines.

It happens that some pharmacists do not create a system of differentiating between the old and new stocks and the end result is that the old stocks are left on the shelf for a long time and the newly arrived ones are issued out. This problem is often experienced especially in the big medical stores and a method needs to be found to alleviate this problem.

Some drugs like vaccines, sera antibiotics etc. are dated. But it does happen that some pharmacists may forget about some of these with a short period left to expire. These require special control in order to ensure potency at the time of dispensing and to be sure that the Pharmacy is not carrying worthless stock. One needs to keep special records which provide such information as the name of product, date of arrival, dates of manufacture and expiry and the batch number for such drugs. This will also help when sending the drugs to Drug testing laboratories like the Government Chemical Laboratories for analysis when the need arises.

Even if there are no adequate facilities in a store, one needs to improvise to ensure that items like powders are not packed on the floor.

Let us examine the control of drugs. The handling of narcotics should be strictly the responsibility of the Pharmacist in charge of the Department and not the post graduate students on practical training. Likewise the Sister or Nurse in charge of the ward should be responsible for the storage and use of the ward's Narcotics. The request form for the ward stock or the prescription form must bear the date, the total quantity of the drug required, the name of the ward or patient, the patient's registration number, the name of the doctor (and not only his signature) and the signature of the sister-in-charge.

It is important to visit and check the ward stocks often and advise the nursing staff about their responsibilities e.g.

1. They must make entries in the ward register immediately after administering drug to the patient.
2. If a patient refuses to dose especially a narcotic mixture or an ampoule broken or half ampoule left for more than 24 hours, it must be entered in the register by the nurse and countersigned by the Senior Sister since the Pharmacist is not available at that time. It is advisable to record why the drug was not administered resulting in the surplus or shortage e.g. "Refused by patient" or "Ampoule broken" or "Half ampoule discarded" etc. if an ampoule or vial of a narcotic was broken then the piece should be kept and shown to the Pharmacist when fresh stocks are being collected.
3. It must be stressed that it is important the nurse coming on duty carefully checks the physical stock against the balance in the Dangerous Drug Register especially when many patients are on the drug. If the first check establishes inaccurate returns, the treatment sheet must be checked so that the errors of the entry are corrected before she leaves the ward.

It is urgent to discourage the misuse of drugs in Ghana. There are some people who prefer self-medication and such as go out to any pharmacy and ask for drugs. This must be discouraged. The problem of drug abuse in Ghana needs a quick solution. Pharmacists should endeavour to keep abreast with new developments to meet the demands of change brought about by the rapid progress in medical care. The procedures for procuring drugs, storage conditions and control of all drugs must be looked into and improved upon as early as possible to enable effective practice of the pharmacy. It is necessary that "the Stores Regulations" booklet be made available in all hospitals to make stores keeping easier and more straightforward than it is now.

References

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2. Hassan, Jnr., William E. (1967) *Hospital Pharmacy*, 2nd Edition, page 110. Philadelphia: Febiger.