INTRODUCTION

Virtually in every home, different age group (children, adults and geriatric) populations stay together. You never know when and how illnesses and accidents happen at home. Only a few simple remedies are found in a secure place i.e. out of reach of children, which enable one to cope with first aid in most of minor ailments and incidents. Therefore, it is necessary to get prepared with home medicines cabinets. With good management, a medicine cabinet can be made an important supply of needed remedies and not a health risk. Home medicine cabinet makes a difference between life and death having a designated location where all your medications and emergency supplies are kept. It’s a simple thing to do but can help to keep you and your family safe.

Pharmacists involvement in medication safety in the home

Pharmacist working on a medication management project requires involvement in medication safety at home. The safety has been focused on the dispensing process and ensuring that patients receive the correct drug. Pharmacist may also think about pharmaceutical care and instruct patients how to take the right dose of the right drug at the right time. The pharmacist can assist with sorting medications, identifying those that are no longer required or out of date, and then facilitating its correct disposal. Family members should also be encouraged to assist with working, especially for elderly patients. After dispensing of medications the patient and caregivers have to take the ultimate responsibility for proper usage of their medications at home.

Medicine storage

Consumers store their medications, in various locations in different rooms, including the kitchen (inside the microwave, on the stove-top, on a sunny windows, in a milk crate under the kitchen table), bathroom (in the medicine cabinet on the back of the toilet, in a cupboard under the leaky sink), linen closet (between layers of sheets), and bedroom under the mattress, behind pillows, in bureau drawers). Many of these locations signal potential safety risks for visiting children, as well as concerns about the integrity of the medication and memory challenges for dose administration. Greater chance of missed doses of regular medications can occur if stored in single place, except if the medications are stored in different locations (e.g., morning medications on the kitchen table and bedtime medications at the bedside). Information about medication storage is an important aspect to be addressed to the patients.

Location of home medicine cabinet

Eighty-five percent of adults keep medication in at least one location other than their bathroom medicine cabinet, most often the kitchen (62%). Women often have medications stashed in their handbags or briefcases (36%). Bathrooms are often too damp and humid which can break down, degrade or decrease the potency of medicines. The best place for most medication to store is in a dry place away from sunlight.

Medicines storage in home medicine cabinet

Medications should always be kept in their original packaging so that consumers can easily see the expiration date and follow the information about dosages and warning on the back of the bottle or package. Refilling travel-size bottles or combining medications in one container can mean losing important information. It is important to have both the adult strength and the appropriate strength of children's medicine.

Contents of home medicine cabinets

Home medicine cabinets contain the following categories of drugs and health accessories

- Pain relief (acetaminophen, ibuprofen, aspirin)
- Allergy and sinus relief (antihistamine, decongestant, pain reliever)
- Cold and flu relief (antitussive and expectorant)
- Digestive health (anti-diarrhea, anti-gas, antacid and acid reducer)

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- Antibiotic ointments (framycetin sulphate, neomycin)
- Antiseptics (Iodine Tincture, povidone iodine ointment)

**Health accessories**

Home medicine cabinets
- Adhesive bandages
- Adhesive tape
- Alcohol wipes
- Calibrated measuring cylinder/spoon
- Gauze pads
- Thermometer
- Tweezers
- Scissors
- Disinfectant

**Home medicine cabinets**

Figure 1 is showing a standard model for the home medicine cabinet

**Types of home medicine cabinets**

There are four types of home medicine cabinets namely

**Surface mount (fig. 2):** Surface-mount medicine cabinets are the easiest to install, hanging on the wall much the same way a picture frame does. Depending on how far you are willing to let the cabinet stick out from the wall, surface-mount medicine cabinets are available in a wide range of depths, with the average being about around 4 inches.

**Recessed:** Recessed medicine cabinet, is recessed style, actually sits in a hole cut into the wall so that the mirror sits nearly flush with the wall. Unless you are replacing an existing recessed cabinet, this style requires substantially more work to install than surface-mount cabinets. Still, the clean, built-in look of **recessed medicine cabinet's** often justifies the extra effort of installing them.

**Semi-recessed:**

**Corner mount:** If you are removing a small **recessed cabinet**, do not wish to cut out the existing studs for a larger recessed cabinet, simply fill the hole with insulation and place a larger surface mount cabinet over the opening. If your bathroom is on the small side, a **corner medicine cabinet** is perfect for using space efficiently, while specialized medicine cabinet such as perfume cabinet can be used to add an elegant touch to any bathroom.

**Features of home medicine cabinets**

Home medicine cabinets come in different **style** such as hinged or sliding mirrored doors, lighting options, and adjustable shelving are just a few of the options - you can select from in order to get the most stylish, functional medicine cabinet for your home.

The three safety ideas for home cabinet medicine are (Fig. 2)

- When you buy medicine, make sure no one has already opened it. At the store, check to see if the package was opened. If it was, tell a person working in the store.

- Never take else one prescribed medicine.

- Keep all medicines away from children in a locked cabinet
Medicine cabinets made of wood, plastic, or aluminum are best for the high-humidity environments of homes but metal cabinets coated with a baked-on enamel finish will also be sufficiently rust-resistant.

Consider the following before purchasing a medicine cabinet

- If you have a flat wall, a surface-mounted medicine cabinet will be the easiest to install, just be sure to properly secure it to the wall studs. Recessed or semirecessed medicine cabinets may need a little more planning and installation time, but give a cleaner appearance.

- To install recessed or semi-recessed medicine cabinets, locate wall studs and realize some may have to be removed and you may have to add 2 x 4 blocking between studs to add support for the medicine cabinet. Do not enlarge space in wall until you know where the wall studs are and what you plan to do with them.

- Either style of medicine cabinet features options for mirror location. Choose from the basic mirror option on the outside of a closed door, a mirror on the back of the cabinet interior, or a mirror on the inside as well as outside of the door, which may allow for mirror viewing while cabinet is open.

- No problem for left-handers, just choose a medicine cabinet with reversible mounting.

- Replacing a smaller medicine cabinet with a larger one is always possible. After filling holes with insulation and replacing wall studs and drywall, you can even replace a recessed medicine cabinet with a medicine cabinet that is surface-mounted.

- Mirrors allow for more mirror space without investing in a bigger medicine cabinet. Choose from double-mirrored doors, swing-out magnifying mirrors, sliding doors, triple doors, or even heated mirrors so you can see yourself even through steam. Placing slim "his & her" cabinets on either side of an existing mirror is also an effective storage solution.

Sizes

Home medicine cabinets are available in the following different sizes

<table>
<thead>
<tr>
<th>Size overall dimensions</th>
<th>Options Include (Inches):</th>
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<tbody>
<tr>
<td>16W x 20H x 6D</td>
<td>Recessed rough opening</td>
</tr>
<tr>
<td>16W x 26H x 6D</td>
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Home medicine cabinets

- Frameless cabinet with beveled mirror and two shelves
  - Beveled-edge design
  - Two polystyrene shelves
  - Piano hinge lets door open wider
  - Recessed mount installation
  - Single-door design
  - Available in a choice of sizes

Stylish cabinet with high-quality flat-mirrored door (Fig. 3)

- Premium float glass mirror front
- Interior mirrors behind door and in back
- Four adjustable glass shelves with snap-fit supports
- Reversible mounting for left or right side opening
- Hidden hinges permit 120 degree opening
- Rubber bumpers ensure quiet closing
- Powder-coated satin-black metal body
- Fine-grain wood frame with choice of finish
- Available for recessed or surface mounting

Check up Checklist for home medicine cabinets

Home medicine cabinets should be checked for expired or nearly empty medications periodically and ensure that all medications are up-to-date and properly stored and are equipped with essential products and treat family members with potential illness and ailments.

To help consumers analyze and improve the health of their home medicine cabinets it suggests the following three Rules

1. **Read** the labels with expiration dates and check dosing instructions before administering any medications. Following directions is crucial in ensuring accurate administration and effectiveness.

2. **Remove** all items that are beyond their expiration dates and no longer in use, may lose their potency over time.

3. **Restock** expired medications and other essential items as the way to meet the individual health needs of everyone at home.
Price Range of home medicine cabinets

- Under $150 = Under Rs.7500/-
- $150 - $300 = Rs.7500-15000/-
- $300 - $500 = Rs.15000-25000/-
- $500 - $700 = Rs.25000-35000/-
- $700 - $900 = Rs.35000-45000/-
- $900 - $1200 = Rs.45000-60000/-
- $1200 - $2000 = Rs.60000-100000/-
- $2000 - $3000 = Rs.100000-150000/-
- $3000 and up = Rs. 150000/- and up

Ask patients to bring all medications to a medication assessment appointment and specifically identify the products to bring: prescription drugs, herbal and alternative remedies, vitamins and minerals, nonprescription medications, and drugs with non-oral administration methods.

Counsel the patients to keep their medications in their original prescription bottles. If the opportunity presents, look inside the vials to ensure that they hold the correct medication.

Pharmacist role to check for checklist for safe medication use in the home

- Ask where medications are stored in the home.
- Ask specifically where medications requiring special storage conditions (e.g., refrigeration) are stored in the home.
- Ask about old and out-of-date medications that the patient may have at home and encourage their return to the pharmacy for safe disposal. If possible, assist with sorting of all the patient's medications to remove the discontinued and expired medications.
- For patients who use injectable drugs, periodically review the principles of appropriate disposal of sharps. If possible, participate in a sharps disposal programme.
- Ask about compliance aids that the patients use at home. Suggest that patients or caregivers bring in the aid (e.g., dosette) periodically and review for accuracy.
- Ask patients to return pharmacy-prepared blister packs or dosettes at time of refill and inspect for unused doses.
- Ask patients whether they have difficulty swallowing or splitting tablets and how they manage these difficulties. Offer to split tablets ahead of time, or demonstrate use of a pill splitter.
- Ask patients about their ability to open vials. Offer easy-to-open vials, if appropriate.

CONCLUSION

The authors were interested to continue further research on this topic on design and development of home medicine cabinets for Indian population. Already work is undergoing and would like to go for patenting of Home Medicine Cabinets.

REFERENCES

4. www.mayoclinic.com