

## Role of Community Pharmacist in the Care of the Elderly

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### Abstract

One of the world's striking trends that have been widely recognized is the aging of its population. The pharmaceutical care of the elderly population is of utmost concern in the westernized countries. Even in India, where the average life expectancy is 62.5 years, the aging population is growing. The number of elderly women at any point of time is reported to be more than the number of elderly men. With the advancement of science and medicine, life span and productive life of an individual has greatly increased. Added to this is the advances made by the pharma industry in providing affordable modern drugs to control the different diseases. All these factors have contributed to the rise in the number and percentage of elderly population all over the world and even in India. Elderly are more likely to experience drug related problems than any other age groups and also the biggest prescription users (40%) than any other group in the community. Hence, it is necessary and essential to elucidate the role of community pharmacist in the pharmaceutical care of elderly. Community pharmacist should possess certain basic skills, relearn basic pharmacy practice skills, apply the skills for elderly care and carry out the preventive care, and also develop a rational and feasible pharmaceutical care plan (PCP) for the elderly care. As such, community pharmacists therefore can implement quite a few aspects of PCP in India and give benefit of their knowledge to the patients at large.

**Key words:** Community pharmacist, pharmaceutical care plan, elderly care, geriatric population, non-compliance, quality of life.

### INTRODUCTION

One of the world's striking trends that have been widely recognized is the aging of its population. In U.S., this phenomenon is widely known as the aging of the "Baby Boomers". 'Baby boomers' is the group of post World War II children, who had grown, had their careers and now retired and living as elderly people. Almost 13 % of the U.S population (35 million) is of the age of 65 years and above. This population is expected to increase to 20% (about 70 million) by the year 2020. In the period 2010 - 2030, the population of 65 years and older is expected to grow by 75% to over 70 million. The growth of population among the 'oldest of the old' i.e. 85 years of age and above is of great public concern. During 1995 - 2010, this population is expected to grow by 56 % as compared with 13 % growth of the population aged 65 - 84. This means that, a large share of the elderly population will be over 85 by the year 2020. Even in India, where the average life expectancy is 62.5 years, the aging population is growing. There are about 1.5 million People in India, living close to 100 years of age and about

8 million living between 75 - 85 years of age, and are growing at double the world average of 4.4 % every year. The number of elderly women at any point of time is reported to be more than the number of elderly men. Life span and productive life of an individual has now greatly increased due to the advancement of science and medicine. With eradication of some of the deadly diseases like polio, small pox, measles, diphtheria and good control over TB, malaria and leprosy; life span in India has certainly increased. Added to this is the advances made by our pharma industry in providing affordable modern drugs to control hypertension, diabetes, asthma and other chronic diseases has helped millions in our country to extend the life span. All these factors have contributed to the rise in the number and percentage of elderly population all over the world and even in India.

### Current health and medication problems with the elderly

Although there are many age related health problems with the elderly, some problems are common with the geriatric population, such as

- Hypertension
- Myocardial infarct (MI)

- Classical chest pain
- Peripheral vascular disorders
- Chronic stasis ulcers
- Deep vein thrombosis
- Chronic illnesses and conditions such as diabetes, arthritis, cardiovascular disorders, dementia, etc.

Accompanied by the above problems are also secondary disorders such as

- Urinary and fecal incontinence
- Sleep disturbances
- Anxiety followed by depression
- Disorders of GIT
- Elderly are also more prone to influenza and pneumonia

Their medication problems are also linked to their health problems. Elderly are more likely to experience drug or medication related problems than any other age groups. Elderly are the biggest prescription users (40%) than any other group in the community. It is often said that “20% elderly population in a community gives 80% prescription business to retail pharmacy”. Other striking facts about the use of medicines by elderly and the problems arising out of it are

- Nearly 80% of the elderly receive inappropriate therapy
- Over treatment is often prescribed
- Elders are more likely to experience drug related adverse events (ADEs)
- By one estimate, nearly 36% of all the ADEs happen with the elderly
- Out of these 36% ADEs, 28% require hospitalization
- Non compliance is another big problem with the elderly
- Often, non-compliance of the medication regimen leads to sever complications leading to hospitalization
- Nearly 11% of the non-compliance cases among the old results in hospitalization
- The prescription use by the elders increases with age. For example, between 65-69 years old senior citizens have 13% prescriptions per year, while those between 70-80 years of age have 15% prescriptions per year.
- Nearly 82% of the elderly take atleast one drug per day for some disorder or the other.

Thus, there is a big challenge and opportunity for a community pharmacist to address these drug related problems of the elderly and improve their quality of life.

#### **Role of community pharmacist in elderly care**

Every community pharmacist is most likely to come in contact with an elderly patient or customer. In some communities, this contact may be more frequent than in

other communities. For example, if there is a nursing home nearby or a colony of retired elderly people or in a well to do community where joint families live, these contacts are bound to be frequent. It is therefore necessary that a community pharmacist should be familiar with the tasks that have to be performed for the care of the elderly. But before he/she actually starts taking responsibility of the elderly, he/she has to learn some foundation skills in order to be ready to help the elderly.

a) Foundation or Basic skills to be acquired by a community pharmacist can be listed as follows

- First of all, he/she must display respect and compassion for the elderly
- Learn to use appropriate and cognitive techniques in interaction with geriatric patients, their families, their care takers and their health care professionals
- Take personal responsibility for an elderly patient and present yourself as assertive professional
- Learn to communicate with the elderly in the language and manner by which they will understand clearly
- Write down the important instructions for them in simple and clear language
- Demonstrate ethical conduct in all activities related to elderly. For example, do not ridicule them or laugh at their misunderstanding.

b) Relearn basic Pharmacy Practice skills:

To do this, a community pharmacist must do the following-

- Understand major principles of gerontology and geriatrics
- Design and execute investigations of geriatric pharmacy practice
- If possible, attend a short term geriatric residency pharmacy practice program in a nearby hospital
- Learn to draw an appropriate pharmaceutical care plan (PCP), with other healthcare professionals and/or other inter-disciplinary or multi-disciplinary teams
- Work harmoniously with these teams
- Understand the alternate care settings for geriatric patients where they can receive pharmaceutical care, like physiotherapy center or a yoga center where they can be taught simple exercises of yoga or breathing
- Understand and learn the use of various assistive devices for the elderly like wheel chairs, trolley support walking, supportive neck and waist belts,

Neck caps etc.

And finally,

- Be in touch with national and local organizations doing work in geriatric care
- Be upto date with current geriatric literature and net
- Accept evaluation of your work through peer review or through a professional organization

c) Applying the above skills for elderly care:

After having acquired these basic skills and positioning the pharmacy practice skills in place, a community pharmacist can now go ahead with applying these skills for elderly care. What are some of his tasks that he has to do for elderly care? Here are some of the tasks that he has to do to practice elderly care:

- First of all, he has to identify the seniors in his community who may have high risk for medication related problems
- He has to formulate potential solutions to resolve and prevent these medication related problems
- Provide ongoing medication therapy monitoring and assessment to the elderly patients
- Obtain detailed medication histories of the elderly patients by interviews to know their medication related problems
- Apply knowledge of geriatric pharmacotherapy to care for older patients and make the recommendations for appropriate, effective and safe medication therapy (remember older patients are often over-prescribed).
- Engage in verbal and written communications with elderly patients and also with other healthcare professionals
- Develop and demonstrate sensitivity to social and psychological aspects of aging process to understand their impact on medication use. For example, older people often feel that the drugs are not doing any better for them, then why to take so many drugs. A community pharmacist has to impress on them that the drugs are indeed working for better and revive their faith in the medicines
- A community pharmacist also has to observe, understand and appreciate the medication use process in different settings of elderly care
- A community pharmacist also has to understand the scope of pharmacy services (administrative and clinical) needed for elderly patients and develop first

hand knowledge for providing such services.

- And ofcourse, he has to interact on regular basis with other healthcare and social service professionals (and also with non-healthcare professionals like clergy, social workers in the hospitals) in planning and providing care for the elderly.
- He also has the responsibility to explain the economic and financial aspects of providing pharmacy services to the elderly or their kins who are close to them.

#### **Preventive care for the elderly**

Perhaps, the best contribution that a community pharmacist can do in his setting is to give preventive care for the elderly. It may not be possible for many community pharmacists, especially in India, to apply the skills stated above for the elderly care. Many may not be or even come in contact with other healthcare professionals and work out a combined or collaborative program for elderly care. But atleast they can give preventive care to help elderly patients in their community. This will not only prevent mishaps with the elderly, but also prevent some emergency situations. Also it will help to prevent adverse drug events (ADEs), medication errors and problems arising out of self medication among elderly.

Some of the guidelines for preventive care are as follows:

- Teach the elderly proper use of accessories like walking stick, rolling walker, neck collars, waist support belts etc
- Also teach them how to prevent falls in home and in surroundings. If possible visit their homes and inspect their bathrooms and toilet blocks to see if proper supporting bars/handles are installed
- Regularly check weights of the elderly and assess weight gain or loss
- Take medication review of all their prescribed drugs and other auxiliaries like vitamins, dietary supplements, herbal medicines that they take on their own.
- Monitor compliance of medication
- In your setting, set up screening program for the elderly for the following
  - Vision Screening
  - Screening for hearing problems
  - Screening for cognitive impairment (i.e. mental perception, memory, judgement, reasoning etc)
  - Screen for urinary incontinence
  - Screen for increased risk from fall in home or outside

- Screen for blood pressure
- Screen for diabetes and for control of diabetes
- Screen for dementia
- Screen for depression
- Screen for height and weight and assess BMI
- Screen for osteoporosis by BMD test. Other high end screening can be done with the help of a local polyclinic
- Oral health screening
- Colorectal cancer screening
- Mammography for breast cancer
- Cervical cancer screening
- Prostrate cancer screening
- Lipid profile screening

Besides these, a community pharmacist must also set up educational programs for the elderly through distribution of simple medical literature on hypertension, diabetes, asthma, osteoporosis etc. Set-up lectures by some experts, film shows, VCD programs in a community hall. These educational programs can be focused on various topics such as appropriate medication use, rational use of drugs, prevention of medication errors, disease prevention and various topics on nutrition and diet etc. The best place to start such educational programs is the senior citizen's clubs, where you can get a captive audience. Community pharmacists should therefore develop a good rapport with such clubs and organizations of the elderly and participate in their activities on regular basis.

#### **Pharmaceutical care for the elderly**

Pharmaceutical care has been well defined in many articles as "Responsible provision of drug therapy for the purpose of achieving definite outcomes that improves a patient's quality of life". Community pharmacists have an excellent opportunity to provide pharmaceutical care and services to the elderly in their settings. There is also ample evidence that pharmaceutical care can benefit the elderly patients. However, the community pharmacists must have a pharmaceutical care plan (PCP) in their hands which aims to communicate, promote compliance and concordance with treatment (that the elderly are receiving) and achieve specified therapeutic outcomes. PCP has great potential to not only reduce drug related problems of the elderly, but to improve their quality of life and overall reduce the expenditure on drugs. The clinical skills of the pharmacists have to be used to manage the medication therapy of the elderly. This will rationalize the use of human resources in a community healthcare team and reduce the work load of the general practitioners (GP) in the community.

The next big question is how to develop a rational and feasible pharmaceutical care plan (PCP)? Following are some steps that can be taken to develop such a PCP:

- First of all, establish a good relationship with the patient and his doctor
- Collect relevant information on patient like disease state, drugs that he is receiving, clinical tests data etc. All this has to be done by working with his GP and the patient himself
- Identify drug related (potential) problems among the drugs he is receiving. Prioritise them in declining order, with the most likely first on the list
- Some of the drug related problems can be
  - Failure to receive the drug by the patient
  - Untreated indication
  - Improper drug selection
  - Not receiving proper dosage
  - May be even receiving an overdose of the drug
  - Adverse drug reaction due the medication that the patient is receiving
  - Drug-Drug interactions (DDI) from among the drugs written in the prescription for which there is no indication
- Establish therapeutic goals for each drug related problem
- Identify feasible alternative treatment, even with herbal medicines
- Select the best pharmaceutical solution, i.e. best possible drug, best suitable formulation of the drug and the best suitable dose
- Finally, get an agreement with the GP of the patient and the patient himself
- Implement and monitor the plan
- Follow up the plan and measure the outcomes
- Continue to update the PCP, with the patient's GP and study the outcome.

The community pharmacist will have to educate the patients and their caretakers about the PCP and the medicines that are recommended. He will also have to assist the patients and the caretakers about the need of compliance and provide them with compliance aids such as dose boxes, reminder charts and even send them SMS at appropriate times to ensure compliance. He should give his contact numbers and arrange for his personal visits to patients' home. The outcome can be measured by

- Clinical parameters like measurement of blood pressure, fasting blood sugar, total cholesterol etc. In chronic illness, measurement of creatinine and blood Urea can be done

- Other simpler methods are, patients' own assessment of well being their role in the therapy
- Correct response of patient to the questions asked about the therapy.

Although pharmaceutical care plan is a new concept in India, some of the aspects of PCP can easily be followed by a community or hospital pharmacist are information about the patients, indications, medicines that he is receiving, possible drug-drug interactions within his prescribed drugs, and most important of all, the over prescribed drugs and unnecessary drugs. Compliance is a big problem in India and community pharmacists can play a big role here. Most of the failures of positive therapeutic outcomes arise from non-compliance form India. Community pharmacists therefore can implement quite a few aspects of PCP in India and give benefit of their knowledge to the patients at large.

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