INTRODUCTION

According to the United Nations initiative of 1999, all nations should prepare their health care social and economic systems for recent and future demographic ageing of their population. Older people are rapidly increasing in number throughout the world, in both developed and developing countries and among this age group, multiple chronic and degenerative disorders are highly prevalent.

Geriatrics is the branch of the subspecialty concerned with the clinical, preventive, remedial, and social aspects of illness in the elderly. The term “elderly” Generally refers to patients aged 65 years or over, but the definition is sometimes extended to include people aged 60 years and above. The physiological changes that occur with aging are progressive and gradually occurring over a lifetime rather than abruptly in a given chronological age.

As per 1991 census reports, Geriatrics was 21% of the world population. In India, it was 57 million. The advances in medical technology and important social, financial, health care planning implications, projecting for 2050 illustrate about 324 million i.e.33% of the world population. India has acquired the label of “an aging nation” with the 7.7% of its populations are more than 60 years old, in which 75% of elderly persons were living in rural areas.

Elder peoples are the part of healthcare society by which they are mostly exposed to several medications. Several characteristics of ageing and geriatric medicine affect prescribing for these people and render the selection of appropriate pharmacotherapy a challenging complex process. Older people may have an increased risk of multiple co-morbidities and are more likely to be prescribed with several medications concomitantly, which increases the risk of adverse drug events (ADE). Many factors of aging such as altered pharmacokinetics, decreased hepatic and renal function, metabolic problems caused by chronic liver disease, mental illness etc. makes elderly people particularly vulnerable to drug related harm.

Drug-related problems include medication errors (involving an error in the process of prescribing, dispensing, or administering a drug, whether there are adverse consequences or not) and adverse drug reactions (any response to a drug which is noxious and unintended, and which occurs at doses normally used in humans for prophylaxis, diagnosis or therapy of disease, or for the modification of physiological function). Medication error rates found in observational studies are reported to vary between 1.7 and 59%, in which prescribing errors are reported to be 0.3-2.6%. Medication errors also frequent cause for adverse drug reaction. Incidences of ADR reported in studies published since 1991 vary between 1.9 and 37.3% 2. Studies estimated that ADEs account for approximately 5% of all hospital admissions,
occur during 10–20% of hospitalizations and are responsible for 7–9% of hospitalization days. Incident ADEs cause by medication errors were observed in 1 out of 250 patients and accounted for approximately 6% of ADEs and accounted for 30% of ADE-related hospital admissions.

Clinicians are spending large proportions of their time in the management of drug dosage regimens in older adults, and knowledge of geriatric prescribing, clinical pharmacology and clinical pharmacy has become essential in daily clinical practise. Older people have substantial inter individual variability in health, disability, age-related changes, poly morbidity and associated poly pharmacy making generalisation of prescribing recommendations difficult.

Medication use in older patients is often in appropriate and erroneous, partly because of the complexities of prescribing and partly because of many patient, provider and health system factor that substantially influence the therapeutic value of medications in aged people. The goal of medication therapy is to achieve beneficial therapeutic outcomes and quality of life while minimising risk to patients.

All prescriptions and non prescriptions medications carry the inherent risk of causing adverse drug events that are often unpreventable, even when used at appropriate therapeutic doses and with appropriate monitoring. It is a real challenge to administer proper therapy in elderly patients where there is significant potential for developing side-effects due to chronic use of drugs that can elicit strong systemic interactions.

Clinical Pharmacy Services:

Clinical pharmacy service is the practice of pharmacy as part of a multidisciplinary healthcare team directed at achieving quality use of medicine (QUM). This may include:

- Participation in the management of individual patients;
- Application of the best available evidence in daily clinical practice;
- Contribution of clinical knowledge and skills to the health care team;
- Identification and reduction in risks associated with medicines use;
- Involvement in the education of patients and other health care professionals; and
- Involvement in research.

Clinical pharmacists are practitioners who provide comprehensive medication management and related care for patients in all health care settings. They are licensed pharmacists with specialized advanced education and training who possess the clinical competencies necessary to practice in team-based, direct patient care environments.
Clinical pharmacists are a primary source of scientifically valid information and advice regarding the safe, appropriate, and cost–effective use of medications. Already, the level of interaction between physicians and pharmacists in the developed world is high, resulting in safer, more effective, and less costly drug therapy. Standards of practice for clinical pharmacist includes their qualification, process of care and documentation, the clinical pharmacist’s involvement in collaborative, team-based practice and privileging, professional development and maintenance of competence, professionalism and ethics, research and scholarship, and other professional responsibilities.

In a clinical setting assessment of QOL usually concentrates on Health related quality of life (HRQoL); the way in which physical, emotional and social well-being are affected by a disease or its treatment. HRQoL is a multidimensional construct and relevant aspects may vary from study to study but measures commonly evaluate physical functioning, psychological well-being and social functioning. HRQoL is a subjective measure depending on an individual’s perception of the impact of disease and/or treatment on their health status. HRQOL is defined as satisfaction or prosperity of an individual with domain of life as long as it affect or affected by health.

Most cited, Over the past few years, pharmacists have begun entering into collaborative practice agreements (CPAs) as a way to integrate their services with those of physicians. Currently, several trends in society and health care point to the need for increased collaboration among clinical pharmacists and physicians: the presence of considerable drug-related morbidity and mortality, the growth of managed care, causing the movement of patients from inpatient to ambulatory settings; and the need for pharmaceutical care for an aging population. While each factor calls for closer pharmacist physician collaboration, efforts to convince physicians to fully utilize clinical pharmacists’ skills to help manage patients’ drug therapy have had only limited success. In practice settings where clinical pharmacists have been successfully integrated into drug therapy management processes, patient outcomes have improved.

Pharmaceutical care:

Pharmaceutical Care (PC), first outlined by Hepler and Strand in 1990, has been the subject of intensive research in Germany for several years. Pharmaceutical care (PC) is the provision of drug therapy by a responsible pharmacist for the purpose of achieving a definite outcome to improve the patients’ quality of life. PC is a patient-tailored, outcome oriented
pharmacy practice that requires that the pharmacist work in concert with the patient and
the patient's other healthcare providers to promote health, to prevent disease, and to assess,
monitor, initiate, and modify medication use to assure that drug therapy regimens are safe and
effective. Thus, PC is a concept to optimize drug therapy, minimize drug-related problems, and
improves self-management; it can directly affect the HRQoL of patients. The pharmacist is a
part of the health care team, and extensive communication between pharmacist, physician,
and the patient is necessary to achieve a defined health care outcome. The goal of
Pharmaceutical Care is to optimize the patient's HRQoL, and achieve positive clinical outcomes,
within realistic economic expenditures. The positive influence of PC on HRQoL has been
demonstrated in several trials.

A pharmacist intervention/ provision of various pharmaceutical care
services to geriatric patients at old age homes/community/hospital helps known to reduce
medication-related problems, improvement in Medication adherence status and enhancing the
quality of life of geriatric patients. Hence, the present study is carried out to know the impact of
pharmaceutical care service on health outcome of geriatric patients.