

## Medication Therapy Management

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### Editorial

According to the Institute of Medicine report medications are the most common medical intervention. However, drug-related morbidity and mortality now represents a major public health challenge due to the ineffective and unsafe consequences of medication use. Morbidity in this case relates to disease and illness associated with drug therapy whereas mortality relates to death associated with drug therapy. It is also estimated in the US that drug-related morbidity and mortality cost about \$200 billion annually in health care expenditure.

This is clearly a failure in our healthcare systems. In order to reduce this drug-related morbidity and mortality we have to deal it with at the clinical level, one patient at a time. The profession of Pharmacy responded to this problem with the introduction of clinical pharmacy in the mid-1960's and included a number of services which were more patient-focused and less product-focused. In this model, however, the pharmacist was seen as a drug information provider and was less held accountable for the drug therapy outcomes. In the 1990's a major paradigm shift in terms of philosophy of practice that included the care concept and taking responsibility for drug therapy outcomes was witnessed. Pharmaceutical care was born. It is defined by Linda Strand and Hepler as a patient-centered practice in which the practitioner assumes responsibility for a patient's drug-related needs and is held accountable for this commitment. The aim of this philosophy of practice was the provision of responsible drug therapy for the purpose of achieving positive patient outcomes.

In 2006 the Federal Government also responded to these drug-related problems by implementing a new drug benefit (Part D) within the federal insurance program of medicare, which includes a new service to the elderly population. This new service was called Medication Therapy Management (MTM). The purpose of the service was primarily intended to reduce drug adverse events and reduce drug-related cost among the elderly. There was, however, neither a clear definition of MTM nor standards of care for providing the services. Various definitions of MTM have been adopted by a number of organizations including the American Pharmacists Association. In sum, the emphasis in all these definitions is the face-to-face patient assessment and appropriate interventions for the purpose of optimizing response to drug therapy or to manage treatment-related interactions or complications.

In terms of benefits of MTM, a number of studies have been carried out including the Ashville project that demonstrated positive clinical and economic impact. Specifically, the Minnesota Pharmaceutical Care project demonstrated the use of a patient-centered model that

addressed all the drug-related needs including appropriate indication for the drug therapy, effectiveness of the drug regimen, the safety of the drug regimen and patient's adherence to prescription instructions.

Inasmuch there has been a significant growth of MTM services there are still no clearly defined standards of care. The profession need to adopt a patient care process that will enable Pharmacist Clinicians identify, resolve and prevent drug therapy problems. This process is well articulated in Pharmaceutical Care Practice textbook by Linda Strand, Robert Cipolle and Morley. The process described is patient-centered and systematic. It involves step-by-step set of activities including assessment, care plan and follow up evaluation of drug therapy outcomes.

Additionally, this patient care process articulates diagnosis of well-defined drug therapy problems with specific causes that can be addressed and appropriately resolved using evidence-based practice guidelines. If this approach were to be adopted clinicians globally will be able to compare the outcomes of MTM services they provide.

Finally, it is quite evident that drug product provision, which occupies the majority of the Pharmacists' time, only addresses compliance, leaving out the other three drug-related needs that must be addressed. The Pharmacy profession must step up and address all the four drug-related needs. Needless to say, more than 70% of physician visits by patients have been reported to be due to unsatisfactory drug therapy outcomes and less on new diagnoses. Additionally, it has been reported that 1.5 million drug errors that occur annually are preventable and that Pharmaceutical Care Practitioners can resolve about 80% of drug therapy problems directly with the patient. This goes to show the untapped potential role the Pharmacist has in improving drug therapy outcomes.

We know that drugs do not work on their own. They need to be managed in order to produce the desired outcomes. Medication Therapy Management, therefore, becomes an important strategy for delivering Pharmaceutical care. However, better models for providing efficient and efficacious MTM service need to be developed along with appropriate legislations that empower the Pharmacist clinicians make the necessary interventions and bill for such services. To this end the current push for provider status will go a long way to enhance Pharmaceutical Care Practice.

We believe in not long future the Pharmacists will be running MTM clinics, able to bill independently as health care providers and be held accountable for drug therapy outcomes.