Introduction to Medicines Therapy Assessment (MTA)

Pharmacotherapy is a fundamental intervention any health system, but optimal benefit from using medications will not be realised if these are not prescribed optimally and patients do not take them as prescribed. Suboptimal use of medications can lead to ineffective disease management and increased morbidity while consuming considerable health system resources.

A recent New Zealand study has indicated that blood pressure lowering and lipid lowering medications are considerably under-utilised in patients with known cardiovascular disease.[1] Further research suggests repeat prescribing is a process fraught with error in New Zealand and that effective practice systems, patient involvement and enhanced pharmacy communication are noted as important contributing factors in reducing this error.[2]

Given that medication reviews can be targeted to populations which will achieve the greatest benefit from the service, there is clear scope for benefits both in terms of resources to the health system, and in quality of life for individual patients.[3] For a patient to get the optimal benefit from prescribed pharmacotherapy the right drug, at the right dose must get to the right patient at the right time.

Medicines Therapy Assessment

Clinical pharmacy has been described as the area of pharmacy concerned with the science and practice of rational medication use.[4] Clinical pharmacists provide patient care that optimises medication therapy and promotes health, and disease prevention. The clinical pharmacist combines specialised therapeutic knowledge, experience, and judgment to ensure optimal patient outcomes with respect to medication use.

Clinical pharmacists practice as part of the multidisciplinary team and contribute by monitoring and individualising medicines therapy, recognising and managing adverse reactions to and interactions with medicines, and managing medicines use in special populations and where disease states can affect drug action (such as in renal impairment). Informed recommendations to resolve any medication-related problems identified, hopefully optimises the effectiveness of the prescribed medication therapy.

Medicines Therapy Assessment (MTA) is the second level of Medicines Management Services described in the 2007 Framework for Pharmacist Services[5]. The MTA review will provide a means for appropriately trained clinical pharmacists to assess the use and knowledge of medication therapy by patients, and develop individualised care plans to address medication-related issues and optimise use as outlined in the Government Medicines New Zealand and Actioning Medicines New Zealand Strategy documents.

Medicines Therapy Assessment and the Patient

Patients who have issues with understanding the purpose or use or their prescribed medicines, or have concerns about the benefit or adverse effects will be able to consult with an MTA pharmacist to discuss their concerns further. The MTA pharmacist can assess and evaluate these concerns and provide education or discuss options and set goals to resolve any access or day-to-day management issues as required. As a result of the consultation, some issues may be identified and reported back to a prescriber where changes to the medicines regimen may be required and in some cases, the patient may be referred back for reassessment and management.

The MTA pharmacist will discuss the use of the medicines with the patient and once identified evaluate in the context of current pharmacotherapeutic knowledge in order to provide meaningful feedback to the prescriber and advice on potential management options.

Medicines Therapy Assessment and the Pharmacist

The Pharmacist Medicines Therapy Assessment Standards describe the minimum levels of proficiency required by all pharmacists who intend to provide MTA services.[6] The Schedule to the Pharmacist MTA Services Standards outlines the activities and attributes required.[6]

The MTA pharmacist will require appropriate pharmacotherapeutic knowledge to the level expected from successful completion of a Postgraduate Certificate in Pharmacy (Medicines Management). They will be skilled in the researching, evaluation and communication of patient focused medicines information; and the monitoring and individualisation of medicines therapy. Furthermore, they must have sound reasoning and judgement when making decisions or recommendations in the absence of definitive evidence or when this may be conflicting.

The MTA pharmacist must establish and maintain effective working relationships with patients and their family/caregivers, the patient's prescriber(s) and the wider multidisciplinary healthcare team.

The MTA pharmacist will recognise national and regional healthcare priorities and strategies and deliver MTA services within the context of these.

The MTA Pharmacist is required to proactively review their own performance, and participate in personal professional development and peer support. The MTA service will undergo a continuous quality improvement process.

Medicines Therapy Assessment and the Prescriber

Medicines Therapy Assessment reviews will help targeted patients get the most benefit from their prescribed medications by actively identifying, preventing and resolving medication-related problems.

The Medicines Therapy Assessment provided by accredited pharmacists will provide a review of all medications prescribed by all prescribers caring for the patient and will include any over the counter and complementary medicine products the patient may be taking. The pharmacist will identify and make recommendations for the management of any medication-related problems, such as incorrect use, adverse effects, interactions, therapeutic duplication, dosing issues, unnecessary medications as well as identifying any potential need for medications for an untreated or inadequately managed condition.

The MTA review is an evaluation of patient's medicines with the aim of managing the risk and optimizing the outcome of medicine therapy by detecting, solving and preventing drug-related problems. Therefore the MTA pharmacist will be required to have a defined level of clinical experience and/or postgraduate education in order to form appropriate judgements and medicines management recommendations.

The MTA pharmacist will provide education and advice to the patient and appropriate family members and/or caregivers about the prescribed medications to support optimal use.

The MTA pharmacist will collaborate with the patient, prescribers, and other healthcare providers to develop and achieve optimal use of medicines therapy.

Medicines Therapy Assessment and Health Funders

Suboptimal use of medications can lead to ineffective disease management and increased morbidity while consuming considerable health system resources. Local studies have indicated that New Zealand is no different to the rest of the world in the occurrence of suboptimal use of medicines. [1,2, 7] One 2004 study of drug and related therapeutic adverse events in New Zealand hospitals showed that morbidity related to medications was extensive, was worse for older individuals and causes a significant extra load on inpatient beds. [7] The authors concluded that drug-related adverse events in New Zealand were frequent, with many being preventable and that better monitoring and more appropriate medication choice for patients was the most common prevention strategies identified.

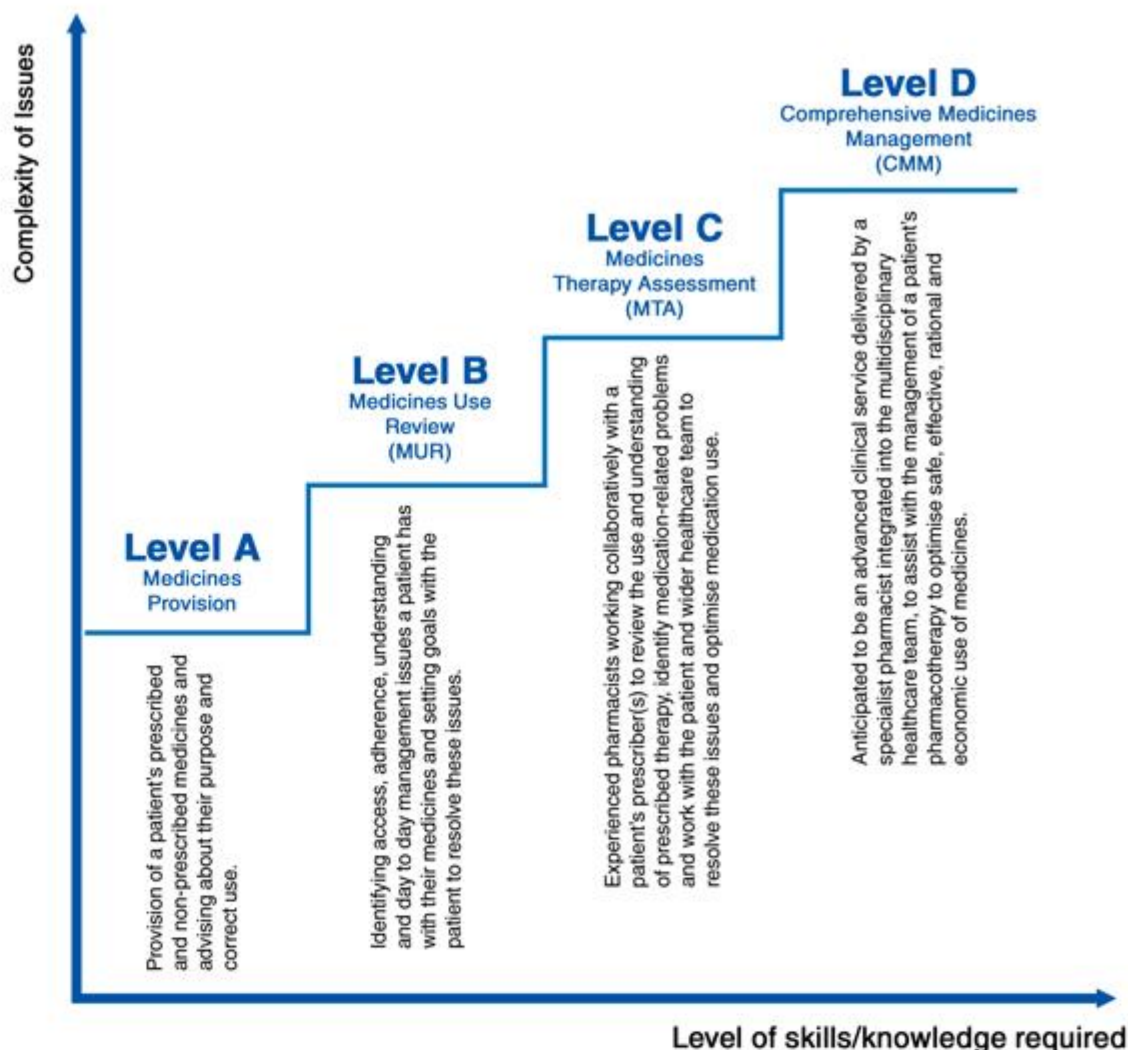
The Medicines Therapy Assessment provides an opportunity for appropriately experienced pharmacists to work collaboratively with a patient's prescribers to review the use and understanding of prescribed therapy, identify medication-related problems and work with the patient and wider healthcare team to resolve these issues and optimise medication use.

Utilising the experienced clinical training of the MTA pharmacist, medication-related issues can be identified and treatment optimised, to improve outcomes and lessen the burden of suboptimal medication use on health resources.

Medicines Therapy Assessment (MTA) In Comparison to Medicines Use Reviews (MUR)

Medicines Use Review (MUR) was the first pharmacist-delivered medicines management service to be introduced from the DHBNZ Framework for Pharmacists Services in 2007.[5] The primary aim for the MUR is to improve the effectiveness of medicines being prescribed by increasing a patient's understanding of their medicines and identifying access, adherence and day-to-day management issues, and to set goals with the patient to resolve these issues.

The focus of the MUR is on adherence and education around a patient's prescribed medication regimen. Any 'clinical' issues such as assessing effectiveness of pharmacotherapy or comparison of prescribing against guidelines or evidence-based medicine are not the intent of the MUR. However, day-to-day clinical issues that a practising pharmacist would raise with a prescriber from their usual activities are still expected to be identified and referred for management as required.



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