Medication Risk Assessment Questionnaire: Guiding patients to you

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Limitations in time and resources are frequently-cited barriers for pharmacist involvement in providing medication management services.1 With limited pharmacist time and resources, the ability to identify and triage appropriate patients who would benefit from our services is critical. At the UBC Pharmacists Clinic (clinic), we explored and adopted the use of a patient self-administered questionnaire to optimize and prioritize patient referrals.

In reviewing existing literature, numerous tools for triaging patients by risk of drug therapy problems (DTPs) already exist, the two most common being the Medication Risk Assessment Questionnaire (MRAQ) and Drug Associated Risk Tool (DART).2,3 Both tools are self-administered dichotomous questionnaires assessing the presence of risk factors for DTPs such as polypharmacy, chronic diseases, and patient uncertainty about their medications. Notable differences between these tools are outlined in Table 1.

At our clinic, we adopted a modified version of the MRAQ (Figure 1) because of its shorter length and prior validation in ambulatory adults. We implemented a pilot project in one large family physician office where we had a pharmacist on-site caring for patients as part of the health care team. In this pilot we deployed the MRAQ as a patient self-administered questionnaire, which was offered to patients at the time they checked-in with the medical office assistant (MOA). Patients completed the MRAQ while waiting for their appointment. Patients who answered yes to a minimum of three questions were instructed to give the MRAQ to their physician to determine if a referral to the pharmacist was appropriate. Upon physician approval, the patient returned the MRAQ form back to the MOA to book an appointment with the pharmacist.

This pilot required extensive consultation with the clinic staff and physicians. A modification to the MRAQ form to include a physician signature line was important to document the referral. The signature line also provided physicians the opportunity to veto any potential referral to the pharmacist. Higher MRAQ scores were previously shown to correlate with more DTPs.4 A cut-off score of 3 was chosen to be consistent with prior examples seen in the literature5, with the understanding that this could be adjusted based on individual practice.
During our pilot, we noticed a significant increase in patient referrals, with approximately 50% of all patients who completed MRAQ meeting our minimum threshold score of 3. Physicians, overall, were appreciative of MRAQ for its minimum disruption to their work, and the ability to save them time in case finding and alleviate the administrative burden of referring patients. Patients were also appreciative of being made aware of the pharmacist service.

We also found a number of limitations to using MRAQ as a patient identification tool. Because MRAQ was deployed to all patients with an appointment, all physicians in the office had to be aware of the pilot and agree to participate. This required a lengthy explanatory and consultation period. At times, referrals were lost, despite meeting MRAQ requirements, because patients were unfamiliar with our services and declined to participate. Physicians and administrative staff also told us they were not well-prepared to explain MRAQ and pharmacist services, highlighting gaps in understanding amongst team members.

Overall, we found the MRAQ to be a useful tool for use within a medical practice to identify patients at risk of DTPs and engage patients in personal risk assessment. The MRAQ has also been validated for use in community pharmacy practice. Could the use of such a tool help identify and care for patients in need of medication management services in your practice?

References


Table 1

<table>
<thead>
<tr>
<th>MRAQ²</th>
<th>DART³</th>
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<tbody>
<tr>
<td>Number of questions</td>
<td>10</td>
</tr>
<tr>
<td>Risk factor types</td>
<td>Polypharmacy, multi-doctoring, chronic disease, worry and uncertainty about medication</td>
</tr>
<tr>
<td>Validated demographic and practice setting</td>
<td>Ambulatory adults in primary care</td>
</tr>
<tr>
<td>Additional benefits</td>
<td>May be helpful in automated data mining within an EMR</td>
</tr>
</tbody>
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Figure 1: Modified MRAQ Used by UBC Pharmacists Clinic
Case Study

Irritable bowel syndrome: The urge for treatment alternatives

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A 72-year-old Caucasian male has been referred by his family physician for pharmacist consultation to discuss management of irritable bowel syndrome (IBS). This patient presents with a 15-year history of IBS, with diarrhea as the predominant symptom. His bowel movements typically occur in the morning and he averages four loose bowel movements a day, which may escalate to eight episodes in severe cases. He describes his stools as loose or liquid in consistency, type 6 or 7 on the Bristol stool chart. In addition, he experiences gastrointestinal (GI) cramps throughout the day. He has trialed multiple diets with no improvement in symptoms.

He has been taking amitriptyline 10mg daily for the past six years without obvious benefit. Previous medications and supplements trialed include psyllium fibre, loperamide, probiotics, glucosamine, vitamin C, and oregano oil, all of which did not lead to any improvement. Comorbid medical conditions include hypertension, benign prostate hyperplasia and insomnia. Other medications include ramipril 5mg once daily, hydrochlorothiazide 25mg once daily, finasteride 5mg once daily and zopiclone 3.75mg at bedtime once a week as needed. Patient denies caffeine, alcohol, tobacco and cannabis use. He is a retired telecommunications technician and lives alone.

IBS is a chronic condition with a worldwide prevalence of 11%. IBS is defined as recurrent abdominal pain associated with defecation or change in bowel habits in the form of frequency or appearance of stool. Symptoms should be present for at least three months with symptom onset occurring at least six months prior to diagnosis. Subtypes of IBS include predominant constipation, diarrhea, mixed or unclassified.

Tricyclic antidepressants are an option for patients who suffer from IBS diarrhea, which has not responded to bulk forming laxatives or loperamide. A systematic review published in 2015 analyzed the efficacy and safety of antidepressants including tricyclic antidepressants (TCAs) in the treatment of IBS. Five studies were included in the analysis of TCAs and a subgroup analysis was performed, which demonstrated an improvement in global symptoms from TCAs. Another systematic review evaluated amitriptyline in doses ranging from 10mg to 75mg daily in the treatment of IBS and concluded that amitriptyline is beneficial for IBS in the adult population.

In discussion with the patient, he expressed IBS has affected his quality of life and his social life has suffered as a result of frequent loose bowel movements. His sleep is fragmented as he experiences three to four awakenings at night. He denies symptoms of depression and thoughts of self-harm. His goals of therapy include reducing the frequency of bowel movements and/or increasing the bulk of the stools. During the shared decision making process, we discussed the risks and benefits of amitriptyline therapy at a higher dose. Patient has no underlying cardiac abnormalities or fall history. His blood pressure averages 135/85mmHg. He was amenable to a conservative titration schedule to amitriptyline 20mg HS for one month, increasing to 30mg at bedtime for three months with re-evaluation with the pharmacist and physician regarding efficacy and tolerability.

References

Note – Each case study has been peer reviewed and qualifies as a non-accredited learning activity (CE-Plus) within the annual professional development requirement for licensure by the College of Pharmacists of British Columbia.

Your Responsibility

The recommendations in this case are based on the views of our clinicians after careful consideration of the best available evidence and needs of a specific patient. As a health care professional, you will assess each of your cases based on the patient’s unique circumstances and in consultation with the patient and their care team. If you would like to discuss one of your patients with us please contact the Clinic team.