Welcome to Our Practice, a new, bi-monthly e-newsletter created as a resource for the practicing pharmacist community. In each issue we bring you cases, tools and other information that we have found helpful in our day-to-day role as patient care providers. Each case in Our Practice has been peer reviewed and qualifies as a non-accredited CE learning activity within the annual PDAP requirement for licensure by the College of Pharmacists of BC. If you have any questions or feedback feel free to contact us at pharmacists.clinic@ubc.ca. Also, feel free to share this e-newsletter with your colleagues.

BARBARA GOBIS
DIRECTOR, UBC PHARMACISTS CLINIC

Feature Article

Finding patients in need, of a pharmacist - indeed!

JILLIAN REARDON, BSC(PHARM), ACPR, PHARMD
BARBARA GOBIS, BSC(PHARM), ACPR, MSCPHM

A telephone survey of Saskatchewan residents found that despite having a favourable view of pharmacists, the majority of respondents (65%) felt like “customers” rather than “patients” when visiting a pharmacy. Because of preconceived notions of pharmacist’s roles, patients may not ask for help or make their needs apparent to a pharmacist. Similarly, pharmacists may not realize a patient standing right in front of them needs their help.

When the UBC Pharmacists Clinic (the Clinic) opened in 2013, we faced the same challenge of people not understanding why they would need or want to talk with a pharmacist. We had to be really clear on the value we (and all pharmacists) offer and tell patients in a way that met their needs. Clinical creativity was also required to identify patient care opportunities.

We reflected on what we consistently heard from patients; they want to feel cared for, understood, included in decision-making, have advocates and collaboration amongst their healthcare team. They want answers and understanding, follow-up and positive results (as defined by them) and they generally want to be on less medication. These patient needs became the basis for key messages about what we offer and can be found on our brochure and website.

We also asked patients questions about unmet needs that we could then address. Questions like: Are you satisfied with the results you are getting from your treatment? Do you understand what you are taking and why? What would you like to know about your medications? We talked to caregivers, family members, spouses, adult children etc., and told them how we could help ease challenges they face.

We identified the characteristics of patients we knew we could help (e.g. elderly, polypharmacy, recent hospital discharge etc.) and started having similar conversations with them. We have also spent significant time building relationships with local family
Case Study
Magnesium for Migraine Prophylaxis.

JILLIAN REARDON, BSC(PHARM), ACPR, PHARMD
ACKNOWLEDGEMENT: GRACE ENG, UBC PHARMACY STUDENT

A 54-year-old male presents to clinic. He reports a 10-year history of episodic migraines without aura, starting after a motor vehicle accident. Migraines occur multiple times per week and are debilitating. He takes escitalopram for depression and modafinil for chronic fatigue. As-needed medications include diclofenac and tramadol/acetaminophen for migraine and neck pain, and medical marijuana for insomnia. He rarely uses PRNs due to general reluctance to take medications. Although he is a candidate for migraine prophylaxis, he has a strong preference to avoid additional prescription medications.

In the Global Burden of Disease Survey 2010, migraine ranks in the top 10 for both prevalence and disability. In patients whose quality of life is significantly impacted by migraines and their associated symptoms, prophylactic therapy is warranted. Many patients turn to natural health products to manage migraines due to concern over side effects of commonly used prescription medications. Interestingly, the Canadian Headache Society assigns a strong recommendation to magnesium for migraine prophylaxis. The rationale for magnesium in headache prevention is multifactorial with deficiency hypothesized to play a role in promoting cortical spreading depression and altering the release of neurotransmitters involved in migraine pathophysiology.

Four double-blind, randomized, placebo-controlled trials have been conducted on oral magnesium for migraine prevention. 3 have demonstrated a statistically significant benefit. A recent systematic review of these trials concluded that differences in results are likely due to varying study methodology including different magnesium doses and formulations. Studies are briefly summarized in Table 1. Magnesium was generally well tolerated in all studies with a predictable increased risk of diarrhea.

Considering the best available evidence and patient preference,
a trial of elemental magnesium 300 mg BID (as citrate) was recommended. This aligns with the Canadian Headache Society guidelines and is derived from 2 positive studies using this dose and formulation. The patient was instructed to start with the lowest available capsule size and titrate every few days as tolerated. After 3 months the patient will be evaluated for a 50% reduction in migraine frequency and/or severity with magnesium discontinued if this is not achieved.

Magnesium is a readily available, affordable and well tolerated alternative for migraine prophylaxis with some evidence for reducing migraine frequency and severity. Magnesium may be a viable consideration in patients unwilling or unable to trial typical first line pharmacologic agents.

Table 1: Double-blind, randomized, placebo controlled trials for oral magnesium

<table>
<thead>
<tr>
<th>Authors/ Sample size</th>
<th>Intervention (elemental Mg dose)</th>
<th>Typical patient</th>
<th>Primary migraines outcome(s)</th>
<th>Result Mg vs. placebo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facchinetti&lt;sup&gt;4&lt;/sup&gt;  N=35 (15 subjects with no history of migraine, acted as controls)</td>
<td>magnesium pyrolidone carboxylic acid 360mg daily</td>
<td>-Female -Age 30 -menstrual migraine</td>
<td>-Duration -Intensity (Pain total index score) at 8 weeks</td>
<td>SS decrease in pain total index scores</td>
</tr>
<tr>
<td>Peikert&lt;sup&gt;1&lt;/sup&gt;  N=81  Mg: n=43  Placebo: n=38</td>
<td>trimagnesium dicitrate 300 mg BID</td>
<td>-Female -Age 40 -Migraine aura -Mean attack frequency 3.6/month</td>
<td>-Frequency -Intensity -Duration at 12 weeks</td>
<td>0.93 fewer attacks per month ARR 26.1% NNT=4 (SS) Duration reduced by 0.21 days (SS) Severity: Not SS</td>
</tr>
<tr>
<td>Pfaffenrath&lt;sup&gt;1&lt;/sup&gt;  N=69  Mg: n=35  Placebo: n=34</td>
<td>magnesium-L-aspartate-hydrochloride-trihydrate 121.5 mg BID</td>
<td>-Female -Age 40 -Migraine without aura</td>
<td>50% reduction in migraine duration or intensity at 12 weeks</td>
<td>28.6 vs 29.4% met primary outcome (not SS)</td>
</tr>
<tr>
<td>Köseoğlu&lt;sup&gt;1&lt;/sup&gt;  N=40  Mg: n=30  Placebo: n=10</td>
<td>Magnesium citrate 300 mg BID</td>
<td>-Female -Age 35 -Migraine without aura -Mean attack frequency 3.5/month</td>
<td>-Frequency -Severity at 12 weeks</td>
<td>0.5 fewer attacks per month ARR 19% NNT=7 (SS) Pain reduced by 3.57 points on visual analogue scale (range 0-10) ARR: 52.8% NNT: 2 (SS)</td>
</tr>
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</table>

Mg = magnesium  SS = statistically significant  NS = not statistically significant

References


Note - This case study has been peer reviewed and qualifies as a non-accredited CE learning activity within the annual professional development requirement for licensure by the College of Pharmacists of BC.

Your Responsibility

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