THE REQUIREMENT FOR A PATIENT’S SELF-DIAGNOSIS WITHIN THE MINOR AILMENTS PRESCRIBING PROCESS IN A CANADIAN PROVINCE. A COMMENTARY

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ABSTRACT
Pharmacists in a Canadian province were granted authority to prescribe a limited number of medicines (normally available only to doctors) for seven minor ailments. This province was also the first to pay pharmacists for such encounters. The prescribing guidelines for the process were based on an important tenet – that of a patient’s self-diagnosis. During consults, pharmacists were expected to confirm patient assessments of the condition they felt they had. The reason this approach was taken, and the ability of the public to diagnose themselves, is discussed.

Key words: Self-diagnosis, pharmacist prescribing, minor ailments.

Pharmacist prescribing has been positioned by various authorities as a way to reduce healthcare costs and improve access. This can take the guise of modifying dosages and formulations, implementing therapeutic alternatives, or initiating therapy for minor ailments with agents normally under the control of doctors. The latter is the focus here.

In Canada, several provinces have varying degrees of this in place. Nova Scotia gave pharmacists authority to prescribe certain medications for minor ailments in 2011. Saskatchewan soon followed suit and this province also became the first to pay for minor ailments prescribing by pharmacists for selected conditions (mild acne, thrush, cold sores, canker sores, diaper dermatitis, insect bites, and seasonal allergic rhinitis). Example agents under the program include topical antibiotic/retinoids for acne, valacyclovir for cold sores, and intranasal mometasone for seasonal allergies.

The Saskatchewan Prescribing Guidelines for Minor Ailments are based on an important tenet – that of a patient’s self-diagnosis. Six clinical flowcharts for the seven approved conditions start with this step. Patients, it would seem, are expected to articulate the ailment they feel they have during
such consultations, be it acne or diaper rash or an insect bite. According to the guidelines, if a pharmacist is unable to confirm the patient’s self-diagnosis, then s/he is to refer:

If the self-diagnosis is reasonable based on the pharmacist’s assessment, and the best treatment option in the pharmacist’s judgment is a drug under the prescription schedule, the pharmacist can initiate a prescription. If the pharmacist is unable to confirm the patient’s diagnosis and/or the patient’s symptoms are severe, the pharmacist will refer the patient to a physician or other appropriate healthcare provider. The prescribed drug must be (1) listed in minor ailment guidelines and (2) have an approved indication for the patient’s self-diagnosed condition.

Why the emphasis on self-diagnosis? Why not have pharmacists undertake this important task, thereby increasing the chances of it being done correctly? The reason was that it was argued by physicians that pharmacists cannot diagnose, an issue that continues to be contentious for their profession. Be that as it may, pharmacists for decades have listened to patients describe various minor ailments, to then diagnostically conclude that they have a cold, for example.

This distinction led to a problem during guideline development. Avoiding the concern over pharmacists making a diagnosis resulted in an exercise in carefully-crafted terminology. The position eventually taken means that if a patient entered an encounter by stating ‘I have a small raised red bump on my arm’, and a pharmacist concluded his/her assessment with an official diagnosis (‘insect bite’), then that would go beyond a pharmacist’s scope of practice; pharmacists must not diagnose. Alternatively, if the patient were to come and say ‘I have an insect bite’, then a pharmacist would bypass any legal constraint by simply engaging in the usual questions and observations to confirm that self-diagnosis.

Given this focus on self-diagnosis, how adept is the public at this activity? One would think it shouldn’t be too hard in these particular circumstances. After all, the situations adopted for the first series of conditions were low in complexity; most everyone would surely recognize acne or an insect bite. If that ability is questionable, however, would that be reason enough to re-calibrate the approach taken in the guidelines? In other words, if the first (and perhaps most critical) step cannot be relied upon, how tenuous is the entire pharmacist prescribing process? Self-diagnosing a diaper rash should not be difficult, but recognizing one infected with candida could be. Another concern could be that seasonal allergies are often confused with summer colds. Even if not an issue with the seven current conditions, what if other conditions are eventually added to the spectrum of approved ailments, including more problematic examples such as conjunctivitis, where bacterial and viral etiologies are confusing even to physicians?

Further to the nuances of terminology and process, what if people are more apt to present a list of symptoms to a pharmacist, feeling they add up to something they want to be rid of, but never to the point of actually verbalizing an official diagnosis? Would the pharmacist now be on the hook to make a diagnosis before making a recommendation? Of course it would seem silly to expect a pharmacist to ask all minor ailment sufferers ‘What do you think it is?’, simply to comply with the
regulations. To side-step the other concern (doctor opposition to pharmacist diagnosis), rather than referring to pharmacist involvement as diagnosing the situation, should a more palatable term or phrase be used?

Perhaps this might be considered a semantic exercise. But, if self-diagnosis is a critical component of the guidelines, it may provide an argument to those opposing the entire initiative – on the basis that the public’s ability to do so is highly questionable. Thus, this matter deserves some examination, not least in case other jurisdictions in Canada or elsewhere are contemplating a similar approach.

ABILITY OF THE PUBLIC TO SELF-DIAGNOSE

Patients consult physicians for a diagnosis and treatment advice. Diagnoses offer explanations of symptomatic experiences, allowing the individual to make sense of what is wrong. Physicians have the medical knowledge, experience and training to take unorganized symptom(s) and turn it/them into an organized illness.

All healthcare professionals have anecdotes of what condition patients thought they had versus what eventually was the problem. A recent Medical Post report reflected on patients engaging in various forms of self-care (and probably by extension, self-diagnosis). One case involved a 35-year old man with constipation who self-treated with laxatives for a few months, to be later diagnosed with advanced rectal cancer. One would assume this man initially ‘diagnosed’ himself with uncomplicated constipation (or at least assumed the situation was not serious enough for medical intervention). Care for genital herpes was delayed in another case due to self-treatment of what was perceived to be a vaginal yeast infection. A physician in the article described such examples as the self-care ‘horrors’ seen in practice.

Can the public accurately interpret personal illness? Attempting to do so dates back hundreds, if not thousands, of years. People have always tried to explain health-related events, to make sense of their situation. Being able to effectively decipher and react to symptoms is a growing demand for those with chronic conditions. A degree of self-diagnosis is now a critical step in our modern healthcare system. It allows the patient to consider the care path to be taken (‘I think I have a cold’ versus ‘I think I have lung cancer’). The process that leads to such conclusions first involves the individual sensing a disturbance in their equilibrium. This may be a diffuse awareness that something is not quite normal or a recognition of more obvious intensifying symptomatology. The individual will consider the key symptom(s) in search of a label for it/them. The evaluation process will involve drawing on past experiences, using current knowledge, and perhaps referring to resources. Depending on the complexity of the condition, this step can be nearly instantaneous or one requiring a lot of investigation. After the evaluation, the individual arrives at a self-diagnosis and follows with some form of action.

Previous experience with any illness is of course a key factor. Given the common nature of minor ailments, people will suffer through multiple episodes; it will be a rare person who has only one headache, a single episode of dry skin, or just one cold. Some action will be taken for the event and its value ascertained for future reference. Over a lifetime, most will develop an understanding
of their own body and rely on this when determining what actions to take\textsuperscript{14}. At times, a person will seek out information to help in the process. This is likely to be more common for first instances of an illness, for those that occur less frequently, and those with greater severity. With something like rectal bleeding, one might assume that a person seeing toilet water tinged red for the first time would be rather alarmed. A person who knew they had hemorrhoids in the past would be less inclined for concern. His/her self-assessment process might stop short of an actual diagnosis, however, instead just concluding that it is a serious matter in need of care. Another person might take that final step by attempting to explain the root cause with a diagnosis ‘\textit{I think I have bowel cancer}'. By way of perspective, a UK report noted that 287 of 1200 respondents had noticed rectal bleeding at some point in their lives, with 41\% seeking medical advice\textsuperscript{15}.

Many reports have focused on how the public interprets symptoms\textsuperscript{7,16-30}. Some do indicate a reasonable level of ability. One looked at patient response to three categories of symptoms: one symptom was considered to be minor (diarrhea), one was more severe but still likely to be self-limiting (back pain), and one was potentially very severe (rectal bleeding). People preferred to manage the minor symptom by self-care or by visiting a pharmacy. For the more severe situations, people preferred to consult a doctor\textsuperscript{31}. Jones \textit{et al} looked at a set of 45 symptoms, some being serious (convulsions, coughing up blood, paralysis of limbs) and some being seemingly minor (stuffy nose, gas, rash)\textsuperscript{32}. The way in which symptoms were interpreted by patients followed three themes. The first theme was the extent to which symptoms were perceived as threatening, disruptive, and/or painful. The second was the familiarity of symptoms, while the third involved the degree of embarrassment they would cause. In a third report, the most common reason held by 1000 patients for visiting their doctor was because their symptoms were getting worse\textsuperscript{33}.

Illness behavior experts note that how and when symptoms occur is important. Symptoms considered to be normal in one context may be considered more worrisome in another\textsuperscript{34}. In a community of manual laborers, for example, lower back pain may be considered a fact of life or even viewed as normal. Conversely, those in more sedentary jobs may perceive that same degree of back pain as requiring medical care.

In the majority of studies mentioned above, the context was how patients interpret and act on symptoms. The next question to consider is how often do sufferers progress to the point of establishing an actual diagnosis on their own? This progression to self-diagnosis has relevance to the prescribing guidelines mentioned above.

Goyder and colleagues examined the process of self-diagnosis, noting that at medical visits patients do indeed present with pre-conceived diagnoses to explain their symptoms\textsuperscript{35}. The more common the condition, the more likely it is to be identified by patients. Previous experience of some conditions may allow accurate self-diagnosis of recurrent episodes. They cited work indicating that 18\% of medical consults start with the presenting of a self-diagnosis, compared to 70\% starting with a key symptom being described by the patient. Conditions that were commonly self-diagnosed included tonsillitis, gout, and chest infections. They assessed the few studies available on the accuracy of self-diagnosis (involving recurrent urinary tract infection, recurrent anterior uveitis, schistosomiasis,
head lice) and concluded that all could be self-diagnosed accurately. Conversely, other conditions (such as vaginal candidiasis and scabies) showed evidence of frequent patient mis-diagnosis.

Other research sheds some light on this issue, although an in-depth look at self-diagnostic accuracy was not always the focus. In one report surgeons concluded that of patients seeing them for suspected hemorrhoids, as many as one-half had another problem such as a fissure, fistula, or anal itch. In a second, patients interviewed with a cough considered a differential diagnosis before getting to their doctor. A mean of 6.5 diagnostic possibilities (range 2 to 12) were raised, compared to 7.6 possibilities put forward by the doctors. Patients generally considered their cough was a relatively mild illness, but all provided more than one possible explanation for it. Importantly, the internet is now a common place to conduct self-diagnosis via symptom-checker sites. Of 223 symptomatic patients attending a genitourinary clinic, 101 (45.3%) had looked up their symptoms on the internet, 20 (19.8%) of those went on to diagnose their condition, and 14 had done so correctly.

Another study compared the accuracy of self-diagnosis to that of physician diagnosis. Fifty-five women presenting to an emergency room with a chief complaint of a urinary tract infection (UTI) were assessed. Of the 41 women who thought they had a UTI, 25 (67%) were eventually given that diagnosis by the doctors, leading the authors to conclude that self-diagnostic ability was poor.

**Was Stipulating Patient Self-Diagnosis the Right Move for the Guidelines?**

In light of the concerns that some of these reports raise, we return to the question on patient self-diagnosis posed at the beginning of this commentary:

*IF the first (and perhaps most critical) step cannot be relied upon, how tenuous is the entire pharmacist prescribing process?*

We feel there is NO problem with the phrasing of the current guidelines. While the ability of the public to self-diagnose might be shaky in some areas, stronger in others, pharmacist appraisal of that self-assessment will either support or override any conclusions they have drawn. Pharmacists are not likely to act blindly on interpretations presented by the patient. They will listen to the history, assess symptoms, and hopefully only then come to their own conclusion. Pharmacists are required to be trained for this endeavour and have additional optional courses available to them. Whether patients actually mention their own diagnosis during such pharmacy encounters, or simply present a shopping list of bothersome symptoms, is a distinction that is unlikely to be made in the normal course of events. It would seem not to matter, in our opinion, given that an appropriate clinical recommendation can be provided irrespective of which path is taken. We qualify that by recognizing that pharmacist performance on minor ailments has not always been optimal, with a recent article providing perspective on the profession’s own diagnostic ability for dermatological situations.

**Does Patient Self-Diagnosis Lead to a New Problem?**

Pharmacists must strive to be as effective as possible when assessing minor ailments. Patients will...
either articulate a self-diagnosis or describe problematic symptoms at the pharmacy counter, hoping for help either way. While overlap between the two will undoubtedly occur, it is our contention that presentation of a self-diagnosis may have the potential to change the dynamics of an encounter. In comparison to patients presenting symptoms, a pharmacist may assume that self-diagnosing patients are more confident in their illness status and as a result, ask fewer questions. A person expressing problems with anal itch and soreness, for example, may be asked more questions than one declaring that they have hemorrhoids.

This appears analogous to a problem the profession has seen before – the depth of assessment expected when patients ask for behind-the-counter OTCs by name. This tends to result in less questioning than when only symptoms are presented, as reflected by a person asking directly for an anti-nauseant versus someone wondering ‘what is good for nausea?’ In one study, at least one question to assess the accuracy of a self-diagnosis was asked in 95% of cases in pharmacies during encounters about symptoms, but in only 47% of cases when a specific product was requested.\(^5\)

If encounters involving a self-diagnosis lead to less thoroughness than those without, then the profession has a problem. On the other hand, exactly the same questions may not have to be posed by pharmacists in these different situations. One could make a case that they simply lead to different interactions. Hearing an actual self-diagnosis may speed things up a bit, or just as easily slow matters down (if found to be incorrect), but it may alter the type and order of questioning. In both situations the assessment still can and must be complete. And if that is the case, then there should be no concern. On hearing what patients suspect they have, it is an important principle that nothing should be taken for granted.

**IN SUMMARY**

Patient self-diagnosis is a critical component of this province’s prescribing guidelines. At the extreme risk of being trite, it appears that on this task, some patients can, while others can’t. Further, their ability may depend on the condition in question – some will be more adept at recognising skin conditions, with others more confident in gastrointestinal matters - based on their prior experiences. There will always be cases of incorrect diagnosing on the part of the public. Although resultant care should not hinge on that self-diagnosis, what is needed is for patients to know when to seek the care of a healthcare professional. Unfortunately, this is not always a given and remains an important focus for education.

If self-diagnosis was not the approach taken in these guidelines, then attention would have shifted back to diagnosis by pharmacist. That had little support from doctors. Word-smithing the phrase to something akin to ‘pharmacist-assisted patient assessment’ (thereby bypassing any use of the word diagnosis) may have been prudent for garnering some support from physicians, but would have had little impact on actual patient encounters. Regardless of the starting point, high quality pharmacy interactions resulting in a prescription for the minor ailments on the list should contain the same critical elements of professional judgment.
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Acknowledgements: The authors wish to thank Eric Brass, MD, PhD (Director, Harbor-UCLA Center for Clinical Pharmacology and Professor of Medicine, David Geffen School of Medicine at UCLA) for his insight during the early draft of this article.

REFERENCES
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