
Research Submission

Access to Triptans for Acute Episodic Migraine: A Qualitative Study

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Objective.—Our study aims to examine factors related to access of triptans among multiple stakeholder groups.

Background.—Triptans are a cornerstone of pain management for the acute treatment of migraine, but actual utilization of triptans is lower than ideal. Initial and continued access to triptans may be an important clinical issue in the acute treatment of migraines, but factors affecting access at the patient, provider, and health-care system levels have not been comprehensively explored.

Methods.—A qualitative study was conducted in Ontario, Canada, between August 2013 and January 2014. Three participant groups were recruited to the qualitative study: (1) migraineurs who have experience accessing triptans; (2) physicians, including primary care physicians (PCPs) and neurologists, who have prescribed triptans; and (3) pharmacists who have dispensed triptans. Qualitative data were collected through one-on-one, semi-structured telephone interviews. The framework approach was used for data collection and analysis.

Results.—Data collected from 19 migraineurs, 6 physicians, and 8 pharmacists were included in the analysis. Study participants discussed various factors that facilitate or hinder access to triptans, which were synthesized into four themes that emerged at the patient, provider, and health-care systems levels: (1) awareness; (2) apathy; (3) advocacy; and (4) affordability. Across all participant groups, awareness of available treatments and coverage policies for those treatments were potential factors relating to timely drug provision. Participants describe apathy in terms of patients' health-seeking behaviors and physicians' lack of concern toward migraine, which were seen as factors that could delay diagnosis and provision of appropriate treatment. Patients engaging in self-advocacy enhanced their ability to seek timely and appropriate provision of triptans at the patient level. At the health-care provider level, pharmacists were identified by patients as advocates for receiving more effective treatments for their migraines; pharmacists also self-identified with the advocate role. The affordability of triptans was a key concern impacting access at the systems level, but coverage limitations (eg, quantity limits) were also described to influence the appropriateness of prescribed migraine treatment.

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Accepted for publication May 1, 2015.

Conflict of Interest: The opinions, results, and conclusions reported in this paper are those of the authors and are independent from the funding sources. No endorsement by the Institute for Clinical Evaluative Sciences or the Ontario Ministry of Health and Long-Term Care is intended or should be inferred. All authors report no conflicts of interest.

Financial Support: This study was supported by a grant from the Ontario Ministry of Health and Long-Term Care (MOHLTC) Health Systems Research Fund and the Institute for Clinical Evaluative Sciences (ICES), a nonprofit research institute sponsored by the Ontario MOHLTC.

Conclusion.—This study fills a gap in knowledge about access to triptans and how this may be impacted by patient, provider, and health-care systems barriers. Overall, our study sheds light on the experiences of prescribing, dispensing, and accessing triptans for migraine treatment, and unveils important information that can impact how patients access these drugs.

Key words: triptan, qualitative research, pharmaceutical access, migraine

Abbreviation: ODPRN Ontario Drug Policy Research Network, PCPs primary care physicians

(*Headache* 2015;••:•••••)

Triptans are a cornerstone of pain management for the acute treatment of migraine as recommended by international clinical guidelines.¹⁻³ Despite this, actual utilization of triptans is lower than ideal according to researchers and headache experts.⁴⁻⁶ Studies analyzing pharmacy databases showed that only 60% of eligible migraineurs receive at least one new triptan prescription over a 12-month period,^{6,7} and over half of new users never receive additional triptan prescriptions⁸ or refill their index prescription.^{5,9} This indicates that initial access to triptans and continued access and use beyond the first prescription may be important clinical issues in the acute treatment of migraines.

Access to triptans may be impacted by factors at the patient, health-care provider, and health-care system levels. Patient-level factors explored previously in the literature focus on continued access after the index prescription and reasons for discontinued use. Patient education on use and perceptions of efficacy predict continued utilization and access to triptans.¹⁰ However, it is still unclear what role these patient-level factors play in relation to triptan use after the point of initial prescription. Even less apparent are the factors influencing triptan access at the level of the health-care provider. To our knowledge, there are no studies that formally explore physician beliefs about triptans as they relate to the decision to prescribe these drugs. Research on the prescription of new drugs¹¹⁻¹⁴ and of other drug classes such as opioids¹⁵⁻¹⁷ demonstrates that physician attitudes and beliefs affect access to these medications and may similarly impact access to triptans. Moreover, rarely is the role of the pharmacist in facilitating or hindering access explored, despite pharmacists being responsible for dispensing drugs; in fact, knowledge is currently limited to patients' perceptions on the role

of pharmacists in the treatment and management of migraines.¹⁸

Health-system level factors affecting triptan access may include cost and dosage limits. Due to the high cost of triptans, the availability of insurance coverage for triptans is a key contextual factor for consideration. Having either private or public insurance coverage for drugs may be significantly associated with whether a patient is initiated on triptan therapy at all.¹⁹ Furthermore, various public and private coverage plans may directly affect how triptans are prescribed and utilized.^{4,20} In a German cohort study, researchers measured the differences between publicly and privately insured migraineurs with regard to prescriptions for sumatriptan; they found that individuals covered by private plans were 2.4 times more likely to receive a prescription for sumatriptan than those covered by public plans.²⁰ In addition to differences in access based on coverage type, access may also be impacted by coverage restrictions. Quantity limits of less than 12 doses of triptans per month are believed by some experts to hinder the effective acute treatment of migraines,⁴ as limits may not provide flexibility for the patient to treat migraines early.

Despite some understanding of the factors related to accessing triptans, it is evident that there remain several gaps in our knowledge on this issue. Little is known about initial and ongoing access to triptans from the point of view of the patient. Similarly, as the gatekeepers to triptan access, understanding factors impacting the prescribing and dispensing of triptans from the point of view of both physicians and pharmacists at the health-care provider level is a crucial gap that has yet to be addressed. Finally, although the literature indicates that disparities may exist in access to triptans based on various health-care

system level factors, currently there are no known studies on how affordability and coverage plan restrictiveness impact whether triptans are prescribed and triptans prescriptions are filled.

Overall, although triptans are widely recommended for the treatment of acute episodic migraine, we are largely unaware of how decisions at the patient, health-care provider, and health-care system level may affect the provision of these drugs. Existing studies focus largely on patient adherence and utilization, but they rarely explore the context of access such as the beliefs and perceptions of patients, physicians, and pharmacists with regard to triptans. Understanding access to triptans and its impact on migraine outcomes can help develop policies and processes that support effective migraine management. The current study aims to fill this gap in knowledge by qualitatively exploring the factors related to access of triptans in Ontario, Canada, among patients, physicians, and pharmacists.

METHODS

Study Design.—A qualitative study was conducted between August 2013 and January 2014. This study was conducted as part of a larger review on triptans led by the Ontario Drug Policy Research Network (ODPRN), in which multiple research teams undertook a systematic review, pharmacoepidemiological analysis, pharmacoeconomic analysis, and environmental scan to understand issues related to efficacy, safety, utilization, accessibility, and cost of these drugs to inform drug reimbursement policies. An abbreviated report of our methods and findings²¹ targeted to policy-makers is available on the ODPRN website (<http://www.odprn.ca>) as a project deliverable.

The framework approach, a method typically used in applied health and policy research to hone in on key findings relevant to health service and policy questions,²² was used for data collection and analysis. This method involves the creation of a coding framework that is based on emergent themes in raw data as well as *a priori* concepts such as the research question or a theory from the literature. In this study, we have used the Triple-A Framework for policy analysis.²³ The purpose of the coding framework is to identify all the key issues, concepts, and themes by which the data

can be examined and referenced. The framework that will be used to code data may be refined during the later stages of analysis.

Sampling.—Three participant groups were recruited to the qualitative study: (1) migraineurs who have experience using triptans; (2) physicians, including primary care physicians (PCPs) and neurologists, who have prescribed triptans; and (3) pharmacists who have dispensed triptans.

A convenience sampling approach was used in order to elicit the specific perceptions and opinions of the participant groups. We purposively sampled negative cases. Negative case sampling is used to select interview participants who differ from the response trend observed in the recruited sample so as to introduce different viewpoints; a negative case is typically defined throughout the study period and is recruited as needed.²⁴ Multiple methods were used to recruit participants. The study team recruited physician and pharmacist participants by distributing recruitment messages through fax and e-mail to eligible individuals across Ontario. Physicians and pharmacists were also approached for recruitment purposes through clinician networks and circles of contact. Migraineur participants were recruited through primary care, general neurology, and migraine clinics, as well as through recruitment messages distributed by migraine patient networks to their Ontario members. Recruitment messages and materials included information on study objectives, implications, and goals.

We aimed to recruit 6-8 participants each from the physician and pharmacist groups, and 20-25 migraineurs, anticipating this would be sufficient to reach saturation among relatively homogenous groups of participants.²⁵

Data Collection.—Qualitative data were collected through one-on-one, semi-structured telephone interviews. Interviews were between 30 and 60 minutes in length and were conducted by the Qualitative Research Unit Lead (SK) and Qualitative Research Unit Analyst (AM) of the ODPRN. Participants were reminded of the study goals, and the interests of the ODPRN in exploring access issues related to triptans. All interviews were guided by a semi-structured interview guide. The guide was based on the Triple-A Framework for policy analysis,²³ a framework

developed to study the impact and influence of pharmaceutical policy through the three key variables: affordability, accessibility, and appropriateness. The semi-structured interview guide was also based on a literature scan and input from migraineur and clinician representatives on the research team. The interview guide was pilot tested and adapted throughout the study accordingly. Interviews were audio recorded and transcribed. Transcripts comprised the primary source of data. A research assistant was present at each interview to take detailed field notes; all participants were made aware of the assistant's presence prior to commencing the interview. Field notes served as a secondary source of data.

Data Analysis.—Analysis of interview transcripts was conducted using the framework approach, and was performed using NVivo 10 (QSR International, Doncaster, Victoria, Australia). The initial framework of inquiry was developed into a coding framework after a familiarization stage. Two independent analysts indexed a subset of transcripts using the coding framework, while also indexing emergent ideas. The analysts met to determine the inter-rater reliability of their indexing, to reach consensus on codes and code definitions for emergent ideas, and to integrate any emergent codes to the coding framework. The adapted coding framework was used to index the remaining data, with the analysts meeting frequently to discuss and arrive at a consensus on any emergent codes to be integrated to the final framework. Throughout indexing, a third analyst was consulted when consensus was not reached. Subsequently, codes were re-arranged and synthesized into themes, which were then mapped by the research team into key milestones for the provision of pharmaceuticals to patients (diagnosis, prescription, and provision) – based on an econometric hurdle model used by Krobo et al to understand triptans prescription and provision – to enable further interpretation.²⁰ Analysis occurred alongside data collection, so as to determine when data saturation was reached. A summary report was sent to all interview participants at the end of the study, enabling them to provide comments on our findings.

Ethics Approval.—This study received research ethics approval in August 2013 from the St. Michael's Hospital Research Ethics Office.

FINDINGS

Participant Demographics.—*Migraineurs.*—A total of 20 migraineurs participated in one-on-one interviews. However, one participant was excluded from analysis after describing experiences with cluster headaches rather than migraines; therefore, data obtained from 19 migraineurs were ultimately included in the overall analysis. Fifteen (79%) migraineur participants were female. The majority (50%) of participants was between the ages of 45 and 64 years (Table 1). Three (16%) migraineur participants were selected as negative cases. Negative case sampling was required for migraineurs as most participants were currently using triptans or had little trouble accessing triptans because of private coverage. Therefore, a negative case was defined as a migraineur who had tried triptans but had discontinued use, or who had difficulty accessing triptans.

Physicians.—Six physicians participated in the study, including five neurologists and one PCP

Table 1.—Demographic Characteristics of Migraineur Participants

Demographic Characteristic (n = 19)	n	%
Gender		
Female	15	79%
Male	4	21%
Age		
25-34	3	16%
35-44	4	21%
45-54	4	21%
55-64	6	32%
65+	2	10%
Employment status		
Full time	8	42%
Part time	1	5%
Unemployed (retired, disability)	10	53%
Years with migraine		
<5	0	0%
5-15	10	53%
>15	9	47%
Clinician prescribing triptans		
Primary care physician/nurse practitioner	15	79%
Neurologist	4	21%
Coverage type		
Private	18	95%
Public	1	5%

Table 2.—Demographic Characteristics of Clinician Participants (Physicians and Pharmacists)

Demographic Characteristic	Physicians (n = 6)		Pharmacists (n = 8)	
	n	%	n	%
Years of practice				
<5	0	0	2	25
5-15	4	67	4	50
>15	2	33	2	25
Type of practice				
Full time	5	83	8	100
Part time	1	17	0	0
Geographic location				
Urban	4	67	7	88
Suburban	1	17	0	0
Rural	1	17	1	12
Frequency of prescribing/dispensing triptans				
Never	1†	17	0	0
Monthly	2	33	2	25
Weekly	3	50	5	63
Daily	0	0	1	12

†Note that the participant acts as a consultant and does not directly prescribe migraine therapies.

(Table 2). Neurologists were mostly headache experts. All physicians practiced in urban settings.

Pharmacists.—We interviewed eight pharmacists in total (Table 2). Pharmacists were mostly practicing in community pharmacies in urban settings.

Themes from Participant Interviews.—Study participants discussed various factors that facilitate or hinder access to triptans, which were synthesized into four themes: (1) awareness; (2) apathy; (3) advocacy; and (4) affordability. To better envisage the role of each of these factors, how they impact access, and ultimately how they affect migraine management, we mapped each of our themes to steps along a provision pathway (Figure). Each of these themes is described in detail below.

Awareness.—Awareness was described as a key factor related to access at multiple points along the provision pathway. Lack of awareness of migraine diagnosis was highly discussed across participant groups as a significant barrier. Some patient participants described the experience of suffering through years of pain and using either opioids or over-the-counter medications before they learned that they were episodic migraineurs and were subsequently prescribed triptans, or referred to a neurologist. Physicians described that there was a general lack of knowledge about migraine diagnosis and therapy particularly in primary care settings.

One [problem] is the majority of physicians don't know how to diagnose migraine. And I am sure

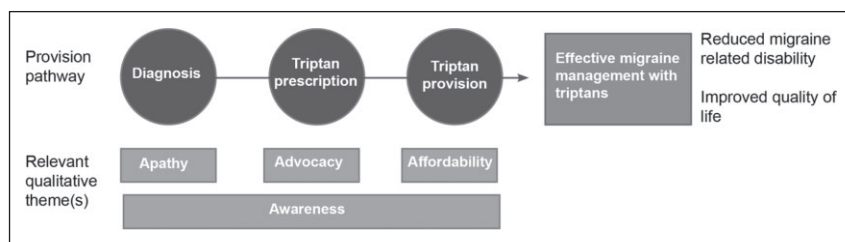


Figure.—Qualitative themes relevant to steps pertaining to triptans prescription and access.

you are familiar with the World Health [Organization] data that shows the average trainee medical student gets about four hours in four years on how to diagnose and manage headache. So we have all these physicians out there who are well-meaning but completely ill-equipped to diagnose it. So patients first of all don't get the right diagnosis and then they obviously don't get prescribed the right drugs. [Physician]

Awareness of how to appropriately prevent and treat migraines was also seen as another challenge. Physician participants noted that some PCPs are misinformed about triptans, which can lead to poorly treated migraines. Primary care physicians were perceived by neurologists to be hesitant to prescribe triptans because of misconceptions about the side effects, the strength of the drugs, and the belief that if one triptan is not effective, the whole line of drugs will not be effective for a patient. Some pharmacists discussed that physicians may be conservative with prescribing because of concerns about the side effects of over use.

I am wondering if there was a bit of a reaction to possible over use of them. Because they weren't originally associated with rebounds . . . you know, it took a little bit of time before that became, you know, acceptable as a real possibility. [Pharmacist]

Patients, on the other hand, were reported to have varied levels of information on migraine prevention and treatment, and therefore, may not know about the existence of triptans as part of a treatment regimen. All participant groups perceived that patient education in understanding appropriate migraine treatment and minimizing potential side effects is extremely important; yet, although some patient participants felt that their health-care providers were attempting to provide them with adequate information, others felt that they were given very little information on how to treat their migraines. Patients with family members who also suffer from migraines obtained information and self-management support from these family members. Some patient participants described seeking information on their own to increase their knowledge on migraine and migraine treatments; one participant described hearing about

triptans on the radio and then approaching her family physician to receive more information, whereas others described not seeking advice from their physician at all.

I started listening to the webcast you get on YouTube that the National Headache Foundation puts out, and they're fantastic, and I've gotten lots of insight and, you know, it's just recently I've started doing a lot of research on my own as opposed to going to doctors. [Patient]

When the need for triptans is identified, lack of awareness on triptan coverage may also be a barrier to access. Overall, patients with private coverage were perceived to experience little difficulty in obtaining their triptan prescriptions; however, access challenges were reported by both patient and physician participants regarding those who are eligible for public drug coverage. Physicians described a lack of awareness of the eligibility criteria for triptan coverage through the public drug program. They perceived that this lack of awareness was most prevalent not only among physicians in primary care who tend not to have a vested interest in migraine, but also among general neurologists. Physician participants generally perceived that information on eligibility criteria were not readily or publically available. Patients may also be unaware that triptans are available through the public drug program for low-income or elderly individuals. When older patient participants were asked how they would pay for triptans upon retirement or when they turn 65 years old, many were unsure.

Apathy.—According to many patient and physician participants, apathy toward migraine at both the patient and provider levels may be a significant barrier to accessing triptans. Specifically, these participants perceived that some physicians lack concern toward the migraine experience and believe that migraines are “only a headache.” Patient participants who had been in the care of physicians holding this belief felt that this delayed migraine diagnosis, and therefore delayed treatment with triptans. Physician participants perceived that a particular lack of concern and interest in migraine is prevalent in both primary care and general neurology disciplines. This may impede many patients from being appropriately diagnosed and accessing necessary treatment.

... I think in the past when you say you suffer from migraines it's, "Oh, you have headaches. Wow, big deal," there's not a lot of, I guess, sympathy for you, so I certainly had that. I think that's why it took [until] university to get finally prescribed triptans, which – as I said – were life-changing for me because it wasn't so debilitating when I got a migraine and I wasn't out for two or three days and feeling terribly. [Patient]

Apathy toward migraine may also exist at the patient level. One patient participant explained having delayed seeking treatment for migraines due to a belief similar to that which some physicians may hold – that migraine is simply a headache. This indifference toward migraine may affect access to timely and appropriate treatment.

Well, considering how stubborn I was even to go see the doctor, it [was] probably a good, you know, four years, five years before I even decided to go see a doctor about them, and then when I did see my doctor he, you know, there was only so much he could prescribe me as well ... [Patient]

Advocacy.—Participants across the pharmacist and patient groups discussed advocacy as a facilitator of triptans access, whereas a lack of advocacy was perceived to hinder access. The source and type of advocacy described was variable. Some patient participants described the difficulty they experienced in getting appropriate treatment for their migraines, leading them to self-advocate for potentially better care. One participant explained how she researched potential treatments and directly suggested to her physician that she be prescribed triptans when other treatments had failed, leading to collaboration with her physician on the appropriate treatment of her migraines. Another patient with poorly managed migraines attempted to gain control of her condition by advocating to see a migraine specialists.

I've tried every which way and, you know, to be fair I've been to [hospital], I've been to all kinds of physicians, I've been through [hospital], they just can't fix it. I don't know ... generally I had to push to get those referrals. [Patient]

Pharmacists described the successes and challenges of advocating for their customers, and how this

advocacy can impact patient access to triptans. Advocacy efforts discussed by pharmacists included informing customers about triptans after noticing them filling prescriptions for other drugs (such as opioids) for several years; and educating customers on methods of payment that can be used to access triptans, such as the Trillium Drug Program in Ontario (http://www.health.gov.on.ca/en/public/programs/drugs/programs/odb/opdp_trillium.aspx), which facilitates access to drugs for low-income individuals. However, although some pharmacists attempt to advocate for their customers, one notable hindrance is patient unwillingness to try a triptan if another type of drug is marginally effective.

... sadly, some of them will be hooked on the codeine. It gives them euphoria, it makes them feel good and it does relieve the pain, and then they say "why fix it if it isn't broken," you know? So it's one of those things, some of them will be reluctant, some of them will embrace it, but the majority will be a little bit ... (I'm happy where I am. I appreciate your help and I appreciate what you are trying to do for me, but I am happy where I am.) [Pharmacist]

One pharmacist noted that attempts to advocate to a physician for a patient to receive triptans may be fruitless if that patient is covered by the public drug program, given that the process of receiving triptans is viewed as cumbersome by physicians.

Usually the doctor does not go through this [application process] for patients that he can switch something else with. If we tell the patients to put pressure on the physician, the physician will change it for something covered, like a pain killer or something. [Pharmacist]

Patients saw pharmacists as key to the continuity of medication provision through the pharmacist practice of lending triptans between refill renewals. These patients described instances in which their pharmacist understood that they could not wait for approval for a refill to come through and gave them a few triptan pills as a reserve until the prescription was renewed. Pharmacist participants also described performing this practice to facilitate timely access to triptans, believing and observing that migraineurs experience much anxiety without appropriate access

to medications. Therefore, the ability for Ontario pharmacists to refill prescriptions was seen as a facilitator to continued triptan access beyond the first prescription.

Affordability.—

The benefit is significant but it can be quite cost prohibitive for people without coverage and even with coverage because it is still quite expensive . . . its almost \$10 [Canadian dollars] a tablet and you're maybe taking two each time, and that's not, I don't think, a consideration you should need to have when dealing with a significant health issue . . . you know to sort of have to think, "should I spend \$20 [Canadian dollars] right now to maybe make myself feel better?" [Patient]

Affordability was not an issue for the majority of participants as most triptans users are covered by private insurance. However, as many private insurers impose quantity limits on triptans, physicians and patient participants reported patient anxiety regarding exceeding monthly coverage limits. This resulted in some patient participants practicing prudent dosage management (eg, delaying the use of triptans until the pain is unbearable, cutting the doses in half). This technique led to dosage doubling at a later time point to abort a migraine that had already fully progressed. Therefore, the cost of triptans may not directly impact access to these drugs for most migraineurs, but may lead to inappropriate patient use due to access limitations. Moreover, when quantity limits are imposed, participants reported that migraineurs may not have access to medication when they need it and can be forced to pay out-of-pocket.

. . . we had to call the insurance, and the insurance said . . . for triptans, they are putting certain limits per month and this patient exceeded the limit. But I [had] already seen . . . the patient in front of me, I [saw] the attack, I [saw] the suffering of the patient in front of my own eyes and I told that to the agent, but the agent was not able . . . to override it. She said this is the policy so she couldn't do anything. This was one of the experiences with [a] migraine patient [that] I could never forget . . . She pulled out her credit card and said "I cannot not take my medication. I can't afford not to take

it so give me one box, I will pay for it." I said "okay." I did. [Pharmacist]

For the proportion of patients who are not covered by private insurance, the lack of coverage can significantly impact access to triptans. Physician participants described that they will rarely prescribe a triptan in the absence of insurance coverage. In these cases, patients either self-manage with over-the-counter drugs, or physicians will prescribe drugs that may be less effective but are less expensive.

Other patients, there is no other choice but other than to use prescription analgesics or combination analgesics if the patients are deprived of the opportunity to have optimal treatment. Of course we also, depending on the patient, maybe I will put him on preventative therapy to try and decrease the number of headaches they have so they have less need for acute therapy, but it's never going to eliminate their need for acute therapies. [Physician]

Physicians with patients who are not able to afford triptans also described giving their patients pharmaceutical samples as well as attempting to obtain a compassionate supply from pharmaceutical companies. However, these were seen as temporary strategies and were not perceived to be sustainable methods of facilitating access to triptans. When triptans are prescribed to patients with no coverage through either private or public insurers, physician and pharmacist participants reported that these patients generally do not fill their triptans prescriptions.

I get the sense that sometimes more people would use triptans if the price wasn't an issue. I have given people the cost of a prescription and have them not fill it because of the cost. Those would be cases where there is no coverage and so they have not had the prescription filled . . . probably 20-30 age range and some could have been working, but just not able to afford that [Pharmacist]

DISCUSSION

Overall, our findings describe potential barriers and facilitators to accessing triptans at the patient, provider, and health-care systems levels. Participants

in our study described patient health-seeking behaviors and self-advocacy efforts as factors relating to timely and appropriate provision of triptans at the patient level. Provider-level factors discussed by participants included lack of concern toward and knowledge about migraine, which could delay diagnosis and provision of appropriate treatment. Pharmacists were identified by patients as advocates for receiving more effective treatments for their migraines; pharmacists also self-identified with the advocate role. Across all participant groups, awareness of available treatments and coverage policies for those treatments were potential factors relating to timely drug provision. At the systems level, the affordability of triptans is a key concern impacting access; although the high cost of triptans primarily inhibits access to these drugs for those who have low income and/or do not have private coverage, it is also apparent that cost as well as coverage limitations (eg, quantity limits) influence the appropriateness of prescribed migraine treatment. Our findings highlight these key issues at each step along the provision pathway of pharmaceutical treatments, and enhance understanding of factors impacting access to effective migraine medications such as triptans. We are not aware of another study that has incorporated the viewpoints of patients, providers, and pharmacists to obtain a comprehensive picture of triptan access.

Lack of awareness at the diagnosis, prescription, and provision steps of the pathway emerged as a major impediment to triptan access. Previous studies support the findings of our current study by demonstrating that physicians and patients have little knowledge on how to identify migraine, leading to diagnosis and treatment delays.²⁶ A lack of knowledge on migraine may also contribute to a lack of concern (ie, apathy) for the condition, which emerged in our study findings and can lead to treatment delays.²⁷ A surprising finding of our study was the extent to which physicians lack knowledge on available treatments for migraine, particularly triptans. Physician participants were aware of triptans but perceived that many of their peers working in general neurology and primary care had little knowledge of the efficacy and safety of these drugs, which they believe to be the reason why triptans are not more widely prescribed. Key con-

cerns with regard to withholding or discontinuing a triptan include the potential worsening of migraines over time when they are not appropriately treated²⁸⁻³⁰ and the access of alternative medications that are potentially more harmful and less effective for migraine treatment than triptans (eg, opioids).¹⁰

Lack of awareness was also evident at the provision stage of the pathway with regard to coverage criteria. Few other studies have examined physician knowledge and perceptions of public coverage criteria as a factor impacting access to drugs.³¹ In Ontario, the public drug formulary and coverage criteria are publicly available on the Ministry of Health Web site (http://www.health.gov.on.ca/en/pro/programs/drugs/odbf_eformulary.aspx); however, our study uncovered the need for more active approaches to disseminating this information to providers and the public to ensure that those who are eligible for coverage are able to access triptans through public mechanisms. Moreover, our study highlighted the potential role of pharmacists as advocates for migraineurs, which has never been previously explored. Pharmacists may play a key role in educating both physicians and patients on how to access triptans through various coverage plans.

Findings from this study also highlight disparities in access to appropriate migraine treatment due to the affordability of triptans. Coverage through private and public programs varies in terms of quantity limits. Our findings illustrate that quantity limits can impact access to and use of triptans when required; those with more restrictive quantity limits may find themselves without medication during a migraine episode. It is important to note, however, that quantity limits are put in place from both a safety and cost perspective.⁴ Evidence suggests that overuse of triptans may lead to overuse headache.¹⁰ In the absence of quantity limits, some migraineurs may become high triptan users and may potentially develop medication overuse headaches. From the viewpoint of cost, triptans are expensive for insurers to cover and for pharmacies to carry in bulk;⁴ thus, although quantity limits may limit access to triptans when needed, they may be implemented to balance utilization with other considerations of use.

Overall, the most burdened individuals are those that are uninsured. Due to the high cost of triptans, paying for these drugs out-of-pocket may not be a viable option. We found that uninsured individuals are reported to receive prescriptions for less appropriate but more affordable drugs, a finding that is similar to a study that explored prevalence of migraine medication use at the population level in the United States.³² In fact, physicians may abstain from prescribing these drugs to patients without insurance coverage altogether. This may result in significant differences in health outcomes between insured and uninsured populations.^{32,33} It should be noted that the viewpoints of the uninsured were represented by physicians and pharmacists who prescribe and dispense their medications. In our sample, all migraineurs had insurance coverage, whether public or private, with most (95%) having the latter type of coverage. Viewpoints of those with public drug coverage were also derived mostly from physician and pharmacist accounts of migraineur experiences; one participant was included who was accessing triptans through public mechanisms, which is reflective of the fact that most migraineurs are young and ineligible for public drug coverage in Canada. Therefore, the source population from which to sample migraineurs with public coverage is small.

This qualitative study was conducted as part of a larger, multi-study review on triptans, with the aim of providing rapidly generated, high-quality evidence to inform drug reimbursement policies. This methodology aligns with the ODPRN's rapid research approach, which was founded on principles valued by both researchers and policy-makers and has informed drug reimbursement policy changes.³⁴ To balance the quality of the research with the timeliness of the study (ie, the requirement to complete all steps of the study within a 6-month period to ensure policy relevance), it was most feasible to engage in convenience sampling. Our targeted sample sizes for groups were also selected based on feasibility of recruitment within the constrained timeline for the study, while remaining in the purview of accepted qualitative sampling methodology.^{35,36} There are varying opinions on sufficient sample sizes in qualitative research because of a lack of strict guidelines; we targeted sampling to the small-

est recommended range of sizes for homogenous and heterogeneous groups,²⁵ but were flexible in our approach to recruit additional participants if necessary to reach saturation. We believe that this method was the best compromise for balancing research quality, timeliness, and feasibility of recruitment, and was also appropriate for a study being conducted as part of a larger drug class review in which multiple sources of information were being compiled to understand the topic of triptans. Qualitative components of health technology assessments and drug class reviews are rarely conducted with such rigor, if at all;³⁷⁻³⁹ as such, our methodology is seen as a strength in the context of rapid and policy-oriented research.

Some limitations to our study should be noted. First, primary care physicians were under-represented. Despite successfully recruiting primary care physician to other similar studies, they were non-responsive or reluctant to participate in interviews regarding triptans, and time was limited to extend the recruitment period. Only one primary care physician agreed to participate, and this physician had a higher degree of interest and experience in treating migraines than typical primary care physicians. Therefore, there may be gaps in understanding primary care physician perspectives on access to triptans. The inability to recruit primary care physicians may also reflect on gaps in knowledge or appreciation of the issue of migraine from the perspective of these clinicians. Many of the perceptions of migraine treatment in primary care are derived from neurologists' experiences speaking with primary care physicians or treating patients who are referred to them from primary care. Second, we combined data from the sole primary care physician with information collected from the neurologist group. This may have threatened the homogeneity of the sample. However, we believed that there was significant overlap in the emergent themes between the primary care physician and neurologist interviews, which may demonstrate alignment between the two groups regarding views about triptans access. More exploration of triptans in both the primary care physician and neurologist groups is warranted. Third, qualitative findings are not representative of the general population of individuals from which our study sample was drawn, and

the use of convenience sampling may have introduced additional bias. Those who responded to interview requests may have been more likely than nonresponders to be vocal about discussing the impact of their migraines and may be more highly involved in migraine advocacy initiatives. In an attempt to limit bias, we engaged in negative case sampling. Finally, given that this study was conducted in Ontario, Canada, the viewpoints expressed by participants may not be applicable to the context of triptans provision in other jurisdictions. However, the study setting did provide wide context to examine multiple issues, as Ontario is a province in which migraineurs access drugs through public, private, and out-of-pocket payment mechanisms.

This study fills a gap in knowledge about access to triptans and how this may be impacted by patient, provider, and health-systems barriers. The inclusion of pharmacist viewpoint is a novel aspect of our study and highlights the importance of this clinician group in triptans access and migraine care. Clinical implications of our study include a demonstrated need for appropriate education and knowledge translation with regard to migraine diagnosis, prescribing, and provision. At the systems level, mechanisms to enhance the affordability of triptans and to balance quantity limits with considerations for patient access should be considered. Overall, our study sheds light on the experiences of prescribing, dispensing, and using triptans for migraine treatment, and unveils important information that can impact how patients access these drugs.

Acknowledgments: We would like to thank Dr. Janet Parsons for her consultation and support, and Ms. Jennifer D'Souza for her assistance with this project. We would also like to thank our fellow research team members at the Ontario Drug Policy Research Network for their input and guidance throughout this study.

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