
Research Submission

Education and Decision Making at the Time of Triptan Prescribing: Patient Expectations vs Actual Practice

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Background.—Optimizing patient satisfaction with their medical care and maximizing patient adherence with treatment plans requires an understanding of patient preferences regarding education and their role in decision making when treatments are prescribed.

Objective.—To assess the congruence between patient expectations and actual practice regarding education and decision making at the time a triptan is prescribed.

Methods.—This multicenter cross-sectional survey was performed by headache fellow members of the American Headache Society Headache Fellows Research Consortium at their respective tertiary care headache clinics. Migraine patients who were new patients to the headache clinic and who were current triptan users (use within prior 3 months and for ≥ 1 year) or past triptan users (no use within 6 months; prior use within 2 years) completed questionnaires that assessed the education they received and their role in decision making at the time a triptan was first prescribed as well as their desire for education and participation in decision making when a triptan is prescribed.

Results.—Consistent with patient preference, most participants received the majority of their education about the triptan from the prescriber's office (70.2%). In descending rank order, participants most desired to be informed about how to decide if a triptan should be taken, when during the course of migraine a triptan should be taken, possible side effects, cost, and how to obtain refills. Regarding side effects, most participants preferred to receive education about the most common side effects of a triptan rather than addressing all possible side effects. Regarding triptan dosing, participants desired to be informed in descending order of importance about taking other medications with triptans, how many doses can be taken for each migraine, how many doses can be taken each week/month, what to do if the triptan does not work, and the triptan mechanism of action. The vast majority of participants (92%) preferred that the decision to prescribe a triptan be a joint decision between the patient and the provider. In actual practice, participants were not as involved in decision making as they would like to be, with patients reporting that the prescriber was the sole decision maker 55.1% of the time. Participants had confidence in their providers (87.7%) and generally felt they did a good job educating them about the triptan (71.1%).

Conclusions.—Based on this study, it is clear that patients prefer the shared model approach to medical decision making in regards to the prescription of triptans. The majority of patients received education that was generally consistent with their desires. Patients preferred that the prescribing provider be the primary source of information. The most desired educational

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topics included when/if a triptan should be taken, the number of times a triptan can be taken for a single migraine, co-administration with other acute medications, and the most common side effects. Focusing on these topics should enhance patient satisfaction and may improve compliance.

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There are 3 general models for decision making regarding medical treatment: the paternalistic model, the informed model, and the shared model.¹ The classic “paternalistic model” is one in which the physician makes medical decisions for the patient without substantial consideration of the patient’s preferences. This model has been challenged over time with a push toward models that take the patient’s preferences into account. The reasons for this shift in the approach to medical decision making include the rise of consumerism, the passage of legislation focusing on patients’ rights, and an increased focus on the principle of autonomy. The “informed model” involves the physician communicating information to the patient regarding treatment options, risks, and benefits. After being provided sufficient information, the patient ultimately makes an informed treatment decision based on their preferences. The “shared model” involves the physician discussing treatment options and preferences with the patient and then both parties actively participate in making a shared medical decision.¹

Optimizing patient satisfaction and adherence with treatment plans requires an understanding of patient preferences regarding their role in decision making. Furthermore, informed and shared decision making require that patients be educated about their treatment options. In order to maximize patients’ abilities to participate in medical decision making, clinicians must be aware of the educational topics for

which patients desire education and must understand how patients want their education to be delivered.

Although triptans are effective migraine-specific acute medications,² they are underutilized by the migraine population.^{3,4} There are likely numerous reasons for triptan underutilization, including patients not consulting a healthcare provider for migraine, patients not receiving a migraine diagnosis after they present to a healthcare provider, lack of health insurance, physicians not feeling that the patient’s symptoms are sufficiently severe to warrant a triptan, and expense associated with filling the triptan prescription.³⁻⁵ In addition, there are high rates of non-adherence and discontinuation of triptans in those patients prescribed triptans, with at least one third discontinuing triptan use within 1 year.⁶ While several studies have investigated patient satisfaction with triptan treatment, barriers to treatment, and predictors of adherence,^{5,7-9} little is known about patient satisfaction with triptan education and with their role in decision making when a triptan is prescribed.

Patient satisfaction with their triptan and adherence to triptan therapy are likely optimized when the patient’s role in decision making matches their expectations, and when the education that is provided is consistent with the patient’s educational desires. In clinical practice, the extent of patient participation in the decision to initiate treatment with a triptan, as well as the forms and extent of patient education are highly variable. In this observational study, migraine

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patients who had used triptans were asked about their expectations for education when a triptan is prescribed and their desire to be involved in the decision-making process regarding whether and which triptan is prescribed. In order to assess the congruence between patient expectations and actual practice, migraineurs were also asked about the actual education that they received and their actual role in the decision-making process when the triptan was prescribed.

METHODS

This was a multicenter, prospective, cross-sectional survey study conducted by the American Headache Society Headache Fellows Research Consortium at tertiary care academic headache specialty clinics in the United States. Headache Fellows participating in their headache training between July 2009 and June 2012 and their fellowship directors served as investigators. Each participating institution obtained Institutional Review Board approval, and all participants completed the informed consent process prior to study participation. The total number of participants was based on the sum of the number of participants each fellow could successfully recruit during his or her headache fellowship.

Participants were new patients to a participating headache center who had episodic migraine or chronic migraine according to International Classification of Headache Disorders-II diagnostic criteria and were either current users of triptans or had discontinued the use of triptans. *Current use* was defined as having used a triptan within the prior 3 months and having used triptans for at least 1 year. *Discontinued use* was defined as having used a triptan within the prior 2 years but not having used a triptan within the last 6 months. Patients with medication overuse were not excluded. Headache diagnoses were assigned following a semistructured interview performed by the headache fellow using study questionnaires and with oversight from headache center faculty.

Data were collected on patient perceptions regarding the education they received about the triptan at the time their triptan was prescribed. Questions assessed the participants' perceptions of their main source of education regarding the triptan, the amount of time spent in triptan education, the format of education delivery, the specific topics that were

discussed (eg, when to take the triptan, dosing limitations, side effects, cost, refills), and the patients' involvement in the decision-making process of being prescribed a triptan. Additional questions were used to assess the participants' expectations for education delivered within each of these aforementioned domains at the time of triptan prescribing.

For questions regarding whether or not participants considered themselves to have received education about a specific topic, participants chose from the following responses: "strongly agree," "agree," "neither agree nor disagree," "disagree," or "strongly disagree." For these education statements, "strongly agree" and "agree" responses were interpreted as representing that a subject considered themselves to have been educated, while "neither agree or disagree," "disagree," and "strongly disagree" were interpreted as the subject not receiving the stated education.

All data were submitted to the principal investigators at the coordinating site where data were then entered into a secure database. All data entry were double-checked for accuracy. Statistical analyses were performed at the coordinating center. Descriptive statistics were used to describe subject demographics, to compare desired vs received triptan education, and to compare desired vs actual patient involvement in decision making.

RESULTS

Subject Demographics.—Two hundred ninety-two participants were enrolled in the study. This included 207 participants who continued to use triptans and 85 participants who had discontinued triptans. Average age was 41 years (± 12 years). Thirty-five participants were male, and 257 were female. One hundred twenty-four participants had chronic migraine, and 168 had episodic migraine. Sixty-nine participants had migraine with aura episodes. Participants averaged 13.9 (± 9.4) headache days per month and had migraine for a mean of 22.6 years (± 13 years).

Source of Education.—The main source of education about the triptan was the prescribing provider for 66.1% of participants, followed by self-education (17%), did not receive education (6.9%), pharmacy (5.5%), educational materials given by the prescriber's office (3.8%), non-prescribing provider such as a

clinic nurse (0.3%), and advertisements (0.3%). Thus, 23.9% of participants reported not receiving triptan education or that self-education was their main source of triptan education. On average, participants reported that they received the following duration of education from each source in descending order: self-education 24.2 minutes (± 65.6 minutes), prescribing provider 10 minutes (± 12 minutes), educational materials from prescriber's office 2.4 minutes (± 7.8 minutes), pharmacy 1.8 minutes (± 6 minutes), non-prescribing provider 0.7 minutes (± 3.2 minutes), and advertisements 0.4 minutes (± 2.4 minutes). In response to the question "who do you think is responsible for delivering education to you about the triptan," 92.3% of participants ranked the prescribing provider first (average rank 1.1 ± 0.6), followed by pharmacy (average rank 2.7 ± 0.8), non-prescribing provider (eg, clinic nurse) (average rank 3.1 ± 1), self-education (average rank 3.3 ± 0.9), followed by advertisements (average rank 4.8 ± 0.7) (Table 1).

Methods of Education.—77.4% (226/292) of participants reported having received written instructions about how to take the triptan. Participants reported wanting to receive information by oral discussion (average rank 2.2 ± 1.3 , 40.2%, or 115/286 ranked oral discussion as the most desirable mode of education), individualized written instructions (average rank 2.4 ± 1.2 , 27.3% of participants ranked individualized written instructions as the most desirable mode of education), pre-printed instructions (average rank 2.5 ± 1), package insert (average rank 3.9 ± 1.2), followed by receiving a copy of the prescription (average rank 3.9 ± 1.2) (Table 2).

Education Content.—79.5% (232/292) of participants reported having received education about how to decide if they should take the triptan. 85.6% (251/292) of participants reported having received education about when to take the triptan. 67.5% (197/292) of participants reported having received education about possible side effects from the triptans. 24.1% (70/290) of participants received education about how much the triptan would cost. 75.7% (221/292) of participants reported having received education about how to obtain refills of the triptan.

When receiving education about the triptans, participants' desire for specific content was ranked as

Table 1.—Source of Education: Actual vs Preferred

Education Source	Average Duration of Education Received (minutes)	Main Source of Education (% of Participants)	Preferences for Source of Education				
			1 = Most Responsible	2	3	4	5 = Least Responsible
None	NA	6.9%					
Prescriber's office provided material	2.4	3.8%					
Prescriber	10	66.1%	92.4%	4.5%	1%	3.5%	1.7%
Pharmacy	1.8	5.5%	1.4%	47.8%	36.7%	13.2%	1%
Non-prescribing provider	0.7	0.3%	1%	32.9%	25.6%	34.3%	6.2%
Self education	24.2	17%	3.8%	12.8%	34.6%	44.3%	4.5%
Advertisement	0.4	0.3%	1.4%	2.1%	2.1%	7.6%	86.9%

The "Average Duration of Education Received" column contains the average minutes of education that subjects reported they received from that educational source. The "Main Source of Education" column shows the percentage of subjects who reported they received the greatest amount of education from that source. The "Preferences for Source of Education" column demonstrates subjects' desires regarding methods of education delivery. Percentages represent the proportion of subjects who ranked a particular source of education as most responsible (ie, rank = 1) to least responsible (ie, rank = 5).

Table 2.—Methods of Education

Method of Education	Preferences for Method of Education				
	1 = Most Desirable	2	3	4	5 = Least Desirable
Oral discussion	40.2%	24.8%	13.3%	13.3%	8.4%
Individualized written instructions	27.3%	30.1%	22%	12.6%	8%
Pre-printed instructions	19.2%	28.3%	37.1%	13.6%	1.7%
Package Insert	7%	8.4%	12.9%	33.2%	38.5%
Copy of prescription	6.3%	8.4%	14.7%	27.3%	43.4%

The “Preferences for Method of Education” column demonstrates the percentage of subjects who ranked each method of education as “most desirable” to “least desirable.”

follows, in descending order of desire: when to take the triptan (average rank 2 ± 0.9 , 27.6% of participants ranked this as most desired), how to know if you are having a headache that can be treated with a triptan (average rank 2.1 ± 1.3 , 44.4% of participants ranked this as most desired), potential side effects from the triptan (average rank 2.4 ± 0.9 , 21.3% of participants ranked this as most desired), cost of the triptan (average rank 4.2 ± 0.9), followed by how to obtain refills of the triptan (average rank 4.3 ± 0.9) (Table 3).

Triptan Side Effect Education.—Participants ranked their desire to receive education about triptan side effects in the following descending order: discussion of most common side effects (average rank

2.3 ± 1.2 , 36.5% of participants ranked this as most desirable), written list of most common side effects (average rank 2.3 ± 1 , 22.2% of participants ranked this as most desirable), complete written list of all possible side effects (average rank 2.7 ± 1.3 , 28.5% ranked this as most desirable), discussion of all possible side effects (average rank 2.8 ± 1 , 11.5% ranked this as most desirable), no information about side effects (average rank 4.8 ± 0.7 , 1.7% ranked this as most desirable) (Table 4).

Triptan Dosing Education.—Participants ranked the following educational content from most desired to least desired: how many doses of triptans you can take for each migraine (average rank 2.3 ± 1.1 , 28.0% of participants ranked this as most desirable), taking

Table 3.—Education Content

Education Content	Received Education	Preferences for Education Content				
		1 = Most Desired	2	3	4	5 = Least Desired
If a triptan should be taken	79.5%	44.4%	22%	17.8%	8.4%	7.3%
When to take the triptan	85.6%	27.6%	50.3%	16.4%	4.2%	1.4%
Possible side effects from the triptans	67.5%	21.3%	21.7%	51.4%	4.5%	1%
How much the triptan would cost	24.1%	3.1%	4.2%	5.2%	46.2%	41.3%
How to obtain refills of the triptan	75.7%	3.5%	1.7%	9.1%	36.7%	49%

The “Received Education” column represents the percentage of subjects who reported that they were delivered education regarding that specific educational component. The “Preferences for Education Content” column demonstrates the percentage of subjects who ranked specific educational components as education that they most desired (ie, ranked 1) to least desired (ie, ranked 5).

Table 4.—Triptan Side Effect Education

Triptan Side Effect Education	Preferences for Side Effect Education				
	1 = Most Desirable	2	3	4	5 = Least Desirable
Discussion of most common side effects	36.5%	23.3%	16%	22.6%	1.8%
Written list of most common side effects	22.2%	37.2%	26.4%	13.2%	1%
Discussion of all possible side effects	11.5%	26.4%	34%	26%	2.1%
Complete written list of all possible side effects	28.5%	11.8%	21.9%	35.8%	2.1%
No information about side effects	1.7%	1.3%	1.3%	2.4%	93.1%

The “Preferences for Side Effect Education” column demonstrates the percentage of subjects who ranked specific triptan side effect components as education that they most desired (ie, ranked 1) to least desired (ie, ranked 5).

other medications with the triptan (average rank 2.5 ± 1.3 , 31.8% of participants ranked this as most desirable), what to do/take if the triptan does not work (average rank $2.6 \pm 1/3$, 24.9% of participants ranked this as most desirable), how many doses of triptan you can take each week/month (average rank 3.6 ± 1.1 , 4.5% of participants ranked this first), and how the triptan works (ie, mechanism of action) (average rank 3.9 ± 1.4 , 10.7% ranked this as most desirable).

Eighty-six percent of participants reported that at the time of triptan prescribing, they received education about the number of triptan doses that they could take for a headache. 61.5% of participants reported that at the time of triptan prescribing, they

were educated about taking other medications with the triptan. 60.1% recalled being educated about what to do/take if the triptan did not work. 48.3% recalled being educated about how the triptan works (ie, mechanism of action). 64.7% reported being educated about how many triptan doses they could take each week/month (Table 5).

Overall, 82.5% of participants reported that they felt educated about their triptan dosing.

Decision Making.—55.1% of participants reported that the decision for them to treat with the triptan was made 100% by the prescriber. 18.5% stated that the prescriber made 75% of the decision, and they made 25% of the decision; 20.5% reported the decision was 50% prescriber and 50% them; 2.7% stated it was

Table 5.—Triptan Dosing Education

Triptan Dosing Education	Received Education	Preferences for Triptan Dosing Education				
		1 = Most Desirable	2	3	4	5 = Least Desirable
Taking other medications with the triptan	61.5%	31.8%	21.8%	18.7%	18.7%	9%
How many doses of triptans you can take for each migraine	86%	28%	29.1%	27.7%	12.8%	2.4%
How many doses of triptan can you take each week/month	64.7%	4.5%	12.8%	24.2%	32.2%	26.3%
What to do/take if the triptan does not work	60.1%	24.9%	27.7%	19.7%	18.3%	9.3%
How the triptan works (mechanism of action)	48.3%	10.7%	8.7%	9.7%	18%	52.9%

The “Received Education” column represents the percentage of subjects who reported that they received education regarding that specific educational component. The “Preferences for Triptan Dosing Education” column demonstrates the percentage of subjects who ranked specific educational components as education that they most desired (ie, ranked 1) to least desired (ie, ranked 5).

Table 6.—Decision Making

Decision Making	Actual Percentage	Patient Preference
100% prescriber	55.1%	7%
75% prescriber and 25% patient	18.5%	38.7%
50% prescriber and 50% patient	20.5%	50.9%
25% prescriber and 75% patient	2.7%	2.4%
100% patient	3.1%	1%

The “Actual Percentage” column represents the percentage of subjects who perceived that the decision to prescribe the triptan was solely the prescribers, shared by the prescriber and themselves, or solely theirs. The “Patient Preference” column represents the percentage of subjects who preferred that decisions regarding triptan therapy be made by the patient, provider, or a mix of the two.

25% prescriber and 75% them; and 3.1% of participants reported that they were responsible for 100% of the decision. Seven percent of participants stated that they would prefer the decision to treat with a new abortive medication be made 100% by the prescriber. 38.7% wanted the decision to be made 75% by the prescriber and 25% by them; 50.9% wanted the decision to be shared equally between the prescriber and themselves; 2.4% wanted the decision to be 25% the prescribers and 75% theirs; and 1% wanted the decision to be completely theirs (Table 6).

Confidence and Satisfaction with Prescribing Provider.—87.5% of participants stated that they had confidence in the provider who prescribed the triptan while 3.4% did not have confidence in their prescribing provider (9.2% neither agreed nor disagreed that they had confidence in their prescribing provider). 70.9% (207/292) reported that their provider did a good job giving them information about the triptan while 10.8% did not think that their provider did a good job providing them with information about the triptan (18.2% neither agreed or disagreed that their provider did a good job providing them with information about the triptan).

DISCUSSION

Source and Methods of Education Delivery.—Most participants received the majority of their education about the triptan from the prescriber’s office in the

form of direct education from the prescriber (66.1%), which is consistent with the patient first ranked preferences that information be conveyed directly from the prescriber in the form of an oral discussion (40.2%). Under ideal circumstances, the prescribing provider would be able to fully educate a patient on all aspects of the prescribed triptan through direct discussion with the patient. However, in actual practice, time constraints can limit the education provided face-to-face during an appointment. As such, providing supplemental individualized written instructions (the second most desired method of education) in addition to an oral discussion by the prescriber would meet the most desired preferences of the majority of patients.

Although educating the patient is primarily the responsibility of the prescriber, the relatively high percentages of self-education (17%) or no education (23.9%) may reflect the failure of package inserts, pharmacists, and non-prescribing providers to serve as effective second lines of patient education.

Education Content.—At least 67.5% of participants reported receiving education about if a triptan should be taken, when a triptan should be taken, possible side effects, cost, and how to obtain refills. Although it is encouraging that the majority of patients recalled receiving education about if and when a triptan should be taken and potential triptan side effects, these data also show that there is room for improvement when educating patients about the triptans.

Cost information was only received 24% of the time. Providers might not discuss the cost of prescribed medications because such information is often difficult to access in a timely fashion because of variation among patients’ insurance plans. Furthermore, medication cost might not be strongly considered when a provider is deciding which medication to prescribe. In a study involving 571 physicians, effectiveness of treatment was a more important factor than high total costs in physician decision making.¹⁰ In that study, the likelihood of a clinician choosing a particular treatment was greater if the physician had positive experiences with that treatment; small patient co-payments were less important.¹⁰ As such, if patient co-payments for a triptan are not being

strongly considered by the clinician, the clinician might be less inclined to educate the patient about triptan cost. However, a strategy of prescribing triptans that includes consideration of patient financial obligations may improve adherence and reduce patient concerns. Because many of the newer electronic medical record programs include formulary preferences specific for each patient, cost information is likely to become increasingly more available to prescribers, thus facilitating consideration and discussion of cost at the time a triptan is prescribed. Although physicians may choose not to spend much time on discussing cost with their patients because it is less desired information (Table 3), clinicians should still consider cost when prescribing a triptan, as an unaffordable triptan is one that a patient will be unlikely to utilize.

Regarding side effects, most participants preferred to receive education about the most common triptan side effects rather than addressing all possible side effects. Addressing the most common side effects is a patient preference that facilitates a more time efficient discussion, and may reduce patient anxiety that can occur while addressing multiple uncommon side effects.

At least 60% of participants received education about taking other medications with triptans, how many doses can be taken for each migraine, how many doses can be taken each week/month, and what to do if the triptan does not work. These specific educational components cover some of the most basic information that is required for a patient to safely and effectively use a triptan to treat their migraine attack.

Consistent with patients' lack of desire to discuss triptan mechanism of action, information regarding mechanism of action was only received about 48.3% of the time. Although time constraint may be a factor as to why mechanism was not addressed with a higher frequency, some prescribers may also feel that discussing mechanism of action may overwhelm a patient who is already receiving a large volume of information regarding the triptan and possibly other therapies. For patients who desire information about mechanism of action, one approach is to include a brief mechanism of action section in a patient instruction sheet. An alternative is to briefly include mecha-

nism of action as a segue to a discussion on dosing. For example, explaining the triptan mechanism of action can logically lead to a discussion regarding the reasons why early dosing leads to better efficacy.¹⁰

Decision Making.—The vast majority of patients (92%) preferred that the decision to prescribe a triptan be a joint decision between the patient and the provider. In actual practice, patients were not as involved in decision making as they would like to be, as patients reported that the prescriber served as the sole decision maker 55.1% of the time. This is in contrast not only to the patient preferences demonstrated in this study, but also is in contrast to the movement toward patient centered medicine.

A survey study involving 400 physicians and 1020 of their patients demonstrated that young, healthy female patients tended to prefer a more patient centered approach and that female physicians tended to put more emphasis on patient preferences.¹¹ In addition to gender, the preference of a patient to be more involved in decision making is influenced by education, age, and disease state. In a study by Mira and colleagues involving 764 patients, 35.1% (268) of patients preferred to have the last word in clinical decisions. Age and severity of illness increased the tendency to take a passive role in decision making.¹² Prescribing a medication that the patient feels they had a role in selecting may positively influence patient adherence to the medication and may decrease the chances of discontinuation.

Confidence and Satisfaction with Prescribing Provider.—Participants had confidence in their providers (87.7%) and generally felt that their providers did a good job educating them about the triptan (71.1%). Clinicians who involve their patients in the decision-making process are more likely to have satisfied patients. In Krupat et al's survey study, the most highly satisfied patients tended to have physicians who shared their views on the appropriate balance of decision making between the physician and patient or had physicians who were more patient-centered. Patients with less patient-centered physicians were significantly less satisfied.¹¹

Study Limitations.—Recall bias is an important limitation to this study. It is not possible to differentiate between a subject truly not having received

triptan education and the subject just not remembering having received such education. Information regarding medications is frequently forgotten, with medication information being the least remembered aspect of medical information provided to a patient when tested 5-10 minutes following discharge from an emergency department.¹³ Furthermore, a patient's level of health literacy may affect their recall of medication instruction. An association between inadequate functional health literacy and poor recall of medication information in university-based outpatient pharmacy settings has been recently documented in a pilot study.¹⁴ Patient's health status and number of recommendations or instructions may also affect recall.^{15,16} There is an inverse relationship between the number of recommendations given to a patient and the proportion of recommendations they correctly recall.¹⁶ Social support and caregiving may play a role in patients' recall of information. Teng et al showed that the retention of information in an informed consent might vary over time with the presence of social support in a population of caregivers and patients with Parkinson's disease.¹⁷ Asking patients to repeat treatment recommendations may be effective in improving patients' recall of information.¹⁶ Our study did not assess if patients were asked to repeat triptan education, thus this variable was not controlled. Free text with pictographs has been shown to improve patient comprehension and recall of inpatient discharge instructions in a small pilot study.¹⁸ We did not assess if this method was used in patients' education. Other factors that may affect recall include patient expectations, age, use of medical terminology, and medical knowledge.^{15,19} Reading a question or statement regarding the presented information may trigger more specific, complete memories, thereby positively effecting recall.²⁰ Therefore, the questions in our study may have been a cue for a more appropriate and accurate recall of information and may serve as a basis for improvement in provider-patient communication.

Another limitation is that the study population is from tertiary care headache centers so the results may not be completely generalizable to other practices.

In future studies, subgroup analysis could be performed to determine whether migraine frequency or

the presence of medication overuse headache impacts the congruence between patient expectations and actual practice regarding education and decision making at the time a triptan prescription.

CONCLUSION

Based on this study, it is clear that patients prefer the "shared model" approach to medical decision making when a triptan is prescribed. However, the "shared model" for decision making is currently being underutilized. A fundamental component of the "shared model" approach is adequate patient education. Based on our results, the majority of patients received education that was generally consistent with their desires. Patients preferred a direct discussion with their prescribing provider as the primary source of education. The most desired topics for discussion included when/if a triptan should be taken, the number of times a triptan could be taken for a single migraine attack, co-administration of the triptan with other acute medications, and the most common side effects. Focusing on these topics during a direct discussion should enhance patient satisfaction and may enhance compliance. Limitations of this approach include time in the office, availability of ancillary staff, and the patient's ability to comprehend information conveyed during the visit. These and other reasons may explain why although the majority of patients reported having received education on the most important topics, the proportion of patients educated on each topic was far below 100%. Thus, there is certainly room for improvement in education outside of the headache specialist's office, and there is need for the specialist to provide additional triptan education to their new patients who are already taking triptans.

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