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# Views and Perspectives

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## The Traffic Light of Headache: Simplifying Acute Migraine Management for Physicians and Patients Using the Canadian Headache Society Guidelines

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Migraine is a disabling neurological condition and it is well described that early treatment is more effective and less likely to lead to headache recurrence. While it would seem intuitive for a migraine sufferer to treat early, despite well-established guidelines by the Canadian Headache Society, many sufferers continue to treat late. As a result, acute therapy is less effective, resulting in higher associated disability and a longer lasting attack. Pain scales can help patients determine how to treat; however, we propose a simple, easily recalled traffic light system to help patients determine which drug to use based upon how they feel. The traffic light system is based on the associated disability of the migraine attack, with green being a “I can still go” headache, a yellow being a “I have to slow down” headache, and a red being a “I have to stop” headache. The traffic light system leads to earlier more effective treatment with a reduction in migraine-associated disability.

**Key words:** migraine, disability, stratified care, acute treatment

**Abbreviation:** NSAID nonsteroidal antiinflammatory drug

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### BACKGROUND

Migraine is a complex neurological disorder that can be difficult to diagnose, as it often masquerades as self-diagnosed tension headache, stress-related headache, a menstrual headache, or a headache due to sinus issues. Once the diagnosis is confirmed, stratifying care rather than using a stepwise approach provides significantly better clinical outcomes,<sup>1</sup> as it matches a patient’s migraine-associated disability

with the most appropriate medication. In addition to medical management, encouraging patients to follow lifestyle recommendations, and potentially consider herbal and vitamin therapy, is not only effective, but additionally appeals to patients who prefer to use the least number of drugs possible.

Stratifying care depends on the associated disability and the severity of the pain. Pain scales are important tools to measure a patient’s level of pain, or to monitor improvement or worsening of pain. However,

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these scales can be difficult to implement and they do not take into account a measure of disability. When it comes to rating migraine pain, one person's pain may not relate well to another. One patient could be sitting in a doctor's brightly lit office, looking very comfortable with a 10/10 headache, while another patient may cancel their appointment due to a 6/10 headache that has confined them to bed. Additionally, some patients feel that a level 10 does not adequately describe their pain and thus might score their pain as a 15/10, for example. How can we determine the best therapy for each of these three patients?

At our center, we created a scale that is easy for the clinician to teach, easy for the patients to understand, and easy for the patients to implement. We have created a simple "traffic light" system of migraine severity. A "green"-level headache is a headache that is mild enough to permit the patient to "go" about their usual activities. A "yellow"-level headache is more moderate and the patient must exercise "caution" or "slow down," perhaps canceling some of their activities. Finally, a "red"-level headache is a severe, "no go" headache that "stops" a patient from doing their activities for the day. We use a reminder card given to patients to carry with them at all times (Fig. 1). Other fields of medicine have found a similar tool to be helpful. The Asthma Action Plan uses a color-coded scheme to recommend a stratified treatment plan based on the severity of the symptoms<sup>2</sup> and it has been found to improve patients' adherence to their asthma treatment plan.<sup>3</sup>

Our "traffic light" is based on the disability and the severity, and thus aligns with the Canadian Headache Society acute migraine therapy guidelines. In these guidelines, medication choices are based on headache severity, as mild, moderate, or

severe. A "green"-level mild headache could potentially be managed with a nonsteroidal antiinflammatory drug (NSAID) for example, and a "yellow"-level moderate headache could be treated with an NSAID or a triptan, depending on the patient's level of functioning. A "red"-level severe headache might require both a triptan and an NSAID or possibly a nonoral triptan if there is associated nausea. A headache that is present upon waking is likely best treated as a red headache, since treatment is now "late," possibly increasing the risk of a long duration headache or one that will recur (Fig. 2). It is important to treat early since a migraine can become severe within 20-60 minutes and, if treated after 60 minutes from onset, treatment success drops from 80 to 50%.<sup>4,5</sup> Using our "traffic light of headache," patients can select first-line therapy based on the severity of their attack, which should lead to improved outcomes.

In our practice, patients have found this exceptionally easy to understand and to follow, and they are more adherent to treating early. Additionally, this system has empowered patients to take control of their treatment plan and severity rating, allowing them to choose acute medication more effectively. It has helped reduce the uncertainty about whether or not a patient should take their triptan, for example. Using this method, patients can also color-code their headache calendar. This permits treatment efficacy to be assessed at a quick glance, with a goal of seeing fewer red/yellow days and more green, or even blank (white) headache-free days.

## CONCLUSION

An important step in acute migraine treatment is early intervention using the stratified care approach as recommended in the Canadian Headache Society Guidelines. Our traffic light system provides a simple

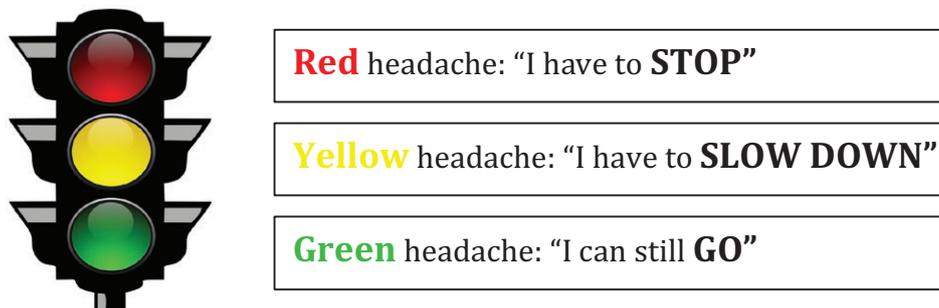


Fig. 1.—Traffic light of headache card given to the patients.

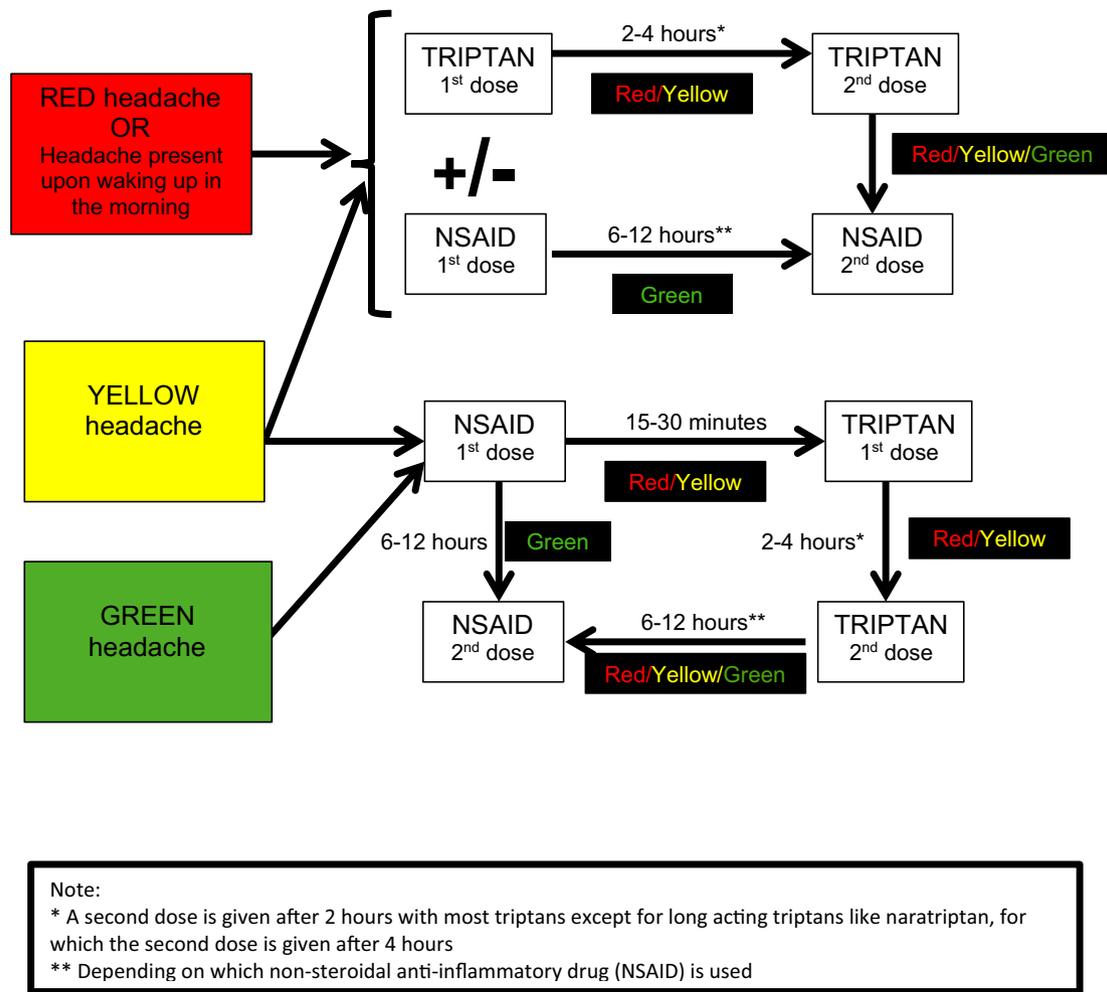


Fig. 2.—Stratified acute migraine treatment: The traffic lights of headache strategy.

scale that is easy for the patients and the practitioners to understand and follow, leading to more effective medication choices and improved treatment outcomes. Our center is now conducting a prospective trial using our traffic light system of headache severity rating to assess its reliability, ease of use, and treatment outcomes.

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