Triage and case presentations in a chiropractic pediatric clinic

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Received 29 March 2007; received in revised form 15 April 2007; accepted 27 May 2007

Key indexing terms:

Triage;
Chiropractic;
Pediatrics;
Pregnancy;
Crisis;
Primary care

Abstract

Objective: The use of triage in a chiropractic practice is to determine whether or not a patient who has presented to an office is in need of a referral to another health care provider. The objective of this article is to illustrate the use of triage skills in a primary care, chiropractic pediatric practice. This is examined both in the new patient setting and during visit-to-visit protocol.

Method: An analysis of the number of chiropractic triage visits during a 1-year period was performed on 48 new children or pregnant women and 1634 existing pediatric and pregnancy visits.

Results: The average level of chiropractic triage for a new patient, whether pediatric or pregnant, was a limited level of concern (P3, green flag), with more than 85% of new patients falling into that category. Fifteen percent were at a cautionary (P2, yellow flag) level, and none were at the emergency (P1, red flag) level. Between 12% and 15% of the total of existing pediatric or pregnancy visits were at a P1 or P2 level of triage, and 11% of the total of pediatric triage visits were at the P1 level.

Conclusion: New patients rarely come to a chiropractic pediatric office in a P1-level crisis, whereas existing patients have a much higher likelihood of presenting during a P1 challenge. P2 triage levels are somewhat common, whereas P3 triage levels are the most frequent. Triage methods are a way to help place a patient in a category that can ensure an optimum, safe, and effective level of care.

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Introduction

Triage can be defined in a number of different ways, depending upon the setting in which the word is used. *Merriam-Webster's Dictionary* defines the

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word as¹ “A system of dealing with cases (as patients) according to priority guidelines intended to maximize success.” *Taber's Cyclopedic Medical Dictionary* has a similar definition but suggests more advanced thinking²: “Common triage categories used in the field would include P-1 or red, P-2 or yellow, P-3 or green.” One can classify their “crisis” patients in one of the 3 categories: P1/red/emergency (needs immediate referral); P2/yellow/cautionary (warrants additional attention and follow-up), or P3/green (limited concern).²

In the 2005 *Job Analysis of Chiropractic*,³ pediatric chiropractic care increased from 9.7% of patients in 1991 to more than 18% in 2003. No information is provided on the number of pregnant patients. An increase in the number of pediatric cases that are being seen by the chiropractic profession suggests that there will be a growing number of conditions that present to chiropractor's offices that will require some level of triage.

The use of triage in chiropractic practices is to determine whether or not a case that has presented to an office, whether new or returning, is in need of a referral or if the presenting problem is of less concern. Hence, in the case of chiropractic care, using the concept of triage can aid in the clinician's differential diagnostic abilities.^{4,5}

It is essential that the examining chiropractor be familiar with common and less frequent pediatric and pregnancy challenges that may go unnoticed.⁵⁻⁷ A discerning clinician must always have his eyes and ears open, searching for clues that may suggest one diagnosis over another. Using the above triage categories, an appropriate assessment can occur by placing patients into P1 to P3 subsets.

The chiropractor with a pediatric emphasis can use triage during 2 separate and distinct junctures. The initial consultation is the first time the child or pregnant patient must be critically diagnosed. The second and more frequent use of our diagnostic ability occurs during regular office visits, in which existing patients present with a new or exacerbating symptom. Because chiropractors are transitioning to primary health care providers, patients often visit their offices for advice before or rather than visiting an emergency department or urgent care facility.^{8,9}

This article is an attempt to illustrate the role that triage (as defined by the author) plays for the chiropractor who specializes in a family practice, where he or she regularly sees children and pregnant women. This is examined both in the new patient setting and during visit-to-visit protocol.

Method

A 2-part retrospective study was undertaken in the clinical setting of a chiropractor who holds an advanced degree in chiropractic pediatrics (Fellow of the International Chiropractic Pediatric Association).

An analysis of the records of 48 new children and pregnant women who presented during a 1-year period was performed. Their initial presentation complaints and subsequent triage level during this first visit were noted. All new patients were placed in one of the 3 triage categories: P1/emergency, P2/concern, P3/limited concern.

Next, a visit-by-visit analysis was examined for each pediatric and pregnant case seen in the chiropractic office during the 1-year period. This was done to determine how often triage was used during clinical decision making and what level of triage occurred during these subsequent crisis visits. In this category, a fourth triage category was created: P4/white/nontriage or regular office visit.

The decision of whether or not a patient fell into the P1 to P3 categories began with answering the question “Did the patient present with a new symptom/problem, or had the original/entry condition worsened?” If the answer to the above question was affirmative, then a more detailed diagnostic workup was initiated; and the patient was categorized as P1 to P3 based on the severity of the complaint. If the answer to the above question was negative, then the patient was placed in the P4/nontriage category. A P4/nontriage categorization was indicative that no additional diagnostic criteria above and beyond the normal visit analysis were used. The institutional review board of Life University approved the study.

Results

New patient analysis—pediatric subset

The 40 new children who presented to the office from May 1, 2005, to May 1, 2006, had the following breakdown of chief complaints: 14 (35%) orthopedic/spinal-related problems, 18 (45%) organic problems, and 8 (20%) wellness patients with no specific complaints. Of these 40 children, 34 (85%) were at a P3 triage level and 6 (15%) were at the P2 triage level. The presenting problems of the P2 children were as follows: 1 orthopedic/spinal concern, 2 cases of asthma, 1 child with vomiting, 1 with an ear infection, and 1 well

Fig 1. Most common conditions seen in new pediatric patients (n = 40 patients, some patients presented with more than one complaint).

newborn who had no other doctor overseeing the case. None were at the P1 level.

The most common conditions seen with new pediatric patients were as follows (in descending order): orthopedic/spinal concerns, respiratory challenges, wellness, and stomach-related issues. The orthopedic complaints included pain in various regions, such as back, neck, head, and shoulder, as well as scoliosis. Pediatric respiratory problems included asthma, allergies, and colds. Pediatric stomach complaints involved vomiting, colic, and pain (Fig 1).

New patient analysis—pregnant subset

The analysis of the 8 pregnant women who presented as new patients to this office during the period May 1, 2005, to May 1, 2006, revealed that 7 of 8 were at the P3 level (87.5%). The one at the P2 level (12.5%) was classified as such because of significant vomiting and pain in the back and groin while in the early part of her third trimester (raising the level of suspicion toward possible preeclampsia). None were at the P1 level. The 2 most common conditions seen in the presenting new pregnant patients were women whose child was in the breech position and pain syndromes. The pain syndromes included lower back, neck, and ligament pain (Fig 2).

Existing patient analysis—pediatric subset

Examining each of the 1634 pediatric office visits during the year indicated that 87.3% (1427) were of a nontriage nature (P4 level). Two hundred seven (12.7%) of the total number of pediatric office visits involved some level of triage; 1.4% (23) of the pediatric visits, or 11% of the triage visits, were at a P1 level, indicating that referral and comanagement were recommended.

There was a slight increase in the number of P2-level triage visits. Seventy-six (4.7%) of the total number of pediatric visits, or 37% of the triage visits, were at a P2 level, indicating that a high level of case monitoring was recommended. One hundred eight (6.6%) of the total number of pediatric visits, or 52% of the triage visits, were at a P3 level, indicating that these were not crisis-level cases.

Of the 207 visits that warranted a level of triage, the following conditions were the most common: cough/asthma, colds/respiratory illnesses, sports injury, headaches, fever, vomiting, leg/foot pain, and ear infections (Fig 3).

Existing patient analysis—pregnancy subset

The analysis of the 139 pregnancy office visits during the year showed that 85% (118) were of a nontriage nature, whereas 15% (21) pregnancy office visits involved some level of triage. None of the pregnancy visits by existing patients were at a P1 level.

A higher level of case monitoring (P2 triage category) was recommended in 2.8% (4) of the total number of pregnancy visits, or 19% of the triage visits. Seventeen (12.2%) of the total number of pregnancy visits, or 81% of the triage visits, were at a P3 level, indicating that these were not crisis-level cases. Of the 21 visits that warranted a level of triage, the following conditions were the most common: lower back pain, headaches, shoulder and middle back pain, rib pain, and sinus problems (Fig 4).

Discussion

Chiropractic triage of the new patient seems to differ substantially from chiropractic triage of existing patients. The average level of triage for a new patient, whether pediatric or pregnant, was a P3 level, with

Fig 2. Most common conditions seen in new pregnant patients.

Fig 3. Most common problems warranting a level of triage for existing pediatric patients.

more than 85% of new patients falling into this category. Fifteen percent were at a P2 level, and none were at the P1 level. This indicates that in the new patient category, whether pediatric or pregnant, patients generally do not come to a chiropractic office in a potential crisis or emergency situation. These individuals are being seen by the medical doctors or in a hospital setting.

However, between 12% and 15% of the total of existing pediatric or pregnancy visits during the year studied were at a P1 or P2 level of triage. Eleven percent of the total pediatric triage visits was at the P1 level (in which immediate referral was recommended), and 37% were at the P2 level (which chooses a “wait and see” approach). These findings show the high level of trust patients have with their chiropractors. In essence, the established patients are presenting to the chiropractic office with the question of whether or not

an emergency department visit is necessary. They are expecting their chiropractors to use a level of triage to determine whether their next step is a higher level of assessment in the emergency department or if a wait and see attitude is more appropriate. This establishes the fact that chiropractors have indeed become primary care, portal of entry clinicians. It also indicates that referral and comanagement of childhood challenges should be expected on a regular basis in a pediatric practice because approximately one of every 10 triage visits will result in a referral for further differential diagnosis.

The use of chiropractors for triage decisions demonstrates the increasing use of chiropractors as gatekeepers in the health community. With ongoing visits, patients begin to see their chiropractor as someone who has significant diagnostic ability and may be more accessible than their family doctor or pediatrician.

Fig 4. Most common problems warranting a level of triage for existing pregnant patients.

Some of the more common conditions that are seen in the pediatric population are orthopedic/spinal-related problems and respiratory challenges (such as coughs, asthma, and colds). Babies in the breech position, spinal-related problems, and respiratory problems (such as sinus challenges) are at the top of the list for pregnant patients.

This is in sharp contrast to the report from the 2005 *Job Analysis of Chiropractic*. Although not measured strictly on the pediatric population, it states that³ “Chiropractors rarely or virtually never see patients with respiratory problems.” The analysis goes on to include that both “[s]inus conditions and allergies are sometimes seen in chiropractic practices.” Furthermore, other conditions of the eye, ear, nose, and throat are “... virtually never seen in chiropractic practice.”

Chiropractors have a unique perspective in seeing their patients. The traditional allopathic physician generally treats a pediatric patient when he or she is sick, with occasional well-child checkups. This might be once or a few times per year. Chiropractors see their patient more often and hence establish a broader baseline of what is normal for that particular patient.

Although most of the chiropractors’ established patient visits and new patient encounters do not involve a P1 triage problem requiring a referral, chiropractors have a responsibility beyond the correction of subluxation. Although chiropractic may have what is said to be a “limited” license, the scope of what is seen presenting in their practices is increasing, as reported in chiropractic literature^{4,8} and in pediatric medical journals,¹⁰⁻¹⁵ and seen in this research paper.

There are several limitations to this study. First, only one chiropractic office was analyzed; thus, these findings may not reflect common chiropractic practice. However, the author feels this study typifies what may be seen in a specialty type of practice and hence may be a bridge to further research. One possible follow-up can be to analyze data from multiple pediatric-based chiropractic offices, which can form a larger population to scrutinize how other offices are using the triage concept. Second, it is possible in the analysis that some of the patients should have been assigned to a different category. Larger interdisciplinary studies that evaluate interexaminer and intraexaminer patient assessment may help address these limitations.

Conclusion

There are a growing number of parents and pregnant woman who trust their doctor of chiroprac-

tic as being their primary care clinician.^{8,9} This is evidenced not only in the chiropractic literature but medical journals as well.¹⁰⁻¹⁵ Triage methods are a way to help place a patient in a category that can increase the likelihood that patients receive an optimal, safe, and effective level of care. Their use can strengthen the chiropractor’s abilities to manage patients with a variety of challenges, both musculoskeletal and organic, and, most importantly, aid the chiropractor in appropriate timing of patients who require comanagement or emergency care.

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