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Chronic Pain and Chiropractic:
A 12-Week Solution & Necessity for Care

By Mark Studin and William Owens | November 29th 2017

How long should a patient be under chiropractic care? This has been the struggle for many in the insurance industry, the legal community, licensure boards and a "hot topic" politically. There are the CCGPP [Council on Chiropractic Guidelines and Practice Parameters], the Croft Guidelines, Best Practice for Chiropractic Care for Older Adults, Best Practices Recommendations for Chiropractic Care for Infants, Children and Adolescents, Chiropractic Practice Guidelines: Chiropractic Care for Low Back Pain. These are just some of the chiropractic industry's guidelines, then you must consider the insurance industry's care paths where most are hidden behind statements like "medical necessity" and "eligible charges." Those are "buzz phrases" indicating they have a guideline, but most will neither publish or make them available to the providers, their insured or the public claiming proprietary information giving them a legal basis for the secrecy.

Aetna, as an example lists specifics for care and then goes further to limit a significant number of techniques, procedures and diagnostics claiming they are "experimental." Although Medicare considers chiropractic a covered service they limit treatment arbitrarily according based upon significant feedback from many in the profession. Workers Compensation Boards have guidelines that are either legislated or created based upon a case law judge's opinion which include arguments from the defense to support limiting care. At best, that is an arbitrary process based upon rhetoric or legislation that is too often ignorant of the scientific literature resulting in serious imposed limits in scope of treatment as we see in California, New York and many other states.

Although the guideline landscape is expansive, these authors choose to rely on a hybrid of both "Best Practice" and "Evidenced Based" method in the development of treatment plans. Both have a strong place in clinical practice, academic settings, the courts and third-party reimbursement systems.

Best Practice is defined as "a method or technique that has consistently shown results superior to those achieved with other means, and that is used as a benchmark. In addition, a best practice can evolve to become better as improvements are discovered. Best practice is considered by some as a businessbuzzword, used to describe the process of developing and following a standard way of doing things that multiple organizations can use" (Best Practice, http://en.wikipedia.org/wiki/Best practice).

These are certain procedures in healthcare that are taught in schools, internships and residencies and are considered the "standard" by which care is expected to follow. These practices are based on clinical experience and rely heavily on time-tested approaches, that is how a profession evolves and grows. Surprisingly, most of the best medical practice care paths are not published in the peer-reviewed indexed literature. This is due to many factors, but the most obvious are applications of financial resources and grants to "new" discoveries and the simple fact that the clinical arena is well positioned to monitor and adjust these practices in a timely manner allowing practitioners to keep pace with the literature that follows. In recent times, although it has been talked about for decades, there is another parameter that exists and although focuses on best practices, there is a strong reliance on published studies, aka "evidence", as the main driver of whether a procedure is approved and reimbursed. This is extremely problematic to healthcare outcomes.

Evidence-based practice(EBP) is an interdisciplinary approach to clinical practice that has been gaining ground following its formal introduction in 1992. It started inmedicineasevidence-based medicine (EBM) and spread to other fields such as dentistry, nursing, psychology,
education, library and information science and other fields. Its basic principles are that all practical decisions made should be based on three important criteria. First, they must be based on the practicing provider's clinical experience, secondly, they should be based on published research studies and thirdly should consider the patients expectations.

> "Evidence-based behavioral practice(EBBP) entails making decisions about how to promote health or provide care by integrating the best available evidence with practitioner expertise and other resources, and with the characteristics, state, needs, values and preferences of those who will be affected. This is done in a manner that is compatible with the environmental and organizational context. Evidence is comprised of research findings derived from the systematic collection of data through observation and experiment and the formulation of questions and testing of hypotheses" (Evidence-Based Practice, http://en.wikipedia.org/wiki/Evidence-based_practice).

This highly-debated topic of evidence-based vs. best practice has valid issues on each side, but putting them together as a hybrid would allow them to thrive in both a healthcare delivery and reimbursement system; therefore, all sides would win. This would allow advances in healthcare to save more lives, increase the quality of life and at the same time, offer enough safeguards to prevent abuse to payors. A one-sided approach would tip the scales to favor either the provider/patients or the payors which, in the end, results in distrust and conflict.

Evidence-based medicine proponents argue that it would eliminate waste and reduce costs while providing patients with the most up-to-date care available. Those against this concept argue that reliance on evidence-based care would eliminate many procedures that fall under the best medical practice parameters and remove the clinical decision making and professional experience from the equation. They feel what would be left is denial of good therapies and the stifling of innovation since the process of establishing a research study, following its participants and publishing those findings can take many years not to mention poor study design or research bias can have both a profound effect on the evidence provided and severely delay the final publication. This delay would eventually cost either lives or severely diminish the quality of life for those who could have been helped during the research and publication processes.

Haavik, Niazi, Holt and Murphy (2017) reported:

> Post hoc tests using the Bonferroni correction revealed significant mean differences in N30 MU amp (P = .049) and N30 MU to M + U ratio data (P = .001) during the chiropractic intervention, but no significant changes were observed during the control period (P = .1 for N30 MU amp and P = .3 for N30 MU to M + U ratio data). The effect size for the change in N30 MU amp was 0.61, and for the N30 MU to M + U ratio it was 0.66. The N30 ratio change represented on average a 37.4% decrease following the 12 weeks of chiropractic care. The N30 MU amplitude changes following chiropractic care represented an 18.0% decrease in amplitude compared with baseline. (Pg 131)

These results were based upon a limited study, but validates that a chiropractic spinal adjustment modulated aberrant afferent input by 37.4% in median and ulnar nerve rations and 18% in median and ulnar nerve amplitudes.

The authors went on to report:

> The purpose of this preliminary study was to assess whether the dual SEP technique is sensitive enough to measure changes in cortical intrinsic inhibitory interactions in patients with chronic neck pain after a 12-week period of chiropractic care and, if so, whether any such changes related to changes in symptomatology. (pg. 128)

This was tested to determine if inhibitory innervation was affected specifically by a chiropractic spinal adjustment and the

outcomes conclusively, against a 2-week control period of the same test subjects confirmed these results.
Haavik, Niazi, Holt and Murphy (2017) went on to describe the 12 weeks of chiropractic care that realized these results:

> The chiropractic care plan was pragmatic and generally consisted of 2 to 3 visits per week for the first 2 to 3 weeks. Frequency was reduced based on clinical findings and patient symptomatology. By the end of the 12-week period, participants were seen once or twice a week. No requirements were placed on the treating chiropractor, other than including chiropractic adjustment or manipulation during treatment; thus, the care plan was designed in conjunction with patient preferences and was based on the patients' history, symptoms, wishes, and time availability as well as the clinician's clinical experience and knowledge. (pg. 130)

Although the length of care in this study does not render a specific guideline, it does validate that it takes time to realize changes in the mechanics of the spine and the human nervous system. The results are consistent with the "Best Practice Model" and the authors 57 years of combined experience and results. Twelve weeks of care is a conservative and reasonable time frame since we are observing and considering that cerebral neuroplastic changes are a direct and verifiable result of a chiropractic spinal adjustment. **Less than 12 weeks of chiropractic spinal adjusting has not been evidenced to make these reported changes, therefore we must consider this threshold for care.**Concurrently, what we see is that less treatment time does not allow the connective tissue to help the spine as one contiguous organ system to remodel to a homeostatic state (a conversation for a different paper).

Chiropractic care for chronic pain patients requires a both a combination of Best Practice and Evidenced Based models as the literature is now verifying that a chiropractic spinal adjustment is an effective care path and 12 weeks is a minimum to see neuroplastic changes. Clinically speaking however, to confirm the optimum care path for this particular population of patients, continuation of care should be based on re-evaluations every 30-days and should continue as clinical sign and symptoms persist and there is evidence that the patient is benefiting both in the short and long term. Additionally, no significant improvement over the first 12 weeks should be considered acceptable as neuroplastic changes are a process. Although these authors have rarely personally experienced a lack of significant neuro-biomechanical changes over that time period, it is a clinical decision that must be derived by the treating provider in a "Best Practice Model" and not a 3rd party.