

Chapter 10: Best Practices: Organizing the Chiropractic Clinical Evidence

Introduction

While some guidelines prefer to separate musculoskeletal and non-musculoskeletal (non-pain) conditions, this author believes separating the two entities represents an artificial categorization of human ailments. This is because the nervous system regulates growth and repair of all the body parts. However, those who prefer this categorization of musculoskeletal and non-musculoskeletal conditions do so to separate axial pain syndromes from the rest of human ailments. They do this in order to claim that Chiropractic care is only supported for musculoskeletal conditions. This arbitrary categorization of body parts assumes that the human body (or any animal body for that matter) can be separated into axial skeletal structures and non-axial skeletal structures and still function harmoniously. The human body is vastly complex and integration of information processed by the nervous system cannot be separated into non-congruent parts.

It seems quite illogical to believe Chiropractic Adjustments can affect pain and function in one region of the body (axial skeleton) and not the remainder of the body (organs, senses, etc), as if the body can be separated into dichotomous pieces. The vast majority of the human nervous system structure is used to sense data from connective tissue mechanoreceptive nerve organs, control the upright posture, and coordinate movements of the spine and limbs. For one to think this vast amount of brain and nerve structure can be influenced, by chiropractic adjustment, only in the axial skeleton and not in the viscera seems quite naïve.

Since 1895, Chiropractors have reported their successes on a multitude of patient ailments and diseases as Case Series and Case Reports in Chiropractic texts, newsletters, magazines, and non-indexed journals. These clinical studies were accomplished with, not only diversified spinal manipulation, but more often with a variety of different Chiropractic Technique adjusting maneuvers. Many of these clinical studies were written before indexing of the Chiropractic literature ever occurred.

Because of discrimination against Chiropractors by modern medicine until the Wilks et. al. lawsuit against the AMA, few Chiropractic clinical studies were published in the Index Medicus before 1985. More recently, Chiropractic clinical studies have been published in journals registered with Mantis, CINAHL, Index Medicus, and ICL (Index of Chiropractic Literature).

Therefore, searches in medical library data bases will find Chiropractic publications from 1985-present, but will not find the immense volumes of Chiropractic clinical studies published before 1985. Therefore, it is necessary to search for this evidence, by hand, in Chiropractic College' libraries. This necessitates an immense amount of effort and few guideline developers are inclined to expend the funds and effort necessary to find these 1895-1985 Chiropractic clinical studies. Recent Chiropractic guideline developers have ignored the vast majority of Chiropractic clinical evidence published before 1985. Likewise, these recent Chiropractic guidelines ignore case studies (Level 4), case series with controls (Level 3), and non-randomized trials (Level 2) evidence in favor of only the randomized clinical control trial (RCTs are Level 1). These selective literature searches have resulted in a skewed presentation of the literature toward conclusions from only RCT clinical studies reporting pain relief.

However, for these current ICA Best Practices and Practice Guidelines, the International Chiropractors Association did decide it was necessary to initiate a monumental effort to find these 1895-1985 published Chiropractic clinical studies to once-and-for-all have an available comprehensive database with this information.

The ICA believes Chiropractic spinal adjustments and spinal manipulation are a necessary part of the health care of pain sufferers. However, since spinal adjustments are known to affect the spinal

nerves and spinal cord, from the data collected during hand searches in Chiropractic College libraries from 1895-1985, Chiropractic care has been shown to be beneficial in a vast number of human ailments and diseases. This historical evidence indicates recent College curricula restrictions of Chiropractic Techniques to, “Diversified and Spinal Manipulative Therapy (SMT) Only”, are unjustified. This restriction to SMT has occurred due to the efforts of the Council on Chiropractic Education (CCE) to model all Chiropractic Colleges after National College’s curricula, with its suggestion of SMT for pain relief only while discrediting, “Named Techniques”, applications for any other health conditions.

Best Practices

This Chapter, ICA’s Best Practices, is a compilation of the Evidence for all Chiropractic Care. All levels of evidence (Levels 1-4) were included and all health conditions were included. In Chapter 11 in the next Section III, the actual ICA Practice Guidelines, based on these “Best Practices” will be presented as Frequency and Duration of Care recommendations.

The idea of, “Best Practices”, seems to have originated in the business sector. Some business definitions of Best Practices are:

1. The processes, practices, and systems identified in public and private organizations that performed exceptionally well and are widely recognized as improving an organization's performance and efficiency in specific areas. Successfully identifying and applying best practices can reduce business expenses and improve organizational efficiency;¹
2. A case study considered to be a good example of a business discipline;²
3. A technique or methodology that, through experience and research, has been proven to reliably lead to a desired result.³

When applying these business definitions to healthcare, it appears obvious that the, “processes, practices, and systems”, and, “technique or methodology”, should be included in the definition of, “Best Practices”. However, in Chiropractic, some⁴ have claimed that Best Practices do not include Frequency and Duration of care, but in our opinion, these are part of, “processes, practices, and systems”, and, “technique or methodology”.

To date and to the best of our knowledge, the only other use of, “Best Practices”, in Chiropractic was by the Council on Chiropractic Guidelines and Practice Parameters (CCGPP).⁴ The findings and observations in this document strongly negate many CCGPP positions.

Analysis of ICA’s Data

It has always been ICA’s position that the health consumer must have the right to choose the type of care for his/her individual health condition. Since the beginnings of Chiropractic, Chiropractors have claimed the Chiropractic adjustment was beneficial in the vast majority of health conditions.

The supporting evidence for Chiropractic, as a consumer’s healthcare choice, is the vast number of manuscripts in ICA’s data base, which have Levels 1-4 evidence for over 300 named disease conditions. Besides providing the level of evidence, we provide the points assigned by the computer program as the ICA Committee member entered data from each manuscript.

The average RCT in our data base received a score of 16 out of a possible 25 points. It is nearly impossible for an RCT to receive 25 points as the requirements are quite comprehensive. To include Levels 2-4 evidence, as Sackett the father of Evidence medicine suggested, the ICA computer program rated each paper and totaled the points for each disease covered in our extensive list of approximately 1,500 publications. The total points are listed in Tables 1A-II below. Note the total points were divided by 16 (which is the average RCT score in our data base). This provided an RCT equivalent score for Chiropractic care support of each of 343 diseases listed in our data base. In light of the complexity of data analysis for this large a volume of work we chose to use RCT equivalent as a

framework by which to judge published papers. For example, “abdominal pain”, is one of the diseases listed in our ICA Best Practices data base in Table 1A. It has no level 1-3 evidence listed in the ICA data base, but has 11 Level 4 studies, with a total point score of 118. This 118 point total is divided by the average 16 points of an RCT, providing 7.4 equivalent RCT’s. Thus, Chiropractic care for abdominal pain is supported by 11 Level 4 studies and it has more points supported than 7 average published RCTs.

Adjustment of Subluxation

At this point, it must be reiterated that Chiropractors do not treat disease. The improvements in disease processes with Chiropractic care is attained by changes in the body’s homeostasis after a chiropractic adjustment is delivered to the spine or extremity. These improvements in diseases are attributed to improved function of the nervous system and the immune system. Chiropractors manipulate and adjust spinal subluxations to care for the patient and facilitate the body’s natural ability to heal. When the chiropractic care achieves this, then the nervous system function is improved.

In addition, Chiropractors use a number of modalities that are ancillary and/or preparatory to the adjustment. These modalities were discussed in the previous Chapter 9 and these modalities have numerous evidence-based published support papers.

Chiropractors do not deny the existence of viruses, bacteria, starvation, disabling injuries, projectile impacts of the body, long term degeneration of body parts, lack of exercise, poor mental health, motor vehicle crashes, etc., that cause disease and alterations of body organs. However, the list of over 300 diseases in Tables 1A-1I, that were improved after Chiropractic care, is the supporting evidence that Chiropractic spinal care can help the vast majority of disease states of the human body. Chiropractic is conservative care, adjustments of the spine, without the invasive methods of modern medicine, which include drugs (with side effects) and surgery (with often missing necessary body parts). The data in Tables 1A-1I is the supporting evidence for Chiropractic claims of helping beyond the treatment of low back pain. Note that patients often have multiple health conditions and multiple regions of their bodies exhibiting symptoms. Thus, the references in Tables 1-4 can have repeats and be quite a long list. Therefore, the references for Tables 1-4 have been placed in Appendix 2 of this document.

Additional Categorization of the ICA Data Base

Even though Chiropractors have broad rights to provide healthcare to the public in all States of the USA, all Provinces in Canada, and many countries worldwide, there have been efforts to restrict these privileges. Recently, these efforts of restriction have been by healthcare condition (e.g., headaches), body region (e.g., neck in Canada & for some time extremities in New Jersey), and age group (pediatrics & geriatrics). Tables 2 and 3 indicate there is ample evidence support for chiropractic care of all regions and all age groups.

Additionally, within Chiropractic, faculty at some chiropractic colleges have condemned the use and teaching of, “named”, Technique methods. In Table 4 below, there are 28, “Named”, Techniques with published evidence for support of their use. However, the reader must keep in mind that in a previous chapter, ICA delineated that, in all States and Provincial practice laws, choice of Technique is a privilege of the licensed Doctor of Chiropractic.

Last, we present Tables 5 (infertility) and 6 (pregnancy), which may not be health conditions, but have a good amount of evidence support for chiropractic care. Chiropractic care has been shown to help women who were previously infertile become pregnant. Chiropractic care has been shown to ease the myriad of skeletal problems in women who are pregnant and have increasing postural distortions as the baby grows. Additionally, chiropractic care has been shown to decrease the labor pains during child birth.

Table 1A
Organization of All the Evidence (R* = ICA's Rating from Chapter 8)

	Keywords	Level I	Level II	Level III	Level IV	Total Points	RCT Equivalent	R*	References
21.	Abdominal Pain	0	0	0	13	148	9.25	B	1-13
22.	Acromegaly	0	0	0	1	11	.7	D	14
23.	ADD/ADHD	0	0	2	22	255	15.9	B	15-38
24.	Allergy	1	0	0	14	172	10.8	A	39-53
25.	Amyotrophic Lateral Sclerosis	0	0	0	1	12	.8	D	54
26.	Anemia	0	0	0	6	52	3.3	C	55-60
27.	Angina	0	2	0	6	82	5.1	B	61-68
28.	Ankle (Pain/Injury)	5	1	1	15	261	16.3	A	69-90
29.	Ankylosing Spondylitis	0	0	0	3	36	2.3	C	91-93
30.	Aneurysm	0	0	0	1	12	.8	D	94
31.	Anxiety	1	0	0	8	110	8.9	B	95-103
32.	Aphasia	0	0	1	3	37	2.3	C	104-107
33.	Apnea	0	0	0	4	37	2.3	C	108-111
34.	Appendicitis	0	0	0	4	38	2.4	C	112-115
35.	Arrested Development	0	0	0	1	6	.4	D	116
36.	Arteriosclerosis	0	0	0	1	12	.8	D	117
37.	Arthritis	2	0	1	30	351	22	A	118-150
38.	Asthma	4	0	2	40	517	32.3	A	151-196
39.	Auditory Neuropathy	0	0	0	2	20	1.25	D	197-198
40.	Autism	1	0	1	6	82	5.1	B	199-206
41.	Autonomic Dysfunction	0	0	0	3	30	1.9	D	207-209
42.	Back Pain	77	7	17	232	3985	249.1	A	210-542
43.	Baker's Cyst	0	0	0	1	8	.5	D	543
44.	Behavioral Impairment	0	0	1	1	22	1.4	D	544-545
45.	Bells Palsy	0	0	0	5	51	3.2	C	546-550
46.	Blocked Atlantal Nerve Syndrome	0	0	0	1	9	.6	D	551
47.	Blood Pressure	7	2	2	10	259	16.2	A	552-572
48.	Brain (Disorders, Injury, Tumor)	0	0	1	11	130	8.1	B	573-584
49.	Breathing Difficulty	0	0	3	8	86	5.4	C	585-593
50.	Bronchitis	0	0	0	5	49	3.1	C	594-598
51.	Cancer	0	0	0	9	87	5.4	C	599-607
52.	Capsular Fibrosis	0	0	0	1	15	.9	D	608
53.	Cardiac Arrhythmia	0	0	0	2	22	1.4	D	609-610
54.	Carpal Tunnel	1	1	1	10	156	9.75	A	611-623
55.	Cauda Equina	0	0	0	3	31	1.9	D	624-626

Table 1B
Organization of All the Evidence (R* = ICA's Rating from Chapter 8)

	Keywords	Level I	Level II	Level III	Level IV	Total Points	RCT Equivalent	R*	References
56.	Cerebral Palsy	0	0	1	10	118	7.4	B	627-637
57.	Cervicobrachial Syndrome	1	0	0	2	35	2.2	C	638-640
58.	Cervicocranial Syndrome	0	0	0	2	16	1	D	641-642
59.	Cervicogenic Pain	6	0	1	10	227	14.2	A	643-659
60.	Chest Pain	0	0	0	21	190	11.9	B	660-680
61.	Chorioepithelioma	0	0	0	1	11	.7	D	681
62.	Chronic Fatigue	0	0	0	6	65	4.1	C	682-687
63.	Cirrhosis	0	0	0	1	13	.8	D	689
64.	Coccydynia	1	0	1	2	48	3.0	B	689-692
65.	Colic	2	0	1	19	225	14.1	A	693-714
66.	Colitis	0	0	0	5	48	3.0	C	715-719
67.	Concussion	0	0	0	1	10	.6	D	720
68.	Congestive Heart Failure	0	0	0	1	10	.6	D	721
69.	Constipation	0	0	4	39	446	27.9	B	722-764
70.	Convulsions	0	0	0	21	235	14.7	B	765-785
71.	COPD	1	0	0	4	57	3.6	B	786-791
72.	Cough	0	0	0	9	100	6.3	C	791-799
73.	Cubital Tunnel Syndrome	0	0	0	1	10	.6	D	800
74.	Cystitis/UTI/Bladder Infection/Urinary Tract Infection	0	0	0	3	23	1.4	D	801-803
75.	Dandruff	0	0	0	1	7	.4	D	804
76.	Deafness/Hearing Loss	0	0	0	20	191	11.9	B	805-824
77.	Dejerine-Sottas Disease	0	0	0	1	10	.6	D	825
78.	Dermatitis/Acne	0	0	0	6	65	4.1	C	826-831
79.	Developmental Delay	0	0	0	6	62	3.9	C	832-837
80.	Diabetes	0	0	0	22	245	15.3	B	838-859
81.	Diffuse Idiopathic Skeletal Hyperostosis (DISH)	0	0	0	1	14	.9	D	860
82.	Disc Degeneration/ Disc Disease/ Disc Lesion	2	0	0	19	217	13.6	A	861-881
83.	Disc Herniation/ Disc Rupture	0	1	1	37	418	26.1	A	882-920
84.	Disc Protrusion	0	0	1	4	56	3.5	C	921-925
85.	Dislocation	0	0	0	6	66	4.1	C	926-931
86.	Double Crush Syndrome	0	0	0	1	12	.8	D	932
87.	Down's Syndrome	0	0	0	3	20	1.3	D	933-935
88.	Duchenne Muscular Dystrophy	0	0	1	6	68	4.3	C	936-942
89.	Dysarthria - Cervical	0	0	0	1	10	.6	D	943

Table 1C
Organization of All the Evidence (R* = ICA's Rating from Chapter 8)

	Keywords	Level I	Level II	Level III	Level IV	Total Points	RCT Equivalent	R*	References
90.	Dysmenorrhea	2	0	1	7	105	6.6	A	944-953
91.	Dyspnea	0	0	0	12	120	7.5	B	954-965
92.	Ear Problems	1	0	2	29	334	20.9	A	966-997
93.	Eczema	0	0	0	3	34	2.1	C	998-1000
94.	Ehlers-Danlos	0	0	0	1	13	.8	D	1001
95.	Elbow Pain	5	0	0	9	179	11.2	A	1002-1015
96.	Emaciation	0	0	1	0	8	.5	D	1016
97.	Emotional Well Being	1	0	0	0	16	1	B	1017
98.	Encephalitis	0	0	0	2	25	1.6	D	1018-1019
99.	Encopresis	0	0	0	3	30	.9	D	1020-1022
100.	Endometriosis	0	0	1	3	37	2.3	C	1023-1026
101.	Enuresis	1	0	2	7	109	6.8	B	1027-1037
102.	Epilepsy	0	0	0	12	137	8.8	B	1038-1049
103.	Erb's Palsy	0	0	0	3	32	2.0	D	1050-1052
104.	Eustachian Tube Blockage	0	0	0	2	22	1.4	D	1053-1054
105.	Eye Pain	0	0	0	6	53	3.3	C	1055-1060
106.	Facial Dysmorphism	0	0	0	1	10	.6	D	1061
107.	Facial Weakness	0	0	0	1	9	.6	D	1062
108.	Failed Back Surgery	0	0	0	6	69	4.3	C	1063-1068
109.	Fasciitis	1	0	0	3	53	3.3	B	1069-1072
110.	Fatigue	1	0	1	19	225	14.1	B	1073-1093
111.	Femoral Nerve Entrapment	0	0	0	2	18	1.1	D	1094-1095
112.	Fever	0	0	0	18	176	11.0	B	1096-1115
113.	Fibromyalgia	1	0	0	6	68	4.3	B	1116-1122
114.	Foot Pain	0	0	0	21	255	15.9	A	1123-1144
115.	Fracture	0	0	2	20	227	14.2	B	1145-1166
116.	Frozen Shoulder	0	0	1	3	54	3.4	B	1167-1171
117.	Gall Bladder Conditions	0	0	0	1	12	.8	D	1172
118.	Gangrene	0	0	0	1	10	.6	D	1173
119.	Gastroenteritis	0	0	0	1	9	.6	D	1174
120.	Gastroesophageal Reflux Disease	1	0	0	0	14	.9	C	1175
121.	Gastrointestinal Disorders	3	0	2	60	681	42.6	A	1176-1241
122.	Gaucher's Disease	0	0	0	1	10	.6	D	1241
123.	Genitourinary Disorders	1	0	2	30	308	19.3	B	1242-1275
124.	Glaucoma	0	0	0	1	13	.8	D	1276

Table 1D
Organization of All the Evidence (R* = ICA's Rating from Chapter 8)

	Keywords	Level I	Level II	Level III	Level IV	Total Points	RCT Equivalent	R*	References
125.	Glenohumeral Impingement Syndrome	1	0	0	3	45	2.8	B	1277-1280
126.	Goiter	0	0	0	2	18	1.1	D	1281-1282
127.	Groin Pain	0	0	0	3	33	2.1	C	1283-1285
128.	Gynecological Disorders	0	0	0	3	32	2	C	1286-1288
129.	Hallux Abductovalgus Bunion	1	0	0	0	19	1.6	B	1289
130.	Hallux Rigidus	0	0	0	2	27	1.7	D	1290-1291
131.	Hamstring Injury/Sprain	1	1	0	5	88	5.5	B	1292-1299
132.	Headache	15	0	6	128	1625	101.6	A	1300-1452
133.	Headache - Tension	2	0	0	9	131	8.2	A	1453-1463
134.	Heart Disease	0	0	0	1	12	.8	D	1464
135.	Hematuria	0	0	0	2	19	1.2	D	1465-1466
136.	Hemiparesis	0	0	0	1	1	.7	D	1467
137.	Hemivertebra	0	0	0	2	16	1	D	1468-1469
138.	Hemorrhoids	0	0	0	1	12	.7	D	1470
139.	Hernia	0	2	1	27	529	33.1	A	1471-1520
140.	Hiccups	0	0	0	2	25	1.6	D	1521-1522
141.	High Blood Pressure	3	1	1	10	182	11.4	A	1523-1537
142.	Hip Dysplasia	0	0	0	2	20	1.3	D	1538-1540
143.	Hip Pain	1	0	0	25	261	16.3	A	1541-1566
144.	Hirschsprung's Disease	0	0	0	1	12	.7	D	1567
145.	HIV	1	0	0	0	17	1.1	B	1568
146.	Hives	0	0	0	1	6	.4	D	1569
147.	Hodgkin's Disease	0	0	0	1	12	.8	D	1570
148.	Hot Flashes	0	0	1	2	37	2.3	C	1571-1573
149.	Hydrocephalus	0	0	0	3	28	1.8	D	1574-1576
150.	Hypercholesterolemia	0	0	0	1	7	.4	D	1577
151.	Hypertension	4	1	1	9	194	12.1	A	1578-1592
152.	Hypertonia / Hyperreflexia	0	0	0	3	35	2.2	D	1593-1595
153.	Hypolordosis	0	1	0	10	121	7.6	B	1596-1606
154.	Immune Problems	3	0	1	12	146	9.1	A	1607-1622
155.	Impingement Syndrome	1	0	0	5	66	4.1	B	1623-1628
156.	Incoordination - Muscular	0	0	0	1	12	.8	D	1629
157.	Indigestion	0	0	0	5	53	3.3	C	1630-1634
158.	Infection	0	0	2	26	278	17.4	A	1635-1664
159.	Infertility	0	0	0	12	119	7.4	B	1665-1676

Table 1E
Organization of All the Evidence (R* = ICA's Rating from Chapter 8)

	Keywords	Level I	Level II	Level III	Level IV	Total Points	RCT Equivalent	R*	References
160.	Influenza	0	0	0	2	12	.8	D	1677-1678
161.	Insomnia	0	0	0	13	138	8.6	B	1679-1691
162.	Intracranial Hypotension	0	0	0	2	12	.8	D	1692-1693
163.	Irritability	1	0	0	2	35	2.2	B	1694-1696
164.	Irritable Bowel Syndrome	0	0	0	1	9	.6	D	1697
165.	Jaundice	0	0	0	3	31	1.9	D	1698-1700
166.	Joint Pain	6	1	1	30	436	27.3	A	1701-1738
167.	Kidney - (Renal Problems)	0	0	0	9	75	4.7	C	1739-1747
168.	Klippel Feil Syndrome	0	0	0	5	44	2.8	C	1748-1752
169.	Knee Pain	5	1	0	17	255	15.9	A	1753-1775
170.	Kyphosis	0	1	2	26	340	21.3	A	1776-1804
171.	Lateral Epicondylitis/ Epicondylitis	3	0	0	4	90	5.6	B	1805-1811
172.	Lateral Sclerosis	0	0	0	2	24	1.5	D	1812-1813
173.	Lateral-Flexion Asymmetry	1	0	2	0	42	2.6	B	1814-1816
174.	Learning Impairment	0	0	0	1	7	.4	D	1817
175.	Leg Pain	5	0	1	58	918	57.4	A	1818-1881
176.	Lethargic	0	0	0	2	22	1.4	D	1882-1883
177.	Light Sensitivity / photophobia	0	0	0	5	56	3.5	C	1884-1888
178.	Liver Disease / Hepatic	0	0	1	9	103	6.4	C	1889-1900
179.	Locked Jaw	0	0	0	1	11	.7	D	1901
180.	Low Back Pain	73	7	15	214	3723	232.7	A	1902-2210
181.	Lower Sacral Nerve Root Compression	0	0	0	2	18	1.1	D	2211-2212
182.	Lung Disorders	2	0	0	28	300	18.8	A	2213-2242
183.	Lymphangioma	0	0	0	1	13	.8	D	2243
184.	Meningitis	0	0	0	3	24	1.5	D	2244-2246
185.	Menstrual Disorders	1	0	1	7	93	5.8	B	1825-1831
186.	Mental Disorders	1	0	2	22	253	15.8	A	2256-2280
187.	Meralgia Paresthetica	0	0	0	2	27	1.7	D	2281-2282
188.	Metabolic Disorders	0	0	0	3	29	1.8	D	2283-2285
189.	Metatarsalgia - Primary	2	0	0	0	34	2.1	A	2286-2287
190.	Microcytic Hypochromic Anemia	0	0	0	1	8	.5	D	2288
191.	Mid Back Pain	3	1	0	21	285	17.8	A	2289-2313
192.	Migraine	4	0	0	27	350	21.9	A	2314-2344
193.	Motion Asymmetry - Cervical	2	0	0	0	30	1.9	A	2345-2346
194.	Multiple Sclerosis	0	0	0	11	117	7.3	B	2347-2357

Table 1F
Organization of All the Evidence (R* = ICA's Rating from Chapter 8)

	Keywords	Level I	Level II	Level III	Level IV	Total Points	RCT Equivalent	R*	References
195.	Muscle Hypertrophy	0	0	0	1	15	.9	D	2358
196.	Musculoskeletal Pain	109	11	17	305	5381	336.3	A	2359-2801
197.	Myalgia / Muscle Pain	7	0	0	31	442	27.6	A	2802-2839
198.	Myasthenia Gravis	0	0	0	4	45	2.8	C	2840-2843
199.	Myelopathy	0	0	0	2	21	1.3	D	2844-2845
200.	Leukemia	0	0	0	1	6	.4	D	2846
201.	Myocardial Infarction	0	0	0	1	2	.1	D	2847
202.	Myofascial Pain Syndrome	4	0	1	16	237	14.8	A	2848-2868
203.	Neck Pain / Cervicalgia	38	5	8	140	2260	141.3	A	2869-3059
204.	Nephritis	0	0	0	1	12	.8	D	3060
205.	Nerve Damage	0	0	0	1	12	.8	D	3061
206.	Nerve Disorders	0	0	0	3	32	2	D	3062-3064
207.	Nervousness	0	0	0	5	50	3.1	C	3065-3069
208.	Neuralgia	0	0	0	18	188	11.8	B	3070-3089
209.	Neuritis	0	0	0	5	40	2.5	C	3090-3094
210.	Neurodystrophic Ulceration	0	0	0	1	8	.5	D	3095
211.	Neuroma	0	0	0	1	10	.6	D	3096
212.	Numbness	0	0	0	34	342	21.4	B	3097-3130
213.	Nursing - Difficulty	0	0	1	5	67	4.2	C	3131-3136
214.	Occupational Stress Syndrome	1	0	0	1	26	1.6	D	3137-3138
215.	Ochronotic Arthropathy	0	0	0	1	10	.6	D	3139
216.	Oculomotor Palsy	0	0	0	1	9	.6	D	3140
217.	Osgood-Schlatter's Disease	0	0	0	1	13	.8	D	3141
218.	Osteochondroma	0	0	0	1	9	.6	D	3142
219.	Osteomyelitis	0	0	0	1	9	.6	D	3143
220.	Osteoporosis	0	1	0	2	37	2.3	B	3144-3146
221.	Otitis Media / Ear Infection	2	0	2	25	312	19.5	A	3147-3175
222.	Paget's Disease	0	0	0	1	12	.8	D	3176
223.	Paralysis	0	0	0	22	216	13.5	B	3177-3198
224.	Parasites	0	0	0	2	16	1	D	3199-3200
225.	Paresthesia	0	0	0	2	16	1	D	3201-3202
226.	Parkinson's	0	0	0	4	43	2.7	C	3203-3206
227.	Patellofemoral Pain Syndrome	3	0	0	4	88	5.5	A	3207-3213
228.	Pelvic Pain	0	0	1	19	188	11.8	B	3214-3233
229.	Peurperal Fever	0	0	0	1	4	.3	D	3234

Table 1G
Organization of All the Evidence (R* = ICA's Rating from Chapter 8)

	Keywords	Level I	Level II	Level III	Level IV	Total Points	RCT Equivalent	R*	References
230.	Psychological	1	0	1	11	138	8.6	A	3235-3247
231.	Placenta Previa	0	0	0	1	8	.5	D	3248
232.	Plagiocephaly	0	0	0	5	56	3.5	C	3249-3253
233.	Plantar Fasciitis	1	0	0	3	53	3.3	B	3254-3257
234.	PMS	0	0	0	8	78	4.9	C	3258-3265
235.	Pneumonia	0	0	0	4	33	2.1	C	3266-3269
236.	Polio	0	0	0	6	68	4.3	C	3270-3275
237.	Polyuria	0	0	0	3	34	2.1	C	3276-3278
238.	Posture - Problems	7	7	1	69	987	61.7	A	3279-3363
239.	Pregnancy	0	0	1	17	167	10.4	B	3364-3381
240.	Premature Ventricular Contractions / PVC	0	0	0	1	11	.7	D	3382
241.	Prostate Trouble	0	0	0	2	23	1.4	D	3383-3384
242.	Psoriasis	0	0	1	2	33	2.1	B	3385-3387
243.	Pubic Symphysis Dysfunction	0	0	0	1	2	.8	D	3388
244.	Quadraplegia	0	0	0	1	21	1.3	D	3389-3390
245.	Radial Head Subluxation	0	0	0	1	10	.6	D	3391
246.	Radicular Leg Pain	3	0	0	38	474	29.6	A	3392-3432
247.	Radicular Arm Pain	0	0	0	5	55	3.4	C	3433-3437
248.	Radiculitis/Radiculopathy	0	0	0	35	364	22.8	B	3438-3472
249.	Rectal Problems	0	0	0	1	12	.8	D	3473
250.	Reiter's Syndrome	0	0	0	1	9	.6	D	3474
251.	Restricted Movement	1	0	0	0	12	.8	D	3475
252.	Retropharyngeal Tendinitis	0	0	0	1	12	.8	D	3476
253.	Rett Syndrome	0	0	0	1	6	.4	D	3477
254.	Rheumatic Disease	1	0	0	9	104	6.5	B	3478-3481
255.	Rotator Cuff Tear	1	0	0	3	45	2.8	B	3482-3485
256.	Sacroiliac Problems	6	2	1	29	450	28.1	A	3486-3523
257.	Scalenus Anticus Syndrome	0	0	1	2	30	1.9	D	3524-3526
258.	Scarlet Fever	0	0	0	2	18	1.1	D	3527-3528
259.	Scheuermann	0	0	0	2	24	1.5	D	3529-3530
260.	Sciatic Neuritis	0	0	0	1	4	.3	D	3531
261.	Sciatica	3	0	1	28	326	20.4	A	3532-3563
262.	Scoliosis	2	0	1	31	372	23.3	A	3564-3597
263.	Seizures	0	0	0	13	144	9	B	3598-3610
264.	Severe Aural Symptoms	0	0	0	1	16	1	D	3611

Table 1H
Organization of All the Evidence (R* = ICA's Rating from Chapter 8)

	Keywords	Level I	Level II	Level III	Level IV	Total Points	RCT Equivalent	R*	References
265.	Severe Weight Loss	0	0	0	2	16	1	D	3612
266.	Shingles	0	0	0	1	7	.4	D	3613
267.	Short Leg Syndrome	0	0	0	1	7	.4	D	3614
268.	Shoulder Impingement Syndrome	1	0	0	4	54	3.4	B	3615-3619
269.	Shoulder Injury	0	0	0	7	79	4.9	C	3620-3626
270.	Shoulder Pain	8	1	1	38	543	33.9	A	3627-3675
271.	Shoulder-Hand-Syndrome	0	0	0	1	13	.8	D	3676
272.	Sinusitis	0	0	1	15	167	10.4	B	3677-3693
273.	Skin Cancer	0	0	0	1	9	.6	D	3694
274.	Sleep Disorders	0	0	1	17	163	10.2	B	3695-3712
275.	Sore Throat	0	0	0	1	11	.7	D	3173
276.	Spasmodic Dysphonia	0	0	0	1	8	.5	D	3174
277.	Speech Impediment	0	0	0	2	20	1.3	D	3715-3716
278.	Spinal Cord Encroachment	0	0	0	1	14	.9	D	3717
279.	Spinal Pain	112	11	23	328	5735	358.4	A	3718-4192
280.	Spondylitic Radiculopathy	0	0	0	1	12	.8	D	4193
281.	Spondyloarthritis	0	0	0	1	10	.6	D	4194
282.	Spondylolisthesis	1	0	0	16	179	11.2	A	4195-4212
283.	Spondylosis	1	0	0	11	125	7.8	A	4213-4224
284.	Sprained Shoulder	0	0	0	1	7	.4	D	4225
285.	Stenosis - Spinal	0	0	0	11	107	6.7	C	4226-4236
286.	Stomach Problems	0	0	0	3	26	1.6	D	4237-4239
287.	Strabismus	0	0	0	3	25	1.6	D	4240-4242
288.	Stroke	0	0	0	2	23	1.4	D	4243-4244
289.	Subluxation	15	3	13	193	2299	143.7	A	4245-4470
290.	Suboccipital Pain	1	0	1	7	98	6.1	B	4471-4479
291.	Synchondrosis	0	0	0	1	10	.6	D	4480
292.	Synovial Cyst	0	0	0	2	22	1.4	D	4481-4482
293.	Syringomyelia	0	0	0	1	16	1	D	4483
294.	T4 Syndrome	0	0	0	2	19	1.2	D	4484-4485
295.	Tenderness	2	0	0	2	57	3.6	A	4486-4489
296.	Thoracic Nerve Root Injury	0	0	0	1	13	.8	D	4490
297.	Thoracic Pain	12	2	1	52	770	48.1	A	4491-4557
298.	Tic Douloureux	0	0	0	3	36	2.3	C	4558-4560
299.	Tinnitus	0	0	0	8	87	5.4	C	4561-4568

Table II
Organization of All the Evidence (R* = ICA's Rating from Chapter 8)

	Keywords	Level I	Level II	Level III	Level IV	Total Points	RCT Equivalent	R*	References
300.	Tremor - Intention	0	0	0	1	14	.9	D	4569
301.	Traumatic Volar Dislocation	0	0	0	1	11	.7	D	4570
302.	Trenchmouth	0	0	0	1	11	.7	D	4571
303.	TMJ	2	0	1	9	136	8.5	A	4572-4583
304.	Tonsillitis	0	0	0	2	13	.8	D	3480-3483
305.	Torticollis	0	0	0	20	212	13.3	B	4584-4603
306.	Transient Neurological Disorder	0	0	0	1	10	.6	D	4604
307.	Transient Syncope	0	0	0	2	27	1.7	D	4605-4606
308.	Traumatic Volar Dislocation	0	0	0	1	11	.7	D	4607
309.	Trigeminal Neuralgia	0	0	0	6	67	4.2	C	4608-4615
310.	Tumour	0	0	0	1	12	.8	D	4616
311.	Ulcers	0	0	0	8	79	4.9	C	4617-4624
312.	Ulnar Neuropraxia	0	0	0	1	10	.6	D	4625
313.	Unexpected Weight Loss	0	0	0	1	10	.6	D	4626
314.	Upper Extremity Palsy	0	0	0	1	5	.3	D	4627
315.	Urinary Incontinence	0	0	0	11	100	6.3	C	4628-4638
316.	Urinary Infection	0	0	0	2	18	1.1	D	4639-4640
317.	Uterine Bleeding - Dysfunctional	0	0	1	0	13	.8	D	4641
318.	Uterine Cramps	0	0	0	1	6	.4	D	4642
319.	Uterine Fibroids	0	0	1	4	48	3.0	C	4643-4647
320.	Uveitis	0	0	0	1	14	.9	D	4648
321.	Varicose Veins	0	0	0	3	35	2.2	C	4649-4651
322.	Vertigo	0	0	1	24	260	16.3	A	4652-4677
323.	Vesicoureteral Reflux	0	0	0	1	10	.6	D	4678
324.	Visual Problems	0	0	0	1	12	.8	D	4679
325.	Vomiting	0	0	1	14	156	9.8	B	4680-4694
326.	Weakness	0	0	0	25	258	16.1	B	4695-4719
327.	Wedge Vertebra	0	0	0	2	22	1.4	D	4720-4721
328.	Whiplash	4	0	1	26	343	21.4	A	4722-4753
329.	Wrist Ganglion	0	0	0	1	10	.6	D	4754
330.	Xiphodynia	0	0	0	1	5	.3	D	4755

Table 2A

Publications by Body Regions
Evidence by Regions (R* = ICA's Rating from Chapter 8)

	Anatomic Regions	Level I	Level II	Level III	Level IV	Total Points	RCT Equivalent	R*	References
1.	Head:	20	2	7	205	2460	153.8	A	1-238
2.	Neck:	69	9	25	490	6873	429.6	A	239-835
3.	Eyes	0	1	0	18	188	11.8	B	836-856
4.	Face	3	1	0	29	354	22.1	A	857-889
5.	Ear	1	0	2	28	318	19.9	A	890-920
6.	Mouth	1	0	0	6	69	4.3	B	921-927
7.	Jaw / TMJ	2	0	1	13	180	11.25	A	928-945
8.	Scalene	0	0	1	3	38	2.4	C	946-949
9.	SCM	0	0	0	4	28	1.8	D	950-953
10.	Suboccipital	1	0	1	7	98	6.1	B	954-962
11.	Throat	0	0	0	5	54	3.4	C	963-967
12.	Vision	3	2	2	35	460	28.8	A	968-1009
	Upper Extremity:								
13.	Arm / Brachial	2	1	0	55	633	39.4	A	1010-1068
14.	Carpal Tunnel	1	1	1	10	156	9.8	A	1068-1080
15.	Rotator Cuff	1	0	0	3	45	2.8	B	1081-1084
16.	Fingers	0	0	1	3	28	9.3	C	1085-1087
17.	Forearm / Elbow	5	0	0	13	227	14.2	A	1088-1105
18.	Hand	3	2	3	32	462	28.9	A	1106-1145
19.	Wrist / Carpal	2	1	1	16	232	14.5	A	1146-1165
20.	Shoulder (GH, AC)	11	2	1	67	922	57.6	A	1166-1247
21.	Supraspinatus	0	0	0	1	12	.8	D	1248
22.	Teres	0	0	0	1	14	.9	D	1249
23.	Thorax/Thoracic:	22	4	7	125	1763	110.2	A	1250-1409
24.	Chest	2	1	0	31	334	20.9	A	1410-1443
25.	Costovertebral	0	0	0	1	9	.6	D	1444
26.	Diaphragm	0	0	1	1	19	1.2	D	1445-1446
27.	Esophagus	0	0	0	2	13	.8	D	1447-1448
28.	Heart / Cardiac	5	4	1	33	458	28.6	A	1449-1491
29.	Lungs / Pulmonic	5	0	1	44	547	34.2	A	1492-1541
30.	Ribs	2	0	1	5	88	5.5	A	1542-1549
31.	Scapula	2	1	0	2	71	4.4	A	1550-1554
32.	Scoliosis	2	0	1	31	372	23.3	A	1555-1588
33.	Trapezius	2	0	0	3	54	3.4	A	1589-1593
34.	Upper/Mid Back	15	3	4	83	1197	74.8	A	1594-1698

Table 2B
Evidence by Regions (R* = ICA's Rating from Chapter 8)

	Anatomic Regions	Level I	Level II	Level III	Level IV	Total Points	RCT Equivalent	R*	References
35.	Toe	2	0	0	5	93	5.8	A	1699-1705
36.	Low back / Lumbar:	92	10	34	402	6228	389.3	A	1706-2245
37.	Buttock / Gluteal	3	0	1	16	214	13.4	A	2246-2265
38.	Paraspinal	1	0	0	1	27	1.7	D	2266-2267
39.	Quadratus Lumborum	0	0	0	4	39	2.4	C	2268-2271
40.	Abdomen / Stomach:	0	0	0	14	152	9.5	B	2282-2285
41.	Colon	0	0	0	1	12	.8	D	2286
42.	Digestive / Gastrointestinal / Intestine	3	0	2	62	700	42.8	A	2287-2353
43.	Genitourinary	4	0	5	51	616	38.5	A	2354-2414
44.	Liver	0	0	1	9	102	6.4	C	2415-2426
45.	Organs / Viscera	0	0	0	12	112	7	B	2427-2438
46.	Reproductive	3	0	5	29	391	24.4	A	2439-2475
47.	Spleen	0	0	0	1	10	.6	D	2476
48.	Pelvis:	2	0	1	43	464	29	A	2477-2522
49.	Acetabulum	0	0	0	3	31	1.9	D	2523-2525
50.	Pubic	0	0	0	2	18	1.1	D	2526-2527
51.	Sacrum / Sacroiliac	8	1	1	58	719	44.9	A	2528-2596
	Lower Extremity:								
52.	Calf	1	0	0	6	67	4.2	B	2597-2603
53.	Gastrocnemius	0	0	1	1	22	1.4	D	2604-2605
54.	Hamstrings	1	1	0	5	88	5.5	B	2606-2613
55.	Hip	2	0	2	43	487	30.4	A	2614-2662
56.	Leg	6	0	4	86	1040	65	A	2663-2758
57.	Patella / Knee	5	1	1	32	420	26.3	A	2759-2797
58.	Peroneal	0	0	0	3	33	2.1	C	2798-2800
59.	Sartorius	0	0	0	1	9	.6	D	2801
60.	Sciatic	3	0	1	31	349	21.8	A	2802-2836
61.	Thigh	2	0	1	12	160	10	A	2837-2851
62.	Tibia	0	0	0	6	68	4.3	C	2852-2857
63.	Ankle:	5	1	1	15	261	16.3	A	2858-2879
64.	Mortus	0	1	0	1	21	1.3	D	2880-2881
65.	Talus	1	1	0	2	50	3.1	B	2882-2885
66.	Foot:	5	1	1	33	475	29.7	A	2886-2925
67.	Calcaneus	0	0	0	1	11	.7	D	2926
68.	Metatarsal	2	0	0	0	34	2.1	B	2927-2928
69.	Tarsal	0	0	0	1	10	.6	D	2929

Table 3
List of Age Ranges in the ICA Data Base and the Number of Publications
 (R* = ICA's Rating from Chapter 8)

Age Ranges	Level I	Level II	Level III	Level IV	Total Points	RCT Equivalent	R*	References
0-1 Infant	4	0	2	57	644	40.3	A	1-63
2-10 Child	6	0	5	77	906	56.6	A	64-152
11-17 Adolescent	8	0	4	37	566	35.4	A	153-201
18-64 Adult	54	9	25	553	7243	452.7	A	202-849
65+ Geriatric	25	1	5	116	1771	110.7	A	850-996

Table 4
List of Techniques in the ICA Data Base and the Number of Publications
 (R* = ICA's Rating from Chapter 8)

Technique	Level I	Level II	Level III	Level IV	Total Points	RCT Equivalent	R*	References
Activator	8	0	4	40	595	37.2	A	1-53
Active Release (ART)	1	0	0	9	112	7.0	B	54-64
Advanced Biostructural	0	0	0	1	11	0.7	D	65
Applied Kinesiology AK	0	0	0	10	101	6.3	C	66-75
Atlas Activate and Adjust	0	0	0	10	55	5.4	C	76-85
Atlas Orthogonal	1	0	0	1	28	1.8	B	86-87
Axial Decompression	0	1	1	0	29	1.8	D	88-89
Back Bubble traction	0	0	0	4	10	0.6	D	90
Bio-energetic synchronization (BEST)	1	1	0	4	69	4.3	A	91-96
Bone setting	3	0	0	1	79	4.9	A	97-100
Bonyan technique	0	0	0	1	9	0.6	D	101
Carver	0	0	0	1	10	0.6	D	102
Chiropractic Biophysics (CBP)	1	7	2	79	1081	67.6	A	103-191
Contralateral Lateral Glide	1	0	0	0	15	0.9	B	192
Cox	5	0	1	36	478	29.9	A	193-234
Craniosacral	0	0	1	14	162	10.1	B	235-249
Diversified/SMT*/Spinal Manipulative Therapy	129	11	41	515	8180	511.3	A	250-950
DNFT	0	0	0	1	12	0.8	D	951
Extremity	8	0	2	44	624	39.0	A	952-1005
Constead	2	0	5	34	444	27.8	A	1006-1046
Graston	1	0	0	3	46	2.9	B	1047-1050
Grostick	1	0	1	8	111	6.9	B	1051-1060
HIO	0	0	1	140	1473	92.1	B	1061-1201
Kale	0	0	0	1	14	.9	D	1202
Laney	0	0	0	2	23	1.4	D	1203-1204
Leander	0	0	0	4	43	2.7	C	1205-1208
Life Cervical	0	0	1	14	154	9.6	B	1209-1223
Logan Basic	1	0	2	13	166	10.4	A	1224-1239

Low Force	2	1	1	11	152	9.5	A	1240-1254
Maitland (SMSY)	6	0	0	2	120	7.5	A	1255-1262
MCSAP	0	0	0	1	8	.5	D	1263
Manipulation Under Anesthesia (MUA)	2	0	1	22	279	17.4	A	1264-1288
McTimmony Technique	0	1	0	0	17	1.1	D	1289
Meric	1	0	0	2	33	2.1	B	1290-1292
Mobilization	21	1	1	30	722	45.1	A	1293-1345
Motion Palpation	4	2	1	17	277	17.3	A	1346-1371
Muscle Energy Technique	1	0	0	3	37	2.3	B	1372-1375
Myofascial Release	3	0	0	17	223	13.9	A	1376-1395
Neuro Emotional Technique (NET)	0	0	3	11	152	9.5	B	1396-1409
Network	0	0	2	9	125	7.8	E	1410-1420
NUCCA	1	0	0	9	104	6.5	B	1421-1430
Neural Organizational	0	0	0	1	8	.5	D	1431
Orthospinology	0	0	0	5	62	3.9	C	1432-1436
Osteopathic	9	0	1	8	222	13.9	A	1437-1454
Palmer	3	0	1	44	426	26.6	A	1455-1502
Pettibon	1	1	0	15	199	12.4	A	1503-1519
Pierce	0	0	0	1	10	0.6	D	1520
Pro Adjuster	1	0	0	3	36	2.3	B	1521-1524
PSMT	0	0	0	1	12	.8	D	1525
Spinography	0	0	0	2	16	1	D	1526-1527
SOT/Craniosacral	0	0	3	45	460	28.8	B	1528-1575
Thompson	0	0	2	18	216	13.5	B	1576-1595
Toftness	1	1	0	1	43	2.7	B	1596-1598
Toggle	6	0	2	26	382	23.9	A	1599-1632
Torque Release	0	0	1	8	86	5.4	C	1633-1641
Non-Specified Chiropractic Techniques**	11	1	3	60	47.5	762	A	1642-1718
Upper Cervical Specific	1	0	1	3	63	3.9	B	1719-1723
Webster	0	0	0	5	47	2.9	C	1724-1728
Wet Cupping	1	0	0	0	16	1	B	1729

* Includes Diversified and all SMT/Mobilization methods from Osteopathy (such as Maitland), Manual Therapy, Physiotherapy, Medical Manipulation

** For published papers where techniques were not specified but chiropractic treatment was used.

Table 5
Infertility Studies (All Studies here are Level IV Studies)
(R* = ICA's Rating from Chapter 8)

Author	Points	Treatments	Weeks	Outcome Positive?
Adams, John P DC; 2003	9	88	88	Yes
Alcantara, Joel; 2009	9	15	10	Yes
Anderson-Peacock, E DC; 2003	11	24	10	Yes
Bedell, Leslie, DC; 2003	10	21	21.5	Yes
Blum, Charles L. DC; 2003	10	18	25.8	Yes

Kaminski, Tammy M DC; 2003	9	32	32	Yes
Lyons, Daniel D.; 2003	10	14	4	Yes
Nadler, Asher DC; 2003	8	17	5	Yes
Rosen, Martin G. DC; 2003	9		6	Yes
Senzon, S.A. MA DC; 2003	12	44	20	Yes
Shelley, Jessica DC; 2003	12	12	14	Yes
Vilan R; 2004	10	28	24	Yes
Total Points:	119			
Average Points:	10			
Total Treatments:	313	Ave Treatments	30	
Total Weeks:	260			
Average Weeks:	22			
RCT Equivalent:	7.4	R*: C		

Table 6
Pregnancy Studies (R* = ICA's Rating from Chapter 8)

Study Type	Author	Points	Treatments	Weeks	Outcome Positive?
Level III	Diakow, Peter R DC; 1991	14			Yes
Level IV	Adams, John P DC; 2003	9	88	88	Yes
Level IV	Bedell, Leslie, DC; 2003	10	21	21.5	Yes
Level IV	Cohen, Eddy; 1995	5	8	8	Yes
Level IV	Drobbin, Danielle; 2009	8	5	4	Yes
Level IV	Fallon, Joan; 1994	12	20	24	Yes
Level IV	Guadagnino III MR; 1999	13	84	34	Yes
Level IV	Hwang, Karen; 2009	8	14	24	Yes
Level IV	Kanu, Pene L; 1999	10			Yes
Level IV	Krauss, Lori DC; 1995	8	22	12	Yes
Level IV	Kruse, Ralph; 2007	10	9	6	Yes
Level IV	Lisi, Anthony J DC; 2005	8	15	9	Yes
Level IV	Lisi, Anthony J.; 2005	10			Yes
Level IV	Senzon, S.A. MA DC; 2003	12	44	20	Yes
Level IV	Staggs, Clayton D. DC; 2006	5			Yes
Level IV	Vilan R; 2004	10	28	24	Yes
Level IV	Viti JA; 2000	7	8	4	Yes
	Total Points:	159			
	Average Points:	9.4			
	Total Treatments:	366	Ave Treatments	28	
	Total Weeks:	278.5			
	Average Weeks:	21.4			
	RCT Equivalent:	9.9	R*: B		

Comparison of CCGPP and ICA Best Practices

CCGPP⁴ organized their work into seven chapters: low back, thorax, neck, upper extremity, lower extremity, soft tissue, and non-musculoskeletal. Six out of seven (86%) of the CCGPP chapters cover musculoskeletal/pain conditions.

Using the CCGPP Non-Musculoskeletal Chapter as an example, it was reported the search for studies resulted in 276 source documents, 93 of which were case reports. The oldest study cited in this Non-Musculoskeletal Chapter was 1985. While the case reports were included in the references, they were not included in the analysis and synthesis of their Best Practices formulation.

The CCGPP Non-Musculoskeletal Chapter search methods resulted in a limited number of source documents (n=293). In contrast, the ICA Committee searched the entire chiropractic literature (1895-present) and identified over 1400 clinical papers. While this ICA Best Practices document, was not divided into the same categories as CCGPP (non-musculoskeletal category in this case), we would estimate that the CCGPP search resulted in less than 10% of the total studies that ICA has reviewed under this topic. Therefore, a more thorough hand search of every chiropractic journal should have been performed by CCGPP. This is precisely what the ICA has done in its literature search and source document retrieval process.

Additionally, ICA believes another important thing to note about the CCGPP Non-musculoskeletal chapter is the short list of procedures receiving an A or B rating in their “Summary of Recommendations”. These 6 things are listed in Table 7:

Table 7
CCGPP’s A and B Ratings of Non-Musculoskeletal Conditions

Condition/Treatment	Rating
Counseling tobacco users to quit	A
Counseling sedentary patients to engage in physical activity	A
Counseling on breastfeeding	A
Limiting use of antibiotics for otitis media	A
Diagnostic test in pregnant women-SLR	B
Counseling for Physical activity	A

Although Chiropractors may counsel patients on the above mentioned topics, practicing DCs are not counselors by training. No guidelines, RCTs, systematic reviews or meta-analyses on these counseling topics have been performed in chiropractic. Note everything else got a “C”, “D” or “I” rating in the CCGPP document. This would include manipulation/adjustment for LBP in older adults, manipulation/adjustment for health promotion, manipulation/adjustment for children for any condition the child may have. Additionally, manipulation/adjustment of adults for any condition other than LBP, neck pain, headaches and extremity conditions were rated low. Thus, these CCGPP non-musculoskeletal guidelines are, “restrictive”, by condition.

ICA believes this limited list of, “supported”, conditions is due to design flaws in the evidence gathering, and selective literature review. The CCGPP 2007 Introductory Chapter states that *non-randomized controlled trials* would be included for review, but the majority of these papers were not. The CCGPP Introduction chapter states that *cohort studies* would be included for review, but they were not. The CCGPP Introduction chapter states that *case series* would be included for review, but they were not. While the CCGPP introductory chapter stated that, “*The preeminence of the randomized clinical trial (RCT), generally a positive factor for population health questions when high quality RCTs exist, can be a significant negative factor misguiding care decisions*”, CCGPP did not offset this *negative factor* by including all levels of evidence.

The omission of Levels 2-4 evidence was one of the most significant issues raised in the State Association critiques of the CCGPP’s Low Back Draft released in 2006 and 2007. While there was discussion of this problem in the 2007 CCGPP Introduction, the problem was not corrected and it remained the single biggest problem with the 2007 documents.

As an example, on page 11 of the CCGPP Non-Musculoskeletal Chapter, the Team Lead discussed the, “Rating Statements”, and summarized the studies that were actually reviewed. There were 28 systematic reviews and RCTs that were included for review with 14 rated as “high”, while 248, “other studies”, were rated as low and not worthy of consideration. So, again, only RCTs and systematic reviews were included in the review as shown in their CCGPP Evidence Table 3.

In contrast, this ICA Best Practices lists all the diseases in our data base (see Tables 1A-1I). All of the evidence, from the RCT to the single case report, was included in the synthesis of the evidence tables. It is the position of the ICA that the accumulated results from reviewed case reports outweighs the accumulated opinion of a, “consensus panel”, some of whom have no clinical experience and have never practiced. This position that the ICA holds is also the position of the United States government regarding the hierarchy of levels of evidence.

This comparison was made here because these two guidelines are being completed at, relatively, the same time in history. Additionally, there are many shortcomings of the initial CCGPP Chapters, as pointed out by 95% of the State Associations, which helped guide the development of the ICA document. A summary of the comparison of the CCGPP document and the ICA Best Practices document is presented in Table 8:

Table 8
Comparison of CCGPP and ICA Best Practices

Comparison Topic	CCGPP	ICA
Team Leads: Possible conflicts of interest	Yes	No
Team Members: Possible conflicts of interest	Yes	No
Majority of Committee members in active practice	No	Yes
Included literature before 1985	No	Yes
Included Level 2-4 evidence	No	Yes
Included all Chiropractic Techniques’ publications	No	Yes
Reported support evidence for modalities	No	Yes (Chap 9)
Selective literature searches (1985-2008)	Yes	No
Reported frequency & duration suggestions	No	Yes (Chap 11)
Emphasis mainly on spinal pain conditions	Yes	No
Besides pain, reported care evidence for diseases/health conditions	3	> 300
Reported Care Evidence for all age groups (pediatrics, adults, seniors)	No	Yes
Reported Counseling treatment by DCs	Yes	No
Except for pain, rated all Chiropractic care as C, D, or I	Yes	No
Relied on Cochrane systematic reviews for quality scores	Yes	No

References (See Appendix 2 for references for Tables 1-6)

1. <http://www.gao.gov/special.pubs/bprag/bprgloss.htm>
2. www.amreview.com/rg/resources/glossary.cfm
3. www.searchsoftwarequality.techtarget.com/sDefinition/0,,sid92_gci498678,00.html - 55k
4. Council on Chiropractic Guidelines and Practice Parameters (CCGPP).
www.ccgpp.org/view.htm