

Adverse events after cervical spinal manipulative therapy: consensus based classification and definitions.

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| | | Classification | | |
|-------------------------------------------|-----------------------------------------------|------------------|---------------------|---------------------|
| | | No Adverse Event | Minor Adverse Event | Major Adverse Event |
| 34 complications, for 29 consensus | Length of time the complication lasted | | | |
| | Visual disturbance ICF-B210 | No consensus | No consensus | No consensus |
| | Hours | | | |
| | Days | | Mild consensus | |
| | Weeks | | | Strong consensus |
| Altered sensation ICF-B279 | Hours | | Strong consensus | |
| | Days | | Strong consensus | |
| | Weeks | | | Strong consensus |
| Headache ICF-28010 | Hours | | Strong consensus | |
| | Days | | Strong consensus | |
| | Weeks | | Mild consensus | |
| Fracture ICD10-S12 | | | | Strong consensus |

Background: Cervical spinal manipulations (CSM) are frequently employed techniques to alleviate neck pain and headache. Minor and major complications following CSM have been described, though clear consensus on definition and the classification of the complications had not yet been achieved. As a result, incidence rates may be underestimated.

Objective: The aim of this study was to develop a consensus-based classification of adverse events following cervical spinal manipulations which has good potential in clinical practice and research.

Design: A three round Delphi-study.

Method: Medical specialists, manual therapists, and patients (n=30) participated in an online survey. In Round 1, participants were invited to select a classification system of adverse events. Potential complications were inventoried and detailed in accordance with the ICF and the ICD-10. In Round 2, panel members categorized the potential complications in their selected classification. During the third round, it was inquired of the participants whether they concurred with the answer of the majority of participants.

Results: Thirty four complications were defined. Consensus was achieved for 29 complications for all durations [hours, days, weeks]. For the remaining five complications, consensus was reached for two of the three durations [hours, days, weeks].

Conclusions: A consensus-based classification system of adverse events after cervical spinal manipulation was developed which comprises patients' and clinicians' perspectives and has only a small number of categories. The classification system includes a precise description of potential adverse events and is based on international accepted classifications (ICD-10 and ICF). This classification system may be useful for utilization in both clinical practice and research.

Definition:

ICF-B210: Sensory functions relating to sensing the presence of light and sensing the form, size, shape and colour of the visual stimuli.

Level of agreement:

0-59% = no consensus
60-74% = mild consensus
75-100% = strong consensus

