

Decision-making in non-invasive neuromodulation in children

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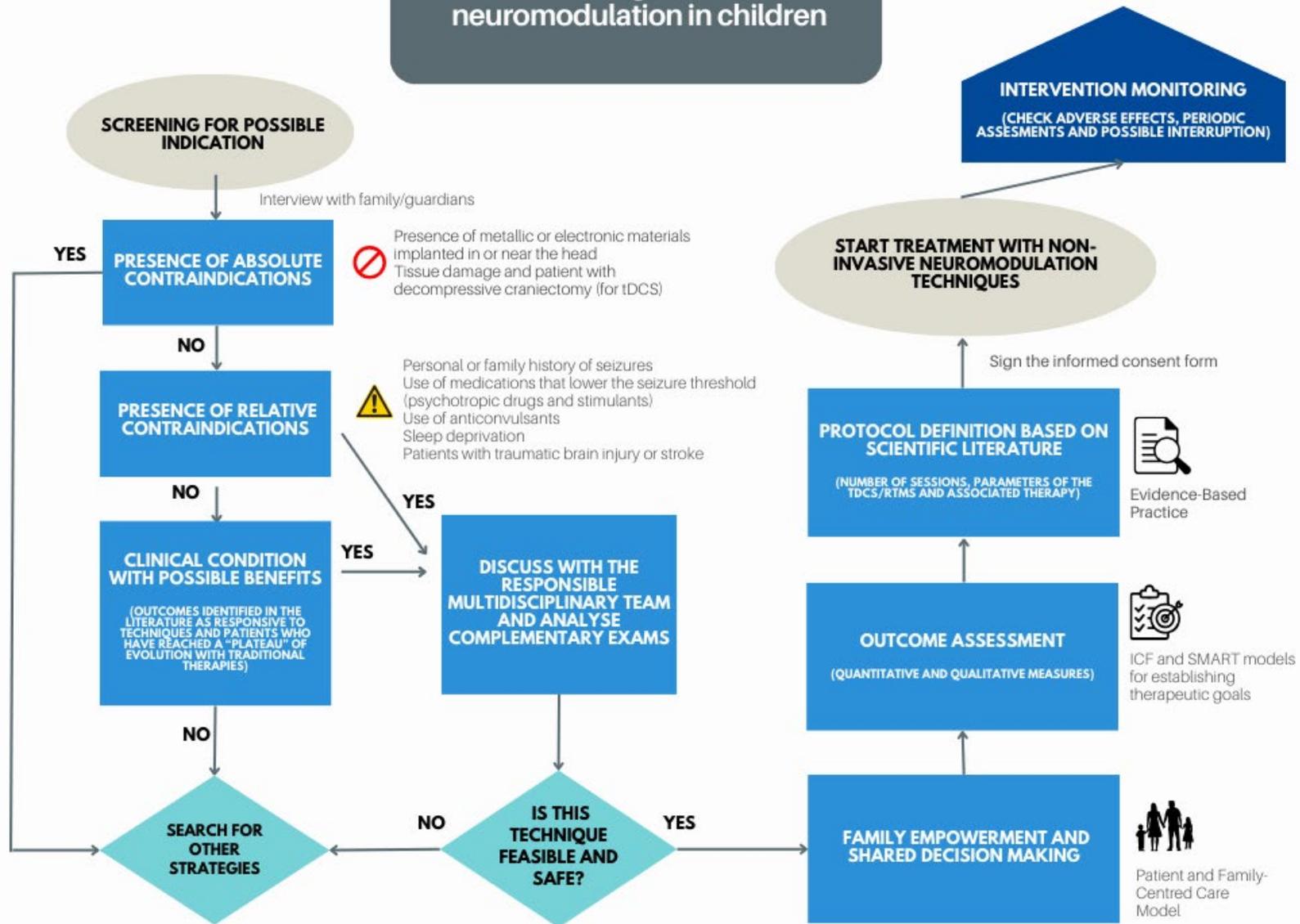
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ABSTRACT | BACKGROUND: Electrical and magnetic stimulation of the nervous system has been used to treat cerebral palsy, autism spectrum disorder, attention deficit hyperactivity disorder, among other childhood conditions. **OBJECTIVES:** This infographic was designed to elucidate the decision-making process entailed in selecting neuromodulation protocols for children. **METHODS:** The development of this infographic was guided by the principles of several healthcare philosophies: (1) the Biopsychosocial Model of the International Classification of Functioning, Disability, and Health;¹ (2) Patient- and Family-Centered Practice;² (3) Evidence-Based Practice;^{3,4} and (4) the SMART model (Specific, Measurable, Attainable, Realistic/Relevant and Timely outcome) for establishing therapeutic goals.⁵ **RESULTS:** This visual tool delineated value points that should be considered before initiating any neuromodulation treatment, conceptualized within a structured framework across various levels, including screening, feasibility and safety assessment, selection of a "SMART" outcome, evaluation of complaints, protocol definition, risks clarification, assessment of benefits and cost-effectiveness, and collaborative and empowered participation of parents/caregivers. **CONCLUSION:** Neuromodulation protocols' definitions involve a complex process, encompassing choices related to techniques, targets, parameters, distribution and number of sessions, and the potential incorporation of other therapeutic modalities. This process must be tailored to specific objectives to ensure that treatment can yield optimal results within the users' functional conditions. Our infographic can serve as a tool for comprehensively visualizing the entire process and making well-informed choices in a clear, concise, and organized manner. Nevertheless, it is essential to acknowledge that this model is not flawless and should be refined further to advance toward more humanized and responsible care.

KEYWORDS: Clinical Decision-Making. Transcranial Direct Current Stimulation. Transcranial Magnetic Stimulation. Child.

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Infographic legend

ICF: International Classification of Functioning, Disability, and Health.¹ SMART model for establishing therapeutic goals: Specific, Measurable, Attainable, Realistic/Relevant and Timely outcomes.⁵

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Authors' contributions

All authors have made substantial contributions to the study, approved the final version to be published, and are responsible for all aspects of the work.

Conflicts of interest

No financial, legal, or political conflicts involving third parties (government, private companies, and foundations, etc.) were declared for any aspect of the submitted work (including but not limited to grants and funding, advisory board participation, study design, manuscript preparation, statistical analysis, etc.).

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