

National Spine Registry: A review of existing registries

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Introduction

Surgeries involving implantable Medical Devices are dramatically growing. These devices are included in the highest class of risk requiring more stringent surveillance and vigilance measurements.

National registries are fundamental tools to support these activities. The registry aims to collect crucial information from patients, implants and surgical procedures to allow to

monitor, trace and improve the outcomes. Nowadays, a multitude of initiatives to set up spine registries exists all over the world (Figure 1).

The purpose of this study is to map the current state of the existing spine surgery registries on a national basis to collect information about the type of organisation and settings as a reference for the future establishment of other national registries.

Materials and methods

A scoping review of the literature concerning existing national spinal registries was performed. Figure 2 shows the search and selection flow-chart.

The spine registries were identified by analysing the current literature by finding articles on highly structured peer-reviewed databases.

During the process, the papers identified were excluded if they were:

- 1) Audit studies;
- 2) Conference reports;
- 3) Non-human studies;
- 4) In vitro studies;
- 5) Surveys;
- 6) Systematic reviews;
- 7) Title or abstract not available;
- 8) Letters to editor or comments.

Articles were included if they were found to be:

- 1) On Spine surgery;
- 2) Observational, randomised or quasi-randomised studies;
- 3) Containing information arising from National registries.

A further web search was performed (landing page or website) to map the status of national registries and integrated into the review.

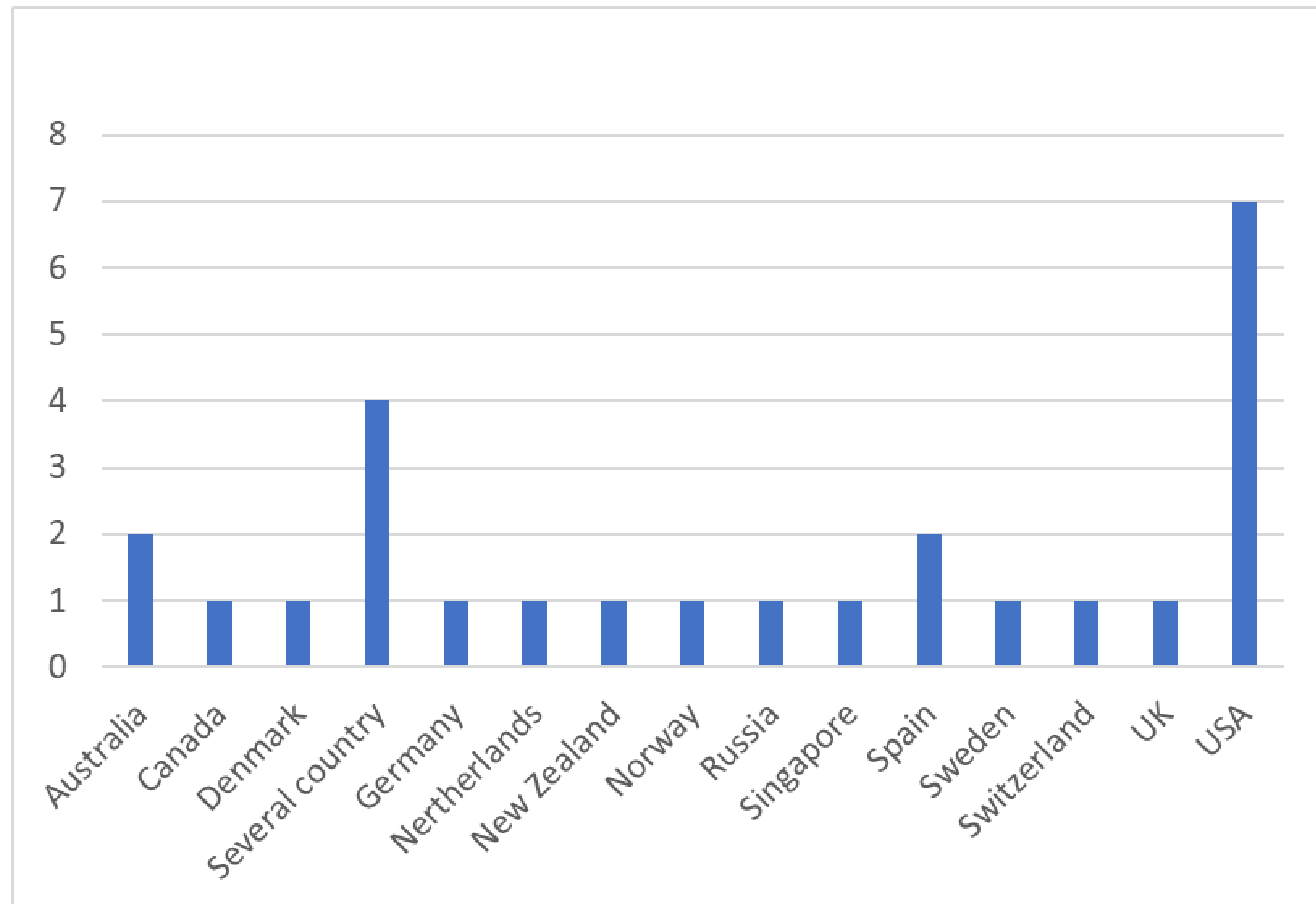


Figure 1: Number of initiatives to set up spine registries across the world

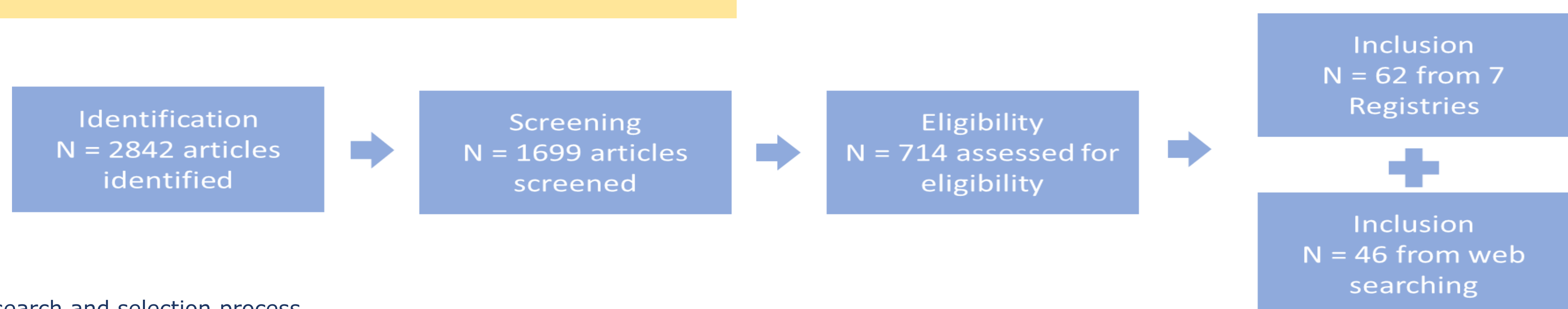


Figure 2: Flow chart of search and selection process

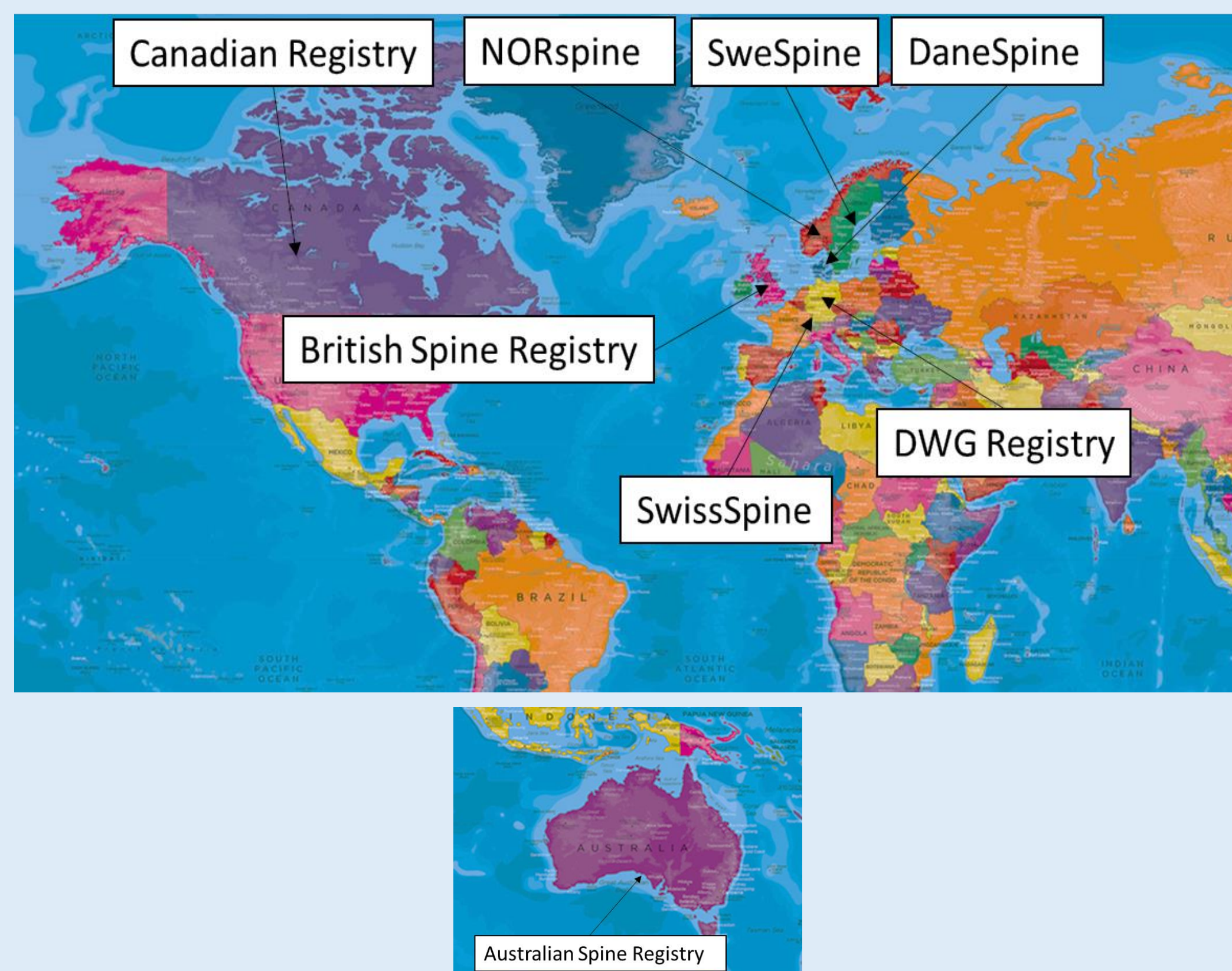


Figure 3: Map of included registries

Results

Eight registries were identified (Figure 3):

- 1) the British Spine Registry (UK);
- 2) the Canadian Registry (Canada);
- 3) the DaneSpine (Denmark);
- 4) the DWG registry (Germany);
- 5) the NORspine (Norway);
- 6) the SweSpine (Sweden);
- 7) the SwissSpine (Switzerland);
- 8) the Australia Spine Registry (Australia).

For each registry, a set of information were identified.

Relevant information was extracted for each registry: 1) variables included in the registry (such as: QoL, Follow-Up, ODI (Oswestry Disability Index), anamnestic data, and clinical evaluation) and 2) general organization of the registry (for instance: the settings, source of funding, coverage, Country, data quality, management).

Conclusion/Discussion

The results allow mapping of the existing spine surgery registries and help identify the data collected among the different registries.

Moreover, they may offer future comparisons and exchange of information between registries from different nations and a model for implementing future spinal registries