Overcoming barriers to accessing sacral neuromodulation care in Canada

Re: "Urologist-perceived barriers and perspectives on the underuse of sacral neuromodulation for overactive bladder in Canada" (*Can Urol Assoc J* 2023;17:E165-71)

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A recent Canadian survey of urologists highlighted the most frequently reported barriers to accessing sacral neuromodulation (SNM) care, including lack of local resources, long travel distances to treatment centers, lengthy wait times, nursing shortages, and gaps in knowledge and skills.[1]

While many urologists are trained to provide SNM, these services are limited to only six centers across Canada, with each center typically serving an entire province. As a result, patients often need to make three or four round trips to these centers, with only the final visit dedicated to the implantation of the internal pulse generator (IPG) (Figure 1).

SNM has demonstrated a high success rate in alleviating symptoms and enhancing the quality of life for patients with conditions such as overactive bladder (OAB), fecal incontinence, low anterior resection syndrome, diarrhea-predominant and mixed irritable bowel syndrome, and chronic pelvic pain.[2-7] These conditions impose a huge financial burden on Canada.

In 2014, with a Canadian population of approximately 35 million, the estimated annual cost of urinary and fecal incontinence to Canada was about 4 billion dollars, with prevalence rates estimated around 10%. These costs stem from direct or indirect expenses, such as incontinence supplies, nursing, physician care, counseling, medications, hospital care, long-term care, lost productivity, absenteeism, presenteeism, as well as the broader individual, familial, and societal impacts.[8] These figures do not account for the costs related to those patients with OAB who do not experience incontinence. With the current Canadian population of around 40 million and an estimated 1.4–2.5 million women and 1.3–2.2 million men affected by OAB,[9] the financial burden of managing these conditions is likely to be significantly higher.

In response to the survey by Gariscsak et al[1] and to expand services for patients in Northern Ontario, we aimed to overcome barriers related to logistics, resources, knowledge, and skills by offering the first stage of SNM therapy — the percutaneous nerve evaluation (PNE) trial — through a feasibility project at Health Sciences North, an academic hospital in Sudbury, Ontario. For the PNE trial, the patient is fitted with a temporary external neurostimulator, allowing them to evaluate the treatment's effectiveness in real-life conditions over 4–7 days. Throughout this period, the patient closely monitors their symptoms and assesses their response to neuromodulation.

The model was developed to allow PNE trials to be performed in Northern Ontario and to give successfully trialed patients the opportunity to travel to Toronto for the full SNM implant surgery at the larger academic center. A successful trial is defined as at least a 50% improvement in symptoms, making the patient eligible for the implantation of an IPG in Toronto.

To our knowledge, Health Sciences North is the first hospital in the country to offer PNE as a remote site for a central hospital that has the capacity for IPG implantation. Since PNE is performed under local anesthesia, it is expected to have minimal impact on hospital resources. We perform PNE using anatomical landmarks, without the use of fluoroscopic imaging, which further reduces the demand for additional resources and enhances the efficiency of the procedure.

Providing this service locally reduces the need for at least two long-distance round trips, cutting travel costs, potential hotel expenses, and indirect costs, such as lost productivity and absenteeism for both

the patient and their family or friends. This initiative not only offers financial relief but also brings significant social benefits to the community. After launching the PNE program locally, an increasing number of patients have chosen to undergo PNE at Health Sciences North, with plans to travel to Toronto if the procedure is successful.

This model not only expands local access to SNM but also addresses the "skills" and "knowledge" barriers identified by Gariscsak et al.[1] Local allied healthcare professionals will have the opportunity to be exposed to this treatment modality and receive training, while Northern Ontario School of Medicine (NOSM) residents will gain knowledge and experience regarding referral indications and procedural techniques.

Looking ahead, as more urology residents gain exposure to SNM, including those at NOSM, there is hope for increased emphasis on training for PNE during residency. This would allow our model to be implemented in community hospitals and clinics, ultimately increasing access to neuromodulation therapy.

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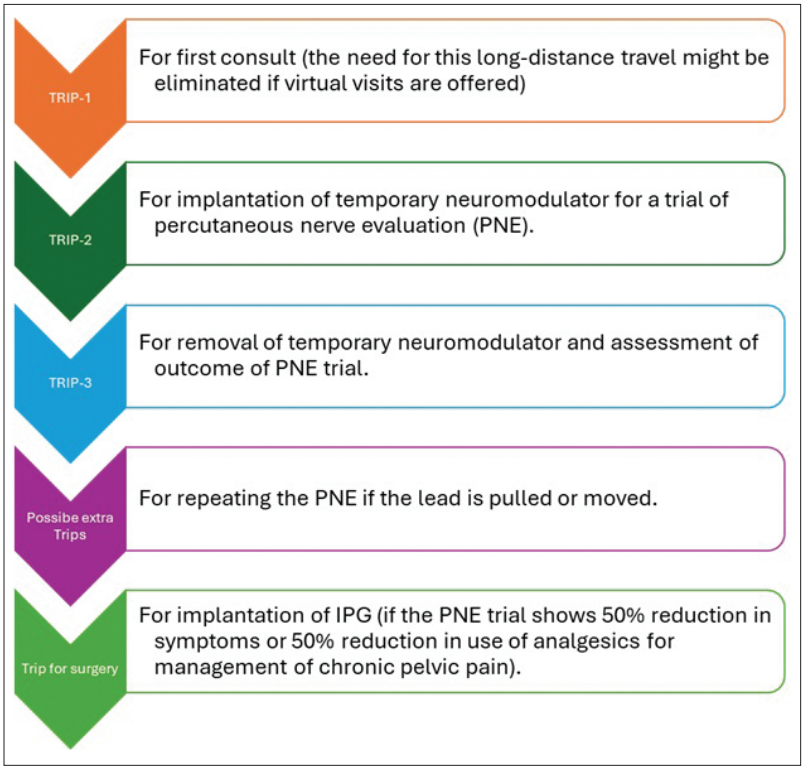

Figure 1. Patient journey for receiving sacral neuromodulation care if the services are not offered locally. IPG: internal pulse generator.

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