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“A pilot study comparing two different surgical approaches (midline versus paramedian) to the lumbar spine for treatment of degenerative spinal conditions”

The number of patients undergoing surgery and fusion procedures for degenerative conditions of the lumbar spine has increased significantly over the past three decades. Infection and re-operation can negatively impact patient outcomes both in the short term and long term.

There are numerous observational and retrospective reviews that demonstrate short term advantages of paramedian or two incision approaches (shorter hospital stay, less blood loss, lower infection rate), while also quoting longer operative times and greater radiation exposure to the patient and surgical team. This is compared to the traditional open midline approach to the lumbar spine.

There are very few well-powered, prospective randomized control trials (RCT) comparing midline and paramedian approaches. As a step towards a long-term goal of an RCT to address this issue, the purpose of this pilot RCT of 100 patients is to gather initial data to examine whether operative incision(s) impact the short-term infection rate, re-operation rate, length of stay, and overall costs to the health care system. This valuable information will help in determining total number of patients required for the larger trial and how long the trial may take for full recruitment.

Spinal fusion surgery is often very successful in improving quality of life of patients, however, when complications arise the success and value of the surgery can be negated. Improving the quality of the outcome for this relatively common/high volume procedure in Canada is imperative.