



A review of the first 100+ procedures performed in Canada with LithoVue™ Elite Single-Use Digital Flexible Ureteroscope System with intrarenal pressure monitoring

Boston Scientific conducted a survey of 106 procedures performed by 12 urologists, finding real-time IRP monitoring influenced interoperative decision making during ureteroscopy

The implications of elevated IRP during ureteroscopy have been hypothesised to be linked to an array of post-operative complications,^{1,2} and literature suggests IRP monitoring technology may help implement strategies to minimise pressure.^{3,4} The LithoVue Elite Ureteroscope with integrated IRP monitoring capabilities is designed to allow urologists to utilise IRP data in conjunction with their clinical training, experience, and expertise to help them make informed decisions during a ureteroscopy procedure. The LithoVue Elite System is the first commercially available ureteroscope featuring IRP monitoring, intended to provide urologists the ability to make informed, real-time clinical decisions.

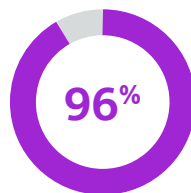
During a limited market evaluation in Canada, a cohort of 12 urologists across 5 hospitals were surveyed by Boston Scientific about their experience with the LithoVue Elite System across 106 ureteroscopy procedures. After each procedure, the performing physician completed a survey to assess how, in their individual experience, utilising the LithoVue Elite System, and access to real-time IRP data, impacted each individual case. This paper reviews survey results highlighting the collective experience of participating Canadian urologists with the LithoVue Elite System, detailing the impact of real-time IRP monitoring on their procedural technique.

All surveyed physicians indicated the ability to monitor IRP was desirable

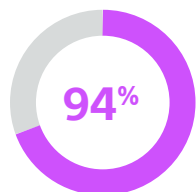
Initial findings from the survey conducted among 12 urologists over 106 ureteroscopy procedures support the utility of the LithoVue Elite System. Survey findings include:



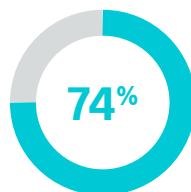
100% of physicians considered the use of pressure monitoring capabilities **desirable** in at least one of their cases.



In **96% of procedures**, physicians responded that they considered it desirable to have **access to a scope with pressure monitoring capabilities**.



In **94% of procedures**, physicians “agreed” or “strongly agreed” that **LithoVue Elite meets their expectation** to monitor intrarenal pressure.



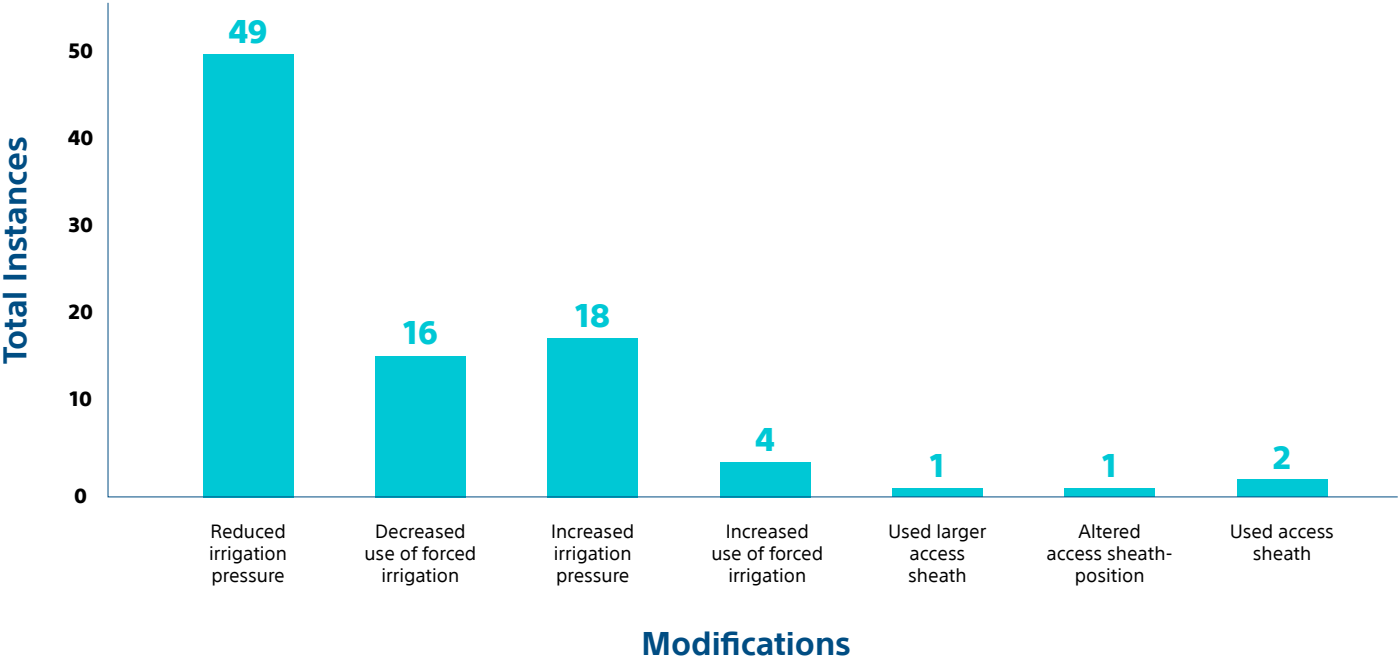
In **74% of procedures**, access to pressure monitoring **altered the way a physician approached their case**.

Real-time pressure monitoring led physicians to adjust their interoperative technique

Analysis of urologists’ survey responses further reveals that access to real-time IRP information may have an impact on a physician’s behaviour and intraoperative technique. Six of the twelve physicians surveyed indicated that they altered their approach in at least one procedure performed with the LithoVue Elite System.

As depicted in the graph below, survey respondents noted that monitoring IRP altered the way they approached/monitored procedures. Notably, among procedures where modifications were reported, physicians altered their approach in a variety of ways.

Ways physicians altered their technique
(in 91 instances during 78 procedures)



While additional research and experience with the LithoVue Elite System is required, the results of this Boston Scientific survey suggest real-time IRP monitoring may help physicians to make informed, real-time clinical decisions. This technology may provide useful insight into the dynamics of IRP during ureteroscopy, and may enable urologists to refine techniques to include data-driven IRP management tactics.

For more information about the LithoVue Elite System, visit www.bostonscientific.eu/LithoVueElite

1. Tokas T, Herrmann TRW, Skolarikos A, et al. Training and Research in Urological Surgery and Technology (T.R.U.S.T.) Group. Pressure matters: intrarenal pressures during normal and pathological conditions, and impact of increased values to renal physiology. World J Urol. 2019 Jan;37(1):125-31.

2. Gutierrez-Aceves J, Negrete-Pulido O, Avila-Herrera P. Perioperative Antibiotics and Prevention of Sepsis in Genitourinary Surgery. In Smith AD, Badlani GH, Preminger GM, Kavoussi LR (Eds.), Smith’s Textbook of Endourology. New York, NY: Blackwell Publishing Ltd., 2012:38-52.

3. Dean NS, Krambeck AE. Endourologic Procedures of the Upper Urinary Tract and the Effects on Intrarenal Pressure and Temperature. J Endourol. 2023 Feb;37(2):191-198.

4. Croghan SM, Somani BK, Considine SW, et al. Perceptions and Practice Patterns of Urologists Relating to Intrarenal Pressure During Ureteroscopy: Findings from a Global Cross-Sectional Analysis. J Endourol. 2023 Nov;37(11):1191-1199.

CAUTION: The law restricts these devices to sale by or on the order of a physician. Indications, contraindications, warnings and instructions for use can be found in the product labelling supplied with each device or at www.IFU-BSCI.com. Products shown for INFORMATION purposes only and may not be approved or for sale in certain countries. This material is not intended for use in France.