

Intravesical botulinum toxin: practice patterns from a #24140 survey of Canadian urologists

James Ross, Duane Hickling, Conrad Maciejewski, Rhea Coriaty, Humberto Vigil

u Ottawa Faculté de médecine

Faculty of Medicine

Division of Urology, Department of Surgery, University of Ottawa, Ontario, Canada

INTRODUCTION

- There is a lack of high-level evidence for proper administration of intravesical botulinum toxin (BoNT)
- **Primary Objective:** To characterize intravesical BoNT practice patterns in Canada
- Secondary Objectives: 1) To identify barriers to treatment delivery; 2) To assess for differences in practices based on fellowship training in functional urology vs none

METHODS

- Anonymous, web-based survey was distributed to Canadian Urological Association (CUA) members
- Exclusion: 1) Residents, 2) Fellows, 3) CUA members not practicing in Canada
- Respondents with training in functional urology compared to those without

RESULTS

- Survey distributed to 570 urologists
- Response Rate: 26% (148/570)
- 80% (119/148) perform intravesical BoNT
- 58% perform 1 to 10 treatments/month
- Those with fellowship training perform more treatments per month and less injections per treatment (p<0.05)
- Distribution of respondents: Eastern Canada: 23.5%; Central Canada 52.9%; Western Canada 23.5%

Part 1 - Demographics



Figure 3. Infection prophylaxis practices for providers of intravesical

Part 3 – Intra-Procedural Practices

Figure 4. Techniques for administration of intravesical BoNT.



Figure 1. Level of training and type of practice for respondents who provide intravesical BoNT.



Part 2 – Pre-Procedural Practices







Part 4 – Post-Procedural Practices

Routine follow-up intervals:

- 2 weeks 19.5%
- 4 weeks 28.5%
- 6 weeks 34.4%
- Other 17.6% (range 3 days to 3 months)

Part 5 – Barriers to Delivery

Figure 5. Barriers to treatment delivery for providers and non-providers.



Table 1. Percent performed under local cystoscopy and analgesia used.

Variable	Response
% performed under local cystoscopy	
0% to <25%	26.0%
25% to <75%	21.8%
75% to 100%	52.2%
Type of Local Analgesic Used	
None	3.0%
Intravesical Lidocaine Gel	30.0%
Intravesical Lidocaine Solution	52.0%
Other	15.0%
Intravesical Lidocaine Solution	
Median Dwell Time (minutes - IQR)	30 minutes (10 minutes)
Concentration (% - Range)	2% (1% to 4%)
Volume (mL – IQR)	40mL (32.5mL)

 $0.0\% \quad 5.0\% \quad 10.0\% \quad 15.0\% \quad 20.0\% \quad 25.0\% \quad 30.0\% \quad 35.0\% \quad 40.0\% \quad 45.0\% \quad 50.0\%$

CONCLUSIONS

- Intravesical BoTN practice patterns vary widely in Canada during all phases of care
- Barriers to treatment delivery exist within the publicly funded Canadian health care system

FUTURE DIRECTIONS

- High-level studies to identify the most effective, efficient, and safe methods of BoNT administration.
- Summary of research findings into a best practice report or guideline to standardize and improve the quality of care
- Education and training programs to increase treatment providers