

Differences in remuneration for urologic services across provinces in Canada

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INTRODUCTION

Provincial governments in Canada spend a total of \$300 billion annually on physician compensation, and this accounts for 13% of healthcare spending in Canada¹. However, reimbursement is set by provincial organisations and is not standardised across Canada. This means that with the fee-for-service model that most urologists practise in, payments to physicians for each aspect of clinical care is different in each province. This is often anecdotally discussed among colleagues from other provinces, but there is no published research on the differences in payments for specific surgeries or procedures that urologists receive between provinces.

Our objective was to analyze the differences in provincial remuneration for selected urological services across the various Canadian provinces. Our goal was to understand whether certain subspecialties or types of fee codes have more variation in provincial remuneration compared to

KEY MESSAGES

- Certain fee codes have a higher level of variation (such as uroflowmetry, Peyronie's repair, and radical nephrectomy) or a lower level of variation (such as consultation, insertion of artificial urinary sphincter, and radical orchiectomy).
- There was no significant difference in the average magnitude of the variation in fee codes between fee codes classified as general, benign, or oncologic.
- Understanding these payment differences could enhance future negotiations on provincial remuneration for urology and other surgical fields.

others, and whether remuneration for selected fee codes correlate with the average gross clinical payments of urologists.

METHODS

The most current fee scheduled/master payment agreements for the 10 Canadian provinces were evaluated in November 2022. We selected *a priori* fee codes of interest that fit into one of three categories (general, benign, and oncologic urology). We picked fee codes that were as specific and unambiguous as possible, less likely to have modifiers or be combined with other procedures, and were found in at least 8 out of 10 provinces. Where possible, coauthors from the province of interest reviewed the interpretation of the billing codes.

Means, standard deviations (SD), and the coefficient of variation (CV) for the different fee codes was calculated. The CV is a unitless measure calculated by dividing the standard deviation by the mean and multiplying by 100 to convert to a percent. A larger number means there is more dispersion (variation) around the mean. We performed an ANOVA of the CVs to determine if there was a significant difference in the variation of fee codes between the three categories of procedures. Finally, Pearson correlations were used to assess for associations between selected fee codes and Canadian Institute for Health Information (CIHI) data on average gross clinical payments for urologists in Canadian provinces². For the provinces of Alberta and Saskatchewan data on average gross clinical payments for urologists was obtained from the Alberta Health Care Insurance Plan (AHCIP) and the Medical Services Branch (MSB) of the Saskatchewan Ministry of Health respectively^{3,4}. A $p < 0.05$ was considered significant.

RESULTS

Twenty-three urologic services were analysed and categorised as: General, Benign or Oncologic (detailed in table 1). Among the 23 procedures, Saskatchewan was the highest paid for 9, Alberta for 4, British Columbia for 3, and Prince Edward Island, New Brunswick and Nova Scotia had 2 each; Newfoundland and Labrador had 1 while Ontario and Quebec had none. The highest CVs in the general, benign and oncology categories were uroflowmetry (CV=72%), Peyronie's repair (CV=57%), and radical nephrectomy (CV=38%) respectively. Fee codes having the lowest CV in the general, benign and oncology categories were consultation (CV = 12%), insertion of artificial urinary sphincter (CV=16%), and inguinal radical orchiectomy (CV=15%). A more detailed province-by-province comparison is shown for the consultation and cystoscopy fee codes in Figure 1. There was no significant difference in the average magnitude of the CVs between the three categories of procedures ($p=0.97$).

The average gross clinical payments for each urologist in each province (Figure 2) were correlated with selected fee codes from each category and these correlations were not statistically significant. Consultation fees were moderately correlated with average gross clinical payments ($r=0.57$) however this was not quite statistically significant ($p=0.08$).

DISCUSSION

Our study is novel as little prior research has characterized the variations in remuneration for similar urological procedures between provinces. Our results indicate that there are several urologic fee codes/procedures that have a large degree of variation in their remuneration, and there are certain provinces that tend to remunerate procedures at a higher rate. Roth et al conducted a similar analysis on provincial reimbursement for gastroscopy and colonoscopy in Canada and also found wide variations in provincial remunerations for identical procedures across the provinces⁵.

Provincial fee schedules are determined through negotiations between the provincial government and medical associations. In most cases, a subcommittee from the various specialities would then make the detailed decisions around the reimbursement for specific procedures and periodically update the fees for established procedures. These committees ideally consider factors such as length of the procedure, expertise required, risk involved, the evidence supporting the benefits of the procedure, and complexity/difficulty of the procedure. These fees are then approved by the medical association and the provincial ministry (in Ontario for example, this would be the Physician Service Committee and the Central Tariff Committee). Several factors can account for the provincial variation in remunerations, such as physician demand, medical overhead, recruitment priorities and provincial government policies although it is difficult to ascertain the extent of significance of each factor^{5,6}. Despite all of these factors, it is important to note changes in physician payment agreements tend to be primarily focused on the distribution of gross incomes across specialties rather the distribution of fees within a speciality⁷.

There are a few implications of this study. First, interprovincial variation is not biased between the general categories of urologic fee codes that we selected. Second, none of the procedures we assessed for correlations with gross clinical payments were significantly correlated, meaning that differences are not easily accounted for by a consistent bias towards higher or lower payments within certain provinces. Other factors, such as access to resources, may play an important role in determine gross clinical payments. This research should lead to further discussion into why certain procedures have large reimbursement differences between certain provinces; this may be the result of the subspeciality representation on the relevant negotiating committees, historical patterns of procedure use in specific provinces, conscious decisions to try and drive practise change (for example disincentivizing internal urethrotomy and incentivizing urethroplasty to try and change practise patterns in urethral stricture management⁸) attempts to address urology shortages or to account for cost of living differences, or as a result of complex economic modelling within the provincial associations. It is necessary to continually re-examine these fee codes to ensure certain procedures aren't disincentivized, particularly those associated with elective care.

Our study limitations are also important to acknowledge. The obvious one is that a fee schedule is not black and white, and in some cases a combination of billing codes and modifiers may be used. In some provinces, postoperative care may be included in the surgical fee, while other provinces allow for additional fee codes for aspects of care after a surgery. CIHI data on physician reimbursement has limitations based on the methodology used to identify a “full-time equivalent”.⁹ We could not account for all these variations, and as a result tried to restrict our fee codes in this study to those that are less ambiguous and easily defined (which is why for example the management of stone disease was not included despite being a very common urologic procedure). Some provinces (particularly ones with smaller populations) did not have fee codes for some of the procedures. When interpreting the variations in fee codes from a system perspective, it is important to account for the number of claims for the fee code, which will ultimately drive cost in the provincial budget. Finally, it is possible that some of our interpretation of the fee codes may be incorrect; to account for this we tried to involve authors from various provinces to review our data, however we did not have representation from Manitoba, Nova Scotia, PEI or New Brunswick.

In conclusion, there is significant variation in reimbursement for standard urology procedures among Canadian provinces. Understanding these payment differences could enhance future negotiations on provincial remuneration for urology and other surgical fields.

DRAFT

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FIGURES AND TABLES

Figure 1. Fee code value of urologic consultation and cystoscopy by province.

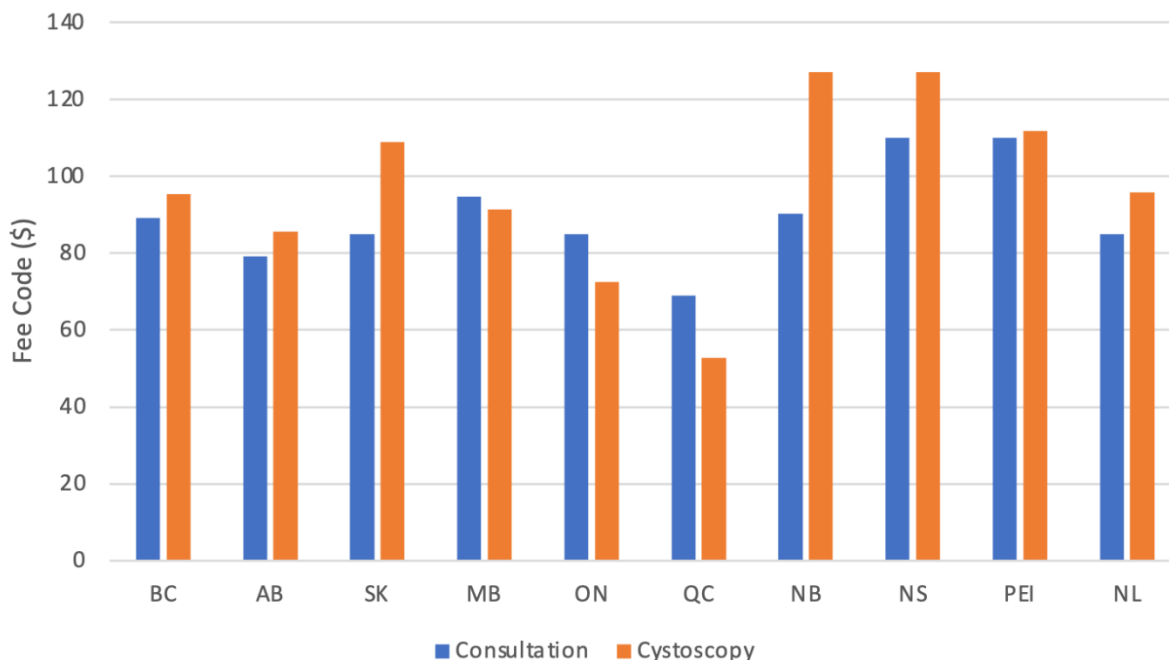
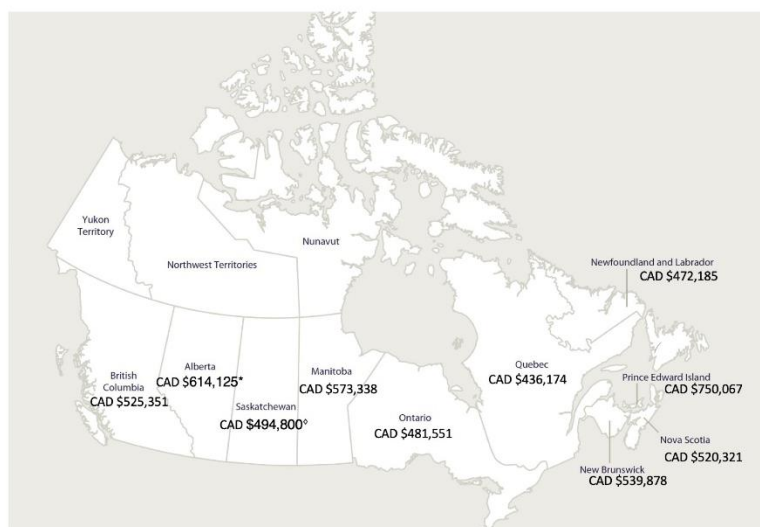


Figure 2. Urologists’ gross clinical earnings per province had a correlation of $r=0.57$ ($p=0.08$) with consultation fees, $r=0.41$ ($p=0.24$) with cystoscopy fees, $r=0.44$ ($p=0.21$) with radical retropubic prostatectomy fees, $r=0.01$ ($p=0.97$) with radical/thoraco-abdominal nephrectomy,



$r=0.03$ ($p=0.93$) with ureterovesical anastomosis/reimplant fees and $r=0.54$ ($p=0.1$) with female urethral sling fees.

Table 1. Descriptive of selected common urological fee codes across the Canadian provinces					
Procedure	Average	SD	CV	Highest paid province	Lowest paid province
General urology					
Consultation	88.21	10.85	12.30	PEI	Quebec
Cystoscopy	95.76	22.03	23.00	New Brunswick	Quebec
Uroflow*	35.22	25.51	72.42	Nova Scotia	New Brunswick
Unilateral hydrocelectomy/repair	247.81	55.99	22.59	Newfoundland	New Brunswick
Orchidopexy (torsion reduction)	306.06	136.08	44.46	Saskatchewan	Alberta
Urethrotomy, external/internal (highest)	231.30	46.45	20.08	Nova Scotia	Alberta
Benign					
Uretero-vesical anastomosis/ureteroneocystostomy	654.89	142.32	21.73	Saskatchewan	Ontario
Closure of fistula -vaginal approach	708.65	181.86	25.67	Saskatchewan	Quebec
Urethral sling -TVT Or TOT for stress incontinence/any technique	416.67	98.64	23.68	PEI	Newfoundland
Insertion of AUS	810.47	131.20	16.19	Saskatchewan	New Brunswick
Urethroplasty- one-stage repair ± graft	855.42	459.66	53.74	Alberta	Newfoundland
Penoscrotal hypospadias -one stage correction-any technique	843.61	232.86	27.60	Saskatchewan	PEI
Inflatable prosthesis with 2 or 3 components	600.35	124.02	20.66	Alberta	New Brunswick

Peyronie’s repair (excision plaque- no graft)	425.94	243.94	57.27	British Columbia	Nova Scotia
Oncology					
Nephrectomy (thoraco-abdominal/radical nephrectomy)	1,084.16	417.18	38.48	Alberta	New Brunswick
Laparoscopic partial nephrectomy	1,328.58	379.16	28.54	British Columbia	Nova Scotia
Nephroureterectomy and bladder cuff excision	1,147.61	436.91	38.07	Alberta	Ontario
Cystectomy with continent urinary diversion	2,294.60	649.07	28.29	British Columbia	Ontario
Cystectomy & ileal conduit	1,937.73	734.76	37.92	Saskatchewan	PEI
Inguinal/radical orchiectomy -no gland dissection	317.87	48.67	15.31	Saskatchewan	Newfoundland
Laparoscopic radical prostatectomy & PLND	1,898.41	782.57	41.22	Saskatchewan	Nova Scotia
Retropubic radical prostatectomy	824.91	261.77	31.73	New Brunswick	Quebec
Radical amputation of penis	629.49	153.06	24.32	Saskatchewan	New Brunswick

Means, standard deviations (SD), and coefficient of variations (CVs) are calculated and summarized. *A specific uroflow fee code was not included in the fee schedule in two provinces. AUS: artificial urinary sphincter; PLND: pelvic lymph node dissection; TOT: transobturator tape; TVT: tension-free vaginal tape.