# Telephone consultations in urology: Who, when, where, and why?

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## Abstract

**Introduction:** Telephone consultations are part of a strategy to allow access to medical expertise. Telephone consultations have been fee-for-services benefits in the province of Quebec since 2012.[1] Recent studies have shown that adequate communication is one of the most common means to prevent disability and death.[2] We sought to determine the characteristics of phone consultations made to a tertiary centre's urologists and to characterize their experience.
**Methods:** We performed a prospective study using all billing receipts filed by 15 academic urologists for phone consultations received during a 10-month period. A descriptive analysis was done to collect the principal characteristics of all phone calls received. Moreover, an online survey was distributed to urologists. The survey was composed of 10 multiple-choice questions to review their personal experience.
**Results:** A total of 678 billing receipts were analyzed. The most common reasons for calls were lithiasis (11.5%), hematuria (10.5%), and urinary retention (8.4%). Most phone calls (57.7%) were made by emergency physicians and family doctors. The majority (88.7%) of calls were placed between 8 am and 5 pm. Most of the calls came from the immediate region covered by the group. Our survey demonstrated that urologists pay more attention to document telephone consultations since the introduction of the new remuneration plan. Most urologists found the phone consultations to be relevant.
**Conclusions:** Lithiasis and hematuria are the primary reasons for telephone consultations. Continuing medical education on these subjects could be worthwhile. The RAMQ remuneration plan has improved documentation of phone consultations by urologists.

## Introduction

On October 1, 2012, telephone consultations became a legal fee-for-services benefits by the Régie de l'Assurance Maladie du Québec (RAMQ).[1] This implies all telephone calls to/from a medical specialist to/from another physician or healthcare professional (nurse, pharmacist…) about a challenging diagnostic or treatment; or for advices on a critical condition for a specific patient. This benefit does not include telephone conversations within the same healthcare facility. Both the consultant and the requesting healthcare professional can bill for the phone consultation. Recent studies have shown that adequate communication amongst healthcare professionals is one of the most valuable strategies to prevent disability and mortality.[2] It also allows easy and rapid access to specialist advices even in more remote facilities.[3,4] However, the potential benefits and utilisation of this kind of communication modalities have not yet been demonstrated in the current medical literature.

The main objectives of our study were to describe the different characteristics of phone consultations made by healthcare professionals to academic urologists in terms of timing and location, type of consultation requests and professional background. Our second end-point was to report the urologists' experience in regards to those phone consultations.

## Methods

We retrospectively performed a descriptive analysis using all billing receipts filed by a group of fifteen academic urologists in a tertiary center for the phone calls received from October 15$^{th}$ 2012 to August 1$^{st}$ 2013. This group included pediatric urologists, urologist-oncologists and other subspecialty urologists from a single institution divided in five different centers. We recorded information about the time of day in which the different phone calls were made or received; the expertise and working region of the healthcare professional seeking advices and the purpose of the phone consultation.

An online survey composed of 10 multiple-choice questions was also distributed to the 15 urologists to review their personal experience with telephone consultations during the first nine months of this new measure. This included questions about their perception on the amount and on the type of phone calls they received as well as their relevance. We also evaluated their knowledge on the new fee-for-service phone consultation benefit details. All the survey results were compiled and descriptive data analyses were performed. This study is a qualitative analysis of the information collected through the survey and the billing receipts, which did not necessitate elaborate statistical analysis.

**Results**

A total of 678 billing receipts were analyzed during a nine-month's period. We looked at the specialty of the person requesting a consultation and the results showed that more than half of the reported phone consultations were made by emergency physicians and family doctors (391 phone calls; 57.7%) (Table 1). Most consultations were pursued by a physician, but 7,2% of all phone calls were made by other healthcare professionals such as nurses, pharmacists and physical therapists.

As for when the phone consultations were placed; the great majority (88.7%) of the reported calls were placed between 8:00 am and 5:00 pm (Fig. 1). According to the reported billing forms, urologists received a mean of 2.5 phone consultations per day ranging from 1 to 11 calls per day. We also looked at where the phone calls came from and we noted that most of the calls came from the Capitale Nationale region and the Côte-Nord region (Table 2, Fig. 2).

We recorded more than 50 different reasons for consultations. The most common purpose for phone consultations was urinary lithiasis (n.78; 11,5%). It was followed by hematuria (n.78; 10,5%) that can be subdivided in microscopic (n.8; 1.2%) and macroscopic (n.38; 5.6 %). Acute urinary retention was the third most frequent reason for phone consultation (n. 57; 8.4%) (Table 3).

The second portion of our study consisted of a 10-questions online survey that was answered by 12 out of the 15 urologists. The results showed that urologists feel they are paying more attention to complete their telephone consultation forms since the RAMQ remuneration plan was initiated. Ninety percent (90%) of them believed they were filling out their phone consultations less than 50% of the time before the new fee-for-services benefit was implemented. Now, only 10% of them believe they are filling out less than half of their phone consultations. Most of the urologists consider hematuria as the main reason for a phone consultation (n.5; 42%) followed by urinary lithiasis (16,7%). They also feel that general practitioner are the main users of this communication modality. On a scale from 1 to 10, where 1 represents non-relevant phone calls; 8 out of 12 urologists believe the phone consultations they received are relevant on a 7 to 8 out of 10 ratio. The rest of them indicated a 5 out of 10 of relevance. As for the knowledge of the new fee-for-services benefits, 90 % of urologists bill more than 50% of their phone consultation but 75% of them never or occasionally record the phone consultations they are making to another health care professional. Most urologists know the right wage for the fee-for-service benefit when they are consultant (66.7%).

**Discussion**

The new fee-for-services benefit for telephone consultation has allowed us to obtain important details about the type of phone consultations and the healthcare professionals that use it the most for urological problems. To our knowledge, a study on phone consultation was never achieved in a surgical specialty field.

Our study demonstrates that emergency physicians and family physicians are the main specialists to seek urological advices and this is also what Quebec urologists perceived according to our survey. Those first line practitioners are frequently the first professional met by the patient with an acute problem such as hematuria and lithiasis. Their call often concerns acute evaluation and management but also questioned the urgency and mean of referral. The calls received are made mostly during working hours (from 8 am to 5 pm). The few calls received outside of these hours are for emergency purposes such as sepsis on obstructed calculus and testicular torsions. Urologists tend to receive less calls from regions where they are full-time urologists in place such as Saguenay Lac-St-jean, Chaudière-Appalaches and Bas St-Laurent. This could explain why they received more phone calls from region such as Côte Nord and Nord du Québec. Interestingly, there was no call coming from Gaspésie and Iles-de-la-Madeleine. This could be explained by our lack of recording all phone calls. Even though urologists believe most of the phone consultations received are relevant, the two main reasons are still lithiasis and hematuria. In the past years, increased workload has motivated the creation of different reference algorithms on common urological health problems distributed in the different workplaces such as Emergency rooms and family practice clinics.[5] Urologists also offer different continuing medical education workshops on the same topics. This ascertainment brings some interrogation about the efficacy of the proposed algorithms and workshops and the way clinicians use them. There was a need to implement these resources but we have not yet analysed their impact on the clinical practice. This study emphasizes the need to further evaluate the efficiency of the new tools implemented in urology.[6] Despite all algorithms and reference sequences, discussion human to human, especially for an acute problem, may always be more successful and satisfactory than sheets of paper through fax machine.

The survey showed that urologists believe they are recording more phone consultations since the implementation of the fee-for-service benefit in Quebec. Prior to this measure, the documentation of calls was almost non-existent. However, the study cannot confirm if their impression is an adequate representation of the reality because we cannot ascertain that they documented a hundred percent of the phone consultations they received or made during the study period. As for their knowledge of the new fee-for-service benefit, urologists usually do not bill when they are referent, they fill out the form appropriately most of the time and they know the amount of the benefit. Problems remain

with the remuneration system since its introduction in October 2012: it could be time consuming and urologists are lacking some knowledge about the billing system. Regardless of remuneration; the Canadian Medical Protective Association (CMPA) "recognizes advice given over the telephone or in "corridor consultations" is an important and necessary part of clinical practice. However, in providing such advice or consults a physician should be aware that a duty of care may arise".[7] Considering this information, the CMPA encourage us to have sufficient information before giving the advice, and make reasonable efforts to document the information and advice given.[7] As we observed in our study, the new remuneration system encourages urologists to document this kind of information which can further help them if a medico-legal issue should arise.

Telephone consultations are well used by healthcare professionals. They allow a simple and fast access to specialist's advices and can prevent unnecessary hospital transfers in about 50% of the time.[8] It also dispenses the specialist to formal and longer consultations.[6] However, the amount of phone calls received by urologists each day can be important and can increase the daily workload on timing that is not always appropriate (during surgery, consultation, transportation, etc.). This could negatively impact the urologist workflow and could increase medical errors. Lacmizan and al. reported that there is information loss during interruptions, and that multitasking creates higher memory load, both of which contribute to medical error.[9,10] Our results show that urologists can have as many as 11 phone consultations per day. This does not include the other phone calls (in-house calls, resident supervision) and the other types of interruption. All those disruptions can also negatively impact the therapeutic relation the urologist develops with his patient.[11] On the other hand, the results in our study show the need for communication between the different healthcare professionals. Solution proposed in the literature to decrease the disruption with phone calls interruption could be to delay the answer by asking someone to answer the pager or phone when doing a task requiring more concentration or to provide yourself with environmental cues to aid recovery from interuptions.[12]

The results of our study should be interpreted in the light of some limitation. First the retrospective nature of this study introduces recall bias. According to our survey, we potentially missed about 10% of all the phone consultations received. Those missing data could be explained by the lack of knowledge at the introduction of this new benefit and the omission of documenting in specific occasion (phone call during travelling or in the operating room). It could be interesting to ask the active urologists now to repeat the survey and assess any improvement in documenting phone consultations now that the fee-for-service benefit has been implemented for 5 years. Furthermore, we could not assess the real amount of phone calls received during a full day of work as we could only use the documented phone consultations which did not include the estimated 10% missing phone call consultations However, we believe that most urologists made

conscious efforts to document phone consultations and better documented given medical advice as recommended by the CMPA.

**Conclusion**

Telephone consultation to urologists is a communication modality that allows easy access to urological expertise. Our study demonstrates that emergency physicians and family doctors are the principal requesting practitioners. The primary reasons for calling remain lithiasis and hematuria even though algorithms and workshops on these subjects have been largely distributed. RAMQ remuneration plan has improved documentation of phone consultations by urologists.

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## Figures and Tables

***Fig. 1.*** Distribution of phone consultations in 24 hours.

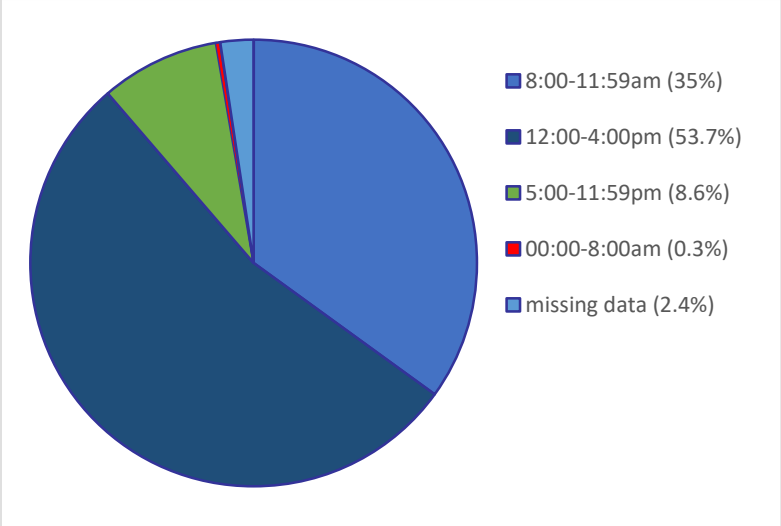
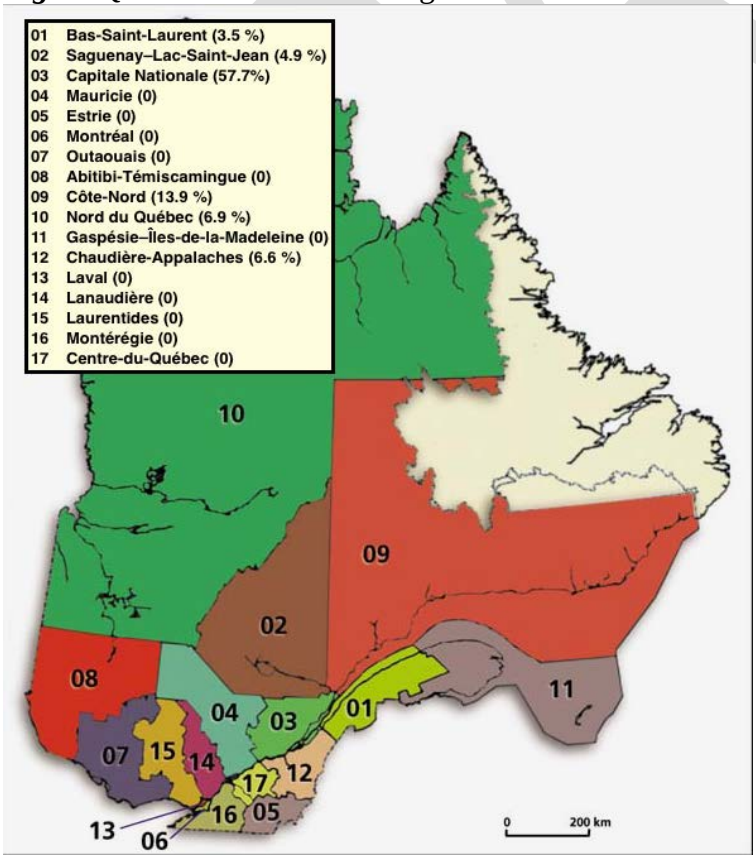



***Fig. 2.*** Quebec administrative regions.



| **Table 1. Requesting healthcare professionals** | |
|---|---|
| **Consulting medical professional** | **Calls (%)** |
| Emergency and family physician | 57.7 |
| Pediatrician | 13.9 |
| Urologist | 6.9 |
| Internist | 6.6 |
| Nurse | 4.9 |
| Other surgical specialty | 3.5 |
| Others | 1.3 |

| **Table 2. Quebec regions the consultations come from** | |
|---|---|
| **Region** | **Consultations (%)** |
| 03 Capitale Nationale | 57.7 |
| 09 Côte Nord | 13.9 |
| 10 Nord du Québec | 6.9 |
| 12 Chaudière-Appalaches | 6.6 |
| 2 Saguenay Lac St-Jean | 4.9 |
| 1 Bas St-Laurent | 3.5 |

| **Table 3. Reasons for phone consultations** | | |
|---|---|---|
| **Reason for consultation** | **Calls (no)** | **Calls (%)** |
| Lithiasis | 78 | 11.5 |
| Hematuria<br>• Microscopic<br>• Macroscopic<br>• Not specified | 71<br>8<br>38<br>25 | 10.5<br>1.2<br>5.6<br>3.7 |
| Urinary retention and catheter care | 57 | 8.4 |
| LUTS | 46 | 6.8 |
| Postoperative complications | 45 | 6.6 |
| Renal mass | 44 | 6.5 |
| Hydronephrosis | 42 | 6.2 |
| Hydrocele, varicocele et testicular mass | 36 | 5.3 |
| Vesicoureteral reflux | 27 | 4.0 |
| Bladder mass | 24 | 3.5 |
| Acute pyelonephritis | 18 | 2.7 |

LUTS: lower urinary tract symptoms.