Cross-Border Healthcare Requests to Publicly Funded Healthcare Insurance: Empirical Analysis

Demandes auprès du régime public d’assurance maladie pour obtenir des services de santé à l’étranger : analyse empirique

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Abstract
Despite the legal authority to confirm, override or modify healthcare insurance decisions made by physicians and government officials, health tribunal decisions have not been empirically analyzed. Using a novel quantitative methodology, all 387 Health Services Appeal and Review Board written and publicly available electronic decisions released over a five-year time period were statistically analyzed with respect to Ontario public health insurance requests for global cross-border healthcare. The statistical results found that patients knew their diagnosis prior to requesting cross-border healthcare, and 84% of patients requested specific northern US facilities for specific treatment. Two specific healthcare facilities in the US were requested for either surgery or assessments. A significant number of patients were seeking cross-border healthcare for pain treatment. This research challenges the assumption that cross-border treatment requests result only from domestic delay when instead patients are seeking specific treatments at specific facilities. This novel quantitative research methodology and data source of written and publicly available electronic Health Services Appeal and Review Board decisions should be used to inform policy decision regarding the utilization and evaluation of Canada’s healthcare system and publicly funded healthcare insurance.
Résumé
Bien que les dispositions du tribunal de la santé – quant à la confirmation, au remplacement ou à la modification des décisions en matière d’assurance maladie prises par les médecins ou des représentants du gouvernement – aient une valeur juridique, ces dispositions n’ont pas fait l’objet d’analyses empiriques. À l’aide d’une nouvelle méthodologie quantitative, nous avons analysé statistiquement l’ensemble des 387 décisions des cinq dernières années, accessibles en ligne, prises par la Commission d’appel et de révision des services de santé quant aux demandes faites auprès de l’assurance maladie publique ontarienne, pour obtenir des services de santé à l’étranger. Les résultats statistiques montrent que les patients connaissaient leur diagnostic avant de faire une demande pour obtenir des services de santé à l’étranger; 84 % d’entre eux ont fait une demande pour un traitement précis dans un établissement particulier du nord des États-Unis. Deux établissements précis aux États-Unis étaient demandés pour des interventions chirurgicales ou pour une évaluation. Un nombre significatif de patients voulaient obtenir des services de santé à l’étranger pour des traitements antidouleur. Cette recherche remet en question l’idée que les demandes pour obtenir des services à l’étranger s’expliquent uniquement en raison des délais au pays, alors que les patients souhaitent plutôt obtenir des traitements précis dans des établissements particuliers. Cette nouvelle méthodologie quantitative ainsi que les données écrites et accessibles en ligne sur les décisions de la Commission d’appel et de révision des services de santé pourraient être employées pour éclairer les décisions d’ordre politique au sujet de l’utilisation et de l’évaluation des systèmes de santé et des régimes publics d’assurance maladie au Canada.

Introduction
Adjudicative administrative tribunals (tribunals) are one mechanism for resource allocation. Tribunals provide a party – who has been denied a government resource by a government agency – a forum to appeal the resource allocation decision. Tribunals are important because more citizens have resource allocation decisions determined by tribunals than by courts (Cooper v. Canada 1996). Empirical research to evaluate health tribunals has never before been comprehensively undertaken (Sossin and Hoffman 2010). In particular, there is no empirical research on patients who request a tribunal to override healthcare services decisions made by physicians and/or government officials.

As a case study, this article seeks to quantitatively analyze patients who come before a specific tribunal – the Health Services Appeal and Review Board (HSARB) – seeking government funding for out-of-country healthcare in terms of their residence, diagnosis, treatment request and the desired location of treatment. HSARB decisions are an important, yet overlooked, existing source of objective healthcare system utilization and evaluation data. The novel quantitative methodology and analysis reported in this article should be used to inform healthcare policy decisions.
Background

Healthcare services are provided to Ontario residents in three major situations and in three main geographic areas, which include: (1) a medical emergency situation, (2) a non-emergency outpatient situation and (3) a non-emergency in-patient situation. Ontario residents are able to receive healthcare in three main geographic locations: (1) within Ontario, (2) outside Ontario but within Canada and (3) outside Canada. This article analyzes patient requests for out-of-Canada non-emergency in-patient healthcare services.

Healthcare services outside Canada are – theoretically – available to all residents. The question is who pays for healthcare service outside Canada. If the patient pays for the healthcare services outside Canada through a private health insurance plan or out-of-pocket – often referred to as “medical tourism” – the government and the publicly insured health plan have no say in which health services are or are not to be funded by the government's public insurance plan. However, if the government is asked to use the public insurance plan to pay for out-of-country healthcare, legislation is invoked and decisions are made on whether to fund the requested healthcare service.

In Ontario, the provincial government pays for insured healthcare services for Ontario residents via the publicly funded Ontario Health Insurance Plan (OHIP), which is governed by the *Ontario Health Insurance Act* (HIA) (R.S.O. 1990, c.H.6.). In an out-of-country coverage for non-emergency in-patient health services (OCCNEIHS), the patient – based on approval from their physician – can appeal to OHIP to fund an OCCNEIHS.

As of April 2009, the criteria by which OHIP determines if an OCCNEIHS will receive OHIP funding is set out in the HIA’s Regulation 552 (R.R.O. 1990, [hereinafter “Regulation 552”]). According to this Regulation, the OCCNEIHS will be covered by OHIP if it is generally accepted in Ontario as appropriate for a person in the same medical circumstances as the insured person in question and either the treatment is not performed in Ontario by an identical or equivalent procedure or if the treatment is performed in Ontario, travel outside the country to receive the treatment is required to avoid a delay that would result in the insured person’s death or medically significantly irreversible tissue damage (Section 28.4(2) of Regulation 552).

OHIP may either grant or deny the requested OCCNEIHS. Where OHIP has denied the requested OCCNEIHS, the patient has the statutory right to appeal the request to HSARB (Section 20 of the HIA). As such, it is the patient who activates HSARB’s jurisdiction and a hearing before HSARB adjudicators. HSARB has the jurisdiction to either accept or deny the OHIP decision, direct OHIP to take action or amend an OHIP decision as long as such a determination is in accordance with the HIA (Section 21(1) of the HIA). The legislation does not provide HSARB with the jurisdiction to assess either economic or compassionate patient circumstances. The patient and/or OHIP may appeal the tribunal's decision to the courts (Section 24 of the HIA).
Research Methodology

The following research methodology was developed for this study to analyze the patients appearing before HSARB requesting an OCCNEIHS.

Case selection
The unit of analysis for this research was the written and publicly available decision released by HSARB on their website for the fiscal period 2003/2004–2007/2008. The search engine on the HSARB website was used to identify all cases dealing with OCCNEIHS. HSARB only issues written decisions. It is possible, although extremely rare, that a verbal decision would be issued at the hearing. In this case, the verbal decision would be followed-up with a written decision that outline the facts, legislation and reason for the decision.

Sample size
In total, 387 HSARB decisions were analyzed. This number of decisions represented all of the OCCNEIHS cases posted to HSARB’s website for the five-year study period. Of the 387 cases analyzed, only 315 met the inclusion criteria of dealing directly with OCCNEIHS. Further, 72 cases were not included in the study sample. The reason for excluding these cases included: duplicates of existing included cases, motions and/or orders related to an existing included case and cases that incorrectly attempted to request an OCCNEIHS, i.e., requests for healthcare in another province of Canada.

Time frame
The five-year time period was selected for the review of HSARB decisions for several reasons. First, the time frame spans a period of one Ontario-elected government (Ontario Liberals 2003 to 2014). Second, it was assumed that the legal research technology on the HSARB website would allow for accessing OCCNEIHS posted case decisions for the study period. Third, there were no amendments to HSARB’s governing legislation or the HIA’s Regulation 552 during the study period. As a result, any changes or trend variations were not a function of legislative amendments, as this factor was controlled. However, in the spring of 2009 and again in the spring of 2011 – after the end of the study period – the government amended s.28.4(2) of Regulation 552 which deals with the OCCNEIHS criteria. The 2009 amended s.28.4(2) presented a natural endpoint to critically assess the section. Fourth, the author of this study was appointed an adjudicative member of HSARB in 2008 and began hearing cases as a decision-maker for HSARB as of April 2008. Given that all written and publicly available electronic cases were included in this study, for objectivity, the author included only those cases for the time period she was not an HSARB member.

Research matrix
A research matrix and coding system was developed to perform percentage total for patient profile variables and – as reported elsewhere – quantitative statistical correlations among HSARBs’ procedures, the parties’ substantive legal arguments and HSARBs’ outcome.
decisions to either grant or deny OCCNEIHS requests. The research matrix and coding system was developed in multiple phases. First, a literature review of existing qualitative and quantitative empirical research on tribunals was undertaken. A total of six qualitative (Gamble 2002; Jacobs 2009) and quantitative studies (Chipman 1999; Fernadez 2009; Pitfield 2003; Pitfield and Flood 2005) were reviewed for methodology and study variables.

Second, the patient profile variables were coded within the research matrix and included: patient age, sex, geographic place of residence within Ontario, patient diagnosis, the patient’s requested treatment, the requested location of the treatment – by country, US State, North/South/East/West US and patients’ requested healthcare facility/hospital out of country. In terms of diagnosis, only the patients’ primary health concern was ranked. For example, cancer was ranked in the “cancer” category rather than in the “pain” category even if the decision reported pain with the cancer diagnosis.

Third, the coding system was pilot tested on 30 cases and refined. The coding system was then used on all cases including the initial 30 cases. An independent researcher randomly reviewed the accuracy of 10 of the 315 coded cases. Revisions to the coding system were made, and the recorded data were inputted into a statistical package with the assistance of the university’s statistical consulting group and analyzed by the author.

**Study limitations**

It should be noted that this study deliberately did not empirically research HSARB members’ capacity, independence, potential bias or appointment process, as this information was not available from the data source. It must also be noted that the empirical quantitative research that was undertaken in this study examined preliminary percentages not correlation or causation relationships. It is also important to note that the patient profile factors analyzed in this study represent a subset of patients utilizing the Ontario public healthcare system. The results of this study are for a specific time frame and thus cannot be generalized to subsequent time frames.

**Results**

**Patient age**

Approximately 60% of the cases did not provide the age of the patient. The majority of the patients that did report their age (22%) were in the age range of 25–64 years.

**Patient sex**

Patients appearing before the Board were approximately split evenly between males (48%) and females (52%).

**Patient residence**

The Patients’ residence data indicated that a high percentage (52%) of the cases were “Unknown,” as they did not stipulate the geographic residence of the patient. Of those that did, patients from the southern part of Ontario (15%) and the western part of Ontario (15%) most often appealed to the Board. This number was closely followed by the northern part of Ontario (11%) and the eastern part of Ontario (7%).
Patients' diagnosis
Almost all patients (99%) reported a diagnosis. The highest percentage of patients have a collection of “Other” conditions (22%). The “Other” patient diagnosis category included: pneumonia, CP, MS, Fabry disease, leukemia, falls, hernia, vertigo, gynaecological diseases, asthma, reconstruction after mastectomy, birthmark infection, lymph nodes, bowel polyps, stents, multiple (health issues), neuropathy in feet, gallbladder, gastrointestinal issues, liver, kidney, urine blockage, uterine fibroids, endometriosis, Menier's disease, carpal tunnel syndrome, lesions, abdominal complaints, hereditary condition, genetic disease, menstrual disorder, lymphoma, MRI of the breast, nerve function, laryngeal issue, myelodysplasia, scleroderma morphea, pelvic organ prolapse and Wegener's granulomatosis.

“Cancer” (15.6%) was the second highest diagnosis followed by “Back Pain” (11.4%), “Head” (11.1%), “Joints” (10.8%), “Addictions/Mental Health/Anorexia” (9.2%), “Obesity” (7%), “General Pain” (7%), “Heart Disease/Circulation” issues (5.4%) and “Unknown diagnosis” (1%). Note that “Pain” was a primary diagnostic condition by itself and did not include pain that might be associated with other diagnostic conditions such as cancer pain, head pain and so on.

Patients' requested treatment
The patients requested surgery 49.2% of the time – almost half of all cases (Table 1). This was followed by medical assessments (14%), treatment (13.3%) and diagnostic procedures such as an MRI, CT scan, etc. (12.4%). The combination of categories dealing with counseling, drug treatment, follow-up to an existing out-of-country healthcare service and unknown requests for treatment amounted to 9.2% of cases. Only 1.9% dealt with transplants.

**TABLE 1. Patients' requested procedure**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Frequency</th>
<th>%</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgery</td>
<td>155</td>
<td>49.2</td>
<td>49.2</td>
</tr>
<tr>
<td>Treatment</td>
<td>42</td>
<td>13.3</td>
<td>62.5</td>
</tr>
<tr>
<td>Transplant</td>
<td>6</td>
<td>1.9</td>
<td>64.4</td>
</tr>
<tr>
<td>Diagnostics</td>
<td>39</td>
<td>12.4</td>
<td>76.8</td>
</tr>
<tr>
<td>Assessment</td>
<td>44</td>
<td>14.0</td>
<td>90.8</td>
</tr>
<tr>
<td>Counseling/drug treatment only/follow-up/unknown</td>
<td>29</td>
<td>9.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>315</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Requested location for treatment
- Country (Table 2): The clear majority of requests are for healthcare services in the US (83.5%). The next closest requested treatment location is Europe and the UK (8.6%) followed by India (2.9%), “Other” (3.2%), China (1.3%) and Israel (0.6%).
- Geographic Location, Treatment Requested and Facility Requested: Approximately 44% – the majority of Ontario patients before the Board – sought treatment in the northern
US. From the data, Ontario patients who are seeking treatment in the northern US (44%) are almost double the rate of those seeking treatment in the southern US (20%). Patients also appear to infrequently access the eastern states for treatment (17%) and rarely appear to be accessing the western US (2%). Of the northern states, Minnesota was the state most often requested (41%) followed by Michigan (39%) and Ohio (14%).

- Northern States – Requested Health Facilities (Table 3): Of the facilities in the northern states requested by the Ontario patients, 34.6% of patient requests are for the Mayo Clinic (Minnesota), 10.2% are for the Cleveland Clinic (Ohio), 11.0% are for Detroit-area facilities (Michigan), 3.9% are for Royal Oaks (also Michigan), 34.6% are for “Other Facilities” and 5.5% are “Not Stated” in the decision.

- Northern States – Requested Treatment (Table 4): Of patients’ treatment requests in northern states, 75% were for surgery (49.6%) and assessment (24.4%).

- Northern States – Specific State and Requested Treatment: Ontario patients requested certain states for certain healthcare. Minnesota had 29% of its cases requesting surgery and 44% of its cases requesting assessment. Michigan had 65% of its cases requesting surgery and 12% of their cases requesting assessment. Ohio had 67% of its cases requesting surgery and 6% of its cases requesting assessment.

**TABLE 2.** Global location of patients’ requested treatment

<table>
<thead>
<tr>
<th>Location</th>
<th>Frequency</th>
<th>%</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>263</td>
<td>83.5</td>
<td>83.5</td>
</tr>
<tr>
<td>Europe + UK</td>
<td>27</td>
<td>8.6</td>
<td>92.1</td>
</tr>
<tr>
<td>India</td>
<td>9</td>
<td>2.9</td>
<td>94.9</td>
</tr>
<tr>
<td>China</td>
<td>4</td>
<td>1.3</td>
<td>96.2</td>
</tr>
<tr>
<td>Israel</td>
<td>2</td>
<td>0.6</td>
<td>96.8</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>3.2</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>315</strong></td>
<td></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

**TABLE 3.** Patients’ requested facility in the northern US

<table>
<thead>
<tr>
<th>Facility</th>
<th>Frequency</th>
<th>%</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mayo Clinic</td>
<td>44</td>
<td>34.6</td>
<td>34.6</td>
</tr>
<tr>
<td>2 Cleveland Clinic</td>
<td>13</td>
<td>10.2</td>
<td>44.9</td>
</tr>
<tr>
<td>3 Detroit</td>
<td>14</td>
<td>11.0</td>
<td>55.9</td>
</tr>
<tr>
<td>4 Royal Oaks</td>
<td>5</td>
<td>3.9</td>
<td>59.8</td>
</tr>
<tr>
<td>8 Other</td>
<td>44</td>
<td>34.6</td>
<td>94.5</td>
</tr>
<tr>
<td>9 Not stated</td>
<td>7</td>
<td>5.5</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>127</strong></td>
<td></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
• Northern States – Requested Health Facility and Requested Treatment (Figure 1): Ontario patients were going to a particular healthcare facility within a particular state. For example, 50% of the Mayo Clinic (Minnesota) requests were for assessments and 30% were for surgery. Alternatively, 85% of the Cleveland Clinic (Ohio) requests were for surgery, with no requests (0%) for assessment.

**TABLE 4.** Patients’ requested treatment in the northern US

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Frequency</th>
<th>%</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Surgery</td>
<td>63</td>
<td>49.6</td>
<td>49.6</td>
</tr>
<tr>
<td>2 Treatment</td>
<td>17</td>
<td>13.4</td>
<td>63.0</td>
</tr>
<tr>
<td>4 Diagnostics</td>
<td>14</td>
<td>11.0</td>
<td>74.0</td>
</tr>
<tr>
<td>5 Assessment</td>
<td>31</td>
<td>24.4</td>
<td>98.4</td>
</tr>
<tr>
<td>6 Other</td>
<td>2</td>
<td>1.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>127</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**FIGURE 1.** Healthcare facility by treatment request

Analysis

Patients know, very clearly, their diagnosis, the treatment they wish to receive and the facility they would like to perform the treatment. In this respect, patients are not going out of country for any healthcare but rather to specific facilities for specific treatment.

**Diagnosis**

For example, unlike the under-reporting of patient age, sex and residence, 99% of patients knew their diagnosis. The highest percentage of patients appealing to the tribunal have a collection of “Other” conditions (21.6%), with “Cancer” (15.6%) ranking second. Of interest in these data is the high percentage of pain cases. If one adds the back pain category (11.4%)
with the general pain category (7%), pain ranks second (18.7%) as the diagnosis for the patient wanting to go out of country for healthcare services – ahead of the category of cancer (15.6%). “Pain” is an interesting category. Pain is often considered a patient’s subjective experience rather than an objective, quantifiable medical diagnosis by a physician. The high percentage of “pain” cases reported coupled with the lack of objective, quantifiable medical diagnosis by the physician may lead to a discrepancy between the patient and the physician regarding generally acceptable treatment and the urgency or delay in receiving the treatment. Further research needs to be undertaken to determine if there is a connection between a patient’s subjective experience of pain and their attempt to seek treatment out of country.

This combination of relatively rare conditions (“other”), subjective conditions (“pain”) and highly resourced conditions (“cancer”) is puzzling. The current diagnostic categories are based on the information provided within the tribunal’s decisions and the author’s summary of diagnostic conditions. In that respect, the diagnostic categories should be interpreted with caution. It is recommended that, in the future, the tribunal’s decisions and their subsequent analysis utilize formal medical diagnostic codes to assist with statistical analysis and interpretation.

Patient-requested treatment
Almost half of the out-of-country requests for the US were for surgery (49.2%) and only 1.9% of the requests dealt with transplants. It is interesting to note that the potentially most expensive healthcare services – surgery (49.2%) and transplants (1.9%) – occupy spots for both the most (surgery) and least (transplant) requested healthcare services.

Requested location for treatment
It appears that out-of-country cases are predominantly seeking American treatment (84%), with almost half of Ontario patients before the tribunal requesting treatment in the northern US (44%) – specifically in Minnesota, Michigan and Ohio. However, patients are not going to the state but to the healthcare facility within the state, i.e., the Mayo Clinic in Minnesota for assessments and the Cleveland Clinic in Ohio for surgery.

The specificity of the patients’ requests implies that the patients had contact with a medical system – either domestically or out of country or both.

Conclusion
There is a dearth of empirical research on healthcare resource allocation made by tribunals who have the jurisdiction to override medical decision and governmental health insurance determinations. There is also a dearth of quantitative research on the patients who appear before tribunals requesting coverage for out-of-country healthcare. The analysis of tribunal healthcare resource allocation decisions is an untapped data source to analyze healthcare utilization and health insurance evaluation that should inform policy formulation.

This article reports on a novel empirical research methodology developed to analyze health tribunal decisions over a five-year period. The analysis determined that 99% of
patients knew their diagnosis, with a significant number of “pain” cases seeking public health insurance for out-of-country healthcare. Patients also requested specific facilities in the northern US for specific medical treatment. For example, patients requested the Mayo Clinic in Michigan for assessments and the Cleveland Clinic in Ohio for surgery. This research may challenge the assumption that cross-border treatment requests result from domestic delays – when instead patients are seeking specific treatment at specific facilities.

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References