THE OMA'S

BALANCING ACT

A *Medical Post* investigation on the Ontario Medical Association's internal efforts to fix a problem with the CANDI formula

BY TRISTAN BRONCA

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CANDI IS A BLACK BOX. Few besides health economics wonks in Ontario fully understand how it works. But many doctors have a strong opinion about it.

CANDI stands for "Comparison of Adjusted Net Daily Income" and it is a formula to calculate the value of a day's work, in any medical specialty. It takes average gross income and multiplies it by modifiers such as the amount of non-fee-for-service work performed, overhead, skill requirements and work effort.[1]

[1] Certain inputs to the formula such as gross billings and non-fee-for-service work are ministry of health numbers provided to the medical association through a data-sharing agreement. They change every year. But most others, such as overhead, were first calculated by a 2011 PricewaterhouseCoopers study. They haven't changed in the last seven years.

The resulting number is known as Adjusted Net Daily Income—ANDI—a score that allows for a comparison between specialties that are otherwise incomparable. In the association's history, this tool is the closest anyone has come to being able to fairly contrast the value of the medical services performed by, say, a psychiatrist and a surgeon.

Boris Kralj is a health analytics, economics and management consultant now in private practice. For 23 years he worked for the Ontario Medical Association, most recently as chief information and analytics officer (he retired last year), which makes him one of the few people who understands the intricacies of CANDI.

He explained that the formula was developed in 2009 and was "used" only twice. In the 2008 physician services agreement, doctors and the health ministry decided that two of three relativity funding allocations (in 2010 and 2011) should be paid out according to CANDI's methodology. Specialties with below average ANDI scores—such as neurology, geriatric medicine, respirology, psychiatry and general practice—received two to three times more than specialties with higher scores. The most overvalued specialties—which according to CANDI, include diagnostic radiology, cardiology and nuclear medicine—received none of those relativity allocations.

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Those payments were worth millions of dollars, meaning that even if doctors don't understand exactly how CANDI works, there are good reasons for them to be interested in it.

CANDI'S PROBLEM

CANDI is not perfect. During an educational session on CANDI to the OMA council in 2016, Kralj showed how much the ANDI scores for different medical specialties changed between 2008/09 and 2015/16. Ideally, the relativity allocations should have levelled the ANDI scores, but they didn't exactly. Some specialties that were below the average, such as emergency medicine, saw their scores drop, while others on the far end of the spectrum, such as radiology and ophthalmology, saw them increase. In these cases, the inequities actually got worse.

Some of those problems may be ironed out with more time and larger funding allocations. But there's also a bigger problem with CANDI which has to do with the "daily" part of the formula.

In order to fairly compare specialties, CANDI doesn't include after-hours or weekend work. Surgical specialties have special fee codes that allow economists to identify a surgery or a delivery performed in the middle of the night and exclude it from CANDI so it doesn't skew a surgeon's ANDI score. The problem is non-surgical specialties don't really have these codes, so at least some of their after-hours work improperly affects their ANDI score.

Kralj said the OMA has been aware of this issue with the data since the formula was first created, and at every attempt at negotiations they have asked the ministry of health to introduce a tracking code that would allow the OMA to correct it (he said the ministry has always said it would be too onerous to update the computing system). He also said this has been documented in at least two reports to the OMA board and council, one in 2009 and another in 2012. According to those reports, the problem was particularly acute for three specialties.

However one of those specialties is also, according to CANDI's methodology, the most overvalued: radiology.[2]

[2] In fact, the after-hours issue for radiologists is believed to be even more punitive than it is for the other specialties. According to a report titled Estimating the Magnitude of Error from Major Systemic Bias in the CANDI Formula, "all physicians perform work after-hours that is not captured by CANDI. Radiology is the only section where after-hours work and on-call work are not captured by CANDI."

THE AFTER-HOURS MODIFIER

While Kralj was adamant that the reports on the issues related to after-hours work data were available to any OMA member who was interested in them (he said hard copies are sent to all council members 10 days before the meetings and later uploaded to the OMA member website) the group representing radiologists—the Ontario Association of Radiologists (OAR)—has claimed the full scope of the issue was never disclosed to them. They claim the data was suppressed.

Sources who wished to remain anonymous explained that the OAR only found out about this issue just before the current round of contract negotiations with government, which began Sept. 2017. (The OAR did not respond to requests for comment on this story.) At that point, the OAR approached the OMA board to find out what percentage of the total workload for radiologists was deemed "after hours."

Based on available OHIP data, it was just 3.6%.

Both the radiologists and the current OMA leaders seemed to agree that figure was far too low and needed updating, as did the numbers for several other specialties. What that number should be, however, is still a matter of some debate.

The problem is being addressed by the OMA's relativity review committee (RRC), which surveyed all specialties to determine whether the OHIP data fairly reflected actual after-hours and weekend work. According to documents presented to the board and obtained by the *Medical Post*, the RRC suggested—based on its consultations with the section—that the average percentage of after-hours work for a radiologist was 18.8%. It was a significant jump from the existing OHIP data, but not even the largest of all the specialties.[3]

[3] It was actually the fourth largest, behind nuclear medicine (which claimed their percentage of after-hours work ought to be 23.3% higher than OHIP data), radiation oncology (21.3% higher) and nephrology (20.1% higher). Nearly 30 specialties of the 60 that were consulted suggested that a higher percentage of their work was done after-hours than OHIP data suggested, but for the majority there was less than a five-percentage-point difference.

However, according to an internal OAR memo sent to radiologists at the beginning of Jan. 2018, the OAR also conducted its own comprehensive analysis of hospital data which, it said, "convincingly showed" the average radiologist did about 40% of their work after hours—a figure that was more than twice as high as the one calculated by the relativity committee.

The OMA's economics department typically tries to verify these figures, but they couldn't in this case because they didn't have access to the OAR's source data. However, Kralj did say that the OMA board can approve changes—or allow the negotiating team to adjust—these after-hours modifiers without verification from OMA Economics if they felt such changes were warranted.

This was one of those cases. OMA president Dr. Shawn Whatley would not say by how much these CANDI variables were adjusted, but he did confirm the board approved changes to after-hours modifiers for all specialties, including radiology.

"We're updating everyone," he told the *Medical Post*.

THE DECISION-MAKING APPARATUS

The governing body of the OMA is not the 24-member board, but the 200-plus member council. They meet twice a year, at which point there is always some discussion about pay relativity. Dr. Del Dhanoa, the chair of the OMA's relativity committee and a radiologist, delivered the last update at the most recent council meeting held the weekend of Nov. 25, 2017.

While Dr. Dhanoa did not respond to our requests for comment, the *Medical Post* learned that at the time of this meeting, the relativity committee's work was still incomplete and he was bound by several strict confidentiality agreements. For these reasons, the issues with CANDI, the relativity committee's survey results and the OAR study were never discussed. (It is, however, worth noting, that Dr. Dhanoa presented the survey results and the discrepancies in after-hours work to the OMA board on Nov. 21, the week before the council meeting.)

Around this period, the relativity committee was continuing to solicit submissions from nearly 60 specialty sections. In addition to that, the heads of those sections were also meeting regularly with the OMA negotiations committee to inform them directly of their specialty-specific concerns, including about relativity. All signed non-disclosure agreements.

The idea that the negotiating committee should consult the section heads, and keep them updated during negotiations, came from a motion at the general meeting of members in the summer of 2016. That meeting was called so members could vote on a controversial tentative physician services agreement that was reached during what some saw as a secret set of negotiations between the OMA's former leadership and the ministry (it was heavily criticized and eventually voted down).

The motion was to make sure nothing like that ever happened again.

A SMALL BUT INFLUENTIAL SPECIALTY

The OMA's leaders are engaged in a constant balancing act to ensure multiple competing interests are represented.

Radiology is a relatively small specialty, with about 1,000 practitioners across Ontario (by comparison, family medicine, the largest, has over 30,000). In the last two years, however, the specialty has made a concerted push to ensure it is represented in the OMA leadership.

There are, for example, now two radiologists on the OMA's 24-member board: Dr. Dhanoa and Dr. David Jacobs. In addition to Dr. Dhanoa, there is a second radiologist on the nine-member relativity committee. There is also one radiologist, Dr. David Kelton, on the negotiations committee, the group that has been in direct contact with ministry of health representatives during contract negotiations.

In the memo to radiologists, the OAR said that "many changes have occurred for the better at the OMA." This included a turnover of "old guard OMA board members and senior staff"—a group that included Boris Kralj—"permitting new people to be involved who are

committed to a more democratic and effective organization."

The OAR claims that under the current OMA leadership, their voices "are being heard for the first time in years." Other specialties worry those voices will now drown out their own.

In July 2017, the *Medical Post* asked Dr. Whatley why higher-earning specialties, such as radiology, were proportionally overrepresented on the relativity committee. He said that, despite the OMA's efforts to ensure fairness, an eight-member committee would never be properly representative.

"People want their own person on the committee, but it can't be about having your own person," he said. "It has to be about having the best person with the best skills to deliver the best performance on such an incredibly important topic."

"It's really important that this not become an issue of identity politics," he cautioned.

But not everyone felt the issue could be dismissed. Dr. Robert Yufe, a neurologist, later commented on the story on the *Medical Post's* website, saying it was a "classic case of putting the fox in charge of guarding the henhouse."

"Inside sources who wished to remain anonymous said it would be almost inconceivable for the OMA board to approve a change that drastic given the existing perception and pay of radiology."

NO SIGNIFICANT CHANGE TO ANDI SCORES

The after-hours modifier is not an inconsequential aspect of CANDI. According to a report titled Estimating the Magnitude of Error from Major Systemic Bias in the CANDI Formula, even a small change could drop radiology's ANDI rank two or three spots, making it less overvalued than specialties such as ophthalmology, gastroenterology and cardiology. However, a more drastic change such as one based on the data from the radiologist's study (which, again, suggested about 40% of their work was done outside of the regular work day), radiologists could theoretically drop 17 spots on the ANDI spectrum to the middle, somewhere between laboratory medicine and neurology. Were that to happen, they would no longer be seen as overvalued.

Inside sources who wished to remain anonymous said it would be almost inconceivable for the OMA board to approve a change that drastic given the existing perception and pay of radiology. "They know it wouldn't fly," one said. That source couldn't offer specifics on the board's decisions but did say that to the best of their knowledge there was not "much change in ANDI positions."

"Radiology is still to the right of CANDI," meaning they are still considered overvalued; "psychiatry is still to the left," the source said.

INTO ARBITRATION

What distinguishes CANDI from the OMA's historical attempts to address relativity is that the ministry isn't involved with the calculations. In the past, relativity models were developed bilaterally, meaning the ministry and the OMA worked together. But with CANDI, it is up to doctors to sort it out.

But now, it's not really up to them anymore.

On Jan. 16 the OMA announced that it had triggered the binding arbitration process in which three independent arbitrators—one mediator and two other legal representatives appointed by the ministry and the OMA, respectively—would determine the terms of the physician contract.

"This is something new," Dr. Whatley told the *Medical Post*. He explained that typically the OMA board and council would have to vote on significant changes to relativity models but now they won't have that chance. This is relevant because there are seven criteria the arbitrators are bound to consider when deciding on the terms of the contract. Three of them are related to fairness of pay between doctors. [4]

[4] These relativity criteria were one of the primary reasons the binding arbitration framework was opposed by many physicians from higher-paid specialties. Nevertheless, the framework was approved during a general meeting of members in June 2017.

But that doesn't mean all this work on CANDI has been for nothing. The arbitration proceedings could run into October and both the OMA and the ministry will soon be preparing presentations to the arbitrators. "Our submissions must be outstanding," Dr. Whatley said in a communication to members announcing the beginning of arbitration.

But that raises the question: outstanding for whom? The OMA is bound to represent all members but with less funding to go around, the leaders are walking an increasingly fine line in trying to do so. Every step—and misstep—may be worth many millions of dollars. **MP**