Improving prostate cancer care collaboratively – a multidisciplinary, formal, consensus-based approach

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Introduction: *There are numerous standard treatment options for men diagnosed with localized prostate cancer. Multidisciplinary consultation before decision-making is a consensus- and quality-based objective in Ontario. With the goals of working together more collaboratively and to provide higher quality information for patients at the time of decision-making, a prostate cancer community partnership consensus (PCPC) panel was formed among six partnering centers in the Greater Toronto Area.*

Materials and methods: *Five iterative meetings were held among 40 prostate cancer specialists (32 urologists and 8 radiation oncologists) who participate in multidisciplinary clinics. The meetings defined the goals of the partnership as well as the topics and questions the group would address together. Answers to these questions were developed by formal consensus: ≥ 75% of participants had to agree with wording based on secret ballots to achieve consensus.*

Results: *All six groups wanted to participate to improve patient care/decision-making. Forty-one questions addressing 30 issues were derived from the literature and the group's collective experience. These issues were cross-tabbed against five management options: active surveillance, radical prostatectomy, low dose rate brachytherapy, high dose rate brachytherapy boost and external beam radiation. Answers common to all modalities were coalesced. Eighty-six issues were subjected to formal consensus. After three rounds of secret ballots, consensus was achieved for the answers to all issues.*

Conclusions: *A formal consensus-based partnership between urology and radiation oncology to support newly diagnosed prostate cancer patients was feasible and resulted in a patient information guide which may improve decision-making.*

Key Words: primary treatment decision, prostate cancer, radiation, surgery, multidisciplinary clinic

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Introduction

In 2015, an estimated 24,000 men in Canada were diagnosed with prostate cancer and needed to decide between a variety of management options.[1] Unfortunately, there are a paucity of high-quality data to guide decision-making. Many treatment options/combinations are successful but each has impact on patient's quality of life. These side effects may be prevalent long term or be permanent. For many, the decision about which treatment to choose can be

distressing, lead to post-treatment regret and worse quality of life.[2,3]

Most commonly a patient diagnosed with prostate cancer will meet with his urologist to learn about management options. Sometimes a referral for consultation with a radiation oncologist is made. Recent data from Ontario documents that 47% of men (and less than 1/3 who receive prostatectomy) had a multidisciplinary consultation (MDC) before treatment.[4] The literature has reported that each specialist is more likely to recommend the treatment that they provide.[5] Perhaps recognizing the differences in information imparted by each specialty, that different decisions are made when a patient receives a MDC[6] and given the radiation and surgery are standard treatment options in the management of prostate cancer, Cancer Care Ontario has made MDC a standard of care in the Disease Pathway Management and Quality Based Procedure pathways.[7]

Given the current and projected future incidence of prostate cancer[1,8] as well as the importance of providing MDCs in a timely manner, many community-based prostate cancer MDCs have been started. Since 2007, the radiation oncologists at the Odette Cancer Centre have been participating in four MDCs with North York General (2007), Michael Garron (previous Toronto East General, 2009), Rouge Valley Centenary (2013) and Scarborough Hospitals (2015). A multidisciplinary case conference is held routinely with Humber River Regional Hospital since 2010 and a formal MDC is planned for 2017. Our group has previously shown that wait times from diagnostic suspicion (abnormal DRE or elevated PSA) to radiation treatment is on average 2 months shorter in these MDCs versus standard community practice (183 days versus 138 days, $p = 0.046$).[9]

There are 32 urologists and 8 radiation oncologists that participate in these distinct MDCs. Anecdotally, patients appreciate the timely access to multidisciplinary consultation but were confused and distressed when they were sometimes told conflicting information by the different specialists. In 2014, with the goals of working together more collaboratively and to provide higher quality information for patients at the time of decision-

TABLE 1. **Initial topics and questions that the partnership wanted to address**

Active surveillance (AS)

- Which patients should be offered AS?
- Which patients shouldn't?
- How do we follow patients on AS?
- What are the triggers for treatment?
- What's the role of MRI? At confirmatory biopsy? Subsequently?

Primary treatment

- What are the OHIP and non-OHIP therapies that should be discussed with patients (by risk category: LR, LIR, HIR, HR, VHR, N1, M1)?
- Who shouldn't be offered certain treatments?
  - For surgery: patient age, comorbidity, anatomy ("deep pelvis"), tumor risk/staging?
  - For BT: prostate volume, IPSS, comorbidities, previous TURP?
  - For EBRT: IPSS, previous RT, comorbidities (IBD).
  - For HIFU: prostate volume, IPSS, tumor factors?
- For patients who can have any treatment, what outcomes do we tell them about as a minimum?
- What do we quote for these outcomes? What data sources can we agree on?
- If we can't agree or have no good data, how do we collect this?
- Are there some subgroups that have different outcomes that we need to further articulate (ie., does everyone have the same ED rates after treatment or does it depend on pretreatment function?)

Local salvage therapies

- When to offer postop EBRT?
- What are the options post RT (brachy, EBRT, SABR)?
- What are the options post HIFU?

BT = brachytherapy; EBRT = external beam radiotherapy; ED = erectile dysfunction; HIFU = high intensity focused ultrasound; HIR = high intermediate risk; HR = high risk; IBD = inflammatory bowel disease; IPSS = International prostate symptom score; LR = low risk; LIR = low intermediate risk; M1 = metastatic disease; MRI = magnetic resonance imaging; N1 = node positive; OHIP = Ontario Health Insurance Plan; SABR = stereotactic ablative radiotherapy; VHR = very high risk

making, a prostate cancer community partnership consensus (PCPC) panel was formed among the six centers. Herein, we describe our methods, specific goals and resulting patient information guide that resulted from our partnership to date.

Materials, methods and results

Session 1: goal definition

In February 2014, an invitation was sent to the group lead for each community MDC to participate in the above-named goal. Each center wished to participate in the process. There were 8 radiation oncologists practicing GU at our center – all 8 agreed to participate. In May 2014, 1-3 representatives from each of the six groups met (PCPC steering committee). The above general goal was agreed to and three specific goals developed: i) to improve patient care; ii) to take advantage of the "economies of scale" given the 40 specialists involved; iii) to learn from each other's experience and expertise. We felt that "when we work together in a shared care model, there's no limit to what we can do". We also felt that we should prioritize the collection and sharing of our own experience and data including formal clinical trials.

Session 2: topic and question generation

The group met for the second time in November 2014 to discuss which topics and questions we wanted to initially address (recognizing that this would be an ongoing iterative process). Three topics were agreed upon: active surveillance, primary treatment and local salvage therapies. For each topic a number of questions were identified, Table 1.

We also strove to deliver optimal care (beyond the ethical standard) and not just acceptable care (defined by the legal standard). To understand the latter we sought a formal legal opinion about the medical decision making standards in this context. The recommendations we received are listed in Table 2.[10]

Session 3: question generation

In order to determine the minimum dataset of questions the patients would like answers to, we started with the work of Feldman-Stewart et al.[11] This group surveyed men with prostate cancer from nine different countries and asked which questions were essential to know the answers to before comfortably making a decision about treatment. There was a large range of essential questions (from 1 to nearly 100) which was conserved across countries; in Canada the median number of essential questions was nearly 50. Twenty essential questions were felt to be essential by more than 67% of respondents. In January 2015, we used these 20 questions and supplemented them with questions commonly asked from the PCPC steering group's experience. No formal qualitative methods were used, simply collating the aggregate of questions to minimize repetition. This process resulted in 41 questions

TABLE 2. **Recommendations on the minimum legal standards when providing a consultation to a patient with prostate cancer.[10]**

1. Any guidelines or documents provided to physicians as the suggested practice should make clear that the approach taken is a multidisciplinary one, and should require patients to consult with a urologist and radiation oncologist;
2. A physician who is consulting and advising a patient should discuss the treatment options along with both the benefits and risks associated with each. This would include the 'standard treatment options' in the treatment pathway, but may also include other treatments depending on the patient's circumstances;
3. Where a particular patient does not require the treatment immediately and there is little to no risk associated with waiting 3-6 months, the physician should consider advising of this, and in any event, should ensure that all risks and side effects are fully disclosed to the patient;
4. The FAQ Document should include all side effects of a treatment, even if unusual, unlikely and remote. It may be practical to separate the more common side effects from those that are unusual and unlikely. For example, the FAQ Document could include the question 'are there any other possible side effects?', and then provide under each treatment option what those side effects are, with a caveat to the patient that the side effects are unlikely; and
5. Any research or project undertaken should include collaboration with a large body of respected physicians in the field.

OHIP = Ontario Health Insurance Plan; SABR = stereotactic ablative radiotherapy; VHR = very high risk

addressing 30 issues (2, 9 and 30 questions addressing pre-, peri- and post-treatment issues). We cross-tabbed each of the questions against the five commonly used standard management approaches: active surveillance, prostatectomy, low dose rate (LDR) brachytherapy, high dose rate (HDR) brachytherapy boost and external beam radiotherapy (EBRT).

Session 4: answer generation

A radiation oncology and urology Chair were chosen. We used the best available evidence (prioritizing local experience if available) to draft answers to each question for each modality of treatment. Each Chair was responsible for collating the draft responses to the respective treatment modalities before the meeting. The PCPC Steering Group met in May 2015 and refined the draft answers by informal consensus – all members participated in refining the answers (e.g., urologists helped refine answers about radiation as well as surgery and vice-versa). Active surveillance was taken out of the answer matrix and a general paragraph describing the logistics and outcomes was developed. Furthermore, as some of the answers were the same across all modalities, we reduced the number of answers to 86.

Session 5: formal consensus

A Survey Monkey web-based survey was circulated to the 40 members of the six groups (32 urologists and 8 radiation oncologists) prior to the consensus meeting. Each of the 86 questions and its corresponding answers were listed. For each answer, respondents were asked to "agree", "disagree" or "discuss further". Suggested changes to the wording were invited. A priori, based on the American Society of Clinical Oncology formal consensus methods,[12] if ≥ 75% agreed with the wording of the answer, the answer would be accepted as a consensus. If an answer didn't reach this pre-specified threshold after the consensus meeting, we would indicate that the answer "could not be determined by consensus". These issues were articulated in the preamble of the survey.

Twenty-seven (68%) physicians responded to the questionnaire. Sixty-three (73%) of the pre-consensus questions were agreed with ≥ 75%. Based on the comments and suggestions provided by the respondents, the 23 "non-consensus" questions were reworded by the Chairs. At the consensus meeting (September 2015), each these 23 questions were reviewed individually with supporting data, revised wording was crafted and a formal "secret ballot" vote was performed. After the first round of reviews 21/23 (91%) of the answers reached consensus. A second round was performed for the final two answers. Consensus was achieved on these two items as well. Final median acceptance rate for the answers was 89% (range 75%-100%).

Discussion

We have shown that formal consensus is achievable in a multidisciplinary context surrounding the care of newly diagnosed prostate cancer patients. However, others were much earlier adopters - one of the early pioneers in this concept was the Kimmel Cancer Center of Thomas Jefferson University where a MDC for GU patients was started in 1996.[13] As modern radiotherapy techniques have become more effective,[14] more convenient[15,16] and better tolerated,[17] there is increasing interest from patients in learning about primary radiotherapy. This has sometimes introduced tension between urology and radiation oncology who may feel they have to "compete" for the patient's care. We believe setting up more MDCs in the future is an excellent way of improving patient care and strengthening collaboration between specialties.

By instead focusing our efforts on improving patient care and learning from each other, we were able to shift our energies from conflicting to collaborative. More important than the actual information guide/matrix that resulted (although we believe that to be of value), it was the journey of agreeing to collaborate, articulating a common goal and achieving this goal together that we believe was most important. We anticipated that there would likely be situations where we had a difference of opinion; a priori we acknowledged that this difference would be valuable and healthy. We also committed to finding out the answers together (even if that required a clinical trial we co-designed).

While we didn't try to formally evaluate satisfaction with patient decision-making or decisional regret, this could be considered moving forward as an important "quality assurance loop". We would encourage others replicating this process to collect pre- and post-process outcomes to formally examine the impact from the patient's point of view. Gomella and colleagues showed high levels of patient-reported satisfaction and better survival outcomes compared to NCCN-matched patients.[18] Other benefits documented by the Hopkins group include refining risk classification (therefore changing management) and improving appropriate use of testing.[19]

Our hope is that this document will become a regional "de facto" standard and since September 2015 we have already seen the positive effects of this process on the patients whose care we share. In presenting

this work at the Genitourinary Radiation Oncologists of Canada 2015 meeting, there was interest from other jurisdictions across Canada to replicate this process. We have encouraged others to focus on the commitment to collaborate rather than simply introduce the information guide. Our goal is to seek endorsement of this process at the provincial (Cancer Care Ontario's Disease Pathway Management) and national levels (CARO/CUA) but acknowledge that input from other urologists, radiation oncologists, nurses and prostate cancer survivors would strengthen the process and product.

Conclusions

A formal consensus-based partnership between urology and radiation oncology to support newly diagnosed prostate cancer patients was feasible and resulted in a patient information guide which may improve decision-making. Formal evaluation of this tool and replication of this process is encouraged in other jurisdictions. □

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