Pan-Canadian evidence based, consensus driven cancer treatment protocols/information for use at the point of care by Medical Oncologists. Is there a need?

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Abstract

Background: A number of provincial online treatment guidelines/protocols exist in Canada, which differ in the information contained and the ease of use. Currently there is no national evidence based consensus driven cancer treatment protocol for use at the point of care. The aim of such a resource would be to support Medical Oncologists (MOs) in the delivery of cancer treatment at the clinic interface and potentially improve patient outcomes by reducing treatment variation across Canada.

Methods: The study was conducted in two stages. Available provincial cancer treatment protocols were evaluated with regards to: content for chemotherapy, immunotherapy, ease of use, toxicity, dosing recommendations, reference studies. Canadian MOs were invited to participate in an anonymous survey distributed through the Canadian Association of Medical Oncologists. The assessment included: current online resources (OR) used, information provided, ease of use, relevance to point of care use, need for a national Canadian resource. MOs were asked to review a comparator Pan-Australian OR.

Results: 40/327 responded: 28% BC, 26% ON and the rest from other provinces. 82%, 54% and 23% respectively used the BC and ON and other provincial ORs. 50% used ≥2 websites. 62% found the website of choice easy to use, 33% felt it had updated immune therapy information and 26% felt it was updated regularly. The OR used met the MO need for dose/scheduling in 87.5% cases but only 50% and 37.5% cases for AEs and reference information respectively. Criteria evaluated in the ORs included: dosing, toxicity modification, AEs, monitoring, references and other criteria. 95% of MOs felt that a single portal aimed at point of care for Canadian MOs would be of value. 64% felt that the international comparator was better than the current OR being used.

Conclusions: There is variation in the current Canadian OR used by MOs in Canada with a need for a national evidence based, cancer treatment protocols/information for use at the point of care. To develop such a Pan-Canadian website resource, further analysis and infrastructure is required. Such a resource would potentially reduce treatment variability and augment quality of care delivered.

Background

- There are currently over 600 medical oncologists in Canada[1]. As 30% of all mortality nationally is due to cancer and the burden and incidence of cancer is increasing, there is a real need for an efficient national website to assist medical oncologists deliver optimal evidence based treatments at point of care[2]. Time constraints are a very real issue in busy clinics and the salient test of an online physician resource is not only the quality of information it provides but the ease with which this is accessed.
- Guidelines and protocols need regular updating in concert with the current evidence. The differing OR available from province to province can result in treatment differences.
- A treatment protocol used in the curative setting of a GI cancer in the Ontario provincial OR guidelines capped the dose of 5FU chemotherapy (1991 evidence). Current best practice evidence utilizing 2008 and 2013 studies did not dose cap.
- There was variation in practice in Ontario, with some centres including the Cancer Centre of Southeastern Ontario Kingston engaging in dose capping and some not.
- Other provincial ORs, the NCCN and ESMO guidelines did not dose cap in this tumor treatment protocol, in keeping with the current evidence.
- As treatment differences may potentially lead to disparity in outcomes, a national OR for MOs at the point of care may minimize this.

Objective

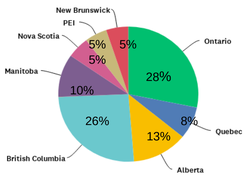
- To survey MOs in Canada regarding the ORs used at the point of care in the treatment of cancer patients and to evaluate the need for a pan-Canadian OR.

Methods

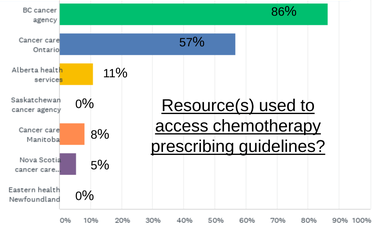
- Canadian MOs were invited to participate in the survey in 2019 anonymously via the national body for MOs.
- Institutional ethics approval was obtained for the survey.
- The following information was sought: primary location of practice by province/territory in Canada, resources used to access guidelines, number of resources used to access information for treatment protocol, dose modifications, toxicity management, a review of the OR navigability, up to date information and current immunotherapy information, a review of the different factors in treatment protocols and accessing literature in a pan Canadian website and ascertaining the need for a single portal pan-Canadian website and whether this would be of value in optimizing patient care.
- The respondents were asked to view an Australian point of care OR as to whether it was preferable to the OR they were currently using.
- The results were collated and analyzed.

Results

Location of practice



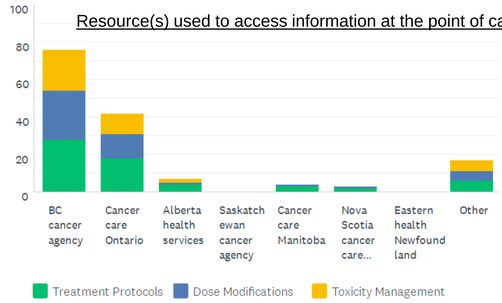
Resource(s) used to access chemotherapy prescribing guidelines?



- 40/327 responses.
- 50% of respondents used more than two websites to gain information about a drug/regimen/guideline.
- There was clear variation in the utility of the different OR in the provision of needed information and ease of use.

- **95% of respondents felt that having the information in a user friendly single OR portal aimed at point of care for Canadian medical oncologists would be of value.**

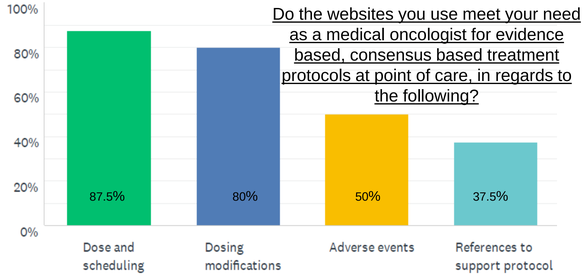
Resource(s) used to access information at the point of care.



For the current websites that you are using, please select if:

ANSWER CHOICES	RESPONSES
Easy to navigate	61.54%
Time consuming	12.82%
Have to click multiple times with multiple redirections to access information	46.15%
Contain updated information about immune therapy	33.33%
Regularly updated with newer literature/guidelines	25.64%

Do the websites you use meet your need as a medical oncologist for evidence based, consensus based treatment protocols at point of care, in regards to the following?



For navigating a website, which method is more efficient?

ANSWER CHOICES	RESPONSES	
Starting with disease region -> clicking on disease site -> list of all regimens in adjuvant, neoadjuvant, metastatic setting -> click on a regimen/drug and go to a single page with all of the information	47.50%	19
Entering the regimen in the search bar	30.00%	12
Entering the drug in the search bar	12.50%	5
Clicking on the disease region -> list of protocols according to disease site and intent of treatment -> click on protocol for information -> click on drug for further information about it (MOA, PK, dose adjustments)	10.00%	4
TOTAL		40

- The following were felt to be optimal inclusions in a point of care protocol:
  - 100% for dosing schedule, dose modifications for hepatic and renal issues.
  - >90% for pre-medications, protocol to manage allergic reactions, drug interactions, clinical monitoring.
  - >80% for adverse events (AEs) as %, AEs by timing, toxicity grading, drug administration, indications for use of drug, reference clinical trial data with summary including survival curves, clicking on references to go straight to links provided, links to disease site specific management, patient drug information sheets, links to provincial funding of drugs.
  - >50% for drug mechanism of action.
  - only 32% felt pharmacokinetics should be included.

- **64.1% felt that the format of the Australian OR eviQ was preferable to the OR they were currently using at the point of care.**

Conclusion

- There was a difference in the ORs being used at the point of care across Canada with half of respondents needing to use 2 websites to access the information required.
- The Canadian provincial ORs currently available did not meet all the requirements of the MOs at the point of care.
- Optimizing outcomes is critical in cancer care and only 25% felt the OR used was regularly updated with the latest literature.
- There appears to be a real need for a pan-Canadian evidence based, consensus driven cancer treatment OR for use at the point of care by Canadian Medical Oncologists.

References

1. Number of Physicians by Province/Territory and Specialty, Canada, 2018. Canadian Medical Association. https://www.cma.ca/Assets/assets-library/document/en/advocacy/01-physicians-by-specialty-province-e.pdf.
2. Statistics Canada. Ottawa, ON: Statistics Canada; 2018. Deaths and mortality rate, by selected grouped causes, age group and sex, Canada, Table 102-0551

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