

Application of Multi-Criteria Decision Analysis (MCDA) to prioritize re-evaluations of cancer drug funding decisions

Ontario Health Research Week 2022

PAM TAKHAR | NOVEMBER 29, 2022

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Objectives

- To provide an overview the one-year MCDA pilot project and lessons learned

Current MCDA Rating Tool

Importance

Drug's perceived clinical benefit

Magnitude of uncertainty

Relevance of uncertainty to decision-makers

Feasibility

Ability to identify a comparator

Ability to identify cases

Availability of comprehensive data

Availability of necessary expertise & methodology

MCDA Pilot Project



In collaboration with the Canadian Agency for
Drug's and Technology in Health's (CADTH)
Provincial Advisory Group (PAG)



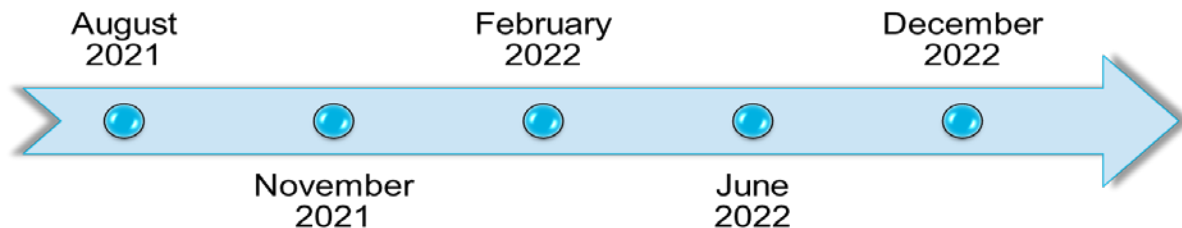
Gain insight into the consensus building & deliberation process



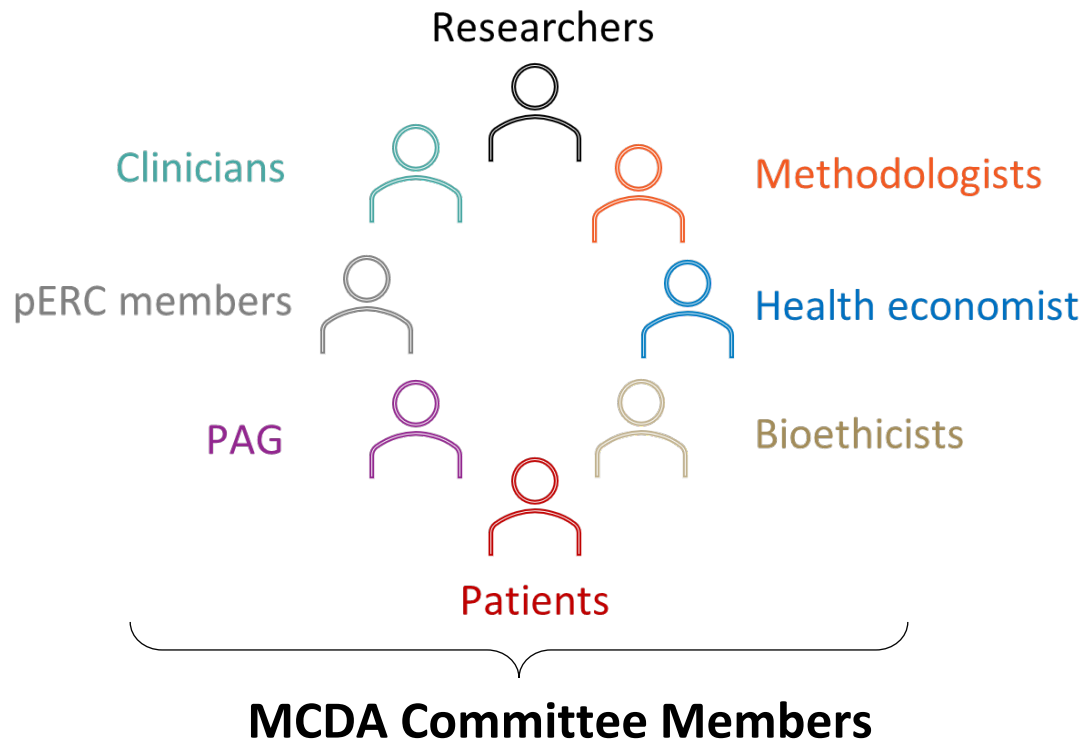
Demonstrate efficiencies in the process



Opportunity to apply the MCDA rating tool to a variety of potential RWE projects



MCDA Committee Composition



Overview: MCDA Process

Development of Meeting Materials

RWE Proposal

RWE Proposal: Nivolumab in Combination with Fluoropyrimidine and Platinum-containing Chemotherapy for Metastatic Gastric Adenocarcinoma (December 2022)

CanREValue

Value-based decisions from Real World Evidence

RWE Proposal: Nivolumab in Combination with Fluoropyrimidine and Platinum-containing Chemotherapy for Metastatic Gastric Adenocarcinoma

Research Question: What is the real-world overall survival of nivolumab in combination with fluoropyrimidine and platinum-containing chemotherapy as first-line systemic therapy for HER-2 negative locally advanced or metastatic gastric adenocarcinoma, as compared to fluoropyrimidine and platinum-containing chemotherapy alone?

Criterion 7: Expertise & Methodology (qualitative assessment)

In order to conduct this study, clinical expertise (i.e., oncologists) and methods expertise (i.e., epidemiologists, data analysts, statistical support) will be required. The design and statistical methods involved in this proposed RWE project are fairly standard and can be approached using standard methodologies for retrospective comparative analysis.

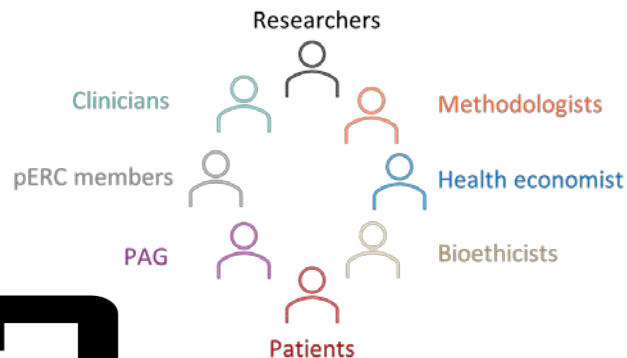
Overview: MCDA Process

Development of Meeting Materials



Pre-meeting

MCDA Rating Tool



<u>Importance</u>	<u>Feasibility</u>
✓ Criterion 1	✓ Criterion 4
✓ Criterion 2	✓ Criterion 5
✓ Criterion 3	✓ Criterion 6
	✓ Criterion 7

RWE Proposal: Nivolumab in Combination with Fluoropyrimidine and Platinum-containing Chemotherapy for Metastatic Gastric Adenocarcinoma (December 2022)



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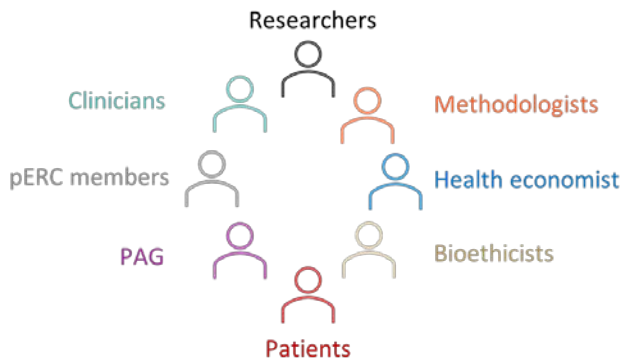
Pre-meeting







MCDA Meeting

Consensus Building

Deliberation & Voting



Deliberation & Voting

- 
Case Specific Considerations:
 Are there any important considerations that are not included in the MCDA rating items that are specific to this case that may impact the importance/priority for payers?
- 
High priority
 Prompt: Both feasibility and importance are scored high
- 
Medium Priority
 Prompt: Feasibility or importance (not both) are scored high
- 
Low Priority
 Prompt: Both feasibility and importance are scored low

Criterion 7: Expertise & Methodology

1	2	3
Substantial concern: Expected challenges to find the necessary expertise and need to develop new methods to conduct the study, with above limitations in data taken into consideration (if applicable).	Moderate concern: Expected challenges to find the necessary expertise or need to develop new methods to conduct the study, with above limitation in data taken into consideration (if applicable).	Low concern: No expected issues with the availability of the necessary expertise and no new methods required to conduct the study.
-	1	10

Overview: MCDA Process

Development of Meeting Materials



Pre-meeting

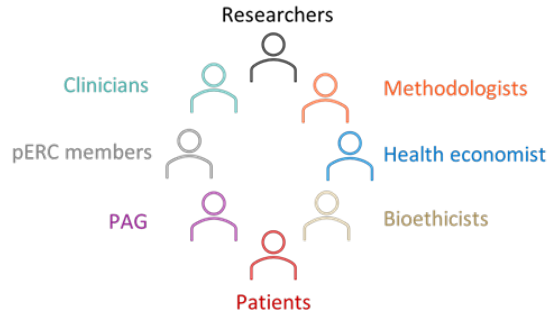


MCDA Meeting

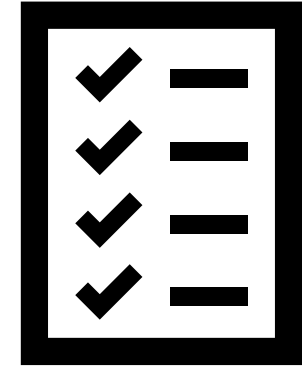


Post-meeting

Debrief



Consensus Building & Deliberation Process






Post-meeting survey

Revise the MCDA Rating Tool & MCDA Process






Feedback & Lessons Learned

MCDA Rating Tool

-  Sufficient time provided to review materials and apply the rating tool
-  Rating tool was found to be easy to use
-  Several modifications were suggested to improve criterion instructions and rating descriptions

Feedback & Lessons Learned

Consensus Building & Deliberation Process

-  Transparent process
-  Sufficient time allocated for consensus building
-  Consensus on criteria was consistently achieved
-  Skilled and knowledgeable moderator
-  MCDA process helped to assess importance and feasibility more explicitly

Next Steps

- Wrap up our one-year pilot project in December 2022
- Reconnect with the Planning & Drug Selection WG
- Document lessons learned

Acknowledgements

Planning & Drug Selection WG

- Scott Gavura (Chair)
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- Kelvin Chan
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- Avram Denburg
- Wei Dai Fang
- Rebecca Mercer
- Caroline Muñoz
- Mina Tadrous
- Pam Takhar
- Ambica Parmar
- Michael Raphael

MCDA Committee Members

- Marc Geirnaert
- Maureen Trudeau
- Matthew Cheung
- Marianne Taylor
- Darryl Boehm
- Erica Craig
- Joanne Houlihan
- Valerie McDonald
- Eric Wasylenko
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Questions?

Thank you!