Type of clinical evidence submitted and its impact on price reductions for oncology drugs: A review of reimbursement submissions in Canada

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Background

- Randomized controlled trials are considered gold-standard to show efficacy of new drugs for health technology assessment (HTA) purposes.
- In Canada, Canada's Drug Agency (CDA) conducts the HTA review for all provinces except Quebec, where HTA is performed by the Institut national d'excellence en santé et services sociaux (INESSS) [1].
- Although, in some oncology drug submissions sponsors include only phase 2 trial data, particularly in indications where there is a high unmet need and in rare cancers where conduction of a phase 3 study may not be feasible.
- Due to the uncertainties in the efficacy of phase 2 trials and the efficacy gaps between phase 2 and phase 3 trials [2], HTA agencies often face challenges in the reimbursement recommendation of submissions with only phase 2 data.
- Canada's Drug Agency often issues conditional recommendations where sponsors are asked to reduce the list price of the drug, and previous studies have shown that higher recommended price reductions lead to longer negotiation times and delays in access to life saving drugs [3].

Aim

- To understand the relationship between type of clinical evidence submitted by sponsors, their impact on price reductions recommended, as well as on the length of negotiations.

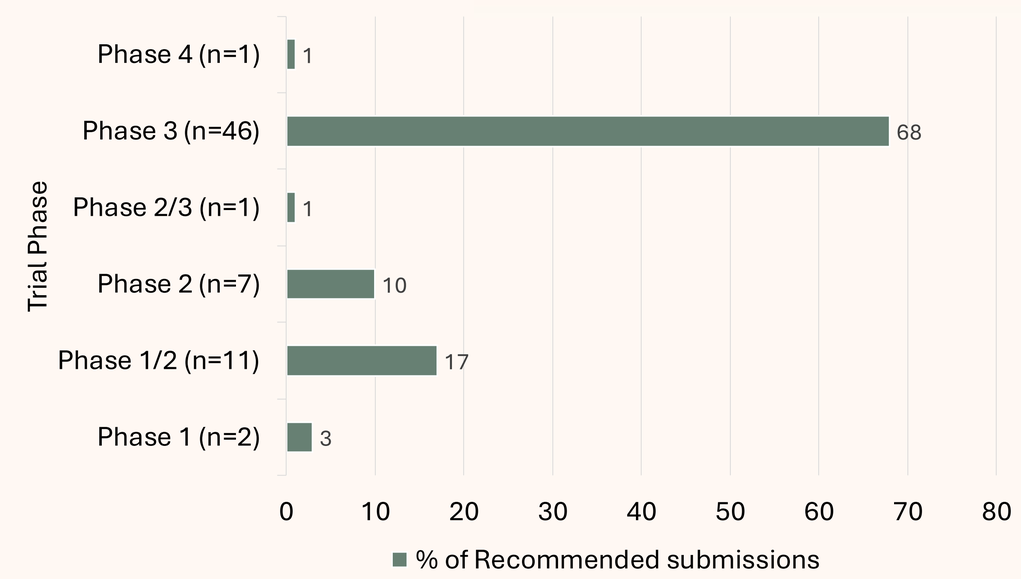
Methods

- We used our proprietary tool, [hta]DataMine, that captures data from published reimbursement reports from CDA for oncology pharmaceuticals and gene therapies for recommendations issued between January 2022 and April 2024.
- Data for the negotiation times was obtained from the the pan-Canadian Pharmaceutical Alliance (pCPA) database for the drugs that completed negotiations.
- In the assessments with a recommended price reduction range, the lower bound of the range was chosen to stratify the assessment into a specific category.
- Submissions that did not report a price reduction were excluded from the pricing analysis.

Results

- Overall, 73 unique oncology drug submissions were reviewed by CDA during the period.
- Of the 73 submissions reviewed, 64 received a positive reimbursement recommendation from CDA.
- Of the recommended submissions, one submission had phase 4 data, 46 had phase 3 trial data, 7 submissions had phase 2 trial data, one submission had phase 2/3 trial data, 11 submissions had phase 1/2 trial data, and two submissions had phase 1 data.
- Some of the submissions had more than one phase trial data included in their submissions.
- Nearly 70% (46/68) of the oncology drugs recommended for reimbursement by CDA had phase 3 trial data included.
- Only single-arm trial data was included in 14 of the submissions recommended for reimbursement.
- Real-world evidence (RWE) has been included in addition to clinical trial evidence in 15 of the recommended submissions.
- Of the recommended submissions that included RWE, five submissions had phase 3 trial data, 3 submissions had phase 2 trial data, 2 submissions each had phase 1 and phase 1/2 trial data, and one submissions each had phase 4 and phase 2/3 data.

Figure 1. Percentage of recommended submissions according to phase of the trial



- In submissions with single arm trials, 96% of the recommended assessments had a price reduction of ≥70% off the list price.
- Similarly for submissions with phase 1/2 (88%) and phase 2 (86%) of the recommended also had a high proportion of assessments that were asked to reduce the price by ≥70%.
- However, in submissions with phase 3 trial data, only 41% of the assessments had a recommended price reduction of ≥70%.
- All of the recommended submissions with phase 1 trial data had a recommended price reduction of ≥70%.
- At the time of analysis 45 of the recommended submissions completed pCPA negotiations, eight submissions were under "active negotiation", nine submissions were under consideration for a negotiation, and one submission did not pursue negotiation.
- For the recommended submissions that completed negotiations, median length of negotiation time was the lowest for submissions with phase 3 trial data (3.8 months), and highest for submissions with phase 1 trial data (5.1 months).

Figure 2. Percentage of assessments with ≥70% price reduction according to trial phase or trial design

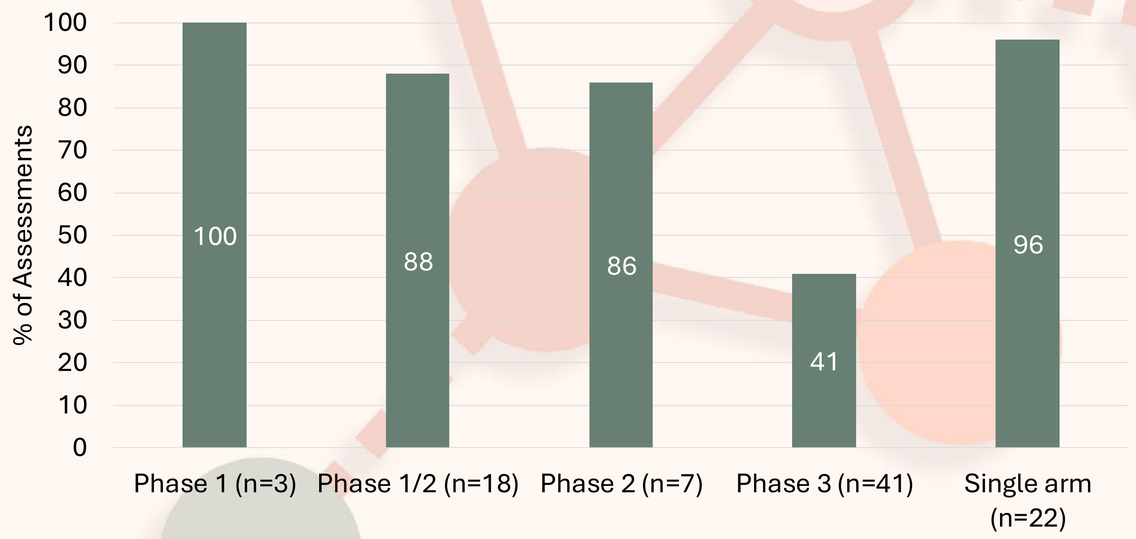
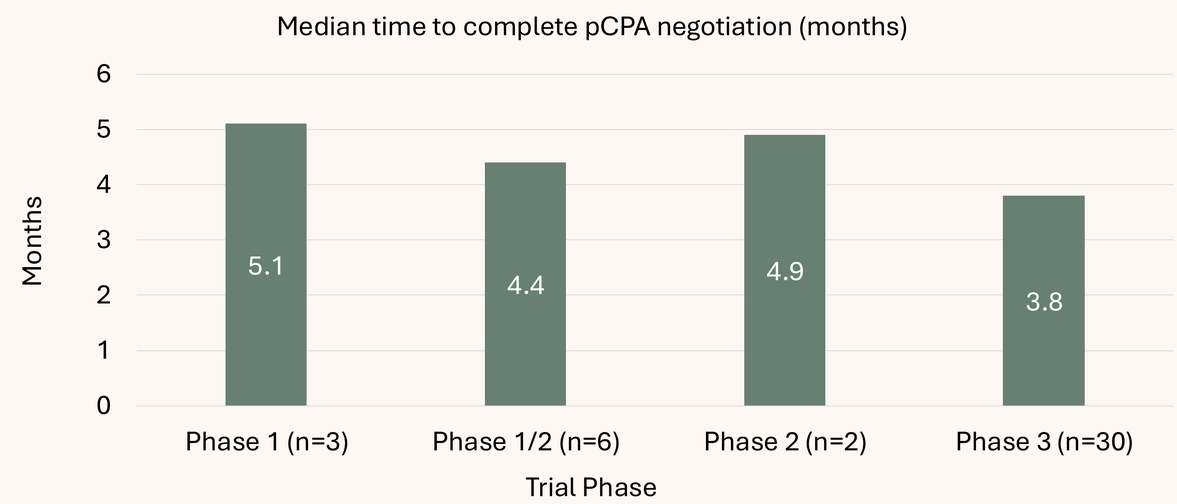


Figure 3. Median time to complete pCPA negotiation according to the phase of the trial



Discussion

- This analysis showed that most of the oncology submissions assessed by CDA between January 2022 and April 2024 included phase 3 trial data, and only 25% of the recommended submissions had RWE in addition to the clinical trial data.
- While the analysis showed that more submissions with phase 2 data had received a price reduction ≥70% compared to submissions with phase 3 data, apart from the trial phase and uncertainties in the efficacy estimates of the drugs, other factors might have played a role in determining the price reduction range for recommended treatments.
- With the limited number of submissions that completed negotiations, although it appears that submissions with phase 3 trial data are completing negotiations faster, it is to be explored whether the speed of completing negotiations also is tied to other factors such as steep price reductions recommended to the submissions with non-phase 3 trial data.
- Canada's Drug Agency has introduced a new early access scheme, Time-Limited Reimbursement Recommendation (TLR) in November 2023, this is aimed at providing faster access to life saving drugs when the phase 3 trial of the drug is still not complete [4].

Conclusions

- This review showed that most oncology submissions reviewed by CDA had phase 3 data and RWE inclusion in the recommended oncology submissions was very limited.
- Although the analysis was done with a limited sample size, oncology drug submissions made to CDA with phase 2 data had higher price reduction recommendations and took longer time to complete pCPA negotiations.
- The new TLR scheme from CDA might be an important opportunity for drug sponsors to utilize when their phase 3 data is not yet ready and will likely help the patients have an early access to life saving oncology drugs in Canada.

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Disclosures

The authors declare no conflicts of interest for this work.

[hta]DataMine™ Powered by Pharmalytics Group Technologies

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