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BACKGROUND

Context: Health technology assessment (HTA) agencies such as National Institute of Health and Care Excellence (NICE) and Canadian Agency for Drugs and Technologies in Health (CADTH) inform reimbursement decisions that directly impact patient care through access to new therapies. COVID-19 pandemic has had a profound impact on all aspects of healthcare delivery, including the evaluation and access to therapeutic interventions.^{1,2}

Aim: The aim of this study is to examine the time difference from submission to final HTA decision, to gain a comprehensive understanding of the impact of COVID-19 on the evaluation and access to therapies in Canada, thereby providing valuable insights for healthcare stakeholders and policymakers.

METHODS

CADTH website³ was searched for final HTA recommendations published from 01 April 2017 to 31 March 2023.

This time frame was categorized into two periods: pre-COVID (01 April 2017 to 31 March 2020) and post-COVID (01 April 2020 to 31 March 2023).

The start date was considered as the manufacturer submission date and the end date was the issue of final recommendation for reimbursement decision.

Resubmissions were excluded.

The data for the following parameters were extracted:

- ✓ Date of submission received
- ✓ Date of recommendation issued
- ✓ Therapeutic area (oncology v/s non-oncology)
- ✓ HTA final recommendation

Data were extracted by one reviewer, and the quality was checked by another reviewer to ensure accuracy.

Time duration was calculated as difference from submission to final recommendation for both pre-COVID and post-COVID periods. To assess the significance levels, two-sample T-Tests with unequal variances were conducted, yielding different p-values.

RESULTS

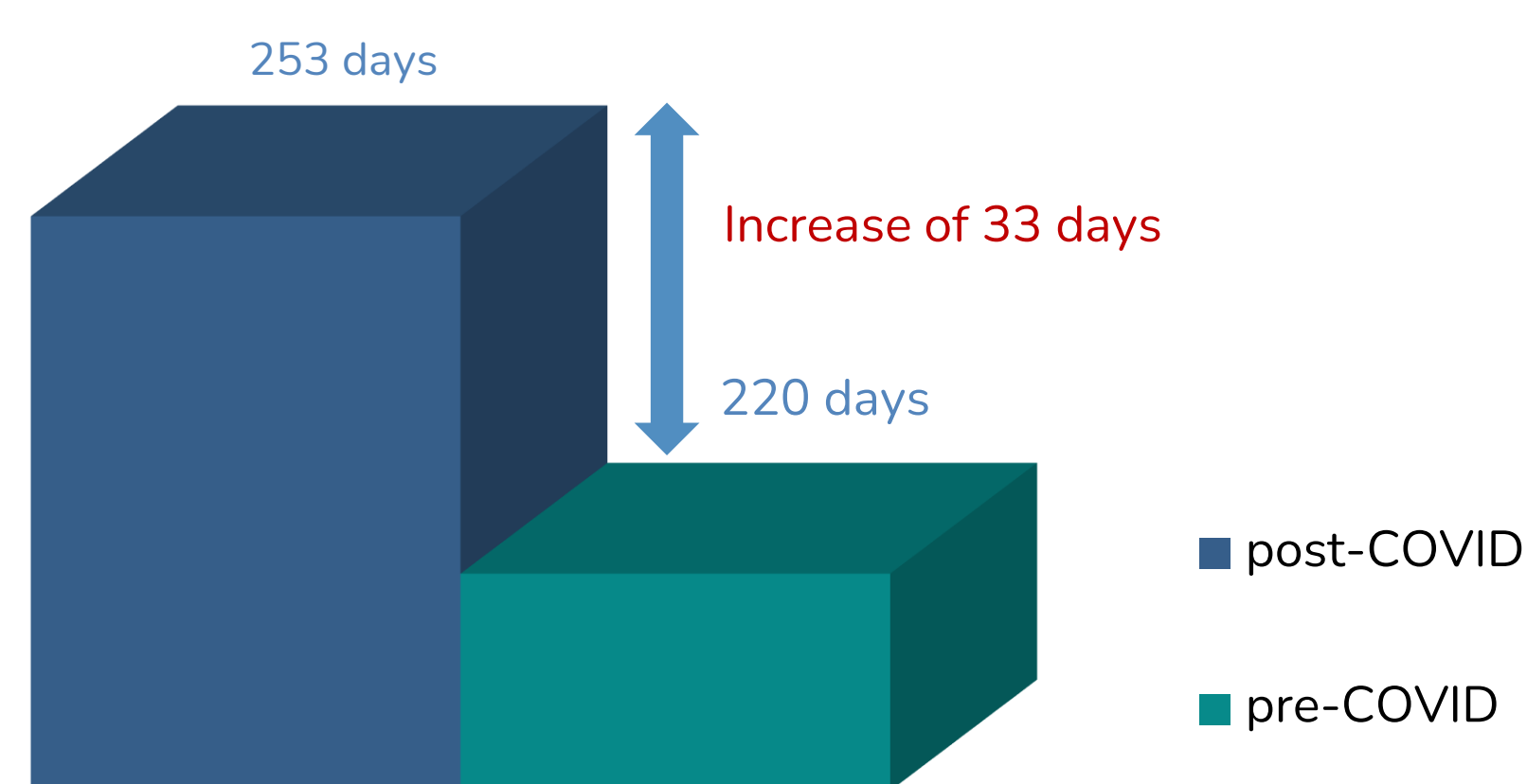
A total of 387 HTA (390 HTAs, excluding 3 resubmissions) guidance published by CADTH were included for analysis, comprising:

- 171 HTAs (73 oncology and 98 non-oncology) in pre-COVID period
- 216 HTAs (101 oncology and 115 non-oncology) in post-COVID period

Longer duration for post-COVID period compared to pre-COVID period

The mean (95% CI) duration for reimbursement decision in post-COVID period was found to be statistically significantly longer versus pre-COVID period [253 (243,262) vs 220 (212,228) days; difference: 33 (20,46) days; P<0.05] (Fig. 1).

Figure 1. Time delay duration (days) in reimbursement decision across the periods



When analysed by therapy type, the duration for reimbursement decision was found to follow a similar trend in the post-COVID period compared to the earlier period for both oncology and non-oncology treatments.

Longer duration in oncology therapy decisions for post-COVID period compared to pre-COVID period

For oncology therapies, there was statistically significantly longer duration in post-COVID period [243 (233,253) compared to pre-COVID period [223 (212,233) days] with a difference of 20 (6-35) days; P<0.05] (Fig. 2).

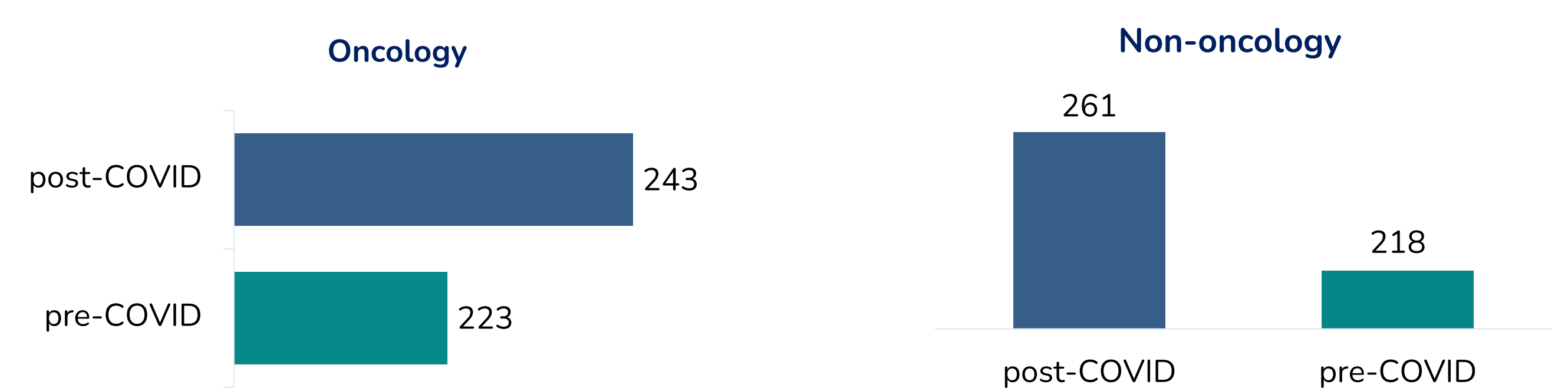
Longer duration in non-oncology therapy decisions for post-COVID period compared to pre-COVID period

For non-oncology therapies, there was a similar trend of statistically significantly longer duration in post-COVID period [261 (245,277) compared to pre-COVID period 218 (206,230) days with a difference of 43 (23,63)days; P<0.05] (Fig 2).

The results of this study showed an increased time duration taken by CADTH to provide recommendations for therapy access following the onset of COVID-19 in Canada. The trend appeared to be similar for oncology and non-oncology therapies.

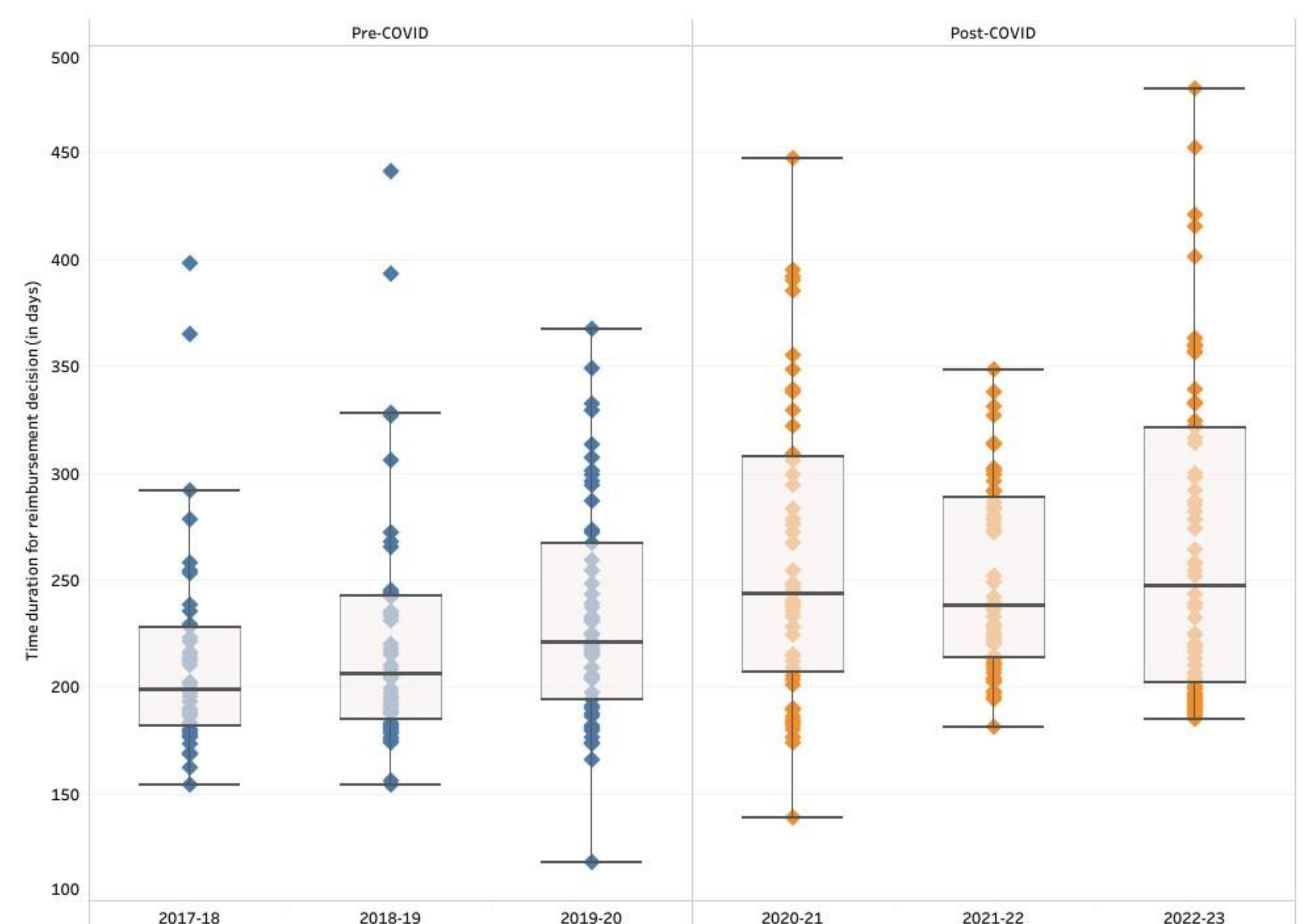
RESULTS cont.

Figure 2. Time delay duration (days) in reimbursement decision across therapies



Further, when analysed through each of the entire six-year period, there was significant variation in the time duration for reimbursement decision across the years (Fig. 3).

Figure 3. Time delay duration in reimbursement decision across the entire period



Discussion

The study's findings highlight the extended duration of reimbursement decisions due to the onset of COVID-19 in Canada.

Prolonged reimbursement decisions could directly impact timely patient care through delayed access to new therapies; however, additional research is needed to fully understand the impact of these delays on healthcare in Canada.

Due to the cross-sectional nature of this study, the factors contributing to the delay could not be ascertained and should be explored in further research.

A comparative analysis across multiple countries' healthcare contexts might shed further light on the generalizability of these findings and global impact of the pandemic on healthcare decision-making processes.

References

1. Pujolar G, et al. Int J Environ Res Public Health. 2022; 19(3): 1749.
2. Duden GS, et al. J Psychiatry Res. 2022; 154: 354-377.
3. <https://www.cadth.ca/reimbursement-review-reports>

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