CADTH

CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Low Dose Naltrexone for the Treatment of Any Cancer Type: Clinical Effectiveness and Guidelines

Service Line: Rapid Response Service
Version: 1.0
Publication Date: January 08, 2019
Report Length: 6 Pages

CADTH

Authors: Ke Xin Li, Danielle MacDougall

Cite As: *Low dose naltrexone for the treatment of any cancer type: clinical effectiveness and guidelines*. Ottawa: CADTH; 2019 Jan. (CADTH rapid response report: summary of abstracts).

Acknowledgments:

Research Questions

1. What is the clinical effectiveness of low dose naltrexone for the treatment of any cancer type?
2. What are the evidence-based guidelines associated with the use of low dose naltrexone for the treatment of any cancer type?

Key Findings

No relevant literature was found regarding low dose naltrexone for the treatment of any cancer type.

Methods

A limited literature search was conducted on key resources including PubMed, the Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2008 and December 17, 2018. Internet links were provided, where available.

Selection Criteria

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

Table 1: Selection Criteria

Population	Patients (adults and children) with any type of cancer
Intervention	Low dose naltrexone alone or in combination with other treatment modalities (e.g., chemotherapy, surgery, radiation, stem cell transplant)
Comparator	Q1: Standard of care treatment for the given cancer: chemotherapy, surgery, radiation, stem cell transplant; Placebo + standard of care versus low dose naltrexone + standard of care; Best supportive care; No comparator Q2: No comparator
Outcomes	Q1: Clinical Effectiveness (e.g., response rate, survival, progression-free survival, quality of life) and safety (toxicity, adverse events, discontinuation) Q2: Guidelines
Study Designs	Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, evidence-based guidelines

Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, and evidence-based guidelines.

No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, or evidence-based guidelines were found regarding low dose naltrexone for the treatment of any cancer type.

References of potential interest are provided in the appendix.

Overall Summary of Findings

No relevant literature was found regarding low dose naltrexone for the treatment of any cancer type; therefore, no summary can be provided.

References Summarized

Health Technology Assessments

No literature identified

Systematic Reviews and Meta-analyses

No literature identified

Randomized Controlled Trials

No literature identified

Non-Randomized Studies

No literature identified

Guidelines and Recommendations

No literature identified

Appendix — Further Information

Previous CADTH Reports

1. Low-dose naltrexone for chronic non-cancer pain: clinical effectiveness. *(CADTH Rapid response report: summary of abstracts)*. Ottawa (ON): CADTH; 2017: https://www.cadth.ca/low-dose-naltrexone-chronic-non-cancer-pain-clinical-effectiveness-0. Accessed 2019 Jan 04.

Review Articles

2. Li Z, You Y, Griffin N, Feng J, Shan F. Low-dose naltrexone (LDN): a promising treatment in immune-related diseases and cancer therapy. *Int Immunopharmacol*. 2018 Aug;61:178-184.
PubMed: PM29885638

3. Toljan K, Vrooman B. Low-dose naltrexone (LDN)-review of therapeutic utilization. *Med Sci (Basel)*. 2018 Sep 21;6(4).
PubMed: PM30248938

4. Ringerike T, Pike E, Nevjar J, Klemp M. The use of naltrexone in low doses beyond the approved indication. *Report from Norwegian Knowledge Centre for the Health Services (NOKC) No. 8-2015*. Oslo (NO): Knowledge Centre for the Health Services at The Norwegian Institute of Public Health (NIPH); 2015: https://www.ncbi.nlm.nih.gov/pubmed/28510411. Accessed 2019 Jan 04.
PubMed: PM28510411

Clinical Trial Registration

5. Constantinou M. NCT01650350: Low dose naltrexone for metastatic melanoma, castrate resistant prostate cancer and renal cancer. *ClinicalTrials.gov*. Bethesda (MD): U.S. National Library of Medicine; 2017: https://clinicaltrials.gov/ct2/show/NCT01650350. Accessed 2019 Jan 04.

6. Masonic Cancer Center University of Minnesota. NCT00379197: Phase II of naltrexone in hormone-refractory metastatic breast cancer. *ClinicalTrials.gov*. Bethesda (MD): U.S. National Library of Medicine; 2017: https://clinicaltrials.gov/ct2/show/NCT00379197. Accessed 2019 Jan 04.

7. Peters K. NCT01303835: Low dose naltrexone for glioma patients. *ClinicalTrials.gov*. Bethesda (MD): U.S. National Library of Medicine; 2015: https://clinicaltrials.gov/ct2/show/NCT01303835. Accessed 2019 Jan 04.

Additional References

8. Easton J. Drug for digestive problem can extend survival for many advanced cancer patients. *Science Life UChicago Medicine* 2015; https://sciencelife.uchospitals.edu/2015/10/28/drug-for-digestive-problem-can-extend-survival-for-many-advanced-cancer-patients/. Accessed 2019 Jan 04.

9. National Cancer Institute. Alpha-lipoic acid plus low-dose naltrexone reviewed for cancer treatment. *Division of Cancer Treatment & Diagnosis: Office of Cancer Complementary and Alternative Medicine* 2012; https://cam.cancer.gov/news_and_events/newsletter/2012-spring/feature.htm. Accessed 2019 Jan 04.