

CADTH RAPID RESPONSE REPORT: REFERENCE LIST

Rituximab for Pediatric Patients with Primary Membranous Nephropathy: Clinical Effectiveness and Cost-Effectiveness

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Research Questions

1. What is the clinical effectiveness of rituximab compared with current treatments in pediatric patients with membranous nephropathy?
2. What is the cost-effectiveness of rituximab compared with current treatments in pediatric patients with primary membranous nephropathy?

Key Findings

No literature was identified regarding the clinical effectiveness or cost-effectiveness of rituximab compared with current treatments in pediatric patients with membranous nephropathy.

Methods

A limited literature search was conducted by an information specialist on key resources including Medline and Embase via OVID, the Cochrane Library, the University of York Centre for Reviews and Dissemination (CRD) databases, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy was comprised of both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were primary membranous nephropathy and pediatrics. 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, 2015 and March 6, 2020. 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	Pediatric patients (under 18 years old) with primary membranous nephropathy
Intervention	Q1-Q2: Rituximab
Comparators	Q1-Q2: Alkylating drugs (chlorambucil or cyclophosphamide with corticosteroids) Calcineurin inhibitors (cyclosporine or tacrolimus) with or without corticosteroids

Outcomes	Q1: Clinical effectiveness (e.g., complete remission, partial remission, time to remission, loss of GFR, end-stage renal disease, dialysis, transplantation, death, infection, malignancy, serious adverse events, withdrawal due to adverse events) Q2: Cost-effectiveness
Study Designs	Health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies, and economic evaluations

Results

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

No relevant health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies and economic evaluations were identified regarding the clinical effectiveness or cost-effectiveness of rituximab compared with current treatments in pediatric patients with membranous nephropathy.

References of potential interest are provided in the appendix.

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.

Economic Evaluations

No literature identified.

Appendix — Further Information

Related CADTH Reports

1. Rituximab or cyclosporine in the treatment of membranous nephropathy: a critical appraisal of the MENTOR study (*CADTH Technology review: focused critical appraisal*). Ottawa (ON): CADTH; 2020: <https://www.cadth.ca/rituximab-or-cyclosporine-treatment-membranous-nephropathy-critical-appraisal-mentor-study>. Accessed 2020 Mar 10.

Systematic Reviews and Meta-analyses

Unclear Comparator and Outcomes

2. Kaegi C, Wuest B, Schreiner J, et al. Systematic review of safety and efficacy of rituximab in treating immune-mediated disorders. *Front Immunol*. 2019;10:1990. [PubMed: PM31555262](#)

Randomized Controlled Trials

Alternate Population

3. Fervenza FC, Appel GB, Barbour SJ, et al. Rituximab or cyclosporine in the treatment of membranous nephropathy. *N Engl J Med*. 2019;381(1):36-46. [PubMed: PM31269364](#)

Non-Randomized Studies

Unclear Population

4. Hoseini R, Sabzian K, Otukesh H, et al. Efficacy and safety of rituximab in children with steroid-and cyclosporine-resistant and steroid- and cyclosporine-dependent nephrotic syndrome. *Iran J Kidney Dis*. 2018;12(1):27-32.

Review Articles

5. Safar-Boueri L, Piya A, Beck LH, Jr., Ayalon R. Membranous nephropathy: diagnosis, treatment, and monitoring in the post-PLA2R era. *Pediatr Nephrol*. 2019;06:06. [epub ahead of print]. [PubMed: PM31811540](#)
6. Ayalon R, Beck LH, Jr. Membranous nephropathy: not just a disease for adults. *Pediatr Nephrol*. 2015 Jan;30(1):31-39. [PubMed: PM24375012](#)