

Recommendations and Reasons

Committee to Evaluate Drugs (CED)

Rituximab for first-line treatment of chronic lymphocytic leukemia (CLL)

Product:

RITUXIMAB (Rituxan ®) injection

Class of drugs:

An anti-CD20 monoclonal antibody

Indication:

First-line treatment of chronic lymphocytic leukemia (CLL)

Manufacturer:

Hoffmann-La Roche Limited

Date of CED Review:

January 2010

Highlights of Recommendation:

- ♦ Rituximab is an intravenous monoclonal antibody used for treating various types of cancers as well as rheumatoid arthritis. This particular review evaluated the use of rituximab as a first-line treatment for chronic lymphocytic leukemia (CLL).
- ♦ A clinical trial was conducted evaluating the use of rituximab in CLL patients who had not undergone previous treatment (i.e. in the first-line setting). Results demonstrated that patients who took rituximab, in combination with anti-cancer agents fludarabine and cyclophosphamide, had improved survival in comparison to patients who were treated only with fludarabine and cyclophosphamide.
- ♦ The committee noted that the survival benefit observed with rituximab is compelling and that conventional chemotherapies for the treatment of CLL have not been shown in clinical studies to extend survival.
- ♦ In terms of side effects, rituximab appears to be well tolerated.
- ♦ Based on the list price, rituximab costs approximately \$25,000 per patient for a treatment course. The committee noted that this drug appears to provide reasonable value for money.
- ♦ **Overall, the CED noted rituximab prolongs survival and is cost-effective in the first-line treatment of CLL.**

Background:

Chronic lymphocytic leukemia (CLL) is a blood cancer that causes an increase in abnormal B lymphocytes (a type of white blood cells). The cancer cells spread from the bone marrow to the blood, replacing healthy blood cells and platelets. CLL eventually causes the bone marrow to fail, leading to infection, anemia and bleeding. Enlargement of lymph nodes, liver and spleen can also occur.

Treatment for CLL is typically focused on controlling the disease and extending life. Treatment options include chemotherapy drugs. Radiation may sometimes be used for locally enlarged lymph nodes. Blood transfusions or platelet transfusions may be required if blood counts are low. Bone marrow or stem cell transplantation may be considered in younger patients with advanced or high-risk CLL.

Rituximab belongs to a group of cancer drugs known as monoclonal antibodies.

CED Recommendation

The CED recommended rituximab (Rituxan®) be funded for the first-line treatment of chronic lymphocytic leukemia (CLL) where fludarabine-based therapy is considered appropriate. The CED noted that the use of rituximab in this setting has been shown to improve survival and to provide value for money.

Executive Officer Decision

Based on the CED's recommendation, the Executive Officer decided to fund rituximab (Rituxan®) for first-line treatment of chronic lymphocytic leukemia (CLL) where fludarabine-based therapy is considered appropriate.

Status

Funded through Cancer Care Ontario's New Drug Funding Program.

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Detailed Discussion:

- ◆ The focus of the CED's review was a single randomized controlled study in 817 previously untreated patients with CLL. (*This study, known as the CLL 8 trial, was available only in abstract form at the time of the CED review.*) The study compared the use of two regimens, one consisting of rituximab in combination with fludarabine and cyclophosphamide, and the other consisting of only fludarabine and cyclophosphamide.
- ◆ The study found that patients who were treated with the rituximab regimen had significant improvements in progression-free survival, overall survival and disease response rates. At 37.7 months of follow-up, the overall survival rate was 84.1% in patients using rituximab versus 79.0% in patients who did not receive rituximab.
- ◆ The study reported that hematologic toxicities (neutropenia, infections) were more common among patients who received rituximab, but rituximab was generally well tolerated.
- ◆ Based on the list price, rituximab costs approximately \$25,000 for six cycles of treatment. The committee conducted an evaluation of the cost-effectiveness of this drug and agreed that it provides reasonable value for money.
- ◆ **Overall, the committee noted that rituximab improves survival and is cost-effective, and therefore recommended that funding be provided for patients with previously untreated CLL where fludarabine-based therapy is considered appropriate.**

The CED worked jointly with a subcommittee involving cancer experts to review this cancer drug, as it does for all cancer drug treatments.



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