

E2. GOALS OF THERAPY IN CHRONIC LYMPHOCYTIC LEUKEMIA

Anca Roxana Lupu

Colțea Clinical Hospital, Bucharest, Romania

Chronic lymphocytic leukemia (CLL) is the most common leukemia in adults. Although significant advances have been made in the treatment of CLL in the last decade, it remains incurable. Although there is no cure for CLL, the disease is treatable and current standard chemotherapy regimens have been shown to prolong survival.

Historically, the goal of treatment for CLL patients has been palliation of symptoms, and treatment was usually continued until disease-related symptoms were resolved.

While clinical staging systems have been used to stratify patients into risk categories, they lack the ability to predict disease progression or response to therapy. In clinical trials, the tumor load that remains after therapy in patients with chronic lymphocytic leukemia can be quantified by modern minimal residual disease (MRD) technology with a 1000- fold higher sensitivity compared with clinical staging.

MRD levels independently predict OS and PFS in CLL. Low-level MRD does not equal complete disease eradication, but it is an important prognostic factor in a non-curative treatment setting. Therefore, MRD quantification might serve as a surrogate marker to assess treatment efficacy in randomized trials before clinical end points can be evaluated.

Rituximab mediates CDC, ADCC, and direct cell apoptosis in the treatment of B-cell malignancies. Currently clinical data have placed rituximab as a standard addition to front-line and subsequent lines of therapy for CLL improving progression-free survival (PFS) and overall survival (OS) and minimal residual disease (MRD).

The future of treatment in CLL it is represented by GA101 , a glycoengineered anti-CD20 antibody, which means specific sugar molecules in GA101 were modified to change its interaction with the body's immune cells and to bind to CD20 with the aim of inducing direct cell death.

The primary endpoint of the study with GA101 was PFS with secondary endpoints including overall response rate (ORR), overall survival (OS), disease-free survival (DFS), minimal residual disease (MRD) and safety profile.

Except for allogeneic stem cell transplantation, the use of MRD to tailor treatment in individual patients outside clinical trials is currently discouraged.