Treatment of Chronic Lymphocytic Leukemia in Germany
Results of a representative population-based survey in 2011

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Background

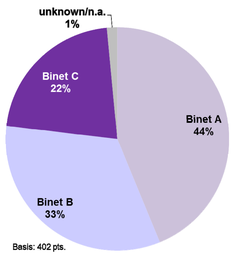
In Chronic Lymphocytic Leukemia (CLL) therapeutic approaches may vary from watch & wait, antibody monotherapy, conventional chemotherapy or dose-intensified consolidation to allogeneic strategies. The following analysis offers a comprehensive insight into the diagnosis and management of CLL in German clinical practice. Initial results in 2007 showed that patient characteristics differed significantly from published study cohorts as did clinical strategies and therapeutic approaches. The aim of a 2011 update was to monitor changes in management of CLL patients and the implementation of clinical guidelines.

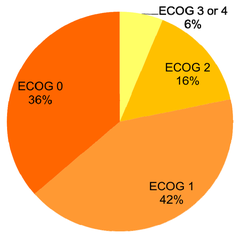
Methods

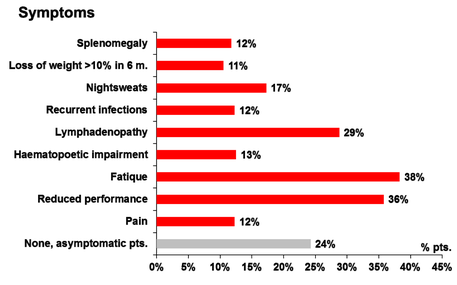
817 centres involved in the treatment of CLL including university hospitals (UH), community hospitals (CH) and oncologists in practice (OP) were contacted. 15 % of identified centres provided information on 1227 patients corresponding to 13% of the expected national prevalence. Analysis of these data revealed the distribution of treated prevalence across institution types. The representative sample, taking into account regional and demographic spread, comprised detailed data of 417 unselected patients with a treatment decision in the first and second quarter of 2011 (start, change or end of therapy) in 48 centres (15 UH, 9 CH, and 24 OP). The proportion of patients by institution type was 16% UH, 26% CH and 59% OP, which corresponded with the results of the structural analysis of treated prevalence. Data were verified by central monitoring pseudonymised patients' source documents. In a bivariate analysis of the collected and anonymised data predictive variables for the treatment decision were defined. For all comparisons a p-value of less than 0.05 was considered statistically significant.

Patients´ chararacteristics at initial diagnosis

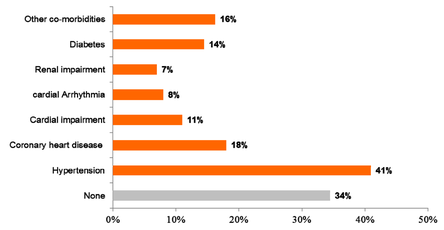
At initial diagnosis the median age was 67 with pts mostly in Binet stadium A (Binet A: 44%, Binet B: 33%, Binet C: 22%). 78% had an ECOG performance score of 0 or 1 and 22% >2. The most common symptoms were fatigue and lymphadenopathy.

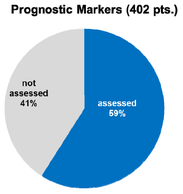






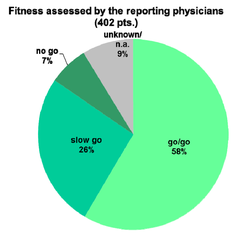
66% of the patients had significant comorbidities, arterial hypertension and coronary heart disease being the most common. Prognostic markers were assessed in 59% of the patients.

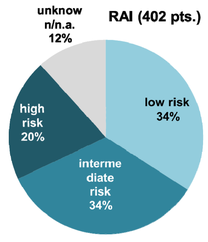




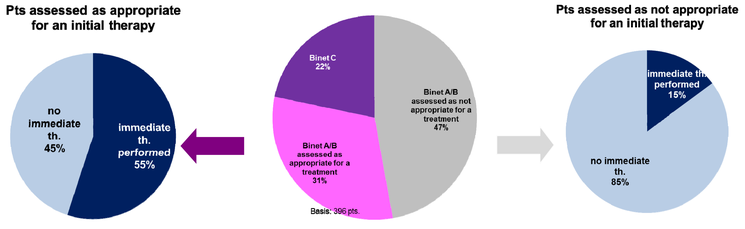
Predictors for a treatment approach

Selection of a specific treatment approach for an individual patient is based on patient characteristics (age, comorbidities, organ function, performance status and medical fitness) and the goals of treatment. The use of risk-adaptive management strategies that incorporate prognostic factors along with medical fitness status and other patient characteristics have been proposed by medical organizations.

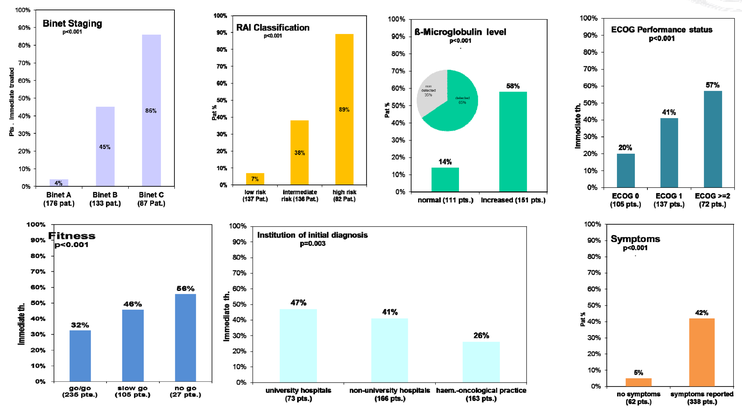




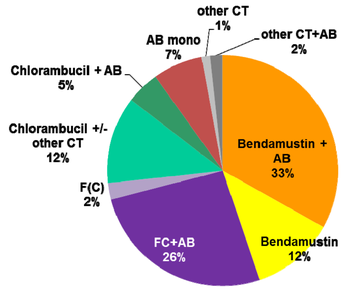
According to the definition in DGHO 2010 guidelines patients in Binet stage C and in stage A/B with at least one of the symptoms (haematopoetic insuffiency, splenomegaly , lymphadenopathy, loss of weight >10%, persistant fever, night sweats) should be treated at initial diagnosis. However, only 55% of this subgroup were treated at initial diagnosis, whereas 45% were treated only after progression or received no therapy in the reported period. In addition, 15% of the non -treatment-group (47% of pts. according to DGHO guidelines) were treated immediately.

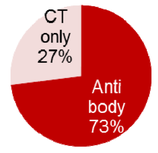


In bivariate analysis the predictors with a significant impact on the choice of a treatment approach in clinical reality were identified. Besides Binet stage C patients, symptomatic, high risk, and less fit patients were more likely to be treated than low risk, fit patients. The patients diagnosed in a haem.-oncological practice received immediate treatment less frequently than the patients diagnosed in a clinic. Analysis of the data shows that this disparity is not based on a different patient population in different institution types.



Induction Therapy





As expected, the majority of patients received an antibody containing regime, with Rituximab being the most common antibody used in induction therapy. Bendamustin containing regimes were the most frequently administered.

Conclusion

In this population-based survey, clinical strategies differed significantly from published study cohorts especially in non-fit patients. Apparently, the decision to treat is not only based on guidelines but additionally the clinical fitness of the patient is a major decision factor.

Thus, clinically more relevant studies in medically compromised patients are urgently warranted.

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