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#### SURVIVAL OUTCOMES AND PROGNOSTIC DETERMINANTS IN CHRONIC MYELOID LEUKAEMIA: ANALYSIS OF RISK SCORES, MOLECULAR RESPONSE, AND TREATMENT DYNAMICS

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**Introduction:** Despite substantial progress in chronic myeloid leukaemia (CML) treatment, long-term survival and progression-free survival (PFS) remain influenced by baseline risk scores and early molecular response. Stratification by scores such as EUTOS, ELTS, and BCR::ABL1 levels may improve prediction of outcomes and guide treatment. **Objectives:** To assess overall survival (OS) and progression-free survival in a CML cohort, stratified by prognostic scores and molecular response, and to identify predictive markers associated with favourable outcomes. **Material and methods:** Kaplan-Meier analysis was performed for OS and PFS, followed by log-rank tests for group comparisons. Stratification included EUTOS (>87), ELTS (>2.21), and BCR::ABL1 at baseline (>100%) and month 3 (<10%). Survival curves were interpreted alongside clinical variables and response kinetics. **Results:** The overall survival probability remained above 75% at the end of follow-up, with a gradual decline from month 20. Stratified analysis showed significantly worse OS for patients with EUTOS >87 ( $p=0.014$ ), while ELTS >2.21 showed a non-significant trend toward poorer survival ( $p=0.084$ ). Baseline BCR::ABL1 >100% was not associated with OS differences. For PFS, approximately half the cohort remained progression-free at the final follow-up. EUTOS >87 was significantly associated with lower PFS ( $p=0.023$ ), while ELTS >2.21 again showed a non-significant trend ( $p=0.082$ ). Baseline BCR::ABL1 >100% did not predict PFS ( $p=0.693$ ). In contrast, achieving molecular response <10% at month 3 (MR3) was significantly associated with superior PFS ( $p=0.005$ ). **Discussion:** The findings highlight the prognostic importance of the EUTOS score for both OS and PFS. While ELTS showed a consistent trend towards worse

outcomes, it did not reach statistical significance. The most robust predictor of long-term disease control was early molecular response (MR3 <10%). Baseline BCR::ABL1 >100% did not predict survival outcomes, potentially due to early therapeutic adjustments in this subgroup. **Conclusion:** In this real-world cohort, high EUTOS scores and failure to achieve MR3 <10% were key markers of poor prognosis. BCR::ABL1 baseline level was the strongest predictor of early molecular response, while early response itself emerged as a relevant factor for long-term disease control. The integration of molecular and clinical risk parameters remains essential for optimising CML management.

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#### TERAPIAS COMBINADAS EM MIELOMA MÚLTIPLO E LEUCEMIAS RESISTENTES: AVANÇOS E PERSPECTIVAS EM TRATAMENTOS PERSONALIZADOS

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**Introdução:** O mieloma múltiplo (MM) e as leucemias resistentes constituem um importante desafio terapêutico na hematologia moderna. Apesar de avanços significativos nas últimas décadas, a evolução natural dessas doenças ainda é marcada por recaídas frequentes e pelo desenvolvimento de resistência aos tratamentos disponíveis. O MM, uma neoplasia maligna das células plasmáticas, apresenta um curso clínico heterogêneo, com sobrevida global variável, mesmo em pacientes submetidos a regimes de alta intensidade. As leucemias resistentes, por sua vez frequentemente demonstram escape às terapias de primeira e segunda linha, motivando a busca por estratégias inovadoras. Nesse contexto, as terapias combinadas, integrando agentes com diferentes mecanismos de ação, têm emergido como alternativa promissora. Além disso, a personalização dos esquemas, baseada em