

# HEMATOLOGY, TRANSFUSION AND CELL THERAPY



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## ADULT SPEAKER PRESENTATIONS

#### Sp01

Induction therapy choices and responses in a third world country: A single center study from Pakistan

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### ABSTRACT

**Background:** Leukaemia accounts for approximately 2.5% of all new cancer incidence and 3.1% of cancer-related mortality with a significant number of the total presenting as Acute Lymphocytic Leukemia. Acute Lymphocytic Leukemia (ALL) poses a healthcare burden in the majority of the countries of the world but is more so a case in resource-limited countries where access to comprehensive healthcare is often limited and scarcely available. This article tries to highlight the challenges in ALL treatments in one such region by presenting the facts regarding treatments employed and patient outcomes seen.

**Method:** This was a retrospective single-institution study in a tertiary care setup examining Ph neg ALL patient data from Jan 2019 to Dec 2020. It was stratified according to various parameters ranging from presentation to mode of diagnosis as well as treatment strategies and responses achieved after induction including mortality. Conventional chemotherapy regimens for ALL treatment were used with corticosteroids, vincristine, anthracyclines, asparaginase, cytosar, and MTX being the backbone of ALL induction. Cytogenetics were not possible due to resource constraints.

**Results:** Data showed 85 patients being managed during the mentioned time period. 65 percent were males and 68 percent were between the age 15 to 30 years. Approximately 80 percent had no co-morbid condition including diabetes, hypertension, ischemic heart disease or Hep B/C positivity. Around 60 percent were diagnosed on immunophenotyping by flow-cytometry and 62 percent used HyperCVAD as the induction protocol. Patients who achieved CR were 62 percent after single induction and most were assessed after count recovery on 2531-1379/

(3-4 weeks) or after 6 weeks with the percentages being 32 and 41 respectively. Duration of admission was for 1-3 weeks for almost 70 percent of the patients and those alive at the end of induction were around 90 percent.

**Conclusion:** In conclusion, the treatment of Acute Lymphocytic Leukemia in resource-limited countries remains a formidable task, sometimes requiring innovative and sustainable approaches. Due to limited resources, a resource stratified rather than risk-stratified treatment approach is often utilized to tailor therapy. This approach ensures that relatively better resourced patients receive more intensive treatment others are spared unnecessary toxicity. While the challenges in resourcelimited settings are significant, the treatment strategies and chemotherapy protocols, if modified as per need and implemented effectively, hold promise in improving outcomes for patients with Ph negative Acute Lymphocytic Leukemia in regions which have limited resources at their disposal.

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#### Sp02

Bone marrow transplantation versus chimeric antigen receptor T cells (CAR-T) therapy for hematological malignancies

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Hematopoietic stem cell transplantation (HSCT) is an effective curative therapy for a long list of hematological malignancies. Historically HSCT was the only mode of therapy that could provide a cure for a long list of hematological malignancies including acute myeloid leukemia (AML), acute lymphatic leukemia (ALL), and myelodysplastic syndrome which are the main indications for HSCT in Europe; but also for chemosensitive non-Hodgkin lymphomas (NHL), Hodgkin lymphoma, and multiple myeloma (MM), the main indications for autologous transplantation. However, transplantation could be offered to only a rather small fraction of the patients in need due to the high risk