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[doi.org/10.69690/ODMJ-018-0425-2030](https://doi.org/10.69690/ODMJ-018-0425-2030)



**SIOP ASIA 2025  
SAUDI ARABIA**

# ONCODAILY MEDICAL JOURNAL

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**Unplanned Hospital Visits of pediatric Acute Lymphoblastic Leukemia (ALL) patients during Maintenance Phase of Chemotherapy- a tertiary care center experience from a newly established pediatric oncology service in Saudi Arabia**

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**DOI:** <https://doi.org/10.69690/ODMJ-018-0425-2030>

**Introduction:** Pediatric patients with Acute Lymphoblastic Leukemia (ALL) undergo a long maintenance phase with predominantly home-based oral chemotherapy administration, along with relatively less frequent hospital visits to receive parenteral chemotherapy doses. However, some patients may require frequent hospital encounters for additional monitoring, and complications from their treatment. The main objective of this study was to retrospectively review the unplanned hospital visits of pediatric ALL patients during maintenance chemotherapy in a newly commissioned center in Saudi Arabia.

**Methodology:** Electronic charts of ALL patients being treated at our hospital were retrospectively reviewed for three consecutive maintenance cycles; starting from Day 1 of Cycle 2 till Day 83 of cycle 4. Down Syndrome and Ph+ ALL patients were excluded. Data was recorded and analyzed by using SPSS v22. Results: Of 17 patients, median age was 7 years (range 3-14) with male to female ratio of 1.4:1. Thirteen patients had B Cell ALL; 7 standard risk (41.2%) and 6 high risk (35.3%) and 4 (23.5%) had T Cell ALL. Outside of chemotherapy encounters, there were a median of 28 additional visits (range: 8-31), with the majority of patients seen in the clinic/Day Care Unit with a range from 6-26. Eight patients had ER visits (n=46). Seven needed inpatient admissions, the majority with febrile neutropenia.

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Reasons for hospital visits included lab reviews, non-neutropenic febrile episodes, pneumonia (n=2), blood product support (n=1), documented viral infections (n=4), otitis media (n=1), UTI (n=1). There were no blood culture-positive infections. ALL immunophenotypes and age had no statistical significance in relation to the number of unplanned hospital visits.

**Conclusion:** While the sample size was small, this study demonstrates a wide variability in the hospital need for pediatric ALL patients during maintenance phase, and provides insight into resource allocation for a newly established pediatric oncology program.