

## 15q13-15 Rearrangements

### Clinics and Pathology

Disease	Acute lymphocytic leukemia (ALL), acute myeloid leukemia ( <a href="#">AML</a> ), chronic lymphocytic leukemia ( <a href="#">CML</a> ), chronic lymphocytic leukemia ( <a href="#">CLL</a> ) and non Hodgkin lymphomas ( <a href="#">NHL</a> ).
Phenotype / cell stem origin	Most ALL are B-lineage, few T-lineage. AML: most subtypes. CML: Lymphomas: described in follicular, diffuse large B-cell, mantle cell and anaplastic large cell, as well as <a href="#">Hodgkin lymphomas</a> .
Epidemiology	Rare in childhood ALL (about 1%), more common in infant ALL (about 13%). Very rare in AML, adult ALL, CLL and lymphomas. Occurs in primary and secondary leukemias. CML: rare, occurs as secondary abnormality or part of complex Ph rearrangement
Prognosis	Childhood ALL: No increased risk with current treatment regimens. Outcome not described in other diseases.

### Cytogenetics

Additional anomalies	Various anomalies result in 15q13-15 breakpoints, most frequently balanced translocations, but also unbalanced translocations and deletions. Childhood ALL: 15q13-15 breakpoints frequently occur in complex karyotypes. Associated abnormalities of <a href="#">9p</a> and of 12p <a href="#">12p</a> , as well as <a href="#">t(9;22)(q34;q11.2)</a> are common. 15q13-15 breakpoints also have been reported with <a href="#">der(19)t(1;19)(q21;q13)</a> . A <a href="#">t(5;15)(p15.1 or p15.3;q11 or q13)</a> occurs primarily in infant ALL, although also was reported in one adolescent ALL. AML: found as primary abnormality and as secondary abnormality, with various other abnormalities including <a href="#">t(9;22)(q34;q11.2)</a> , <a href="#">t(8;21)(q22;q22)</a> , as well as part of complex rearrangements with 8q22 and 21q22. Recurrent aberrations are: <a href="#">t(11;15)(q23;q14)</a> reported in both AML and ALL and <a href="#">t(12;15)(p12-13;q13-15)</a> in AML. CML: occurs in variant Ph and in secondary abnormalities.
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**Written** 09-2003 Nyla A Heerema

**Citation**

*This paper should be referenced as such :*

**Heerema NA** . 15q13-15 Rearrangements. Atlas Genet Cytogenet Oncol Haematol. September 2003 .

URL :

<http://www.infobiogen.fr/services/chromcancer/Anomalies/15q13rearID1257.html>

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