Reviewer's report

**Title:** The incidence of and mortality from leukaemias in the UK: A general population-based study

**Version:** 1  **Date:** 26 March 2009

**Reviewer:** Alois Gratwohl

Reviewer's report:

The authors report their findings on incidence rates, incidence rate ratios, survival and hazard risks for death for patients treated for acute or chronic leukemia in a defined dataset of general practitioners in the UK. They looked at impact of year, socioeconomic status and age on any of these outcomes. They confirm previously published data on incidence and age distribution. They show little to no effect of socioeconomic status. The latter is novel, clear and somehow surprising. The article is well written, clearly structured and informative.

There are a few points requiring clarification:

The coding was based on six groups, acute myeloid and lymphoid, chronic myeloid and lymphoid and unspecified myeloid and lymphoid. This is in principle acceptable. However, the category unspecified myeloid includes most likely the myelodysplastic syndromes. MDS can range from mild indolent forms up to AML-like clinical disease. The authors should mention on how they dealt with MDS.

The authors see a lower incidence of ALL in high Townsend score. A higher incidence of child hood ALL in economically advantaged populations is well described. It would be of interest to see in ALL, whether this difference was restricted to the young (<20 years of age) population or whether it was seen in all age groups.

The slightly higher death rate for AML patients should be looked at more carefully. What could the explanations be? It is intriguing to note, that incidences was lower in the high Townsend group but mortality higher. Could it be that diagnosis was made only in “worse” cases? It would be interesting to see whether this higher mortality rate was seen in all age groups or only in the older age group.

Minor comment:

Use WHO technology, e.g. acute myeloid leukemia, acute lymphoblastic leukemia, chronic myelogenous leukemia, chronic lymphocytic leukemia.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable
**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I have no competing interests