Reviewer's report

Title: Birth characteristics and the risk of childhood leukaemias and lymphomas in New Zealand: a case-control study.

Version: 1 Date: 11 July 2006

Reviewer: Charles A Stiller

Reviewer's report:

General
This is a clearly written report of a well-designed study which will add to knowledge on sociodemographic factors in relation to aetiology of haematopoietic neoplasms in children and young people. It would benefit from a little more detail in the Methods section and more complete discussion of the results.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1. Hodgkin's disease is the disease group with the second largest number of cases in the study, yet it is completely absent from the Discussion. The results should be discussed with particular reference to whether the authors believe it is reasonable for this disease, occurring mostly at ages above the upper limit for ALL, ANLL and NHL, to have risk factors operating around the time of birth. The fact that the variables of interest (most strikingly parity) tended to be available more often for HD than for the other three diagnostic categories may also be worthy of comment.
2. The Discussion should also consider two relevant studies from California, namely Reynolds et al, Am J Epidemiol 2002, 155, 603-613, and Ma et al, CCC 2005, 16, 1075-83. The former is particularly important because it is large and based on birth records.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
3. Background, page 3, lines 8-10 from end. Please make clear that unemployment, low income and unmarried status all refer to parents, state whether at time of birth, diagnosis or interview, and also whether unemployment is paternal, maternal or either.
4. Methods, page 4, line 7 from end. Please state the point at which cases born outside New Zealand were excluded, i.e. before or after the total number of cases in the study was 278.
5. Methods, page 5, line 4. There is wide variation between studies in the definition of urban/rural status. Please state how it was defined for this study.

Discretionary Revisions (which the author can choose to ignore)
6. Methods, page 4, line 5 from end. Were the controls matched on birth year? If so, that might be a clearer way of expressing it.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
I declare that I have no competing interests