Reviewer's report

**Title:** Clinical symptoms and chemotherapy completion in elderly patients with primarily diagnosed acute leukemia: a retrospective comparison study with a younger cohort

**Version:** 2 **Date:** 19 April 2011

**Reviewer:** Gabriela Motyckova

**Reviewer's report:**

The study by Hu and colleagues investigated the reasons for chemotherapy discontinuation and disease outcomes in older acute leukemia (ALL and AML) patients compared to younger patient population. The authors compared 183 older and 183 younger acute leukemia patients in a retrospective analysis using medical chart review. The study highlighted the difficulties of treating older patient population. Older leukemia patients had more comorbidities, more treatment related toxicities, decreased rate of remission and increased rate of chemotherapy discontinuation compared to younger patients.

The authors have also highlighted financial and cultural reasons which play an important role in decisions to start or discontinue therapy.

The authors have incorporated the reviewer’s initial recommendations. As stated by authors, the study is limited by the fact that it is retrospective review from a single institution, but highlights important areas greatly influencing older patient’s decisions about acute leukemia treatment in China. The results of poor outcome of older acute leukemia patients compared to younger patients are not novel, but the analysis of factors leading to therapy discontinuation, especially the impact of financial, cultural and social issues in China would be of great interest.

**Minor Essential Revisions**

Please clarify the term “hyperplasia” used throughout the text. Your Table 2 classifies the terms hyperplasia into 4 categories from extremely active to inactive. The term hyperplasia is not commonly used in the leukemia literature and its meaning is not clear to the reader.

Please consider explanation of your point in terms of bone marrow cellularity and/or blasts percentage and not using the word hyperplasia. Blast percentage is more commonly used.

The term “hyperplasia” occurs in the following sections listed below, please change the wording as discussed above.

**Results:**

Under classification of Disease Symptoms
- degree of hyperplasia mentioned twice
Table 2
Hyperplasia, please address as discussed above

Table 3
Legend superscripts 3 and 4 hyperplasia, please address as above

Table 4
Superscript 2 hyperplasia, please address as above

Discussion
-third paragraph
-The degree of bone marrow hyperplasia in elderly patients

Minor Essential Revisions Continued:

Table 3
Please change to complete remission instead of completed remission

Table 4
Please change to complete mission instead of completed remission

Discussion
Fifth paragraph
In the first sentence, please state if you are using all AL patients or AML and ALL separately when referring to “complete remission rate was 49.45%” and please refer to a Table.

Discussion
8th paragraph. The statement about 11.96% of elderly patients discontinuing therapy because of toxicities may be read by some as the overall therapy discontinuation rate in older population. Consider restating the fact that among the 50.27% of older newly diagnosed AL patients who discontinues therapy, 11.96% of patients stopped treatment because of toxicities.

Discretionary Revisions:
Title:
"Primarily diagnosed"
Consider "newly diagnosed" instead of primarily, which may be a more commonly used term.

Abstract
-Under methods in abstract, please add age before #60
Background
World wide, please consider worldwide instead.

Patients and Methods section
Consider adding previously to ……Inclusion criteria in the elderly group were previously untreated patients

Methods
-last sentence before statistical analysis, delete an extra space after when and before comma.

Results
Under Classification of Disease and Symptoms
Please delete characters (;,) and insert simple period (.)

Under Remission status and Complications
-Please group sentences about remission together and put before the sentence about complication of chemotherapy.
-Delete extra comma after second chemotherapy cycle in parentheses.

Discussion
End of first paragraph, consider adding in older leukemia patients to “are needed to improve outcomes in older leukemia patients.”
Second paragraph, insert comma before but.

Consider saying failure to thrive instead of only failure.

6th paragraph
Please add percentage of younger patients (in parentheses) discontinuing therapy in the text in the first sentence for comparison

7th paragraph
Please add percentage of younger patients discontinuing therapy due to financial difficulties for comparison
Consider using cannot instead of can not.

9th paragraph
Please undo underlining.
Add percentages in numbers to statements about percentage of elderly patients who discontinued therapy was significantly higher than in younger patients.
Add “in some cases, family members could not deal”….
Consider changing to “patients either remained at home after discharge”….
Please change to “They requested discharge and discontinuation of treatment”…..

Last paragraph
The groups were not matched by age, the age groups were compared in the study. Please remove “age” from the sentence “the fact that the two groups were not matched other than by general diagnosis and age”

Conclusion
Please consider changing to Compliance with chemotherapy regimens is poor…..
Thoughtful treatment regimen selection to balance potential toxicity…..
Additional studies are needed to further explore…..

Table 1
Legend
-Please insert space between n (%)
-Make 2 superscript in 2The types were bases on…
-History of carcinoma, does that include prior hematologic disorders such as MDS which are more common in older patients with acute leukemia.

Table 3
Legend
Superscripts 3 and 4, please consider changing drinking to alcohol use

Table 4
Superscript 2 please consider changing drinking to alcohol use

Table 5
Consider using Severe clinical AL symptoms instead of severe leukemia and delete *intense symptoms in legend

Table S1
Consider using “on day”, instead of “at day”
Prednisone orally daily on days 1 to 28
Add spaces after each Cytarabine and delete extra space before each Ara-C in the table

**Level of interest:** An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.