Reviewer's report

Title: Prevalence of TPMT and ITPA gene polymorphisms and effect on 6-mercaptopurine dosing in Chilean Children with Acute Lymphoblastic Leukemia

Version: 1 Date: 26 June 2013

Reviewer: Gabriele Stocco

Reviewer's report:

This is an interesting and well performed study on the frequency of TPMT and ITPA variant alleles in Chilean patients, showing relevant association with 6MP dose in patients with ALL

Major Compulsory Revisions

The results reported in the abstract do not seem to match those in the manuscript. Please revise.

Minor Essential Revisions

Abstract, 2 line: change "interindividual toxicity" with "interindividual variability in toxicity"
Abstract, line 8: add "polymerase" before "chain reaction"
Abstract, line 13: change "patient" with "patients"

in the Abstract and manuscript, please change "accumulative" with "cumulative"

Introduction

In the second sentence, please revise "cumulative toxic plasma concentration of 6MP": 6MP half-life is very short and the prodrug does not accumulate; the active metabolites (i.e. TGN) accumulate and are related to toxicity. The same concept has to be corrected later in the introduction (line with reference 8).

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

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