Reviewer’s report

Title: Cost-effectiveness of adding rituximab to the existing treatments of splenectomy and thrombopoietin receptor agonists (TPO-RA) for steroid-resistant idiopathic thrombocytopenic purpura (ITP)

Version: 2
Date: 4 August 2014
Reviewer: Philippe Boierling

Reviewer’s report:

The authors stated that adding rituximab, then TPO receptor agonist, for patients with ITP refractory to splenectomy is less costly and more effective than using TPO RA immediately after splenectomy. This conclusions are true in Japan, a region in whom ritux has not been reimbursed in this indication. The conclusions are supported by a well conducted cost effectiveness study based on a Markov model and are along the same lines as those of european and american countries.

The reviewer don't propose major revisions but suggest that the discussion could be greatly shortened

Minor essential revisions /precisions

- It should be asserted in the title and along the text that the study/conclusions concern adults with ITP.
- p4: the description of the natural history of ITP concerns japanese. It could be of interest to describe the difference between natural history in american/european people (for exemple the place ohf helicobacter pylori infection is very different in this population). In the same way the percentage of patients that are able to discontinue steroids is, in european/americain, more important than 10/20%
- the mortality rates of splenectomy seems higher than the reality. Splenectomy by laparoscopy necessitate 3/5 days of hospitalization.
- The reviewer don't understand how the adverse events are included in the model. Questions concerning the hematological long term effect (i.e myelofibrosis) of TPO RA exist.
- Half of the patients relapse after ritux at one /two years. I don't know if this notion is taken into account by the authors. Even if I'm not a specialist of the Markov model, it seems to me that this notion is important for the results. I don't understand the relapse rates of table1
- the first dose of ritux could be do in an out patient
- the authors choose Romiplastin as TPO RA when Elthrombopag is cheaper (in Europe) and as effective
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

No competing interest