Reviewer's report

Title: Preconception counselling for the general population initiated by general practitioners in the Netherlands (ISRCTN53942912).

Version: 4 Date: 30 March 2006

Reviewer: Andrew E. Czeizel

Reviewer's report:

General

General comments: I appreciate the objective and effort of the authors because preconception counselling is an important criterion to improve the quality of pregnancy outcomes. The onset of prenatal care is too late to protect embryo in his/her most sensitive developmental period, in addition the preparation for conception seems to be appropriate to change the lifestyle of potential parents and to introduce new preventive methods (e.g. folic acid supplementation). Authors describe their method and materials, of course, it is necessary, but readers will be a bit disappointed due to the lack of any information regarding the „results”.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

In my opinion it would be necessary to mention that some countries (e.g. China) have or had (e.g. Hungary) obligatory preconception counselling system which was useful from medical aspect but were against the „Western oriented” human right.

I found only one serious scientific error in the manuscript and it is connected with the old fashion first trimester concept. Page 4 line: „In the development of the embryo, the first eight weeks of pregnancy are the most sensitive.” The so-called gestational age is calculated from the first day of last menstrual period. Thus pregnant women are not pregnant in the first two weeks of their pregnancy. The third and fourth gestational weeks include the transportation and implantation of zygotes/blasto cysts comprising of omnipotent stem cells. This phenomenon explains that environmental factors cannot induce congenital malformations in the first gestational month, because there is no fetus in the first two weeks, while the next two weeks represents the „all-or-nothing effect” rule. Thus this statement of authors is wrong. Correctly: “In the development of the embryo between the fifth and tenth gestational week,” or “In the development of embryo between the 3rd and 8th postconceptional week” is correct.

Another major theoretical and practical problem is the recruitment of patients (though, in my opinion, they are not “patients”). According to the idea of most experts, it is worth differentiating couples, i.e., potential parents at high and low risk groups. Genetic counselling clinics have been established for couples at high risk, while preconception care for couples at low risk. However, the Hungarian experiences showed that periconception care would be optimal for all couples, because the selection of couples at high risk here with the transfer to genetic counselling clinic was the most efficient.

The Hungarian experiences also showed that periconception care is better than preconception because pregnant women visit prenatal care between the 7th and 10th week of gestation, thus just the most sensitive period of fetal development, the embryogenesis is unprotected. Thus a periconcetional care which includes 1-3 months of preconception period and 1-3 months of postconception period was more effective.
Finally it is necessary to define the term of system: preconception counselling or care, because counselling includes only „speech”, i.e. oral advice, while care may have some examination and treatment as well, e.g., STD-screening, varicella vaccination, smoking cessation program, etc.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
Page 4, line 2-3: The mentioned 20 % is underestimated for the clinically recognized adverse outcomes as well (ectopic pregnancy 1 %, miscarriage 12 %, stillbirth 0.5%, preterm birth-low birthweight 9 %, congenital abnormalities 4 %. mental retardation 3 % in Hungary, though – I know – this preterm birth-low birthweight figure higher than the usual European rates). In addition we estimate that at least one-third of pregnancies have very early fetal loss without clinical diagnosis.

It would be useful to mention the cause why women aged 40 or more years were excluded from the project.

Page 11, third para: Readers would need reference.

Discretionary Revisions (which the author can choose to ignore)

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

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interest.