Reviewer's report

Title: Washing our hands of the congenital cytomegalovirus disease epidemic

Version: Date: 18 February 2005

Reviewer: Robert Pass

Reviewer's report:

General
Cannon and Finn propose making education on hygienic practices aimed at preventing child to mother (or female caregiver) transmission of CMV a standard public health practice. Although BMC states that it does not publish reviews, this paper will fit very well into the category of “debate” which BMC does publish. This is potentially a very important paper. The authors address the lack of a clear public health policy, based on currently available data, for prevention of congenital CMV disease, and they recommend a course of action. This paper will likely stimulate debate because of the history of inaction in this area by public health authorities and medical professional organizations and because of the relative paucity of evidence demonstrating the efficacy of the action proposed by the authors. Support for the recommended course of action could be summarized as follows: (1) There is some evidence (albeit very limited) that the suggested hygienic measures will reduce the rate of child to female caregiver transmission of CMV. (2) The American College of Ob-Gyn has made a general recommendation for education of pregnant women about hygienic practices to prevent CMV infection, and the Centers for Disease Control, U.S. Public Health Service, has made similar recommendations for prevention of CMV transmission in day care settings. (3) The recommended intervention is risk free and inexpensive. (Though some skeptical observers might take issue with this). (4) Congenital CMV infection is an important public health problem for which we have no other approaches to prevention available.

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

Major Revisions
1. It is important to address the question of what proportion of congenital CMV disease could be prevented if the measures recommended were immediately put into practice and followed by 100% of the target population. In addressing this question there are two key considerations: 1) What proportion of congenital CMV infection results from child to mother transmission as opposed to other routes, such as sexual transmission? 2) What is the estimated effectiveness of the hygienic measures proposed?
2. Clarify the message on identify of the target population. Is it only pregnant women? It seems logical to include all women of childbearing potential. What about spouses? What about preventing child to child transmission in day care centers and other settings?

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Minor Revisions
1. When stating estimates of congenital CMV disease, it is better to give a range based on best data available in the literature.
2. The legend for figure 3 indicates that these recommendations are for pregnant women. What about women who might become pregnant? If this is going to be a public health recommendation,
you should have a clear message as to who should employ the recommended practices.

3. The parachute analogy is overly dramatic and perhaps out of place in this debate. The parachute protects from exposure to a risk that is limited to a few seconds, for a very limited group of persons for whom the outcome without a parachute is undisputed. Some might suggest that what you are recommending is more akin to suggesting that passengers on commercial airliners wear parachutes in transit.

Suggestions for improvement

1. Tighten the focus. It is not necessary to include references for the achievements that have been made in preventing infectious diseases by vaccination. This is public knowledge. You could shorten the section on congenital CMV disease and biology of CMV infection as well. State the hypothesis or recommended course of action right off and then discuss the rationale.

2. It is contradictory to state that there is agreement on the action that needs to be taken and then cite several references (later in same paragraph which starts on p. 7) which conclude that nothing can be done to prevent transmission of CMV.

3. Perhaps you should mention the possibility of CMV contamination of the environment. Cleaning of the environment is not mentioned in the list in Figure 3.

4. What about fathers? Should they also employ hygienic practices if the spouse is or will become pregnant? What about child to father to spouse transmission?

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 outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.