Reviewer's report

Title: Eliciting parental support for the use of newborn blood spots for pediatric research

Version: 3
Date: 28 September 2015
Reviewer: William Siero

Reviewer's report:

This paper reports on the parental consent for research use of routinely collected dried blood spots and explores the factors associated with consent and sample volume sufficiency. Dried blood spots and other routinely collected samples represent a significant cost effective opportunity for research. The paper is well written and deserving of publication pending the following minor revisions.

Minor revisions:

Background:
- P5.67, DBS can be used for genetic and epigenetic analyses. These should be listed as a possible utility to strengthen the importance of the paper.
- P5.74, Countries and US states screen a varying number of disorders. Please clarify this wording “… conditions screened for, from 1 to 54 inclusive….” to outline this.
- P5.76, The researchers may wish to note that DBS are used internationally in many research projects.
- The researchers would be worthwhile noting research from Australia on written consent for use of Guthrie cards in research and that 93.5% of parents whose newborns are screened (>99% of all births) consent for research use of their Guthrie card. J Paediatr Child Health. 2014 May;50(5):399-404. doi: 10.1111/jpc.12484. Epub 2013 Dec 23.

Results:
- Please report details of participants included (details included in figure 2) in results section rather than Methods.
- Please report the study attrition of the 8 month survey materials “Analyses were restricted to families who returned 8 month survey materials as they expressed continued response to the overall study and differences in factors by consent status identified in this group would not be a function of factors related to overall response rates.”

Discussion:
- The authors state the analyses are “restrict to families that were reached,”
however, there is no evidence presented that those who did not respond to were not reached. The researchers should note that the lack of interaction with the families may be regarded as a weakness of the study and that a non-response may not necessarily represent a “no” for use of their DBS.

- There is little discussion of the limitations of the study and specifically the study sample. The study utilized in the analyses is a specialised one (infertility) and may or may not be broadly representative of other population based studies. The authors should outline what the total births over the study enrolment period were, original recruitment rate for the study was and report the attrition rate. The implications of these and other participant characteristics should on the generalizability of the findings should be discussed.

Discretionary Revisions and general comments:

Methods:
- If data is available, in addition to the education, other measures of socio-economic status should be included.

Results:
- As the study is arguing that DBS are feasible for population-based research it would be informative to know how representative the Upstate KIDS study is.
- The researchers report the relationship between consent and nulliparous women. It would be interesting to see if there was a relationship between parity and consent rate.

Discussion:
- While technically a response rate of 62% is a majority. Such a low response rate from already engaged participants is perhaps not reassuring. Such a response rate may be due to not attempting the consent either over the phone or in a face-to-face manner. The authors should consider discussing the role of approach type (mail only) on response rate.

**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