Reviewer's report

Title: A protocol for assessing maternal skinfold thickness measurements and inter observer variability among pregnant women who are overweight and obese.

Version: 1 Date: 29 October 2012

Reviewer: Michelle Mottola

Reviewer's report:

Although this is a nicely written paper, it is not clear what the protocol could be used for. Perhaps this may be better submitted as a techniques paper and not submitted as an original research article, since the research is not hypothesis driven.

Major Compulsory Revisions:

1) Although the authors suggest that lack of standard protocol exists for evaluating skinfold thickness measurements for obese pregnant women, it is not clear why they chose only upper body measures and also included arm circumference as part of this protocol. It would be more clinically relevant if the authors also included a connection/correlation of these measures to total body fatness, body mass, or BMI, perhaps, so that these measures would be justified. It is not clear how the findings however reliable, using multiple observers, would be used in a research setting – to determine what?

2) This paper is not hypothesis driven and may be better served if it was submitted as a technique paper?

3) On page 7, par. 2, the authors suggest that the purpose of the study was to “establish a standardized protocol for the assessment of skinfold thickness measurements and to evaluate the inter-observer variability in assessing body composition in this group of women.” It is not clear how the assessment of these upper body skinfolds will give rise to body composition assessment in obese women.

4) Methods: pg. 7, par. 4, line 1. The authors reported when the women were recruited but when were skinfolds done – at what gestational age? Were these done in one visit?

5) How will skinfolds measured at one time, at one gestational age, predict body composition for the complete pregnancy without being related to weight gain? Or, how these measures change over time as pregnancy progresses in this population group? The authors cite the article by Lopez et al. 2011, that did assess changes in skinfolds and arm circumference but suggested that this paper did not give enough information regarding methodology. Perhaps conducting a study like this cited one with the improved technique over time in the overweight and obese pregnant population would be clinically relevant.

6) Pg. 8, par. 3, line 2-3. How did the authors determine the lateral border of the
head of the radius inferiorly? Did the authors mean the tip of the olecranon process – this is the usual landmark to determine mid point of the arm for circumference.

7) Pg. 12, par. 4; the authors are referred to the CME review article; McCarthy et al. 59(10):731; Obstet Gynecol Surv, in which methods of body composition were evaluated in relation to relevance to perinatal outcomes. On pg. 773, skinfold measurements overestimated subcutaneous fat in pregnancy. Although the current study assessed the inter observer variability of specific skin fold measures, how does the skin fold technique compare to other maternal body composition techniques?

Minor Essential Revisions:

1) Abstract, line 4; end sentence at “analysis”. New sentence … “Not all of these…”
2) Abstract, line 10; Type out “49” – “Forty-nine”
3) pg. 7, line 6; add “the” in front of “purpose”
4) pg. 13, line 5; add “,” after “0.67”

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.