Reviewer's report

Title: Different thresholds of tissue-specific dose-responses to growth hormone in short prepubertal children

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Reviewer: catherine choong

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The investigators aim to determine the different thresholds the GH dose on metabolism and body composition. This report is of significant interest to the readership.

The baseline demographics of the study subjects should be more clearly presented. A table outlining the baseline demographics such as presented by Pincus Cohen et al. “Variable degree of GH and IGF sensitivity in children with ISS compared with GH deficient patient would be very helpful.” DOI 10.1210/jc.2009-2139. This would allow the reader to better understand the significance of the conclusions.

The authors do not separate the patients with GHD and ISS, This represents an important weakness in the data as reported particularly as it is now well recognised that there is differential sensitivity to GH between these two groups of patients.

Although the investigators did not observe dose response differences for a number of parameters, it was not clear if they took account of bone age a baseline per se.

It was not entirely clear to this reviewer if the small group of patients receiving 17ug/kg/day (3 individuals) were excluded from all analyses or just from Left Ventricular Mass. Table 1 includes the 3 individuals that received 17ug/kg/day and these subjects also appear to be included in Figures 1 and 2.

It is unclear how the data was weighted statistically to take account of the different numbers in each category.

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 to all of the above