

# Symphysis-Fundus Measurement; the Human Factor

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## **Symphysis-Fundus Measurement; the Human Factor**

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In this issue, Anne Ego and colleagues report on a cluster randomised controlled trial in a population where antenatal care was well established including SFH and estimated fetal weight (Ego A et al. BJOG 2023;?). They tested whether introducing a software-aided program for plotting customised serial measurements of symphysis-fundus height (SFH) and ultrasound foetal weight estimation could improve the detection of foetal growth-restriction compared with standard care.

The study was well motivated as SFH is a basic element in pregnancy monitoring globally, but detection rates for SGA and FGR are generally low (<50%). As the authors point out, practises vary with insufficient interpretation, reporting and action-taking being probable factors contributing to the under-performance. Thus, the software-aided monitoring program was expected to improve all that, as it had been shown in a couple of other studies, although not of the same high-quality design as the present. However, the introduction of the program did not improve detection rate beyond that in the standard antenatal care arm.

This underscores the importance of randomised controlled trials, but also exposes some interesting traits. The study had aimed to improve the detection rate of FGR from 20 to 40%, but found that the detection rate improved in both arms; the 37.1% detection of the control arm was not significantly different from the 40.0% of the intervention arm. This pattern is commonly found in such studies. Once included in the study, the attentiveness and performance of the staff increase in both arms.

Similarly, the intervention process in itself could be an important factor in doubling the detection rate when introducing customised charts in two previous studies (J Gardosi et al. Br J Obstet Gynaecol 1999;106:309-17, and Roex A et al. Aust N Z J Obstet Gynaecol 2012;52:78-82). Pragmatically, one could argue that the aim has been achieved one way or other, the end result being improved antenatal care. It could also be pointed out that there is much to achieve by straightening up existing routines and programs in the first place.

A second look at Ego et al.'s study, also tells us of substantial differences in performance between participating centres. Patients registered in the software varied among centres between 42 and 100%, number of patients having [?]<sup>2</sup> SFH varied between 24 and 99%, and patients with [?]<sup>2</sup> ultrasound foetal weight assessments varied between 24 and 94% reflecting considerable variation in following guidelines, in clinical judgement,

and management. The present trial results are not a support for a more uniform practise as evidence here rather seems to tell you can continue with your varied strategies.

With detection rates rarely above 50%, where are we going next? Let us admit it, we cannot abandon the universally applicable, low-cost, simple, and quick test of SFH. And, we have possible improvements in store. E.g., rather than using serial measurements as if they were cross-sectional, the method of conditioning, used by few, actually sharpens the interpretation. When conditioned on a previous measurement, the 95% prediction span is narrowed down (Owen P et al. *Ultrasound Obstet Gynecol* 1998;11:110–117). Further, individualised medicine (precision medicine) is gaining momentum by artificial intelligence and big data promising improved predictions, but will the human factor disappear? Hardly, as long as we remain human.