BJOG Exchange

considered in decisions regarding when to deliver hypertensive obstetric patients goes a few steps further than current evidence can support.

References

- **1** Dunietz GL, Strutz KL, Holzman C, Tian Y, Todem D, Bullen BL, et al. Moderately elevated blood pressure during pregnancy and odds of hypertension later in life: the POUCHmoms longitudinal study. *BJOG* 2017;124:1606–13.
- **2** Boyd H. Clinical follow up of women after hypertensive disease in pregnancy. *BJOG* 2017;124:1614.
- 3 Wu XQ, Xu XX, Zhou ZY, Quinn MJ. Re: Clinical follow up of women after hypertensive disease in pregnancy; and, Moderately elevated blood pressure during pregnancy and odds of hypertension later in life: The POUCHmoms longitudinal study. *BJOG* 2018;125:386–7.

HA Boyd, & LG Persson

Department of Epidemiology Research, Statens Serum Institut, Copenhagen, Denmark

Accepted 31 August 2017.

DOI: 10.1111/1471-0528.14922

Authors' reply

Sir,

We thank Wu et al.¹ for their comments on our recent article,² and for hypothesising a potential biological mechanism for our finding that even moderately elevated blood pressure during pregnancy increases the odds of hypertension 7–15 years later. We should clarify that our article was not focused on 'moderate hypertension' during pregnancy, as Wu et al. state, but instead on pregnancy blood pressure values of systolic \geq 120 mmHg or diastolic \geq 80 mmHg (e.g. values corresponding to 'prehypertension' in the general population) among women without hypertensive disorders.

Although we believe their hypothesis could be the basis for further investigation, it may only provide a partial explanation given existing knowledge of the significant vascular adaptations during pregnancy³ and the effects of the placenta on maternal circulation.⁴ We hypothesise that many women with moderately elevated blood pressure during pregnancy are part of a continuum with placental findings similar to those typically observed among women with hypertensive disorders of pregnancy. We are currently investigating this hypothesis.

Careful examination of the hypothesis of Wu et al. requires a large cohort of women with repeated measurements of blood pressure before, during and after pregnancy and assessment of concomitant arteriolar injuries. Even then, it may be difficult to discern the origins of arteriolar injury.

References

- 1 Wu XQ, Xu XX, Zhou ZY, Quinn MJ. Re: Clinical follow up of women after hypertensive disease in pregnancy; and Moderately elevated blood pressure during pregnancy and odds of hypertension later in life: The POUCHmoms longitudinal study. *BJOG* 2018;386–7.
- 2 Dunietz GL, Strutz KL, Holzman C, Tian Y, Todem D, Bullen BL, et al. Moderately elevated blood pressure during pregnancy and odds of hypertension later in life: the POUCHmoms longitudinal study. *BJOG* 2017;124:1606–13.
- 3 Enkhmaa D, Wall D, Mehta PK, Stuart JJ, Rich-Edwards JW, Merz CN, et al. Preeclampsia and vascular function: a window to future cardiovascular disease risk. J Womens Health 2016;25:284–91.
- **4** Burton GJ, Fowden AL. The placenta: a multifaceted, transient organ. *Philos Trans R Soc Lond B Biol Sci* 2015;370:20140066.

Kelly L Strutz,^a Galit Levi Dunietz,^b Claudia Holzman,^c & Janet M Catov,^d on behalf of the authors

^aDepartment of Obstetrics, Gynecology, and Reproductive Biology, Michigan State University, Grand Rapids, MI, USA ^bDepartment of Neurology, Sleep Disorders Center, University of Michigan, Ann Arbor, MI, USA ^cDepartment of Epidemiology and Biostatistics, Michigan State University, East Lansing, MI, USA ^dDepartments of Obstetrics, Gynecology & Reproductive Sciences and of Epidemiology, University of Pittsburgh, Pittsburgh, PA, USA Accepted 16 August 2017. DOI: 10.1111/1471-0528.14921

Re: How do late terminations of pregnancy affect comparisons of stillbirth rates in Europe? Analyses of aggregated routine data from the Euro-Peristat Project

Sir,

The recently published article in your reputed journal BJOG by Blondel et al. provides critical clinical insights in the ever-expanding field of women's health research, primarily pregnancy-related pathophysiologies, including terminations and stillbirths, in pooled samples (across 29 European countries) of ethnically disparate patient cohorts.¹ This comprehensive, well-designed population-based study among European women assessed pregnancy terminations as a proportion of stillbirths, as well as a determination of stillbirth rates including and excluding terminations in the year 2010. The authors have exhaustively analysed complex pregnancyrelated data sets after a thorough review and meticulous amalgamation from the Euro-Peristat Project. The concept, design, methodology, and critical assessment tools, involving well-defined study rationale(s) aiming to identify how terminations of pregnancy at gestational ages both at, and/or above, the limit for stillbirth registration are recorded in routine statistics, and their broad-spectral impact on the comparability of stillbirth rates in Europe, are indeed interesting, and provide key information about the physiological/metabolic complexities associated with pregnancy. I wish to comment that the authors have followed stringent patient inclusion/exclusion criteria for the selection of eligible cohorts from European patient registry database(s): a statistically sound, robust, bias-free analytical study approach with relevant adjustment of clinical parameters/variables for