TO THE EDITORS: I read with great interest the article by MacLennan et al1 on cerebral palsy (CP), in which the authors provided a comprehensive outline of the varied pathogenesis as well as associated clinical risk factors relevant to the practicing clinician.

I was, however, surprised to read that a strong emphasis was not placed on the use of magnesium sulphate in reducing the risk of CP. Although this was mentioned under the “Interventions to prevent CP” subheading, it was limited to a small paragraph, leaving potential readers saddened or
discouraged by the lack of therapeutic options available to prevent such a disabling disorder. Again, under the “Future clinical applications” subheading, the authors declared that the long-term goal is the prevention of CP—with no mention or any arguments made as to the future role of such therapy.

Since 2010, both the United States and Australasia have been on the forefront in establishing national guidelines on the use of magnesium sulphate for neuroprotection of very preterm infants. As referenced by the authors, this was based on good-quality randomized controlled trials and meta-analyses that demonstrated its effectiveness. Although other countries such as Canada have followed through, the United Kingdom remained guarded and cited the large number needed to treat for benefit (as compared with antenatal administration of corticosteroids to prevent respiratory distress syndrome) as 1 of the possible reservations. I appreciate that the available data are limited for late-preterm and term infants, and hope that the MAGENTA study—an ongoing randomised controlled trial assessing antenatal magnesium sulphate administration between 30 and 34 weeks gestation—will provide further evidence to support to such a policy.

The magnitude might be small, but antenatal administration of magnesium sulphate may be the greatest primary preventive intervention that we obstetricians should practice on a daily basis to prevent CP.

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REPLY

We thank Dr Lim for his interest in our review of the causes, pathways, and, in particular, the role of genetic variants that may contribute to cerebral palsy. It was a big topic, and with limited space we focused on causation and the increasing evidence for genetic causation in many of the cerebral palsies. We are very aware and supportive of the admirable work in our department of Professor Caroline Crowther’s team and many others on the use of magnesium sulphate in very-preterm labor to help reduce slightly the risk of cerebral palsy in this subgroup. We applaud this clinical intervention. However, for major progress to be made in reducing all types of cerebral palsy, we need to conduct much more neurodevelopmental research extending back to conception.

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REFERENCE


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