Minimising duplicate reports in estimating the impact of COVID-19

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The emergence of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) disease (COVID-19) in China at the end of 2019 brought with it uncertainty as to whether it would bring an increase in maternal, fetal and neonatal morbidity and mortality. This uncertainty drove fear, which was understandable given the high case fatality rate associated with previous severe respiratory illness causing coronaviruses.

Given the novel nature of SARS-CoV-2, clinicians and women and their families rely primarily on limited information from case reports and case series to inform their decisions about pregnancy management. Early evidence from these sources demonstrated a tendency towards preterm delivery, mainly as a consequence of elective interventions (Della Gatta et al. Am J Obstet Gynecol 2020;223:36–41), which are likely to have been exacerbated by the uncertainty around the effect of COVID-19 on pregnancy and neonatal outcomes. We continue to rely on research reports, case series and case reports, but such reports are at higher risk of bias, including publication bias. Concerns have also been expressed about the potential of reporting outcomes for the same people with COVID-19 across different reports (Rauchner et al. JAMA 2020;323:1256). Such reporting leads to inaccurate estimates of the impact of the disease on outcomes, which is aggravated when the evidence base is relatively small, evolving and is critical to informing good care decisions.

In this issue, Thornton et al. report a review of case reports and case series of the risk of the neonate becoming infected with SARS-CoV-2 by mode of birth, type of infant feeding and mother–infant interaction (Walker et al. BJOG 2020;127:1324–36). Their findings lead them to conclude that vaginal birth, breastfeeding and contact between mother and baby are safe in the context of COVID-19 disease. What interests me equally in this article, however, is their approach to reducing the risk of duplicate reports in estimating the impact of the disease. First, their data sources included a daily PubMed search, supplemented by alerts from experts on social media, daily searches of three electronic databases, including the Maternity and Infant Care Database, and citation tracking. Second, the data were geocoded to unique distinct locations. Here, in response to reviewer feedback, which the authors refreshingly acknowledge, the team invited a native speaker of Chinese familiar with health institutes in Wuhan to provide contextual information to maximise the likelihood of correct site identification (which did result in some geocoding revisions). Third, they attempted to identify sites unnamed in reports using author affiliations, which ultimately did not provide the assurances that they needed to be confident in retaining some reports.

The accuracy of the inferences drawn from research reports, case series and case reports is enhanced when authors report clearly about if and when any patients are reported in other reports, and when processes to minimise erroneous repeated inclusion of the same patients are implemented. Thornton et al.’s paper is informative clinically, but is equally interesting in their flexing of methods to iteratively address an evolving evidence base and minimise uncertainty. Such approaches may lack the sophistication of techniques applied to larger evidence bases yet are critical to informing decisions early in an evolving evidence base. Further development of the processes may inform future pandemic readiness.

Disclosure of interests
None declared. Completed disclosure of interests form is available to view online as supporting information.