Optimizing the ICD to Identify the maternal condition in the cause of perinatal death: overcoming challenges to create a holistic approach

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Linked article: This is a mini commentary on ER Allanson et al. To view this article visit http://dx.doi.org/10.1111/1471-0528.14246. This mini-commentary is part of a mini-series on World Health Organization (WHO) application of ICD-10 to deaths during the perinatal period: ICD-PM.

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Identifying and classifying causes of perinatal death remains a challenge for clinical practice and public health. Broadly speaking, in utero demise may result from fetal factors, from maternal factors, or from a combination of these factors, and may occur antepartum or intrapartum. Although neonatal death may also result from maternal factors, coding structures in the International Classification of Diseases (ICD) have long recognised these possibilities. Establishing the role of maternal factors in stillbirth requires the availability of clinical data concerning both mother and fetus/infant for review. Unfortunately, in most medical records systems separate records are not generated (because the patient has not been admitted, no separate file number is created), and fields to link the mother and infant records are not routinely available in administrative health records. Additionally, maternal conditions require different coding depending on both the timing of onset (pregestational or gestational) and the outcome (maternal death, perinatal death, survival).

Allanson et al. (BJOG 2016;doi:10.1111/1471-0528.14246) propose an approach to the use of ICD-10 to account for the maternal contribution to perinatal death. Building on the perinatal mortality classification (ICD-PM) described previously (Allanson et al. BJOG 2016;doi:10.1111/1471-0528.14243), the classification is enhanced through the use of maternal condition codes (ICD-MM), and is then applied to existing data from South Africa and the West Midlands in the UK. As the authors note, the proposed approach is a stopgap measure that will hopefully be corrected in the development of ICD-11. If recent experience in the US predicts the future, the adoption of ICD-11 will be many years from now, yielding ample time to experiment with and perfect the ICD-PM.

Next steps might include the integration of ICD-PM, enhanced with the ICD-MM, into an updated version of the Cause of Death and Associated Conditions (CODAC) application for classification of causes of perinatal death (Froen et al. BMC Pregnancy and Childbirth 2009;9:22). Additionally, data resulting from the classification should be integrated into maternal and child health programmatic activities aimed at reducing rates of perinatal mortality.


Prevention strategies require knowledge of associations and etiologies, and the systematic, detailed review of cases to determine causes is the bedrock for this research. The ICD-PM, with additional attention to maternal morbidities, is an important step in the right direction.

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