

LATEST NEWS

Stillbirth linked to nearly fivefold increase in maternal morbidity risk

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By [Kari Oakes](#)

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Severe maternal morbidity is almost five times more common in women who have stillbirth deliveries than in women who have live births, according to research in [Obstetrics & Gynecology](#)

https://journals.lww.com/greenjournal/Abstract/publishahead/Severe_Maternal_Morbidity_Among_Stillbirth_and.97680.aspx .



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Citing major increases in risk for a host of serious complications, the authors of the large population-based study urge those caring for women experiencing stillbirth to be vigilant for trouble.

Severe maternal morbidity among mothers experiencing stillbirth occurred in 578 cases per 10,000 deliveries, compared with 99 cases per 10,000 live deliveries, wrote [Elizabeth Wall-Wieler, PhD](#) <https://profiles.stanford.edu/Elizabeth%20Wall-Wieler> , and coauthors. After statistical adjustment, the relative risk (RR) for severe maternal morbidity in a stillbirth compared with a live delivery was 4.77 (95% confidence interval, 4.53-5.02).

“Our findings indicate that nearly 1 in 17 women who deliver a stillbirth in California experience severe maternal morbidity. Furthermore, the risk of severe maternal morbidity was more than fourfold higher for women undergoing stillbirth delivery than live birth delivery,” the investigators wrote.

Major maternal organ dysfunction or failure – including acute renal failure, adult respiratory distress syndrome, disseminated intravascular coagulation, sepsis, or shock –

Hysterectomy, likely performed to control major loss of blood, also was more likely in stillbirth deliveries.

“Minimal attention has been given to maternal outcomes and acute complications experienced by women who have a stillbirth,” wrote Dr. Wall-Wieler, a postdoctoral research fellow in developmental and neonatal medicine, and colleagues at Stanford (Calif.) University. This is so because many analyses of maternal morbidity exclude stillbirth deliveries, or lump them with term deliveries, she and coauthors explained.

Using data from the [Office <https://oshpd.ca.gov/>](https://oshpd.ca.gov/) of Statewide Health Planning and Development in California, Dr. Wall-Wieler and colleagues examined a total of 6,459,842 deliveries occurring in the state during 1999-2011; of these, 25,997 (0.4%) were stillbirths. For the cross-sectional study, the investigators included only deliveries for which fetal or neonatal vital records could be linked with the maternal hospital record.

Stillbirth was defined in the study as a fetal death delivered at or after 20 weeks’ gestation, so deliveries at less than 20 weeks’ gestation were excluded, as were any deliveries recorded as being at or after 45 weeks’ gestation, because the latter set were considered likely to be data entry errors.

Deliveries were considered to have severe maternal morbidity if any of the 18 indicators identified by the Centers for Disease Control and Prevention were coded in the medical record. The most common severe morbidities seen in stillbirth were blood transfusion, disseminated intravascular coagulation, and acute renal failure (adjusted RRs 5.38, 8.78, and 13.22, respectively). Although absolute occurrences were less frequent, relative risk for sepsis and shock were more than 14 times higher for stillbirths than for live birth deliveries.

“Taken together, these findings suggest the morbidity associated with obstetric hemorrhage and preeclampsia among women hospitalized for stillbirth delivery is a serious concern,” wrote Dr. Wall-Wieler and coauthors. They called for prospective studies to clarify cause and effect between stillbirth and these morbidities and to look into whether women carrying a nonviable fetus or with known fetal demise are managed differently than those with a viable fetus.

black women, for those who did not have a college education, and those who did not have private insurance. Preexisting diabetes and hypertension, as well as a vaginal delivery, also upped the risk for stillbirth.

For reasons that are not completely clear, the risk for severe maternal morbidity with stillbirth climbed after 30 weeks' gestation. Dr. Wall-Wieler and collaborators conducted an exploratory analysis that dichotomized deliveries for both stillbirth and live births into those occurring at fewer than 30 weeks' gestation, or at or after 30 weeks'. They found no increased risk for severe maternal morbidity earlier than 30 weeks, but an RR of 5.4 for stillbirth at or after 30 weeks.

A reported cause of fetal demise was available for 71% of deliveries, with umbilical cord anomalies, obstetric complications, and placental conditions collectively accounting for almost half (46%) of the identified causes of demise. Severe maternal morbidity was most common in deaths related to hypertensive disorders, at 24/100, and least common in deaths from major fetal structural or genetic problems, at 1/100.

The size of the study strengthens the findings, said the investigators, but the large amount of missing data in recording fetal deaths does introduce some limitations. These include the inability to distinguish between intrapartum and antepartum fetal death, as well as the fact that cause of fetal death was not recorded for over one in four stillbirths.

“Given the recent calls to reduce the national rate of severe maternal morbidity, new public health initiatives and practice guidelines are needed to highlight and address the morbidity risk associated with stillbirth identified in this study,” wrote Dr. Wall-Wieler and colleagues.

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koakes@mdedge.com

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