

Perinatal mortality and morbidity among babies delivered in water: surveillance study and postal survey

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Abstract

Aim: To compare perinatal morbidity and mortality for babies delivered in water with rates for babies delivered conventionally (not in water).

Design: Surveillance study (of all consultant paediatricians) and postal survey (of all NHS maternity units).

Setting: British Isles (surveillance study); England and Wales (postal survey).

Subjects: Babies born in the British Isles between April 1994 and March 1996 who died perinatally or were admitted for special care within 48 hours of birth after delivery in water or after labour in water followed by conventional delivery (surveillance study); babies delivered in water in England and Wales in the same period (postal survey).

Main outcome measures: Number of deliveries in water in the British Isles that resulted in perinatal death or in admission to special care within 48 hours of birth; and proportions (of such deliveries) of all water births in England and Wales.

Results: 4032 deliveries (0.6% of all deliveries) in England and Wales occurred in water. Perinatal mortality was 1.2/1000 (95% confidence interval 0.4 to 2.9) live births; 8.4/1000 (5.8 to 11.8) live births were admitted for special care. No deaths were directly attributable to delivery in water, but 2 admissions were for water aspiration. UK reports of mortality and special care admission rates for babies of women considered to be at low risk of complications during delivery

who delivered conventionally ranged from 0.8/1000 (0.2 to 4.2) to 4.6/1000 (0.1 to 25) live births and from 9.2 (1.1 to 33) to 64/1000 (58 to 70) live births respectively. Compared with regional data for low risk, spontaneous, normal vaginal deliveries at term, the relative risk for perinatal mortality associated with delivery in water was 0.9 (99% confidence interval 0.2 to 3.6).

Conclusions: Perinatal mortality is not substantially higher among babies delivered in water than among those born to low risk women who delivered conventionally. The data are compatible with a small increase or decrease in perinatal mortality for babies delivered in water.