

Hospital Admission Profile of Neonates for Conditions Originating in The Perinatal Period in England And Wales Between 1999–2020: An Ecological Study

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Abstract: Purpose: To analyze trends of conditions originating in the perinatal period (COPP) in England and Wales between 1999 and 2020.

Patients and methods: An ecological study of COPP was conducted using hospital admission data from April 1999 to March 2020 from the Hospital Episode Statistics database in England and the Patient Episode Database for Wales.

Results: The overall hospital admission rates increased by 41.6%, from 1913 per 100,000 persons (95% CI: 1905–1922) in 1999 to 2709 (95% CI: 2700–2719) in 2020 (trend test $p < 0.001$). The most common causes for neonatal admissions were disorders related to the length of gestation and fetal growth, respiratory and cardiovascular disorders specific to the perinatal period, and hemorrhagic and hematological disorders of newborns (28.8%, 27.3%, and 15.2%, respectively). Although the admission rates increased for both males and females (by 33.1% and 35.1%, respectively), hospital admission rates for all causes were higher among males compared to females ($p < 0.05$).

Conclusion: COPP-related hospital admissions rate in England and Wales increased significantly over the past 21 years. Notably, the proportion of COPP-related hospital admissions of males was higher than females. Further studies are warranted to explore the role of gender in hospital admissions and health care for COPP.