Neonatal medicine, 2009–2014

Admissions to neonatal units

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Admissions to neonatal units are normally transfers from a delivery or maternity unit in the same hospital. Infants who weigh less than 2 kg or are born before the 34th week of pregnancy can usually not be treated in a delivery or maternity unit throughout their stay. Admission to neonatal units will often be based on a risk assessment of symptoms and a clinical picture that could have several different reasons. Admission to a neonatal unit involves physically separating the mother and child during what is a vulnerable period for both of them, and it is therefore a goal to avoid such admissions unless they are absolutely necessary.

Background

All admissions and the total number of days spent in neonatal units are registered in the Norwegian Neonatal Network for infants who were younger than five days on admission. Stays in several hospitals with direct transfers from one unit to another without the patient being discharged to the home between stays will be registered as one admission. On average, 5,800 infants are admitted to neonatal units in Norway each year. Approximately 60% of them (3,500) are born in week 37 or later (not preterm), approximately 22% (1,250) are born between weeks 34 and 37 (late preterm), and approximately 18% (1,050) are born before the 34th week of pregnancy.

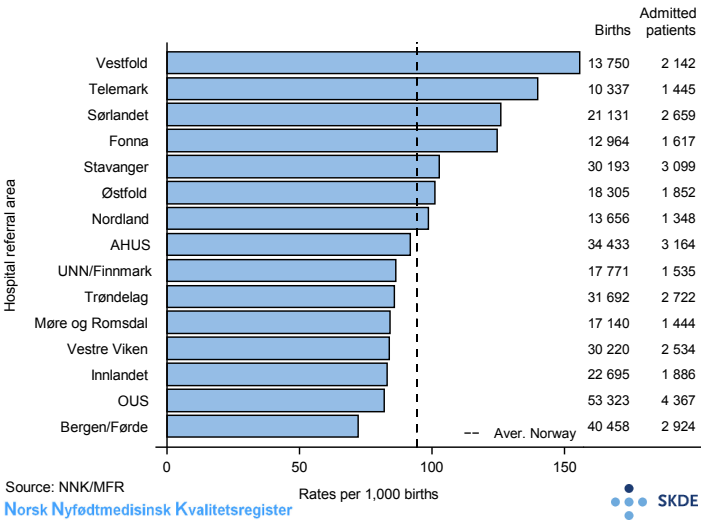

Fig.1. Admissions to neonatal units, number of patients per 1,000 births, all gestational ages

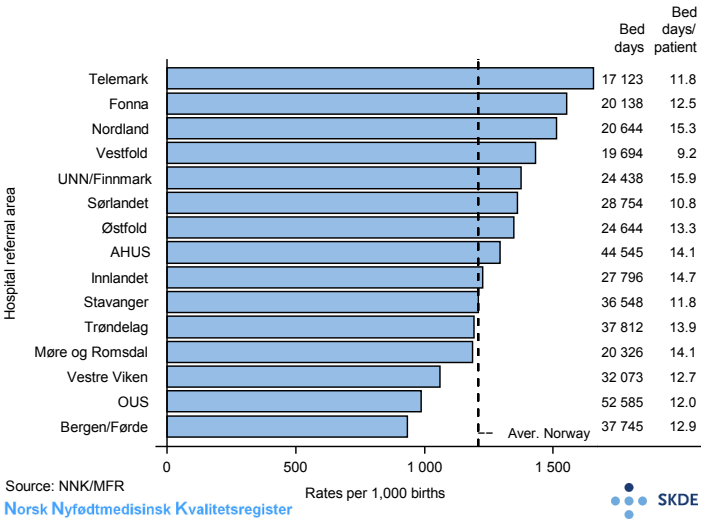

Fig.2. Admissions to neonatal units, number of bed days per 1,000 births, all gestational ages

Results

More than twice as many neonates are admitted to neonatal units in Vestfold hospital referral area as in Bergen/Førde (Fig. 1). This applies to all neonates, term infants (gestational age 37 weeks or more) as well as late preterm infants (gestational age 34–-37 weeks) (see the report).

The bed day rate for all neonates is almost twice as high in Telemark hospital referral area as in the Bergen/Førde area (Fig. 2). For term infants, there is a threefold difference in bed day rates, and for late preterm infants the difference is more than twofold. Bergen/Førde hospital referral area has the lowest rates in both cases (see the report).

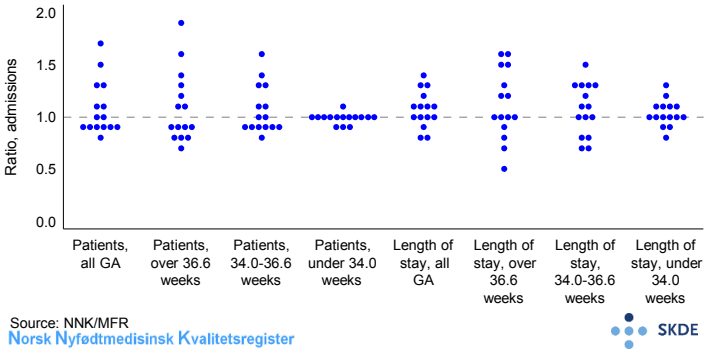

Fig.3. Variation profile, admissions, patients and length of stay. Hospital referral area ratio = Rate of hospital referral area / national rate. If the rate of a given hospital referral area is equal to the national rate, the hospital referral area ratio for the area in question will equal one. Variation is low when many hospital referral areas have a ratio that is equal to or close to one .

Comments

There is considerable variation between hospital referral areas both in admission and bed day rates (Fig. 3). The greatest variation is found for term infants. The variation for infants admitted to neonatal units cannot be explained by medical or demographical factors, and is therefore characterised as unwarranted. The variation, both in admission rates and bed day rates, seems to be caused by differences in practice for the group late preterm and term infants, while there is, as expected, little variation in admission and bed day rates for infants with a gestational age of less than 34 weeks (Fig. 3).

Differing opinions regarding safety and risk probably have a bearing on the decision about whether a child should be moved from the delivery and maternity unit to a neonatal unit. Limited maternity unit capacity can also contribute to a higher admission rate than is medically necessary. There are no indications that the lowest rates result in more undesirable incidents or increased morbidity or mortality.