

Every day, boxes are ticked for procedures and treatment measures carried out in relation to infants admitted to neonatal units in Norway. These procedures and treatments are divided into five categories from level 1, which requires relatively little resources, to level 5, which is very resource-intensive and concerns seriously ill infants who require intensive care treatment. Each treatment day is assigned to a resource category in accordance with the procedure or treatment that triggers the highest resource classification.

Background

Treatment at level 4 or 5 can be classified as intensive care. Most such treatment is provided at units responsible for national or regional functions. However, some intensive care will take place at local hospital level.

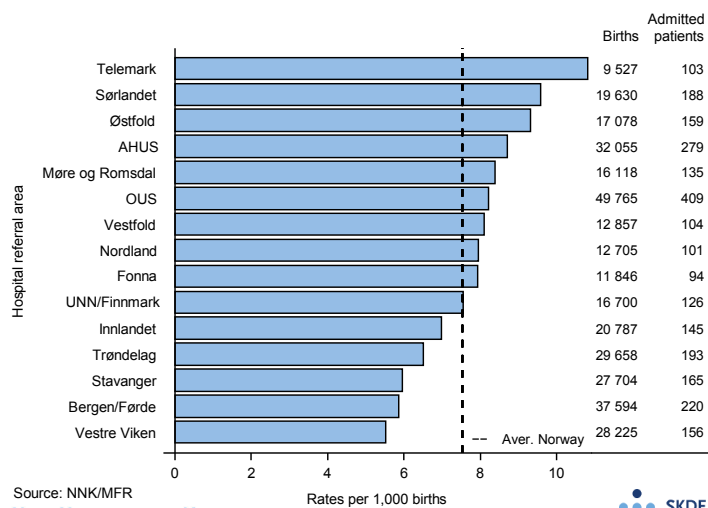


Fig.1. Intensive care, number of patients per 1,000 births, gestational age 37 weeks or more

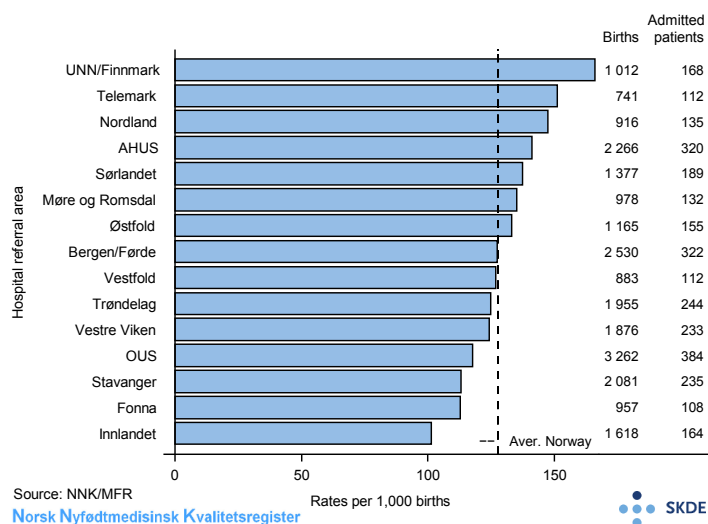


Fig.2. Intensive care, number of patients per 1,000 births, gestational age less than 37 weeks

Results

Twice as many term infants (gestational age 37 weeks or more) receive intensive care-level treatment in the hospital referral area with the highest admission rate compared with the area with the lowest rate (Fig. 1). In addition to variation in the intensive care treatment rate, there are also differences in the average duration of such treatment. Combined, these factors result in more than twice as many intensive care treatment days per 1,000 births in Telemark as in Vestre Viken for term infants (see the report).

There is a 60% difference between the hospital referral areas with the highest and lowest admission rates for preterm infants (gestational age less than 37 weeks) (Fig. 2). The duration of intensive care treatment varies between hospital referral areas also for this group. Møre og Romsdal hospital referral area has more than twice as many intensive care treatment days per 1,000 births as the areas of Fonna and Stavanger (see the report). There is somewhat greater variation in treatment day rates for intensive care than for admission rates for such treatment both for term and preterm infants (Fig. 3).

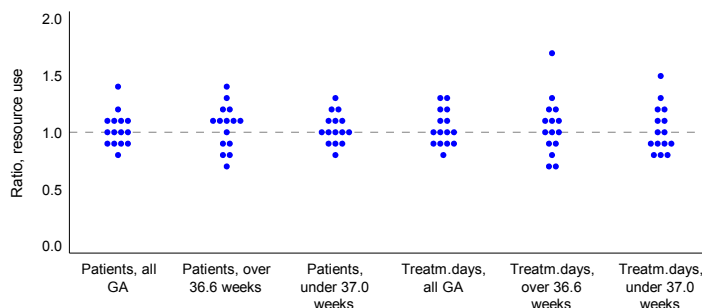


Fig.3. Variation profile, intensive care, patients and treatment days. Hospital referral area ratio = Rate of hospital referral area / national rate. If the rate of a given hospital referral area is equal to the national rate, the hospital referral area ratio for the area in question will equal one.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

Comments

It has been documented that there is no clear link between increased use of intensive care treatment and better treatment results. Previous reports published by the Norwegian Neonatal Network (NNK) provide no indications of differences in survival or treatment outcomes that can explain the differences between hospital referral areas in the use of intensive care treatment.

Since there is no obvious medical explanation for the existing variation in the use of intensive care, the variation is characterised as unwarranted.