Pre-piloted forms were used by one reviewer and cross verified by a second reviewer. Included studies were assigned a grade based upon their level of evidence and critically appraised using defined tools. Data were not synthesized for metaanalysis due to nature of literature reviewed and heterogeneity.

**Results** 3,592 titles were screened with 43 full-texts assessed for eligibility. 30 studies were deemed eligible for inclusion. These included 19 cohort studies, two qualitative studies, seven cross-sectional studies, one systematic review (peer reviewed articles up to January 2011) and one randomised control trial. Grey literature search from guidelines, catalogues and repositories yielded additional 10 guidelines.

**Conclusions** Optimally designed neonatal unit has many possible health implications, including improved breastfeeding, infection and noise control, reduced length of stay, hospitalisation rates and potentially improved neonatal morbidity and mortality. 'Single family room' design for neonatal units is recommended. Consideration should be given to infection prevention and control, including sink frequency and positioning, and airborne isolation facilities. Support areas for families, staff and breastfeeding mothers are also recommended. High quality, family centred neonatal care could be assisted through well grounded, future proofed and technology enabled design concepts that have the potential to impact upon early life development. Nature of the topic poses inherent limitations for conduct of randomized trials; however observational studies using standardised methodologies could add further evidence.

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The 6 day old girl was born at the gestational age of 37 weeks, from the 6th pregnancy, 3rd urgent delivery; her mother’s age was 37 years. The first child was born in 2002 and died at the age of 3 months, the second child was born in 2004, died at the age of 6 months, the 3rd pregnancy in 2008 resulted in antenatal fetal death at the gestational age of 22 weeks, the 4th and the 5th pregnancies were medically interrupted at early stages on request of the family. Convulsive syndrome was observed in 2 eldest children, usage of the valproic acid drugs as an anticonvulsant therapy was ineffective. The fetus ultrasound performed during the 6th pregnancy showed multiple echo markers of visceromegaly and other abnormalities. The patient’s mother was consulted by geneticist; invasive prenatal diagnostic procedures were carried out. Phenotypically, the girl is similar to the previous children: macrosomia; low foreheaded skull, supraorbital arch; face - hypertelorism, saddle nose, macroglossia; ears are deformed; hands - flexion contracture of the fingers, feet - placing the fingers on each other; frog belly, diastasis of recti; genital hypoplasia. From the first days of life the child has convulsive syndrome, with an increase in dynamics. Eye phenomena prevailed, head dropping backwards, anxiety expressed. On 8 day of life phenobarbital was prescribed. While receiving phenobarbital, the intensity of convulsions somewhat decreased, however, it was not possible to achieve complete relief from both the clinical picture and the EEG data. The treatment included the drug Levetiracetam (Keppra), the dose increased to 40 mg/kg/day. Against this background, convulsive episodes remain. Homozygous c.1463G>T p. Cys488Phe mutation was detected in the PIGW gene (NM_178517.3) on chromosome 17q12, which encodes the synthesis of glycosylphosphatidyl inositol. This mutation is absent in population databases (EXAC, GnomAD, GenOMED), but several computer algorithms predict its potential pathogenicity. In our patient, alkaline phosphatase activity remained within the normal range. It’s described in literature that clinical manifestations similar to our patient. Thus, one of the possible causes of intractable convulsive syndrome, accompanied by characteristic phenotypic signs and, not always, high alkaline phosphatase activity, should be sought in the group of diseases caused by the biosynthesis glycosylphosphatidylinositol disease. Hopefully, over time, specific therapy will appear for these patients.