ANEC position on UNECE Regulation 44: Requirements for child restraint systems

Injuries to children can be significantly reduced if they use a suitable child restraint (CRS).

All child restraint systems (baby seats, child seats, booster seats and booster cushions) sold in the EU must conform to the United Nations Regulation R44.03, "Uniform Provisions Concerning the Approval of Restraining Devices for Child Occupants of Power-Driven Vehicles". To conform to the Regulation, a child restraint must meet a series of design and construction requirements and pass a series of performance tests. This Regulation 44 was agreed to in 1995. Since then, ANEC has been calling for a series of amendments to improve the level of safety provided to children in CRS. Some of our requests have been successful. We are still working hard to voice other consumer concerns in the relevant standardisation committees. For this, we need to gather sufficient evidence from various sources.

Paediatricians are often faced with injuries resulting from traffic accidents where a child restraint was used. In order to evaluate the effectiveness of different types of CRS it is important to know what kinds of injuries happen, to which age group and in which type of CRS. ANEC's main concerns are as follows:

1. Regulation 44.04 versus 44.03

In late 2005, a new version of Regulation 44 was introduced- R 44.04. UNECE R44.04 is misleading to consumers and CRS that meet R44.04 requirements are marketed as safer seats. In fact there were no real safety related changes compared to R44.03, the previous version of the Regulation, which was enforced in 1998. R44.04 is rather a compilation of all supplements and amendments to R44.03 and some changes to the post production conformity procedures. An additional concern is that the technical requirements for testing in R 44.04 do not reflect reality.

2. Mass groups

i) Discourage forward facing CRS before 13 Kg

Rearward facing protection has been proved to be the best protection available for very young children. In fact, accident data supports that this should be the preferred protection strategy before children are at least 18 months old. The purpose of the introduction of Group 0+ was to enable children to travel rearward facing until a later stage than before (up to 13 kg instead of 10kg). This intention is being undermined by the big overlap that exists between Group 0+ and Group I. The fact that Group I corresponds to a mass group that starts at 9 kg, is being interpreted by the market as an indication that children should or can travel forward facing from the age of about 6 to 9 months old which is clearly to early.

ii) Extend upper mass limit of Group III

Children less than 12 years old and less than 1.50 m (1.35 m) but who weigh more than 36 kg will not benefit from the best protection if they only use the safety belt. Due to their small stature and immature skeleton, they still need an auxiliary device to better position their body

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in relation with the adult seat belt, and so reduce the chances of suffering from seat belt induced injuries.

Most EU member states require the use of CRS according to R44 mass groups, which can make it illegal for such children to make use of any child restraint. The new EU Directive on Child Safety Restraints 2003/20/EC, now adopted by all EU Member States, requires children up to 1,50m or 1,35 m to use a CRS. More and more children weigh more than 36 kg before they are 1,35 m tall, which makes it impossible to find a CRS on the market that they can use without breaking the law and the manufacturers' instructions. Non-integral group III CRS should then be considered adequate to protect children weighing more than 36kg, and for this reason, the upper limit of Group III should be extended.

iii) Eliminate Group 0 or only allow it for carrycots using adequate dummies

The possibility to have rearward facing seats approved only for Group 0 (up to 10kg) should be eliminated. This mass group should only be possible for carrycots if instrumented dummies are used for testing.

3. Discourage use of carrycots

The use of carrycots is not a safe way to transport children in cars. They should not be allowed for children in general, but only for children with special needs (very low birth weight, dislocated hip etc.). In R44, carrycots are tested with two dummies, which represent the two ends of the weight range. However, only the 9kg one is an instrumented dummy (allowing checking of chest acceleration and abdominal penetration) and nevertheless, none of them are designed for the lateral loading that comes with a carrycot in a frontal impact.

4. Position, visibility and permanence of airbag warning labels

Airbag warning labels should be clearly visible at all times and positioned prominently in order to remind drivers that if the airbag is activated, a rearward facing seat shall not be placed in that particular car seat as there is a fatal risk for children.

Airbag warning labels should also not be easily removable, for example of the 'flag' type, which can be easily cut off by parents for a better look. If sections of the CRS or any accessories obscure the label, an additional label is required. However, accessories such as extra padding for new born babies hide airbag label.

5. Replace a CRS after an accident

An accident can result in damage to the CRS integrity and energy absorbing structures that is not visible to a naked eye. Any CRS that has been involved in a violent accident should be replaced, even if the child using it did not sustain any injuries.