# Medicinal products for paediatric use

2004/0217(COD) - 29/09/2004 - Document attached to the procedure

#### COMMISSION'S IMPACT ASSESSMENT

For further information regarding the context of this issue, please refer to the summary of the Commission's initial proposal on medicinal products for paediatric use COM(2004)0599 dated 29/09/2004.

#### 1- POLICY OPTIONS AND IMPACTS

- **1.1- Option 1 No action:** on the basis of the available evidence it is concluded that the current public health issue regarding medicines for children will not be resolved in the EU until a specific legislative system is put in place. The health and therefore quality of life and future of Europe's children may suffer from a lack of testing and authorisation of medicines for their use.
- **1.2- Option 2 Industry self-regulation:** one potential option to increase the research, development and authorisation of medicines for children is to work with industry to develop a code of practice by which the industry could self-regulate. However, such a system would rely entirely on the goodwill of industry and industry has generally been unwilling to make the investment required to authorise medicines for children in the EU even when the data to support authorisation have already been generated as a result of the laws that exist in the US. Furthermore, self-regulation would place the entire burden of this public health issue on industry with no mechanisms for rewards. Also, government intervention is required to ensure the right studies are done for the benefit of children rather than studies being conducted only because the market returns are likely to be high.
- **1.3- Option 3 Member State action:** the public health issue is Community-wide and the regulation of medicines is Community-based. Nevertheless, the draft paediatric regulation does leave room for complementary Member State actions.
- **1.4- Option 4 Requirements without rewards and incentives without requirements:** providing an incentive in the form of Intellectual Property Rights (IPRs) would lead some companies to do the necessary research, development and authorisation of some medicines for children. However, the main driver for research would remain market forces i.e. the potential for industry to profit from the research conducted and the IPR awarded. This would mean that the therapeutic needs of children, which are the drivers of the research, development and authorisation of medicines in the draft paediatric legislations, might come second to consideration of profit.
- **1.5- Option 5 New products: why not reward with data protection:** data protection could be used to reward industry for meeting the requirements for new and patent-protected authorised products in the draft paediatric regulation. However, data protection is less valuable to the innovative industry than supplementary protection certificate (SPC) extension and the draft Regulation is already offering the innovative industry a shorter period of SPC extension than it is demanding.
- **1.6- Option 6 New products:** why not reward with administrative market exclusivity: Some have argued that a system of "administrative" market exclusivity, as is operated under the EU Orphan Regulation should be considered for new paediatric medicines. But orphan medicines are few in number and therefore the operation of a system of "administrative" market exclusivity is possible. Considering their number and the multiple competent authorities in Europe responsible for the authorisation of medicines, such a system would be administratively impossible for paediatric medicines.

**1.7- Option 7 - Older products:** why not use market exclusivity as the incentive? A system of "administrative" market exclusivity has also been considered by the Commission, for off-patent medicines for children. The central argument against such a system is that generics will already be on the market. Unless generic marketing authorisations for a particular active drug substance were revoked following authorisation of one off-patent product for children then market exclusivity is impossible in a multiproduct environment. In contrast, a data protection scheme is practical for all off-patent drugs for children even if the incentive is less when no child-specific formulation is required.

### **Impacts:**

In the short term, the workload of the EMEA and National Competent Authorities will increase and there will be a need to secure the services of additional experts to assess paediatric investigation plans and the data generated from studies in children. In the longer term, the costs of paediatric medication and paediatric health care may increase as the costs of testing are carried forward. The impact on revenues and profits of pharmaceutical companies will depend on the price elasticity of children's medicines and households' willingness-to-pay and insurance companies' willingness-to-reimburse. Healthcare professionals appear willing – and may even feel obliged – to switch to tested medicines. National governments may decide to negotiate or enforce price reductions.

The draft Regulation will create jobs for the innovative industry by requiring the development and authorisation of medicines for children. Across the entire innovative sector there will be an increase in the costs of phase III clinical trials of about 160 - 360 million Euros after the first year (an increase in total European expenditure on drug development of 1% - 2.5%). This amounts to about EUR 4 million per product. It is estimated that the six-month extension of the SPC will lead to the producers of generic medicines incurring a one-time loss of between EUR 86 million and EUR 342 million, which represents the value of market opportunities lost during the transitional period.

It is possible that the 6-month extension of the SPC may mean a small rise in costs for consumers and health insurers but the Commission states that the figures need to be treated with caution, as the prescribing of generics will bring down costs. There will be savings resulting from more effective treatment, fewer adverse drug reactions and lower wastage of medicines (currently, high-dose adult formulations are used with the excess being discarded).

The Commission feels that data-protection remains the best and most practical incentive for off-patent products. The Paediatric Use Marketing Authorisation (PUMA) is most likely to be effective where a child specific formulation or dosage form is required as this will likely lead to preferential prescribing over non child-adapted products. Also, the fact that the Paediatric Board is likely to block repeat testing in children unless a significant therapeutic benefit for children is foreseen means that the PUMA with its data-protection may, for some products, result in market exclusivity (although this cannot be guaranteed). It is acknowledged, however, that it will not, on its own, provide sufficient incentive to ensure that all the off-patent medicines needed by children are tested and authorised for children. To effectively deal with the off-patent market, other measures, including the Paediatric Study Programme, as well as, the inventory of paediatric therapeutic needs, will also need to be in place.

In the short term, the impacts of the additional requirements (labelling, placing on the market, post-marketing requirements and submission of pre-existing studies) will mean that existing medicines, newly tested in children and authorised will be made available. Health care professionals will gain better knowledge of the safety of paediatric medicines and, as a result, children will receive safer treatment. If complied with adequately, the additional requirements will generate considerable benefits to European children and prevent the misallocation of resources at comparatively low marginal costs to pharmaceutical companies and government authorities. Both can build on currently existing (mandatory) systems for pharmacovigilance (specific estimates of these additional costs are not available).

Appropriate labelling of tested paediatric drugs will create a sharper definition of paediatric and other segments of the market for off-patent drugs. Health care professionals benefit from increased transparency in the choice between tested and untested off-patent medicines: it will be easier to see whether a drug is tested for use in children or not.

The post-marketing requirement will force companies to develop an improved understanding of the safety, efficacy and quality of their paediatric medicines, which may result in the development of better medicines for children. Children can be treated more effectively and there will most likely be fewer cases of adverse drug reaction or suboptimal treatment. The impact of this requirement can only really be fully ascertained at a later date, because the long-term effects of a medicine in children cannot necessarily be assessed until much later in a child's development.

The optional centralised assessment via the existing Community referral procedure provides a streamlined route to gain a harmonised EU-wide opinion on paediatric use of already authorised products. The centralised assessment will also facilitate access to more Member State markets.

In the long run free scientific advice, communication and coordination (and the study fund) will generate economies of scale and scope in pharmaceutical R&D and paediatric testing. Together, they are generally considered a highly valuable measure that will provide a strong stimulus to paediatric research in Europe. An EU paediatric study programme has the potential to stimulate research and development of off-patent medicines for children and could have a major beneficial impact on EU pharmaceutical companies, including SMEs, and a major impact on clinical trials conducted in the EU including strengthening pharmaceutical R&D in Europe.

**Environmental impact:** the development and manufacture of medicinal products requires natural resources and generates waste. In addition, households, GPs and hospitals regularly dispose of unused medicinal products. However, considering that at present, adult preparations of medicines are usually used to treat children with the clear wastage that that incurs (high dose preparations of adult medicines being opened, small quantities being used to treat children and the excess discarded), the draft paediatric regulation may actually reduce the environmental impact of use of medicines by children.

Equity within and between generations: Future generations of children are more likely to be enrolled in clinical trials, but in return they will be provided with better medicines, more effective and safer treatment, and a higher quality of life.

CONCLUSION: the Commission has opted to present its proposal for a Regulation on paediatric medicines for several reasons. The lack of tested, authorised medicines for children is a Europe-wide issue. Surveys of off-label and unlicensed use of medicines are available from many EU Member States and all show that children are denied innovation and children are being treated with medicines meant for adults and those medicines may not work in children and may present safety hazards. Secondly, the current system for the regulation of medicines is a Europe-wide system. Therefore, the most efficient and effective way to improve the availability of medicines for children across the Community is via the existing Community system of pharmaceutical legislation (including granting marketing

authorisations) and the Community system of supplementary protection certificates. Indeed, given the Community nature of the existing pharmaceutical legislation, the scope for unilateral action by individual Member States is limited.

## 2- FOLLOW-UP

The following measures are provided for in the draft Regulation: a database of paediatric studies; annual reports from the Member States to the Commission on problems encountered with the implementation of the Regulation; annual publication of lists of companies that have benefits from the rewards / incentives or

companies that have failed to comply with the obligations, and; within six years of entry into force, a general report on experience acquired as a result of the application of the Regulation, including, in particular, a detailed inventory of all medicinal products authorised for paediatric use since it came into force.