

EU initiatives for research involving children

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Abstract Further to recent correspondence in the medical press regarding the UK approach (Editorial in *Lancet* 367:1953, 2006; Smyth and Edwards in *Lancet* 368:645–646, 2006) to the Paediatric Medicines Regulation (Regulation (EC) no. 1901/2006, 2006), which has now entered into force, we would like to make reference to a number of research-based initiatives of the European Union in this field.

Introduction

In 2005, the EU established TEDDY (Task-force in Europe for Drug Development for the Young) [10], a Europe-wide Network of Excellence in paediatric drug development, which aims to expand and promote research on the safe and effective use of medicines for children. It will establish unambiguous standards in paediatric research activities that are dedicated towards significant therapeutic benefits for children, while, at the same time, avoiding unnecessary studies. Its main achievements to date comprise a published report detailing the number and the characteristics of medicines licensed for use in children by the European Medicines Agency (EMA) in the 10-year period ending in

September 2005 [2]. Also included are the results of a number of Europe-wide surveys aimed at a common definition of “off-label” and “unlicensed” use of medicines in children and on the current ethical and legal frameworks regarding paediatric clinical trials.

The Paediatric Medicines Regulation [8] aims to facilitate the development and accessibility of medicinal products for use in the paediatric population, to ensure that medicinal products used to treat the paediatric population are based on high-quality ethical research. This combines a series of obligations and incentives, comprising the possibility of patent extensions in new Marketing Authorisation Applications (MAAs), along with requirements to provide the results of a paediatric study programme, whether positive or negative, or a waiver in the case of where it is neither safe nor ethical to carry out such studies. A key and new incentive is a new marketing authorisation, to be known as the Paediatric Use Marketing Authorisation (PUMA), aimed at the development of off-patent medicinal products for exclusive use in children with an appropriate formulation. This is because 46% of medicines prescribed to children in hospital are either unlicensed for their age group or, if they are, then this is done off-label [4]. Of the children who actually receive medications in hospital, this figure rises to 67% [4] and, in the context of intensive care, up to 90% of paediatric medicines used are not licensed [3]. The PUMA is a type of intellectual property right (IPR) that will protect the clinical data generated in this research so that it cannot be used to support marketing authorisations of other medicines for a set period of 10 years.

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Funding

The recently adopted Seventh Framework Programme of the European Community for Research, Technological Development and Demonstration Activities (2007–2013) [5] will provide funding for research consortia who wish to engage in this research. This will take the form of clinical and other studies aimed at the generation of pharmacokinetics (in vivo and in vitro) and efficacy and safety data. The development of appropriate paediatric medicinal formulations, which are often severely lacking, is an additional objective [1]. Funded studies should, consequently, lead to an eventual PUMA. A list of research priorities, identified in terms of both clinical conditions, as well as off-label products of therapeutic interest, has been drawn up by the EMEA, of which, account must be taken when submitting project proposals [11].

These projects will take the form of small- or medium-scale focussed research collaborative projects, with a maximum potential EC contribution of €6,000,000 each. They should involve a broad range of stakeholders, industry, the small- and medium-sized enterprise (SME) sector, clinicians, academia, regulatory bodies and, especially, patient organisations. All projects proposals will be subject to the usual rules of participation in the European Commission Framework Programmes [7]. The closing date for the receipt of applications was 18 September 2007. Further Calls for Proposals to ensure complete coverage of the research priorities list, which will be updated periodically, are planned annually.

Discussion

We fully agree with the previously expressed view that children deserve the highest standards of research and ethical protection, and these initiatives are committed to providing this. It is hoped that more research can now be initiated in this neglected area and that the outcomes will have a positive impact on the health and well-being of children, while, at the same time, boosting the innovative capacity of European health-related industries and businesses.

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