Reflection paper on ethical and GCP aspects of clinical trials of medicinal products for human use conducted in third countries and submitted in marketing authorisation applications to the EMA

Draft

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1. **Glossary**

AR, Assessment Report  
COE, Council of Europe  
CHMP, Committee for Medicinal Products for Human Use  
COMP, Committee for Orphan Medicinal Products  
EEA, European Economic Area  
EMA, European Medicines Agency  
EPAR, European Public Assessment Report  
GCP, Good Clinical Practice  
ICH, International Conference on Harmonization  
IMP, Investigational Medicinal Product  
MAA, Marketing Authorisation Application  
NGOs, Non-governmental organisations  
PDCO, Paediatric Committee  
SAE, Serious Adverse Event  
SAG, Scientific Advisory Group  

Third Country. In this document the term "Third Country" means any country that is not a member state of the European Union or European Economic Area.
2. Introduction

The European Medicines Agency (EMA) is a decentralised body of the European Union. Its main responsibility is the protection and promotion of public and animal health, through the evaluation and supervision of medicines for human and veterinary use. The EMA is responsible for the scientific evaluation of applications for European marketing authorisation for medicinal products (centralised procedure). The EMA provides the Member States and the institutions of the EU the best-possible scientific advice on any question relating to the evaluation of the quality, safety and efficacy of medicinal products for human or veterinary use referred to it in accordance with the provisions of EU legislation relating to medicinal products. In addition article 58 of Regulation (EC) No. 726/2004 provides that the European Medicines Agency can give a scientific opinion, in the context of cooperation with the WHO, for the evaluation of certain medicinal products for human use intended exclusively for markets outside the EU. Such opinions are drawn up by the Committee for Medicinal Products for Human Use (CHMP), following a review of the Quality, Safety and Efficacy data, analogous to the review undertaken via the centralised procedure, after consultation with the WHO. The standards applicable to both types of application (MAA or Article 58 Opinion) are the same and set out in Annex 1 to Directive 2001/83/EC.

In the context of this document the term “Third Countries” means countries that are not member states of the European Union/European Economic Area (EEA).

The revisions to the pharmaceutical legislation which came into place in 2004 increased emphasis on the ethical standards required of clinical trials conducted outside the European Economic Area (EEA) and included in Marketing Authorisation Applications (MAAs) submitted in the EEA for medicinal products for human use. The number of patients recruited in countries outside of the EEA is substantial (http://www.ema.europa.eu/Inspections/GCPgeneral.html). Some clinical trials are conducted across several regions, including Europe, whereas many others are conducted solely outside of the EEA.

Regulation (EC) No EC/726/2004 states in recital 16:

“...There is also a need to provide for the ethical requirements of Directive 2001/20/EC of 4 April 2001 of the European Parliament and of the Council on the approximation of the laws, regulations and administrative provisions of the Member States relating to the implementation of good clinical practice in the conduct of clinical trials on medicinal products for human use to apply to medicinal products authorised by the Community. In particular, with respect to clinical trials conducted outside the Community on medicinal products destined to be authorised within the Community, at the time of the evaluation of the application for authorisation, it should be verified that these trials were conducted in accordance with the principles of good clinical practice and the ethical requirements equivalent to the provisions of the said Directive...”

Paragraph §8 of the Preamble – Introduction and General Principles of Annex 1 to Directive 2001/83/EC states:

“All clinical trials, conducted within the European Community, must comply with the requirements of Directive 2001/20/EC of the European Parliament and of the Council on the approximation of the laws, regulations and administrative provisions of the Member States relating to the implementation of good clinical practice in the conduct of clinical trials on medicinal products for human use. To be taken into account during the assessment of an application, clinical trials, conducted outside the European Community, which relate to medicinal products intended to be used in the European Community, shall be designed, implemented and reported on what good clinical practice and ethical principles are concerned, on the basis of principles, which are equivalent to the provisions of Directive 2001/20/EC. They...
shall be carried out in accordance with the ethical principles that are reflected, for example, in the Declaration of Helsinki."

The EMA Work Programme for 2008 (http://www.ema.europa.eu/pdfs/general/direct/emeawp/EMEA_Work_Programme_2008_full.pdf) set out a number of objectives relating to the acceptance, in MAAs submitted to the EMA, of clinical trials conducted in countries outside the EEA on medicinal products for human use. All such trials are required to meet internationally agreed ethical and data quality standards. These objectives need to be built into the process of clinical development. They need to be addressed before and during the conduct of the clinical trials and not only by assessment and inspection at the time of MAA by which point the trials have been completed, in some cases several years earlier.

Actions to meet this objective therefore need to encompass EMA processes having an impact on clinical trials commencing prior to early phase clinical development. These processes include development of guidelines, Scientific Advice, Orphan Product Designation and Paediatric Investigation Plans and continue through to the finalisation of the CHMP opinion on the MAA, and post-authorisation activities.

In Dec 2008 the EMA published a strategy paper “Acceptance of clinical trials conducted in third countries for evaluation in Marketing Authorisation Applications” (http://www.ema.europa.eu/Inspections/docs/22806708en.pdf) outlining four areas for action. These are:

1. Clarify the practical application of ethical standards for clinical trials, in the context of European Medicines Agency activities.
2. Determine the practical steps undertaken during the provision of guidance and advice in the drug development phase.
3. Determine the practical steps to be undertaken during the Marketing Authorisation phase
4. International cooperation in the regulation of clinical trials, their review and inspection and capacity building in this area.

In 2009 the EMA established a Working Group on third country clinical trials on medicinal products for human use. This working Group has been asked to develop practical proposals for tasks and procedures or guidance to address the four action areas set out above. The present document reflects the results of the discussion of this Working Group.

The best approach to achieving these objectives is to ensure that a robust framework exists for the oversight and conduct of clinical trials, no matter where in the world the clinical investigators’ sites are located and patients recruited. An international network of regulators from all countries involved, working together to share best practices, experiences and information and working to standards agreed and recognized by all, can provide an effective platform for such a robust framework. The EMA will seek to build and extend its relationship with regulators in all part of the world and with international organisations in order to work to achieve this.

The Reflection Paper highlights and emphasizes the need for cooperation between Regulatory Authorities involved in the supervision of clinical trials and the need to extend and link networks to support these activities.

The specific scope of this Reflection Paper extends to clinical trials conducted in third countries and submitted in marketing authorisation applications to the EMA in respect of medicinal products for human use.
3. Clarification of the practical application of ethical standards for clinical trials on medicinal products for human use in the context of the European Medicines Agency activities

For the purpose of research, three ethical principles should be adhered to: a) respect for persons, b) beneficence/non-maleficence and c) justice, where respect for persons includes the respect for autonomy and the protection of dependent and vulnerable persons, beneficence/non-maleficence is defined as the ethical obligation to maximize benefits and to avoid or minimize harms, and justice is a fair distribution of the burdens and benefits of research\(^1\).

"The rights safety and wellbeing of the trials subjects are the most important consideration and should prevail over the interests of science and society".\(^2\)

Clinical trials conducted in third countries and used in Marketing Authorisation Applications in the EEA or in applications for a Scientific Opinion under article 58 of the Regulation (EC) No. 726/2004, must be conducted on the basis of principles equivalent to the ethical principles and principles of good clinical practice applied to clinical trials in the EEA\(^3\).

Ethical principles have been established mainly by intergovernmental organisations such as the Council of Europe or WHO, or by professional bodies such as the World Medical Association, as well as in national or regional legislation or guidance. The latter often refer directly or indirectly to the internationally established principles.


The European pharmaceutical legislation sets out the ethical requirements for the conduct of clinical trials in Directive 2001/20/EC\(^ixxiii\), Directive 2005/28/EC\(^ixxiv\) and Directive 2001/83/EC\(^ixxv\). Provisions of the European Paediatric Regulation 1901/06/EC are equally taken into consideration\(^ixxvi\).

Provisions for the protection of personal data are laid down in Directive 1995/46/EC\(^ixxvii\),

The extent to which these various documents pertinent to clinical trials (both legal and ethical instruments) are taken into account in National or regional legislation within or outside EU is variable. They overlap in many areas, but some given greater precision on certain points whilst on others there

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1 WHO (CIOMS) Guidelines
2 Paragraph 2.3 of ICH-E6
3 Paragraph 8 of the Preamble of Annex 1 to Directive 2001/83/EC
are differences in approach. The aim of the present document is not to establish a new, additional, set of principles but rather to describe how the regulatory processes of the EMA can take these into account in a practical way.

3.1. Local ethics committee and national regulatory authority oversight

Most countries now have a regulatory authority to which application should be made before a clinical trial may commence. These requirements must be met in each country in which a clinical trial is conducted. It is an important element of international cooperation that regulators support compliance with local requirements in each country as well as reinforcing international ethical and good clinical practice standards.

In every case the trial must receive a positive opinion or approval from an ethics committee with appropriate jurisdiction for the investigator sites and trial concerned.

Research may only be undertaken if the research project has been approved by an ethics committee (or other bodies authorised to review clinical research on human beings) after independent examination of its scientific merit, including assessment of the importance of the aim of research, and multidisciplinary review of its ethical acceptability. Ethics committees have to be pluralist, multidisciplinary and independent.

"Ethical review committees may be created under the aegis of national or local health administrations, national (or centralised) medical research councils or other nationally representative bodies".

The ethics committee must be independent of the research team and sponsor, and any direct financial or other material benefit they may derive from the research should not be contingent on the outcome of their review, and should be declared.

All the information which is necessary for the ethical assessment of the research project shall be given in written form to the ethics committee. The ethics committee, in preparing its opinion shall consider amongst others the points set out in art. 3, 4, 5 and 6 of the Directive 2001/20/EC, the Appendix to the Additional protocol on biomedical research (COE- Information to be given to the ethics committee), and chapters 2 and 3 of ICH E 6 and WHO (CIOMS) guidelines 2. The ethics committee must be satisfied that no undue influence, including that of a financial nature (or limiting or increasing access to medical care), will be exerted on persons to participate in research. In this respect, particular attention must be given to vulnerable or dependent persons.

The ethics committee shall give clearly stated reasons for its positive or negative conclusions.

"The ethics committee should also check that the content of the protocol is scientifically sound with respect to paediatric subjects protection. "No change to the protocol may be made without consideration and approval by the ethics committee". Directive 2001/20/EC specifies this should

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4 Art. 6 (2) and Art. 9 (2) of Directive 2001/20/EC, Art.9 and 10 Additional Protocol on biomedical research (COE), Paragraph 15 of Declaration of Helsinki, WHO (CIOMS) guidelines 2.
5 Art.19 International Declaration on Bioethics (UNESCO); ICH E6 paragraphs 1.27 and 3
6 WHO (CIOMS) guideline 2.
7 WHO (CIOMS) guideline 2.
8 Art. 11 of Additional Protocol on biomedical research (COE).
9 Art.12 of Additional Protocol on biomedical research (COE).
10 Art. 6 (5) of Directive 2001/20/EC; Art.9 Additional Protocol on biomedical research (COE) Explanatory report paragraph 42.
11 Paragraph 8.2 of EU Ethical Considerations for clinical trials on medicinal products conducted with the paediatric population
12 Paragraph 15 of Declaration of Helsinki
apply to substantial amendments. Research projects shall be re-examined if this is justified in the light of scientific developments or events arising in the course of the research. 13

"The ethics committee must have the right to monitor ongoing studies"14 "and to report to institutional or governmental authorities any serious or continuing non-compliance with ethical standards as they are reflected in protocols that they have approved or in the conduct of the studies".15

Where a clinical trial is to be conducted in countries that have limited frameworks for ethical review or regulatory oversight, the sponsor should consider submitting the study protocol for ethical and scientific review to an ethics committee(s) that operates within an established regulatory framework with ethical standards equivalent to those applying in the EU, in addition to doing to in the country concerned by the trial. This would be particularly relevant where the study design (e.g. choice of comparator) or the vulnerability of the proposed patient population might give rise to additional concerns. The deliberations and conclusions of that committee(s) should be made available to the local ethics committee and regulatory authority, making clear to what extent the committee has considered the location and circumstances in which the trial is to be conducted. Such an approach does not substitute for the need to apply to, and follow the requirements of, a local ethics committee or to submit to the regulatory authority of the country where the trial is to be conducted. The local ethics committee(s) and competent authority in the country where the trial is to be conducted should review the trial, ensuring that the proposed research is ethical, takes into account the local conditions, that the local sites are suitable and that circumstances and arrangements for the conduct of the research are appropriate for that country and the study population concerned. In multicentre studies, a central ethics committee could review the study from a scientific and ethical standpoint, and the local ethics committee could verify the practicability of the study in their communities, including the infrastructures, the state of training, and ethical considerations of local significance. 16 It should be remembered that ethical review in one country or region will usually be focussed on their own local conditions and requirements unless they have been specifically asked to consider other countries and have the knowledge, expertise and capacity to do so.

It should be clear that any ethics committee reviewing the trial at an international level, and the ethics committee(s) and the National Regulatory Authority in the country where the trial is to be conducted, should be able to withhold approval of research proposals. When there are objective grounds for considering that the conditions in the request for this authorisation are no longer met, or there is information raising doubts about the safety or scientific validity of the clinical trial, it should be possible to suspend or prohibit the trial notifying the sponsor thereof. 17

The ethics committee in the country where the trial is to be conducted should have, as either members or consultants, persons with understanding of the community’s customs and traditions. "Such persons should be able, for example, to indicate suitable members of the community to serve as intermediaries between investigators and subjects and to advise on whether material benefits or inducements may be regarded as appropriate in the light of a community’s gift-exchange and other customs and traditions". 18

There should be assurance that the review is independent and that there is no conflict of interest that might affect the judgment of members of the ethics committee in relation to any aspect of the research. Any members with a special or particular, direct or indirect, interest in a proposal should not take part in its assessment if that interest could subvert the member’s objective judgment.

13 Art. 10 (a) of Directive 2001/20/EC
14 Art. 24 of Additional Protocol on biomedical research (COE)
15 Paragraph 15 of Declaration of Helsinki
16 WHO (CIOMS) guideline 2
17 WHO (CIOMS) Guideline 2.
18 Art. 12 of Directive 2001/20/EC
19 WHO (CIOMS) Guideline 3.
A declaration of possible conflict of interest should be provided by any of the ethics committee members.  

When the sponsor is an international organisation, its review of the research protocol must be in accordance with its own independent ethical-review procedures and standards and the research protocol should be submitted for ethical and scientific review in the country of the sponsoring organisation and the ethical standards applied should be no less stringent than they would be for research carried out in that country.  

National or local ethics committee should be so composed as to be able to provide complete and adequate review of the research proposals submitted to them. Membership should include physicians, scientists and other professionals such as nurses, lawyers, ethicists, clergy, as well as lay persons including patients’ representatives, qualified to represent the cultural and moral values of the community and to ensure that the rights of the research subjects will be respected. "When uneducated or illiterate persons form the focus of a study they should also be considered for membership or invited to be represented and have their views expressed"  

Ethics committees shall include appropriate paediatric expertise or take advice in clinical, ethical and psychosocial problems in the field of paediatrics when reviewing protocols involving paediatric population. Similarly relevant expertise should be included where studies involve subjects with mental health disorders or other vulnerable populations. Paediatric expertise may be defined on the basis of education, training and experience on the various aspects of child development, ethics and psychosocial aspects as well as on the basis of the experience in paediatric care and direct experience of clinical trials with children. "Expertise used should be documented and recorded by the ethics committee".

**Regulatory action/ action plan**

1. Failure to submit a protocol to an independent ethics committee is a serious violation of ethical standards.  

2. EU Competent authorities should refuse to consider data obtained in such an unethical manner, when submitted in support of a MAA in accordance with Directive 2001/83 EC or Regulation EC 726/2004.  

3. Requirements for submission to the national regulatory authority of each country in which the trial is conducted and to the ethics committee(s) in those countries must be complied with, and evidence of both submissions and approvals provided.  

4. The applicant for a MAA should provide EU Competent Authorities with a summary of ethics committee, and National Regulatory Authority approvals of each clinical trial supporting the MAA. This information should form part of the clinical study report in accordance with ICH E3.  

5. EU Competent Authorities should identify those studies that may give rise to special ethical concern (e.g. arising from their design, the local regulatory framework within which they are conducted, the vulnerability of the study subjects) and where applicable to seek additional assurance that the trials have been ethically conducted.  

6. Where clear serious concerns are identify the EU competent Authority should communicate these concerns to the National Regulatory Authority of the Country (ies) concerned.

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20 WHO (CIOMS) Guideline 2.  
21 WHO (CIOMS) Guideline 3.  
22 WHO (CIOMS) Guideline 2.  
23 Art. 4 of Directive 2001/20/EC and Paragraph 8 of EU Ethical Considerations for clinical trials on medicinal products conducted with the pediatric population.
3.2. Information/Consent procedure

Scientific research as well as any preventive, diagnostic or therapeutic medical intervention involving human subjects is only to be carried out with the prior, free, express, specific, documented and informed consent of the person concerned, based on adequate and comprehensible information.\(^{24}\) provided both in writing and orally. Furthermore, consent should be given, and may be withdrawn, by the person concerned at any time and for any reason without disadvantage or prejudice.\(^{25}\) "Informed consent is documented by means of a written, signed and dated informed consent form".\(^{26}\) Refusal to give consent or withdrawal of consent to participation in research shall not lead to any form of liability (particularly of a financial nature) and/or to any form of discrimination against the person concerned, in particular regarding the right to medical care.\(^{27}\) The same level of care and information should be maintained during treatment or investigations.

The informed consent of each subject shall be renewed if there are significant changes in the conditions or procedures of the research or if new information becomes available that could affect the willingness of subjects to continue to participate, and in long-term studies at pre-determined intervals, even if there are no changes in the design or objectives of the research.\(^{28}\)

In particular studies alternative ways of documenting the informed consent may need to be established as described below. For persons who are not capable of exercising autonomy, special measures are to be taken to protect their rights and interests. Research on a person without the capacity to consent (children, adults with severe mental disability,\(^{29}\) or behavioural disorders\(^{30}\)) and research in emergency situations may be undertaken only if the necessary authorisation has been given specifically and in writing by the legal representative or an authority, person or body provided for by law and having received adequate information, taking into account the person’s previously expressed wishes or objections.

An adult not able to consent shall as far as possible take part in the information/authorisation procedure.\(^{31}\) In proportion to age and degree of maturity, the child should participate in the (informed) consent process together with the parents and provide assent. The process of informed consent should be conducted with enough time and at the same time as obtaining consent from the parent(s) or the legal representative, so that the informed consent reflects the presumed will of the minor or of the adults who don’t have the capacity to consent. The information process provided to the child and the child’s response should be documented. "Strong and definitive objections from the child should be respected".\(^{32}\)

"If a subject is unable to read or if a legally acceptable representative is unable to read an impartial witness should be present during the entire informed consent discussion. After the written informed consent form and any other written information to be provided, is read and explained to the subject or the subject's legally acceptable representative, and after the subject or the subject's legally acceptable representative has orally consented to the subject's participation in the trial and, if capable of doing so, the process of informed consent should be renewed if there are significant changes in the conditions or procedures of the research or if new information becomes available that could affect the willingness of subjects to continue to participate, and in long-term studies at pre-determined intervals, even if there are no changes in the design or objectives of the research.\(^{28}\)

\(^{24}\) Art.2 (j), art. 3.2 (b) and art. 4-5 of Directive 2001/20/EC; Art. 5-6, 16 (iv) (v)-17 of Convention on Human Rights and Biomedicine of the Council of Europe (COE); Art. 13-16 of Additional protocol on Biomedical research (COE), 2005; Art. 5 and 9 of Universal declaration on Human genome and Human Rights; Art. 8-9 of International Declaration on Human Genetic Data (2003); Paragraphs 22,24,26,27,28 and 29 of Declaration of Helsinki (2008); Art. 3 (2) of Charter of Fundamental Rights of the European Union (2000); Art. 5 of Universal Declaration on Bioethics and Human Rights (UNESCO, 2005); Paragraph 1.28 and 2.9 of ICH E6

\(^{25}\) Art. 3.2 (e) of Directive 2001/20/EC; Art. 6 of Universal Declaration on Bioethics and Human Rights (Unesco,2005); Art. 14 Additional Protocol on Biomedical research (COE), 2005

\(^{26}\) Art. 2 (j) of Directive 2001/20/EC; Paragraph 1.28 of ICH E6, 1995

\(^{27}\) Art. 14 section 2 of the Additional Protocol on Biomedical Research to the Convention on Human Rights and Biomedicine and section 80 of its Explanatory report

\(^{28}\) WHO(CIOMS) Guideline 6

\(^{29}\) Art. 3.2 (d), 4 and 5 of Directive 2001/20/EC; Art. 6 of Convention on Human Rights and Biomedicine of the Council of Europe (COE)

\(^{30}\) WHO (CIOMS) International guidelines n. 15

\(^{31}\) Art. 4 (a), (b) and (c) and art. 5 (a), (b) and (c) of Directive 2001/20/EC; Art. 14 and 15 of Additional protocol on Biomedical research (COE), 2005

\(^{32}\) Paragraphs 7- 7.2 of Ethical considerations for clinical trials on medicinal products conducted with the pediatric population.
has signed and personally date the informed consent form, the witness should sign and personally date the consent form. By signing the consent form, the witness attests that the information in the consent form and any other written information was accurately explained to, and apparently understood by, the subject or the subject’s legally acceptable representative, and that informed consent was freely given by the subject or the subject’s legally acceptable representative. Mechanisms should be put in place to ensure that the trial subject has understood the information and process being entered into.

"In appropriate cases of research carried out on a group of persons or a community, additional agreement of the legal representatives of the group or community concerned may be sought. In no case should a collective community agreement or the consent of a community leader or other authority substitute for an individual’s informed consent. In some cultural contexts an investigator may enter a community to conduct or approach prospective subjects for their individual consent only after obtaining permission from a community leader, a council of elders, or another designated authority. Such customs must be respected. In no case, however, may the permission of a community leader or other authority substitute for individual informed consent."

The consent process and the information provided should take into account the needs of persons who are unfamiliar with medical concepts and technology. All documentation (information and consent/assent) must be written in a lay-friendly language, wording appropriate to age, psychological and intellectual maturity and must be designed to protect vulnerable and poorly educated subjects involved in research.

Sponsors and investigators should develop culturally appropriate ways to communicate information that is necessary for adherence to the standard required in the informed consent process. "Also, they should describe and justify in the research protocol the procedure they plan to use in communicating information to subjects."

"For collaborative research in developing countries the research project should, if necessary, include the provision of resources to ensure that informed consent can indeed be obtained legitimately within different linguistic and cultural settings."

Where appropriate, a cultural mediator, familiar with medical terminology, independent from the sponsor and investigator, experienced in the language, social habits, culture, traditions, religion and particular ethnic differences should be available to provide help in the process of obtaining informed consent, but should not consent on behalf of the subject. Nevertheless, cultural diversity and pluralism are not to be invoked to infringe upon human dignity, human rights and fundamental freedoms or to limit their scope.

"Sponsors and investigators have a duty to refrain from unjustified deception, undue influence, or intimidations" and "to renew the informed consent of each subject if there are significant changes in the conditions or procedures of the research or if new information becomes available that could affect the willingness of subjects to continue to participate."
Regulatory action/ action plan:

1. Failure to obtain informed consent (and/or assent where applicable) is a serious violation of ethical standards.

2. EU Competent Authorities should refuse to consider data obtained in such an unethical manner, when submitted in support of a MAA in accordance with Directive 2001/83 EC or Regulation EC 726/2004.

3. The applicant for a MAA should provide EU drug regulatory authorities with a summary of the consent processes used and any variations of those processes in the clinical trials supporting the MAA, and include sample information sheets on consent forms. This information should form part of the clinical study report in accordance with ICH E3.

4. EU Competent Authorities should identify those studies that may give rise to special ethical concern regarding the consent process (e.g. arising from the patient population included and their capacity to provide informed consent, the regulatory framework within which they are conducted, the vulnerability of the study subjects) and where applicable to seek additional assurance that consent was properly obtained.

5. Additional good practice guidelines on the communication of the information to the potential participants in research may be required to better describe some research situations and should be developed, with input from patients’ organisations and community groups as well as other experts in ethics and clinical trials.

3.3. Confidentiality

Any information of a personal nature collected during biomedical research shall be considered as confidential and treated according to the rules relating to the protection of individuals with regard to the processing of personal data\(^{43}\).

"To the greatest extent possible, such information should not be used or disclosed for purposes other than those for which it was collected or consented to, consistent with international law, in particular international human rights law".\(^{44}\)

Any participant in research shall be entitled to know any information collected on his/her health. Other personal information collected for a research project will be accessible to him/her in conformity with the applicable laws on the protection of individuals with regard to processing of personal data\(^{45}\). In accordance with European Directive 95/46/EC on the protection of individuals with regard to the processing of personal data and on the free movement of such data, data must be\(^{46}\): fairly and lawfully processed; processed for limited purposes; adequate; relevant and not excessive; accurate; not kept longer than necessary; processed in accordance with the data subject’s rights; secure; not transferred to countries without adequate protection.

"An investigator who proposes to perform genetic tests of known clinical or predictive value on biological samples that can be linked to an identifiable individual must obtain the informed consent of the individual or, when indicated, the permission of a legally authorised representative. Conversely, before performing a genetic test that is of known predictive value or gives reliable information about a known heritable condition, and individual consent or permission has not been obtained, investigators

\(^{43}\) Art. 3.2(c) of Directive 2001/20/EC
\(^{44}\) Art. 9 of Universal Declaration on Bioethics and Human Rights (UNESCO, 2005); art. 14 International Declaration of Human Genetic Data; art 8 Charter of fundamental rights of the European Union
\(^{45}\) Art. 26 of Additional Protocol on Biomedical research (COE), 2005
\(^{46}\) Art. 6 of Directive 95/46/EC
must see that biological samples are fully anonymized and unlinked; this ensures that no information about specific individuals can be derived from such research or passed back to them”.  

If research gives rise to information of relevance to the current or future health or quality of life of research participants, this information must be offered to them. That shall be done within a framework of health care or specific counselling, most of all in the case of predictive genetic tests. “In communication of such information, due care must be taken in order to protect confidentiality and to respect any wish of a participant” [including the minor and/or his/her legal representative] “not to receive such information”, in accordance with national law.

“During the process of obtaining informed consent the investigator should inform the prospective subjects about the precautions that will be taken to protect confidentiality”. 

The written information and informed consent form to be provided to subjects should include explanations:

a) of the extent to which the monitor(s), the auditor(s), the ethics committee and the regulatory authority(ies) will be granted direct access to the subject's original medical records for verification of clinical trial procedures and/or data, without violating the confidentiality of the subject, to the extent permitted by the applicable laws and regulations and that, by signing a written informed consent form, the subject or the subject’s legally acceptable representative is authorising such access.

b) “that records identifying the subject will be kept confidential and, to the extent permitted by the applicable laws and/or regulations, will not be made publicly available. If the results of the trial are published, the subject’ identity will remain confidential”.

Biobank sample retention and the need for consent to such use (and reuse) should be described in the protocol.

The trial documents should be archived for a duration that takes into consideration the potential need for long-term review of trials performed in children (long-term safety).

Where personal information is collected, stored, accessed, used, or disposed of, a researcher should ensure that the privacy, confidentiality and cultural sensitivities of the subject and/or the collectivity are respected, most of all when children are involved.

Regulatory action/ action plan:

1. EU Competent Authorities will refuse to consider reports which fail to properly protect the confidentiality of the trial subjects, when submitted in support of a MAA in accordance with Directive 2001/83 EC or Regulation No (EC) 726/2004. These reports should be returned to the applicant and the breaches of confidentiality rectified prior to eventual resubmission.

2. The applicant for a MAA should provide EU Competent Authorities with a summary of the steps taken to protect confidentiality and the consent obtained to enable the use of and access to the subjects’ data. This information can form part of the clinical study report section on ethical considerations and informed consent in accordance with ICH E3.

47 WHO (CIOMS) Guideline 18
48 Art 27 of additional Protocol on Biomedical research (COE), 2005
49 Art. 10 of Convention on Human Rights and Biomedicine of the Council of Europe (COE); Art. 27 of Additional Protocol on Biomedical research (COE), 2005
50 WHO (CIOMS) Guideline 18
51 Paragraph 4.8.10 of ICH E6
52 Paragraph 18 of Ethical considerations for clinical trials on medicinal products conducted with pediatric population.
3. EU Competent Authorities should identify those studies that may give rise to special concern regarding confidentiality (e.g. arising from the use of genetic information or bio banked samples) and where applicable seek additional assurance that confidentiality has been properly maintained.

3.4. Fair compensation

Article 3.2 (f) of Directive 2001/20/EC requires that provision is made for insurance or indemnity. Art 31 of the Additional Protocol on Biomedical research of Council of Europe states that "The person who has suffered damage as a result of participation in research shall be entitled to fair compensation according to the conditions and procedures prescribed by law". The WHO-CIOMS Guideline 19 recommends that research subjects who suffer injury as a result of their participation should be entitled to free medical treatment for such injury and to such financial or other assistance as would compensate them equitably for any resultant impairment, disability or handicap. In the case of death as a result of their participation, their dependants are entitled to compensation.

"Subjects must not be asked to waive the right to compensation or required to show negligence or lack of a reasonable degree of skill on the part of the investigator in order to claim free medical treatment or compensation. The informed consent process or form should contain no words that would absolve an investigator [or sponsor] from responsibility in the case of accidental injury, or that would imply that subjects would waive their right to seek compensation for impairment, disability or handicap. Prospective subjects should be informed that they will not need to take legal action to secure the free medical treatment or compensation for injury to which they may be entitled. They should also be told what medical service or organisation or individual will provide the medical treatment and what organisation will be responsible for providing compensation".54

Before the research begins, the sponsor, whether a pharmaceutical company or other organisation or institution, should agree to provide compensation for any physical injury for which subjects are entitled to compensation, or come to an agreement with the investigator concerning the circumstances in which the investigator must rely on his or her own insurance coverage (for example, for negligence or failure of the investigator to follow the protocol, or where government insurance coverage is limited to negligence). In certain circumstances it may be advisable to follow both courses.

"Sponsors should provide insurance or should indemnify (legal and financial coverage) the investigator/the institution against claims arising from the trial, except for claims that arise from malpractice and/or negligence".55

"Both the informed consent discussion and the written informed consent form and any other written information to be provided to subjects involved in research should include explanations of the compensation and/or treatment available to the subject in the event of trial-related injury".56

Information shall be provided to the ethics committee on details of any insurance, indemnity or compensation to cover damage arising in the context of the research project57 (in particular "provision for indemnity or compensation in the event of injury or death attributable to a clinical trial, and any insurance or indemnity to cover the liability of the investigator and sponsor").58

53 Art. 31 of Additional Protocol on Biomedical research (COE) 2005
54 WHO (CIOMS) Guideline 19
55 Paragraph 5.8 of ICH-E6
56 Paragraph 4.8.10 of ICH-E6
57 Art 11 juncto appendix of Additional Protocol on Biomedical research (COE)2005; Paragraph 3.1.2 of ICH-E6.
58 Art. 6.3 (h) and (i) of Directive 2001/20/EC
In preparing its opinion, the ethics committee (and where required the National Regulatory Authority) should consider these provisions and should pay careful attention to waivers of liability in the insurance contract, in particular with respect generally to long term effects and on development for children included in research. However, "unrecognised congenital defects are generally excluded".

### Regulatory action/action plan

1. Failure to provide fair compensation by insurance or indemnity is a serious violation of ethical standards.

2. The applicant for a MAA should provide EU Competent Authorities with a summary of the provisions made to provide for the fair compensation of subjects for trial related injury. This information can form part of the clinical study report section on ethical considerations and informed consent in accordance with ICH E3.

3. EU Competent Authorities should identify those studies that may give rise to special concern regarding insurance, indemnity or compensation for research related injury and where applicable to seek additional assurance that trial subjects’ interest have been protected.

### 3.5. Vulnerable populations

"Vulnerability" is defined as susceptibility of being wounded. Vulnerability is applied both to individuals and to populations. "Vulnerable persons are those who are relatively (or absolutely) incapable of protecting their own interests", that means "individuals whose willingness to volunteer in a clinical trial may be unduly influenced by the expectation, whether justified or not, of benefits associated with participation, or of a retaliatory response from senior members of a hierarchy in case of refusal to participate". "More formally, vulnerable persons may have insufficient power, intelligence, education, resources, strength, or other needed attributes to protect their own interests".

Example of vulnerable subjects are patients with incurable diseases, persons in nursing homes, unemployed or impoverished persons, patients in emergency situations, homeless persons, nomads, refugees, prisoners, minor and those incapable of giving consent. Other groups or classes may also be considered vulnerable (e.g. elderly persons, people receiving welfare benefits or social assistance some ethnic and racial minority groups and individuals who are politically powerless). "Vulnerable subjects include "members of a group with a hierarchical structure, such as medical, pharmacy, dental, and nursing students, subordinate hospital and laboratory personnel, employees of the pharmaceutical industry, members of the armed forces, and persons kept in detention".

"Children represent a vulnerable population with developmental, physiological and psychological differences from adults, which make age- and development- related research important for their benefit".

Clinical research on children should be ethical and of high quality and should be carried out under conditions affording the best possible protection for these subjects, without subjecting paediatric population to unnecessary trials. To this aim an application for Marketing Authorisation for medicinal products be regarded as valid only if requirements of the article 7 of Regulation No (EC) 1901/2006 on medicinal products for paediatric use are complied with.

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59 Art. 6.3 of Directive 2001/20/EC  
60 Paragraph 22 of Ethical considerations for clinical trials on medicinal products conducted with paediatric population.  
61 WHO (CIOMS) Guideline 13  
62 Paragraph 1.61 of ICH-E6,  
63 WHO (CIOMS) Guideline 13  
64 Paragraph 1.61 of ICH-E6  
65 WHO (CIOMS) Guideline 13  
66 Recital 3 of Directive 2001/20/EC  
67 Recital 4 and art. 1 of Regulation EC/1901/2006 and art. 4 of Directive 2001/20/EC.
Certain groups, such as racial minorities, the economically disadvantaged, the very sick, and the institutionalized may continually be sought as research subjects, owing to their ready availability in settings where research is conducted, or the conditions they suffer from (e.g. renal insufficiency). “Given their dependent status and their frequently compromised capacity for free consent, they should be protected against the danger of being involved in research solely for administrative convenience, or because they are easy to manipulate as a result of their illness or socioeconomic condition”. To the extent that these and other classes of people have attributes resembling those of classes identified as vulnerable, the need for special protection of their rights and welfare should be reviewed and applied, where relevant. “Medical research involving a disadvantaged or vulnerable population or community is only justified if the research is responsive to the health needs and priorities of this population or community and if there is a reasonable likelihood that this population or community stands to benefit from the results of the research.”

Chapter V of the Additional protocol on Biomedical Research of the Council of Europe titled “Protection of persons not able to consent to research Chapter” discusses research in certain populations where particular vulnerabilities exist – in particular in articles 15 (Protection of persons not able to consent to research), 18 (Research during pregnancy or breastfeeding) and 20 (Research on persons deprived of liberty). Research should only be undertaken in such groups when particular conditions are met. Such consideration include whether the results of the research have the potential to produce real and direct benefit to the trial subject (or to that of the embryo, foetus or child after birth in the case of pregnant women), whether research of comparable effectiveness cannot be carried out on individuals capable of giving consent (or on women who are not pregnant, or on persons who are not deprived of liberty), whether the person undergoing research has been informed of his or her rights and the safeguards prescribed by law for his or her protection, unless this person is not in a state to receive the information, whether the necessary authorisation has been given specifically and in writing by the legal representative, and the person (or pregnant woman) concerned does not object. Exceptionally and under the protective conditions prescribed by law, where the research may not have the potential to produce results of direct benefit to the health of the person concerned, such research may be authorised, if it can contribute to the benefit of the group concerned whilst fulfilling the other conditions described above. The research should have the aim of contributing, through significant improvement in the scientific understanding of the individual’s condition, disease or disorder, to the ultimate attainment of results capable of conferring benefit to the person concerned or to other persons in the same age category or afflicted with the same disease or disorder or having the same condition (or conferring benefit to other women in relation to reproduction or to other embryos, foetuses or children, or benefit to persons deprived of liberty) The research should entail only minimal risk and minimal burden for the individual concerned; and any consideration of additional potential benefits of the research shall not be used to justify an increased level of risk or burden. Benefit for the group (e.g. children affected by the same disease, or a disease which shares similar features and for which the medicinal product could be of benefit) could be defined by increased knowledge of the condition and/or treatment, which would eventually result in better diagnosis, treatment or prevention.

“Measures of such benefit would include the importance of knowledge gained, severity of the issue to be addressed, commonality of the issue, likelihood of obtaining results from proposed research, and usefulness of benefits obtained”. 68 Belmont Report: ethical principles and guidelines for the protection of human subjects of research, Section D 3. 69 Art. 17 of Declaration of Helsinki (2008). 70 Paragraph 12 of Ethical considerations for clinical trials on medicinal products conducted with pediatric population.
In addition vulnerable subjects should not be recruited into a trial where this was not explicitly foreseen in the trial protocol or other information provided to and approved by the ethics committee. Any special consent procedures or other precautions required should have been explicitly described to the ethics committee and approved by them.

The decision to include vulnerable subjects in a trial should be fully justified by the sponsor.

**Regulatory action/action plan:**

1. The inclusion of vulnerable subjects in a clinical trial without the approval of the ethics committee and without implementation of the appropriate consent processes is a serious violation of ethical standards.

2. EU Competent Authorities should refuse to consider data obtained in such an unethical manner, when submitted in support of a MAA in accordance with Directive 2001/83 EC and Regulation No (EC) 726/2004.

3. The applicant for a MAA should provide drug regulatory authorities with an adequate and appropriate justification for inviting vulnerable individuals or groups to serve as research subjects and the description of the specific measures and means implemented to protect their rights and welfare. This information can form part of the clinical study report in accordance with ICH E3.

4. EU Competent Authorities should identify those studies that may give rise to special ethical concern regarding the inclusion of vulnerable populations and where applicable to seek additional assurance that the inclusion of such populations was justified and their rights and welfare protected.

### 3.6. Placebo and active comparator

“Research shall neither delay nor deprive trial participants of medically necessary preventive, diagnostic or therapeutic procedures”. A clinical trial cannot be justified ethically unless it is capable of producing scientifically reliable results. “In some circumstances it may be acceptable to use an alternative comparator, such as placebo or "no treatment", whilst taking into account that “the rights, safety and wellbeing of the trials subjects are the most important considerations and should prevail over the interests of science and society”.

The use of placebo is permissible in accordance with principles foreseen in the Directive 2001/20/EC, Directive 2005/28/EC, the WHO (CIOMS) Guidelines 8 and 11, paragraph 32 of the Declaration of Helsinki (2008), article 23 of the Additional Protocol on Biomedical Research of the Council of Europe(2005), paragraph 2.1; 2.2; 2.3 and 2.12 of the Note for Guidance on Good Clinical Practice (CPMP/ICH/135/95), paragraphs 9.2.1 and 9.2.3 of the guideline on ethical considerations for clinical trials on medicinal products conducted with the paediatric population (2008) and ICH E10 (Choice of Control Group). The CPMP position statement on the use of placebo in clinical trials (28 June 2001 EMEA/17424/01) should also be taken into account.

Studies carried out in third countries should meet the same ethical principles and standards applied to studies performed in the EEA. Derogation from these principles should not be accepted in particular in the context of the marketing authorisation procedure.

EU Competent Authorities should neither require nor expect study designs, involving placebo or other comparator, which would not be ethically acceptable in the EEA.

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71 Article 23 of Additional protocol on biomedical research (COE), 2005
72 WHO (CIOMS) Guideline 11
73 Paragraph 2.3 of ICH-E6
“Economic [or logistical] reason for the unavailability of an established effective intervention cannot justify a placebo-controlled study in a country of limited resources when it would be unethical to conduct a study with the same design in a population with general access to the effective intervention outside the study”.  

Lack of access of patients in community within, or outside of, the EEA, to the EEA-licensed (or equivalent) comparator cannot be a justification to withhold this treatment option to those patients when participating in a trial regardless of the reasons for the lack of access (e.g. no reimbursement, no national marketing authorisation). Regardless of the location of the trial, all patients participating in these trials should receive the same or a similar standard of care and comparable treatment options as trial participants within the EEA.

EU Competent Authorities should verify that the study has been reviewed by the ethics review committees and that they have determined: whether the use of placebo or other comparator is ethically acceptable in the context of that trial; whether the safety and rights of the subjects have been fully protected and whether prospective subjects would be fully informed about the use of placebo and/or other comparators and available alternative treatments, in accordance with above cited ethical principles.  

Regulatory action/action plan:

1. Sponsors should describe in detail in the protocol and in the clinical study report the justification for the use of placebo and/or choice of active comparator in accordance with the ethical principles referred to above. This information can form part of the clinical study report in accordance with ICH3 and protocol in accordance with ICH E6.

2. EU Competent Authorities will identify those studies that may give rise to special ethical concern regarding the use of placebo or other comparators and where applicable to seek additional assurance that the design was appropriate and ethically acceptable.

3. Where it is determined that a study design was not acceptable in accordance with the aforementioned criteria, it should not be accepted in support of a MAA in accordance with Directive 2001/83 EC and Regulation No (EC) 726/2004.

4. Sponsors should seek scientific advice on study design before carrying out the trials.

3.7. Access to treatment post trial

The availability of an intervention shown to be successful to the participants in the research once the research is complete is a question that researchers, sponsors ethics committees, and regulatory Authorities/Governments have to consider in research related to healthcare concerns. Because resources for healthcare are scarce in developing countries, this issue is often particularly difficult to address. For many impoverished people, participation in a trial may offer access to significantly better medical care and treatment than would otherwise be available to them. The cessation of such care and treatment, once a trial is over, has been widely criticized as exploitation of vulnerable people who will seldom be in a position to negotiate the extended provision of better medical care and treatment at the termination of a clinical trial.

The nature of access to treatment post trial has proved to be a controversial topic. Whilst there are many common considerations there are also inconsistencies of emphasis or expectation in the recognized documents

75 WHO (CIOMS) Guideline 11
76 WHO (CIOMS) Guideline 11
When considering whether it is appropriate to conduct a specific research study within a low to middle income country one issue that should be considered by the sponsor, ethics committee and National Regulatory Authority is whether the intervention being studied is likely to be available in that country if it is shown to be effective.

Paragraph 14 of the Declaration of Helsinki requires that the research protocol describes arrangements for post-study access by study subjects to interventions identified as beneficial in the study or access to other appropriate care or benefits.

If a product developed or knowledge generated by research is unlikely to be reasonably available to, or applied to the benefit of, the population of a proposed host country or community after the conclusion of the research, and if the sponsor doesn’t foresee arrangements to make it available, the ethics of conducting the research in that country or community need to be carefully considered, reflecting on the need for access to treatment and on the risks and benefits that would apply to those participating in the trial and to their community (including the medical care environment of that country/community).

Before undertaking research in a population or community with limited resources, every effort should be taken by the Sponsor, ethics committees and Competent to ensure that: a) the research is responsive to the health needs and the priorities of the population or community in which it is to be carried out; and b) there is a reasonable likelihood that this population or community stands to benefit from the results of the research and that any intervention or product developed, or knowledge generated, will be made reasonably available for the benefit of that population or community.  

"At the conclusion of the study, patients entered into the study are entitled to be informed about the outcome of the study and to share any benefits that result from it, for example, access to interventions identified as beneficial in the study or to other appropriate care or benefits."  

Before consenting, subjects must be informed, whether, when and how any products or interventions proven by the research to be safe and effective will be made available to them after they have completed their participation in the research, and whether they will be expected to pay for them.

Obligations of sponsors to provide health-care services will vary with the circumstances of particular studies and the need of host countries. The sponsor’s obligations in particular studies should be clarified before the research is begun. The research protocol should specify what health care services will be made available during and after the research, to the subjects themselves, to the community from which the subjects are drawn, or to the host country, and for how long. The details of these arrangements should be agreed by the sponsor, officials of the host country, other interested parties, and, when appropriate, the community from which the subjects are to be drawn. The agreed arrangements should be specified in the consent process and documentation.

Although sponsors are, in general, not obliged to provide health-care services beyond that which is necessary for the conduct of the research, it is morally praiseworthy to do so.

Finally, sponsors should ensure the availability of:

- "health-care services that are essential to the safe conduct of the research;"
- treatment for subjects who suffer injury as a consequence of research interventions; and,

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77 WHO(CIOMS) Guideline 10 and art. 17 of Declaration of Helsinki (2008)  
78 Art.33 of Declaration of Helsinki (2008)  
79 WHO (CIOMS) Guideline 5
services that are a necessary part of the commitment of a sponsor to make a beneficial intervention or product developed as a result of the research, reasonably available to the population or community concerned”.  

Regulatory action/action plan:

1. Sponsors should describe in the protocol and in the clinical study report the provisions made with respect to access to treatment post trial. This information can form part of the clinical study report in accordance with ICH E3.

2. EU Competent Authorities should identify those studies that may give rise to special ethical concern regarding access to treatment post trial and where applicable to seek additional assurance that the solution was appropriate and ethically acceptable.

3. The applicant should explain in the MAA how the medicinal product has been/will be made available in the countries where the trials were conducted and this information should be summarised in the European Public Assessment Report (EPAR).

3.8. Applicability of data to EEA population

There are several issues relating to the applicability of third country trials to European populations. These involve factors both intrinsic and extrinsic to the study population and EEA population.  

These are discussed in the “Reflection Paper on the extrapolation of results from clinical studies conducted outside the EU to the EU population” xxi (Doc. Ref. EMEA/CHMP/EWP/692702/2008) and the ICH 1998 E5(R1) Ethnic Factors in the Acceptability of Foreign Clinical Data (http://www.ich.org/LOB/media/MEDIA481.pdf).  

The choice of active comparator should be relevant to the EEA population and made in accordance with EEA guidelines and take into account the peculiarities of paediatric population.  

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80 WHO (CIOMS) Guideline 21  
81 ICH 1998 E5 (R1) Ethnic Factors in the Acceptability of Foreign Clinical Data  
82 Reflection paper on the extrapolation of results from clinical studies conducted outside the EU to the EU population EMEA/CHMP/EWP/692702/2008  
83 ICH 1998 E5(R1) Ethnic Factors in the Acceptability of Foreign Clinical Data  
84 ICH E10 Choice of Control Group in Clinical Trials
4. Determine the practical steps to be undertaken during the provision of guidance and advice in the drug development phase

The European Medicines Agency plays a role in stimulating innovation and research in the pharmaceutical sector. The Agency gives scientific advice and protocol assistance to companies for the development of new medicinal products and draws up scientific guidelines aimed at helping applicants develop medicinal products in order to support marketing-authorisation applications for medicinal products for human use. The tasks and responsibilities of the Agency under the Paediatric Regulation include the provision of objective scientific decisions on the development plan for medicines for use in children.

The European pharmaceutical legislation (and that in other regions of the world also) requires clinical trials to be performed prior to the granting of a marketing authorisation. The analytical, pharmacotoxicological and clinical requirements in respect of testing of medicinal products are set out in the Annex 1 of Directive 2001/83/EC. Additional requirements and incentives apply to encourage the conduct of clinical trials for the development of medicines for the treatment of children and for the treatment of patients with rare (orphan) diseases. These requirements increase the number and scope of clinical trials being conducted, not all of which can or need to be carried out in Europe. Clinical trials conducted in the EEA will need to comply with applicable laws and regulations. In addition, future applicants in the EEA are recommended to consult with EEA regulators about the design and ethical conduct of clinical trials prior to their commencement when those trials are planned to be conducted in third countries. EEA regulators should ensure that every opportunity is taken prior to the commencement of clinical trials to influence their design and ensure their ethical conduct.

Several operational or technical considerations lead to the conduct of clinical trials in a widening range of countries:

- Availability of patients willing to participate in clinical trials, and with the relevant disease profile,
- Availability of qualified investigators willing and available to conduct the trials,
- Preparation for marketing authorisation application, in those other countries,
- Lower costs in some countries,
- More rapid approval of trials,
- Willingness of patients to participate in trials due to the trial facilitating access to higher standard of care and / or medication(s) not otherwise available to them,
- Small number of relevant patients existing in Europe,
- Availability of patients who are naïve to treatment,
- Difficulty in recruiting patients due to differences in standard of care across developed countries.

The identification of these issues or other circumstances influencing the location of clinical trials outside the EEA should be identified.

The applicant should provide appropriate justification for the location of a clinical trial and detail its plan for addressing ethical and operational issues related to its proposed development plan.
Agency working groups should take into consideration the circumstances driving the location of trials when considering requests for advice, establishing requirements for the conduct of trials or developing guidelines and should:

- highlight these circumstances and their related risks
- try to minimize the risk by recommending some corrective actions or other alternatives for the drug development plan or clinical trials proposals
- make the applicant aware of those potential issues before the trial is conducted whenever possible, or before the MA application
- clearly identify the potential impact on the ethical aspects of trials and the quality of clinical data to be generated.

4.1. Assessment of therapeutic needs in the EEA and relationships with its drug development plan

When addressing the targeted indication(s) and its applicability to the European population, both the applicant and European Medicines Agency parties/committees should specifically consider the following issues that could influence the decision to conduct trials outside the EU:

- Condition(s) less frequent in the EEA than in other non-EEA countries
- Small number of affected subjects worldwide due to the rarity of the condition (e.g. orphan diseases)
- Applicability of the targeted drug claim in the European population when the disease is predominant mainly outside Europe (e.g. tropical diseases)
- Different therapeutic needs in the European population
- Clinical data to be generated may be of little relevance to the European population (e.g. notable difference in disease management).

When applicable according to the procedure applied for, the applicant should consider the relevance of its clinical program, in relation to:

- Applicability of the proposed indication and the therapeutic needs of the European population
- Prevalence of the condition in non-EEA countries and in EEA countries.

The consequences of drug development with clinical trials conducted outside the EEA (completely or partially) should be considered with regards to:

- Limitations of data extrapolation from non-EU patients to the EEA
- Impact of the geographic source of patients on the efficacy and safety results and their extrapolation the European population in the context of disease management (e.g. national characteristics of disease management and patient care)
- Validity of the selected comparators (active or placebo) for enabling assessment of the Risk/Benefit balance of the product for the European population
- Pre-specifıed subgroup analyses based on ethnicity and/or regions of the world
- Evaluation of the level of adherence to standard background treatment regimes for a specific disease
• Take into consideration possible differences in genetic profiles which could influence the drug response.

Where a scientific advice, guidance or assessment relates to an application for a scientific opinion in the context of article 58 of Regulation No (EC) 726/2004 the considerations should relate to the population for which the medicinal product is to be used, rather than the EU population.

4.2. Issues related to feasibility of clinical trials

The applicant should provide available information on its development plan:

• Details on the locations of the trials planned in the EEA and outside

• Criteria for the selection of the non-EEA countries

A feasibility assessment for recruiting the targeted number of patients in a clinical trial should be provided in order to allow consideration of the possible consequences on the future MAA and results interpretation. This feasibility assessment should include as a minimum:

• Recruitment plan for patients in the EEA and outside

• Selection criteria and numbers of centres per country or regions outside the EU

• Duration of trial recruitment and expected impact of comparability of results over time in case of very long recruitment (e.g. duration of recruitment longer than 3 years for rare disease).

4.3. General measures to assure data quality when conducting trials outside the EU

Issues that may have an impact on the quality of data to be generated should be clearly identified and minimised when appropriate:

• Duration of the study

• Complexity of the trial design, e.g.: requirement for blinding / shipments of samples (e.g. tissues)/ specific or high level of technology platforms required (e.g. MRI)/ frequency of biological/radiological monitoring

• Restricted access to specific tests and laboratory with possible impact on final data quality (e.g. testing of HIV resistance)

• Access to active comparators/ placebo/ age-appropriate formulation at the national level or when provided by the applicant

• Differences in Patients-Reported Outcomes

• Limitations for long term follow up of patients after treatment (active comparator and study drug) discontinuation

• Anticipated quality of data monitoring and training of investigators

Specific measures to be taken into consideration in order to assure the quality of results should include:

• Identification of limitations in extrapolating data from non-EU patients to the EEA populations, such as different ethnicities, underlying specific conditions

• Appropriateness of study design in accordance with the European guidelines and the most up to date scientific recommendations and ethical requirements
• Choice of claim for superiority versus non inferiority in relation to a proper identification of therapeutic needs and respective recruitment capacity in the EEA and outside

• Identification of standards of care for the targeted disease among countries

• Drug and study acceptability by the patients in the targeted countries and by the national ethics committees

• Research responsive to the health needs and priorities of the population or community in which it is carried out.

4.4. Considerations for designing clinical trials:

The applicant should pay particular attention when designing trials outside the EEA in order to avoid generating data not relevant for the intended purpose:

Study design:

− Risk of futility when efficacy assessment based on an inaccurate statistical hypothesis (e.g. inappropriate claim of superiority due to an underestimation of disease outcome in the countries outside the EEA)

− Choice and access to active comparators and availability of other therapeutics required for best disease management in the selected countries

− Level of overall management care in the targeted countries

− Stopping rules in case of lack of efficacy or safety issue

− Existence and responsibilities of the independent Data and Safety Monitoring Board and/ or Data Monitoring Board

• Analysis of factors potentially impacting on the ability to extrapolate the clinical trial results to the EU population, such as:

− Sources of data variability

− disease outcome and management

− parameters impacting the drug effect variability

− standards of patients management care

− specific measures for assessment of treatment adherence in some specific cases

− Validation of assessment scale to be used in the non-EEA population (e.g. Quality Of Life scoring)

− Implementation and interpretation of biomarkers and surrogate end-points

Regulator action/action plan:

1. Clinical trials are conducted not only for submission to the EEA but also to many other regulators worldwide. In order to minimise risk of non-approvability of the application due to the choice of study populations not applicable to the EEA population or trial designs not acceptable in the EEA sponsors should seek EU scientific advice prior to the conduct of those trials.

2. EMA Committees and working Parties (and assessors) evaluating requests for Scientific Advice, Orphan designation, and Paediatric Investigation Plans should systematically consider the issues
3. Applicants should clearly explain why data from the patient populations selected are applicable to the EEA population unless the product is intended to be used outside the EEA.

5. Determine the practical steps to be undertaken during the marketing authorisation phase

Submission, validation, assessment and inspection of the clinical trials contained in the Marketing Authorisation Application

Recital 16 of Regulation (EC) No 726/2004 states that, with respect to clinical trials conducted outside the Community on medicinal products destined to be authorised within the Community, at the time of the evaluation of the application for authorisation, it should be verified that these trials were conducted in accordance with the principles of good clinical practice and the ethical requirements equivalent to the provisions of the said Directive.

Article 6(1) of the same regulation requires that the application include a statement to the effect that clinical trials carried out outside the European Union meet the ethical requirements of Directive 2001/20/EC.

Article 56 (4) of the same regulation foresees that the Committee for Medicinal Products for Human Use may, if they consider it appropriate, seek guidance on important questions of a general scientific or ethical nature.

As a consequence, the Marketing Authorisation evaluation should ensure that these GCP principles have been applied to all submitted clinical trials, and, that ethical guidance is sought if required. Furthermore, an application for Marketing Authorisation for medicinal products for any population shall be regarded as valid only if requirements of the art.7 of the European Paediatric Regulation are also complied with.

5.1. Points to consider during the assessment process: identify assessment issues and processes

Background

Three scenarios are considered:

- The first relates to acceptability of foreign data for the EU, from a scientific viewpoint. This is already adequately covered elsewhere (see section 3.8).
- The second relates to concern over the conduct of the study, and data reliability – this should trigger requests for clarification from the applicant, and also discussion with inspectors as to whether a GCP inspection may be appropriate or required (see 5.2).
- The third relates to concern over the design of studies in relation to acceptability in Europe. Such concerns may relate to the use of placebo or duration of use of placebo, poorly optimised background therapy, use of inappropriate comparator, inappropriate investigations, lack of consent etc. Many of these issues include ethical concerns. This aspect is addressed below.
Review procedures

- At the time of the application, information should be provided on where each clinical trial was performed and on how ethical requirements were met.

- As part of the review of the MAA, assessors should determine whether or not there are ethical concerns relating to the studies that have been included in the dossier to support the MAA. Assessors should confirm in the Assessment Report that they have not identified any ethical issues in their assessment of the studies, that the studies have been approved by the concerned ethics committee and by the National Regulatory Authority, that the sponsor has provided the statement that the studies have been conducted as set out in Annex 1 of Directive 2001/83, and that there are no concerns identified regarding the conduct of the study. Particular attention should be given where vulnerable patients are included within the trial population, and/or trials are conducted in low to middle income countries, and/or where no EEA ethics committee has reviewed and approved the study/studies for trials performed outside the EU.

- In considering the design of studies, assessors should be aware of international guidelines for biomedical research involving human subjects where the recommendations are that research is responsive to the health needs and priorities of the population or community in which it is carried out and any intervention or product developed or knowledge generated will be made reasonably available for the benefit of that population or community. Whilst it is not possible for assessors to conclude definitively, questions or concerns in relation to this area should also be included in the List of Questions to the applicant to request further information about the conduct of the trials.

The EU assessment report should reflect:

1. That steps have been taken to determine that all clinical trials were conducted in accordance with the principles of good clinical practice and the above mentioned ethical requirements,

2. The ethical concerns that have been raised, if any,

3. How these ethical concerns have been solved and whether they had an impact on the assessment of the quality, safety and efficacy of the product,

4. Whether the CHMP has sought additional ethical expertise,

5. The reasons for and outcome of any GCP inspections requested (these may be routine or triggered),

6. Discussion of applicability of data to the EEA population

Actions to take if there are concerns over the ethics of studies

1. Where the assessor is concerned that a study may not have been conducted ethically, the assessors should seek further clarification from the applicant who should be given the opportunity to justify their position.

2. In addition the CHMP should develop appropriate links with those with expertise in ethics who could advise on these aspects as appropriate. A proposal for the establishment of a pool of experts supporting the CHMP in its assessment of the ethical aspects of CTs submitted with the MAA could be set up. A structure similar to a SAG might be envisaged. It is essential that if actions were to follow CHMP’s assessment of a study as ‘not conducted in accordance to the appropriate ethical requirements’, the justification for the assessment should be robust.
Consequences of a study being considered unethical

1. If, (after taking appropriate advice if necessary), the CHMP concludes that a study has not been carried out in accordance with the appropriate ethical requirements then the CHMP must conclude upon additional steps. No single solution will be applicable to all situations, and issues are likely to be complex.

2. Therefore the European Medicines Agency /CHMP must have a number of possible tools at its disposal. These may include the following:
   2.1. Assessment of the application without data from the studies or part of the studies deemed unethical. Additional analyses may be required. This may result in an application that is not approvable.
   2.2. The possibility to making public the circumstances and details of studies which were found not to have been conducted in accordance with ethical requirements.
   2.3. A graded system of potential actions should be developed (see 5.3).

3. Regulatory authorities should have some degree of discretion over how, when and if to take action, taking into account the circumstances of the trial, and the nature and severity of the issues that have been identified.

Regulatory action/action plan

1. The European Medicines Agency should establish a pool of experts to advise the CHMP in its assessment of the ethical aspects of clinical trials submitted with the MAA, and define their membership, required expertise, mandate and procedures, and the process by which the CHMP, EMA or other agency scientific committee, may consult them. Such consultation may be on general matters of principle involved in establishing requirements and guidance, or specific cases involving particular trials and products.

2. EU Competent Authorities should develop a system for review of MAA dossiers, and identification of studies of potential ethical or GCP concern, involving review at the time of validation by the EMA product team, and during the assessment by the assessment team and CHMP, supported by the EMA product team.

5.2. Inspections: Triggers for inspection to be identified by assessor

GCP inspection is an important tool for monitoring compliance with requirements. A programme of routine inspections is required to ensure that information is available to the regulator on a regular basis and in the absence of any particular concern triggering a specific inspection to investigate the issues giving rise to concern. In addition to GCP inspections conducted by EU inspectors, the possibility for communication and exchange of information with the regulators in the countries concerned, should be expanded.

Inspection triggers:

During the review of an application for a marketing authorisation, concerns can be raised by CHMP related to the compliance of the study conduct with current local and international legal and regulatory provisions, and to the reliability of the data submitted.

During the review several criteria may act as triggers for a GCP inspection. Some of these criteria are study-related aspects while others relate to the fact that the study was conducted in countries outside the EU.
Study-related triggers for an inspection are in general focused around four main issues:

1. Existence and characteristics of trial subjects, distribution of subjects.
   1.1. Rate of inclusion in a specific centre
   1.2. Centres involved late during the course of the study in order to boost the recruitment
   1.3. Centres with a burst of fast recruitment following a long period of inactivity
   1.4. Unusual trends in analysis/efficacy data, enrolment, drop-out rate, SAE
   1.5. Study data suggesting attendance on the required day on every occasion
   1.6. Compliance with entry criteria
   1.7. Study data indicating specific centre effects

2. Quality and administration of investigational medicinal products.
   2.1. Identity of the IMP and treatments unclear
   2.2. Any modification of the product during the study
   2.3. Any concern identified with treatment compliance and treatment duration
   2.4. Any concern identified with treatment blinding or un-blinding
   2.5. Concerns regarding concomitant medications

3. Efficacy and safety evaluation criteria and data.
   3.1. Unclear definition of the variables used in the study
   3.2. Method of measurement unclear
   3.3. Inconsistent, inaccurate or incomplete data recording and reporting
   3.4. Major changes to the protocol (e.g. change in primary endpoints or in statistical methods) during the study
   3.5. Data with abnormal variation or distribution
   3.6. Unexpectedly low levels of (S)AE reporting.

4. Ethical and regulatory aspects of study and trial team.
   4.1. Lack of information about regulatory requirements followed in conducting the trials, in the clinical study report
   4.2. Information about review by an Independent ethics committee is missing
   4.3. Adequacy and completeness of the written information given to the patients is questionable

If a study has been conducted in third country(ies), additional triggers may be identified during the review process. Some of these triggers may be:

1. Design of the study raises ethical concerns. Whilst these specific points relate to trial design, which is apparent from the review process without inspection, they may sometimes raise a more general concern about the conduct of the trial.
   1.1. Inadequate justification of the use or duration of use of placebo
   1.2. Poorly optimised background therapy
1.3. Use of inappropriate comparator

1.4. Use of inappropriate investigations

2. Conduct of the study raises ethical concerns

2.1. Inclusion of vulnerable patients, e.g. children, women, unconscious patients

2.2. High incidence of illiteracy in the study population

2.3. Specific requirement for witness

3. Lack of familiarity or concerns with/unawareness of the local legislative regulatory or ethical framework on the part of EU Regulators

4. Lack of previous or recent inspections by EEA inspectors in the country concerned

5. The study was conducted mainly/solely outside EEA

6. Concern about the stability of IMP in a non-temperate climate

The list of triggers is by no means complete, but in case of concerns identified during the review of an application for Marketing Authorisation, questions should be addressed to the sponsor, as well as discussed between assessors and inspectors, and an inspection triggered whenever required.

Inspections may also be requested as part of a programme of routine inspections.

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**Regulatory action/action plan**

1. *The criteria used as the basis for both routine and triggered GCP inspections should be further developed.*

2. *The processes for identifying triggers for GCP inspections should be further developed and systematised.*

3. *Frameworks for contact with National Regulatory Authorities, to gain information on the GCP compliance and local inspection, in the countries where clinical trials take place should be developed.*

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**5.3. Actions available in response to non compliance**

The underlying philosophy of this reflection paper is that pro-active steps should be taken to reinforce the regulatory framework for the conduct of ethical, scientifically valid clinical trials, and the protection of trial subjects. Ideally such measures would ensure that significant non-compliance would not occur.

The processes available to address situations where requirements have not been followed, should strive to further refine and reinforce the framework for the conduct of trials and the understanding of requirements by all involved. The range of actions available should recognise this need and include activities that involve communication, education and refinement as the preferred course. In some circumstances this will not always be possible, or appropriate, not least because by the time the Marketing Authorisation Application is made, the clinical trials in question are generally completed and little can be done to remedy deficiencies in the conduct of those particular trials.

Trial subjects and their communities also need to be assured that their rights and welfare will be supported and reinforced by regulators, both locally, and internationally. That assurance is a central requirement as the entire process of development of medicines relies on the willingness of individuals to participate in clinical trials.
Particular emphasis should be given to trials conducted in third countries. There is a need to ensure that the role and authority of the ethics committees and National Regulatory Authorities in the countries where the trials are conducted are supported. When non-compliance with GCP regulatory obligations and ethical concerns is detected, action should be taken in this context, and include communication with the National Regulatory Authority concerned. The action to be taken should be proportionate to the consequences of the observed violation of the rights and welfare of the trial subjects and of the deficiencies of the data integrity.

There is the need to define and to make public the consequences of non-compliance with GCP and above mentioned ethical concerns in designing, conducting, recording and reporting of the clinical trials included in the MAA.

Non-compliance which significantly affects the rights, safety or well-being of the subjects or the quality and integrity of the data reported is not acceptable, and will result in rejection of data and/or other regulatory actions.

**Regulatory Actions/Action Plan:**

**Regulatory options include the following:**

*Information and possible action by third country regulators*

Information on non-compliance should be available to the Regulatory Authority in the country in which the trial non-compliance has been identified and to other regulators in the international network, (subject to appropriate confidentiality arrangements if applicable).

*Request for additional information or action by the sponsor*

The sponsor may be asked to supply additional information or explanation, conduct further analyses or data collection/review, or to commission further monitoring or independent audits of a wider range of sites.

*Inspection or re-inspection*

(Further) sites involved in the same trial/and or further trials and/or sponsor site/Marketing Authorisation Holders may be inspected to determine the extent of non-compliance.

The COMP or PDCO might request an inspection of a clinical trial at the time of their evaluation in coordination with the Clinical Trial Facilitation Group (where the trial is conducted in the EU) and the EEA GCP IWG (Inspectors Working Group) where concerns arise about the conduct of a trial(s).

*Rejection of data/exclusion of trial/negative opinion*

Data obtained from clinical site(s) or from a trial found to be seriously non-compliant with GCP and/or ethical requirements should be excluded from use in support of the Marketing Authorisation Application.

*Education and Facilitation*

Applicants and/or Marketing Authorisation Holders may be informed of non-compliance and advised on how this can be remedied for future trials, and in some cases action may be possible for the trial in question.

*Warning*

The European Medicines Agency may issue a formal warning reminding Applicants and/or Marketing Authorisation Holders of their GCP obligations in conducting clinical trials in accordance with above mentioned ethical requirements.

*Transparency regarding clinical trial conduct and compliance including non-compliant Marketing Authorisations*

The European Public Assessment (EPAR) report should describe any serious non-compliance
encountered and discuss the steps taken as a consequence. This should be done whether the CHMP opinion is positive or negative or the application is withdrawn prior to the opinion.

**Suspension of the Marketing Authorisation/Urgent Safety restriction /Revocation of the Marketing Authorisation**

Suspension/Urgent safety restriction/revocation of the Marketing Authorisation should be considered where the non-compliance is identified after the MA has been granted in accordance with the legislation, guidance and rules applicable.

**Penalties**

The possibility of applying specific penalties should be considered and the mechanism for application of those penalties identified.

**Regulatory action/action plan**

1. EU Competent Authorities should develop a system for regulatory action in case of non compliance with ethical and GCP requirements.
2. Where clear serious concerns are identify the EU competent Authority should communicate these concerns to the National Regulatory Authority of the Country (ies) concerned.

**5.4. Transparency, including improvement of EPAR content and consistency**

The European Public Assessment Report (EPAR) summarises the quality, safety and efficacy data evaluated and the outcome of that evaluation during the marketing authorisation process in order to ensure that consistent and appropriate information is provided to the public on the clinical trials included in the Marketing Authorisation Application. The EPAR is produced to a standard format and its content based on the CHMP Assessment Report (AR) after deletion of commercially confidential information.

The CHMP assessment report is obtained from the assessments at the different phases of the CHMP review. The application of GCP and ethical requirements and steps taken to confirm this, or any related issues should be reflected in the EPAR.


Inclusion in the guidance of the items listed below, and the consistent application of this, will substantially improve the content of assessment reports and hence the EPAR in respect of ethical and GCP compliance.

The assessment report and the EPAR should address the following aspects:

- The standard GCP review which should be summarised in an annex to the Assessment Report and to the EPAR, should list, for each clinical trial submitted the protocol identification and title, start and end date, identification of the sponsor, of the countries where each trial was conducted and the numbers of subjects recruited in each country. The nature of the patient population should also be described (age and gender and any particular considerations of vulnerability). The standards to which the trials were conducted should be identified. This summary should be based on information to be supplied, electronically, by the applicant.
During the course of the assessment, any relevant ethical issue such as access to treatment post-trial, use of placebo or treatment interruptions, choice of active comparators, treatment of vulnerable populations and applicability of data to EEA population should be highlighted as part of the assessment of the individual trial.

GCP inspection. When performed, the reason(s) for inspection should be described. The outcome and consequences on the assessment of marketing authorisation application should be further elaborated. Relevant information from the inspection report may be made publicly accessible.

When GCP/ethical concerns have been raised, the assessment report should present the issue, describe any external expertise sought and the advice received, and discuss the ethical aspects and their consequences on the assessment of the quality, safety and efficacy of the product.

The actions taken should be reflected in the EPAR. The EPAR should describe the justifications for the study designs, choice of comparators and selection of study populations, with particular emphasis on those studies that involve increased ethical sensitivity due to their design, indication, patient population or location of conduct. The applicability of the trial to the EEA population should be demonstrated where relevant.

The steps taken to evaluate and provide assurance regarding the ethical conduct of the trials should be described as should any significant deficiencies and how they have been addressed.

A comment that “no ethical issues were identified” may be sufficient where applicable.

**Regulatory action/action plan**

1. The CHMP assessment report and the European Public Assessment Report should describe clearly the clinical trials included in the Marketing Application dossier, listing the trials and details concerning their conduct. The applicant should provide tabular listings of this information to facilitate this process.

2. The EPAR should describe the assessment of the ethical issues and GCP compliance of the trials in the Marketing Authorisation Application, steps (including inspection) taken to confirm this and expert advice sought. The EPAR should confirm that the trials have are considered to have fulfilled requirements, or, if that is not the case should describe the circumstances and details of studies which have been found not conducted in accordance with ethical requirements and GCP, and the actions taken as a consequence.
6. International cooperation in the regulation of clinical trials, their review and inspection and capacity building in this area

International cooperation has been clearly identified as a key foundation in developing a robust international framework for the conduct of clinical trials.

As more and more clinical trials on medicinal products marketed in the EU are performed in countries outside of the EU, enhanced international cooperation is seen as essential to ensure that, as far as possible, there is a common international approach to the oversight of clinical trials. In addition the clinical trials are conducted, increasingly in countries, with which EU regulators have limited formal contacts or experience in the domain of clinical trials. Building contact with, and between, the National Regulatory Authorities in these countries, their regional networks and associations, and the establishment of an international network of clinical trial regulators should therefore be a fundamental objective.

The scope of this section is to specifically reflect on how to enhance international cooperation in the regulation of clinical trials performed including countries outside the EEA, including considerations for information exchange, capacity building and interaction with, and coordination between existing initiatives.

The ultimate objective should be to ensure that wherever clinical trials are performed, at least the following instruments are in place:

1. Regulations that permit trials of medicinal products only if the trial is authorised by the national regulatory authority and by the concerned ethics committee(s) in that country and that sanction violations;
2. Ethics committees that are truly independent, professionally sound and adequately resourced;
3. Systems of follow-up of clinical trials by the National Regulatory Authority and concerned ethics committee(s), with power to suspend or/and stop clinical trials when needed.
4. Systems of control of clinical trials before, during and after their conduct, through the use of GCP Inspection by the National Regulatory Authority;
5. Regulations that permit the marketing of medicinal products only if authorised and that sanction any non-compliance;
6. Regulations that allow the possibility of refusal by Regulatory Agencies of the marketing authorisation of medicinal products when safety and efficacy have not been shown through trials conducted in accordance with GCP and ethical requirements.

Such an approach will promote confidence among ethics committees and Regulatory Authorities, avoid unnecessary duplication and multiplication of on-site inspections, and allow exchange of valuable information.

It is recognised that achieving this objective is a long-term goal; nonetheless in order to reach that goal it is necessary to identify and take steps, in a phased manner, towards its achievement.

In order to set priorities and identify the possible steps to be taken in achieving the objective described, a number of concerns and opportunities have been considered.
6.1. Identification of priorities

It is recognised that with limited resources, there is a need to prioritise particular activities and/or interaction with particular regions/countries. A first step is to identify the countries where growing number of clinical trials are performed, followed by communication with the National Regulatory Authorities and the sharing of information on the regulatory systems in these countries.

The following criteria have been considered:

Countries that recruit a significant number of patients.

The European Medicines Agency has prepared statistics on the numerical distribution of patients participating in pivotal trials included in Marketing Authorisations Applications (MAA) submitted to the Agency during the period January 2005 to December 2009, it has been noted that certain non-EU countries (excluding USA/Canada/EFTA) have contributed about 26% of patients:

- Africa: South Africa (2.6%)
- Middle East/Asia/Pacific: India (1.5%), Israel (1.3%), Philippines (0.9%), China (0.7%) and Thailand (0.7%)
- Australia/New Zealand: Australia (1.2%)
- Central/South America: Brazil (2.6%), Argentina (2.2%), Mexico (1.3%), Costa Rica (0.7%) and Peru (0.6%).
- Commonwealth of Independent States: Russia (2.9%) and Ukraine (0.8%)
- Eastern Europe-non EU: Croatia (0.5%).

Therefore some of these countries and others where there is an increase in the number of clinical trials or patient participation in trials, should be considered as a priority. Since the European Medicines Agency information is limited to centrally authorised products, collecting equivalent information from Member States and other regulatory partners, including WHO, and non-EU regulatory agencies, and form sponsor associations (in particular on ongoing trends) should also be considered.

Type of Regulatory System in place

Those countries that have a limited regulatory system or one that is still under development should also be considered as a priority. It will be useful to obtain high level information from all countries from which clinical trials are submitted to the EU in order to identify these countries.

Information available on the regulation and conduct of biomedical research activities: Countries where there is little information available and/or where information suggests that ethics committees may not be properly established should also be identified as priorities.

In order to evaluate the level of priority in the context of the aforementioned criteria, it is proposed that a high level “mapping” of information be established and maintained in relation to:

- the level of activity in the field of clinical trials, identifying subcategories of those clinical trials (e.g. Phase I, Bioequivalence studies, phase II and III in specified therapeutic areas);
- the established and functional regulatory framework for clinical trial authorisation (competent authorities and ethics committees), GCP inspections.
- the infrastructure for and levels of investigator support and training.

This ‘mapping’ should identify the strengths and weaknesses of the national systems, should identify whether capacity building or related development activities are ongoing and should help to select areas
for possible cooperation: the selection of the areas for cooperation (i.e. GCP inspections, strengthening of Regulatory Systems or Ethics Committees (strengthened cooperation, capacity building and/or focussed, joint, training)) will depend on the needs identified in the countries included in the priority list and should be oriented to avoid duplication with other initiatives in the same area of intervention. This mapping should also identify the opportunities for cooperation with all countries including those where the systems are already developed, and authorities already exist and functional (see section 6.2.).

Regulatory action/action plan

1. The EMA will prioritise the third countries with which it will focus its interaction based firstly on the numbers of trial subjects recruited there as part of clinical trials submitted to EMA and secondly on a review of the regulatory systems in place for the supervision of clinical trials in those countries.

6.2. Identification of opportunities and partners

6.2.1. Identification of other initiatives

In order to avoid duplication of effort, any work performed by the European Medicines Agency Working Groups should be complementary to the other numerous initiatives being carried out by international, European, regional and national organisations in this field. The aim should be to look for synergies and avoid duplication of effort and activities.

Existing initiatives in many instances are implemented without having a clear picture of what has been done already, what the results have been and what is being done in the same geographical area, in the same field of study etc.. As a consequence, there may be little knowledge of:

- neglected areas of intervention;
- the necessity for complementary interventions that can be more effective;
- previous initiatives with favourable or unfavourable results;
- the risk of duplication of initiatives.

The group is aware of different initiatives at different levels carried out by different organisations. These initiatives can be categorised as follows:

6.2.2. Categories of initiatives and actions

- Assessment of National Regulatory Authorities and systems
- Strengthening National Regulatory Authorities
  - Competent authority
  - Ethics committee
  - Other stakeholders

Examples of initiatives are provided in section 6.5.
6.2.3. Establishment of contact with key initiatives

Relevant contact points for these different initiatives and countries of interest should be identified and good communication established in order to obtain:

- updated knowledge of the situation in each of the priority countries
- an evaluation on what has already been done to date;
- reciprocal knowledge of what is being done in this field;
- a continuous update on what is going to be done.

This will facilitate the identification of partnerships for joint, common or coordinated activities.

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<thead>
<tr>
<th>Regulatory action/action plan</th>
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<tr>
<td>1. The EMA will identify other initiatives that are being carried out in the area of clinical trials supervision, mapping of regulatory systems in place and capacity building.</td>
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<tr>
<td>2. EMA will identify contact points with the other initiatives in order to identify partnerships for joint, common or coordinated activities.</td>
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6.3. Action plan

Three major directions are identified:

- Increasing the efficiency and effectiveness of GCP inspection
- Improving the capacity of National Regulatory Authorities
- Motivating sponsors, Marketing Authorisation applicants to ensure adequate levels of control of their own clinical trials.

The proposed action plan addresses the first two of these.

6.3.1. Core activities

The core set of actions consists in ensuring planned and coordinated contribution of GCP inspectors, clinical trial assessors and experts in the following areas of intervention depending on the needs identified in conjunction with the priority countries and based on the information obtained on the existence of other initiatives carried out by other organisations:

- GCP Inspection:
  - Increase the number of inspections in the priority countries
  - Encourage observed and joint inspections with National Regulatory Authorities
  - Develop frameworks and priority topics for information exchange
- Regulatory authorities (evaluation and inspection sectors):
  - Assistance with the establishment and operation of National Regulatory Authority systems for review and oversight of clinical trials, and evaluation of the processes established
  - Training (courses, workshops, support in the preparation of guidelines/SOPs etc.)


− Scientific / technical support:

Protocol assistance/Scientific Advice

Support for Assessment of clinical trials. Seek the contribution of the Clinical Trial Facilitation Group.

− Explore and establish frameworks for different types of information exchange.

• Ethics committees:

− Assistance with the establishment and operation of ethics committees, and evaluation of their processes

− Training (courses, workshops, support in the preparation of guidelines/SOPs etc.)

− A registry of ethics committees and documentation on their composition and activity could be established

− Evaluation of clinical trials by ethics committees – the cooperation of EU ethics committees can be sought

− Investigation of systems for accreditation

− Explore and establish frameworks for different types of information exchange

This core set of actions should be refined in accordance with the results and will contribute to the update of the short term and long term activities, described hereunder.

6.3.2. Short Term activities:

In the following context, regional groups and associations of national regulatory authorities or ethics committee bodies will often facilitate activities and improve the efficiency and effectiveness of the activities involved.

• Establishing and maintaining high level information on:

− the established regulatory frameworks for clinical trial authorisation (National Regulatory Authorities and ethics committees), GCP inspections, and investigator support and training in priority countries in order to identify and prioritise the areas for increased cooperation; this action can be done by assessment of the available systems, partly as a collaborative work with other established initiatives.

− the level of activity in the field of clinical trials (numbers, types and purpose [national market/‘export’] of clinical trials), in order to identify the interest of the country. This action requires identification of other sources of information (e.g. registries of clinical trials, National Regulatory Authorities etc).

− information on relevant activities underway by other regulatory authorities or international organisations/initiatives/partnerships.

• Establishing, sharing and maintaining a list of relevant contact points for the organisations, authorities and initiatives (international, regional, national etc.) involved in these areas including the priority countries

• Establishing links – formal and informal – with other projects and initiatives in relation to the priority countries:
Inventory of all organisations and initiatives (international, regional and national e.g. WHO mediated groups, ASEAN, African initiatives such as Health Organization (WAHO) and ECOWAS etc.) and training and other capacity building initiatives already implemented and ongoing by these organisations.

Inventory of the models of initiatives implemented and their real efficacy

Information on relevant activities underway by other regulatory authorities and international partners.

6.3.3. Long Term activities:

The establishment of a “Service” or “Centre” that could enable sharing - through continuous links with the international organisations, the European Union Member States and institutions and those of third countries, as well as NGOs (non-governmental organisations) - the following (and other) information for each country where a relevant number of clinical trials are conducted:

1. the laws and regulations governing this field;
2. Information on National Regulatory Authorities, ethics committees and GCP Inspectorates;
3. Centres or Research Groups with experience on conducting trials according to the above mentioned ethical and GCP requirements, as shown by favourable reports from GCP Inspectorates;
4. models of initiatives implemented and information on obstacles encountered and their real efficacy.

This could provide a useful support for implementing interventions that can be more targeted to the real needs, more selective, complementary and avoiding duplication. The interventions should be defined on the basis of the results of experiences already carried out with success, to contribute to the process of ensuring that research on medicinal products respects GCP and ethical requirements in accordance with the international human rights law.

In this way, such a “Service” would allow the participating partner countries and international organisations to be up to date on the latest developments in the field could be particularly useful for in the following contexts:

1. when the European Medicines Agency and National Regulatory Agencies need to verify compliance to the principles of GCP for a certain clinical trial;
2. when the European Medicines Agency and other international, regional and national organisations or NGOs want to support a country through capacity building initiatives, such as training programmes for investigators or for members of ethics committees or GCP inspectors;
3. when a scientific institution or a pharmaceutical company wants to conduct a clinical trial;
4. when a qualified institution wants to provide advice on the preparation of regulations or procedures in this field.

**Regulatory action/action plan**

1. Refer to the Action Plan outlined in section 6.3 of the Reflection paper for detailed actions.
6.4. **Resource considerations**

It is recognised that additional resources will be needed to address these objectives, both short and long-term. Liaison and communication with the actors identified below will help to establish possible funding and collaboration opportunities.

- The European Medicines Agency
- Interested EU Member States
- EU Commission
- National Regulatory Authority partners interested or concerned by such initiatives
- International and regional organisations:
  - Organisations responsible for funding projects
  - Organisations responsible for organizing the activities (without funding): to be categorized for areas of activity (e.g. training, legislation, GCP, etc.)
  - Organisations that fall under both categories

In this context it is recognised that WHO in particular has a range of activities ongoing that are of particular relevance and interest.

### Regulatory action/action plan

1. EMA will identify resource requirements and budget to support EMA participation to capacity building activities, as part of its work programmes for 2011 and onwards.
2. EMA will identify and work with other funding bodies in order to benefit from potential funds to support EMA or EU Member State experts contribution to capacity building exercises.
3. EMA will identify and work with other funding bodies in order to identify funds that may help delegates from concerned third countries to participate and benefit from capacity building exercises.

6.5. **Example of initiatives**

**GCP Inspections:**

- Increase the number of inspections in developing countries
- Encourage observed and joint inspections with local authorities

The EMA and FDA have agreed to launch an initiative on GCP, with the following key objectives:

1. To conduct Periodic Information Exchanges on GCP-Related Information
2. To conduct collaborative GCP
3. To share information on interpretation of GCP

- Harmonization of practice

The European Medicines Agency, through its GCP IWG (Inspectors Working Group) organises every year specific training for EU inspectors. Since 2007 it has included representation from WHO (2007, 2008 and 2009), and other non EU regulatory authorities (e.g. Argentina, Brazil, Ghana,
South Africa and USA were involved in the 2008 training course, and Argentina, Australia, Canada, India, Japan, Mexico and USA in 2009), in order to contribute to increase the communication and sharing of best practices and expertise among regulatory authorities from within the EU and from third countries in relation to GCP inspection activities.

- About joint inspections, harmonisation of practice and information exchange, the EMA and FDA have agreed to launch an initiative on GCP, with key objectives including:
  - Periodic Information Exchange on GCP-Related Information
  - To conduct collaborative GCP inspections
  - To share information on interpretation of GCP and best practice

**Regulatory authorities (evaluation and inspection sectors):**

- Assessment of / assistance in implementing National Regulatory Authorities
- Training (courses, workshops, support in the preparation of guidelines/SOPs etc.)
- EDCTP training course on GCP, Gambia, 7-11 May 2007

**Scientific / technical support:**

- Protocol assistance/Scientific Advice
- Assessment of clinical trials and clinical data
- The European Medicines Agency is working, in cooperation with the European Commission DG Development and with WHO on a project to help regulators from less well developed National Regulatory Authorities, to develop their expertise in the review of Marketing Authorisation Applications.

**Ethics Committees:**

- Assessment of / assistance in implementing ethics committees
- FERCAP initiative, [www.fercap-sidcaer.org](http://www.fercap-sidcaer.org)
- Training (courses, workshops, support in the preparation of guidelines/SOPs etc.)
- Evaluation of clinical trials.
- Investigation of systems for accreditation
- Information exchange
7. Regulatory action overview

Regulatory actions described in the text are summarised in this chapter.

7.1. Clarify the practical application of ethical standards for clinical trials, in the context of EMA activities

7.1.1. Local Ethics Committee and national Regulatory Authority oversight

- Failure to submit a protocol to an independent ethics committee is a serious violation of ethical standards.
- EU Competent authorities should refuse to consider data obtained in such an unethical manner, when submitted in support of a MAA in accordance with Directive 2001/83 EC or Regulation EC 726/2004.
- Requirements for submission to the national regulatory authority of each country in which the trial is conducted and to the ethics committee(s) in those countries must be complied with, and evidence of both submissions and approvals provided.
- The applicant for a MAA should provide EU Competent Authorities with a summary of ethics committee, and National Regulatory Authority approvals of each clinical trial supporting the MAA. This information should form part of the clinical study report in accordance with ICH E3.
- EU Competent Authorities should identify those studies that may give rise to special ethical concern (e.g. arising from their design, the local regulatory framework within which they are conducted, the vulnerability of the study subjects) and where applicable to seek additional assurance that the trials have been ethically conducted.
- Where clear serious concerns are identify the EU competent Authority should communicate these concerns to the National Regulatory Authority of the Country (ies) concerned.

7.1.2. Information/Consent Procedure

- Failure to obtain informed consent (and/or assent where applicable) is a serious violation of ethical standards.
- EU Competent Authorities should refuse to consider data obtained in such an unethical manner, when submitted in support of a MAA in accordance with Directive 2001/83 EC or Regulation EC 726/2004.
- The applicant for a MAA should provide EU drug regulatory authorities with a summary of the consent processes used and any variations of those processes in the clinical trials supporting the MAA. and include sample information sheets on consent forms. This information should form part of the clinical study report in accordance with ICH E3.
- EU Competent Authorities should identify those studies that may give rise to special ethical concern regarding the consent process (e.g. arising from the patient population included and their capacity to provide informed consent, the regulatory framework within which they are conducted, the vulnerability of the study subjects) and where applicable to seek additional assurance that consent was properly obtained.
- Additional good practice guidelines on the communication of the information to the potential participants in research may be required to better describe some research situations and should be
developed, with input from patients’ organisations and community groups as well as other experts in ethics and clinical trials.

7.1.3. Confidentiality

- EU Competent Authorities will refuse to consider reports which fail to properly protect the confidentiality of the trial subjects, when submitted in support of a MAA in accordance with Directive 2001/83 EC or Regulation No (EC) 726/2004. These reports should be returned to the applicant and the breaches of confidentiality rectified prior to eventual resubmission.

- The applicant for a MAA should provide EU Competent Authorities with a summary of the steps taken to protect confidentiality and the consent obtained to enable the use of and access to the subjects’ data. This information can form part of the clinical study report section on ethical considerations and informed consent in accordance with ICH E3.

- EU Competent Authorities should identify those studies that may give rise to special concern regarding confidentiality (e.g. arising from the use of genetic information or bio banked samples) and where applicable seek additional assurance that confidentiality has been properly maintained.

7.1.4. Fair Compensation

- Failure to provide fair compensation by insurance or indemnity is a serious violation of ethical standards

- The applicant for a MAA should provide EU Competent Authorities with a summary of the provisions made to provide for the fair compensation of subjects for trial related injury. This information can form part of the clinical study report section on ethical considerations and informed consent in accordance with ICH E3.

- EU Competent Authorities should identify those studies that may give rise to special concern regarding insurance, indemnity or compensation for research related injury and where applicable to seek additional assurance that trial subjects’ interest have been protected.

7.1.5. Vulnerable populations

- The inclusion of vulnerable subjects in a clinical trial without the approval of the ethics committee and without implementation of the appropriate consent processes is a serious violation of ethical standards.

- EU Competent Authorities should refuse to consider data obtained in such an unethical manner, when submitted in support of a MAA in accordance with Directive 2001/83 EC and Regulation No (EC) 726/2004.

- The applicant for a MAA should provide drug regulatory authorities with an adequate and appropriate justification for inviting vulnerable individuals or groups to serve as research subjects and the description of the specific measures and means implemented to protect their rights and welfare. This information can form part of the clinical study report in accordance with ICH E3.

- EU Competent Authorities should identify those studies that may give rise to special ethical concern regarding the inclusion of vulnerable populations and where applicable to seek additional assurance that the inclusion of such populations was justified and their rights and welfare protected.
7.1.6. Placebo and Active Comparator

- Sponsors should describe in detail in the protocol and in the clinical study report the justification for the use of placebo and/or choice of active comparator in accordance with the ethical principles referred to above. This information can form part of the clinical study report in accordance with ICH3 and protocol in accordance with ICH E6.

- EU Competent Authorities will identify those studies that may give rise to special ethical concern regarding the use of placebo or other comparators and where applicable to seek additional assurance that the design was appropriate and ethically acceptable.

- Where it is determined that a study design was not acceptable in accordance with the aforementioned criteria, it should not be accepted in support of a MAA in accordance with Directive 2001/83 EC and Regulation No (EC) 726/2004.

- Sponsors should seek scientific advice on study design before carrying out the trials.

7.1.7. Access to treatment post trial

- Sponsors should describe in the protocol and in the clinical study report the provisions made with respect to access to treatment post trial. This information can form part of the clinical study report in accordance with ICH E3.

- EU Competent Authorities should identify those studies that may give rise to special ethical concern regarding access to treatment post trial and where applicable to seek additional assurance that the solution was appropriate and ethically acceptable.

- The applicant should explain in the MAA how the medicinal product has been/will be made available in the countries where the trials were conducted and this information should be summarised in the European Public Assessment Report (EPAR).

7.2. Determine the practical steps undertaken during the provision of guidance and advice in the drug development phase.

- Clinical trials are conducted not only for submission to the EEA but also to many other regulators worldwide. In order to minimise risk of non-approvability of the application due to the choice of study populations not applicable to the EEA population or trial designs not acceptable in the EEA sponsors should seek EU scientific advice prior to the conduct of those trials.

- EMA Committees and working Parties (and assessors) evaluating requests for Scientific Advice, Orphan designation, and Paediatric Investigation Plans should systematically consider the issues raised in this reflection paper and apply the proposals during their assessments and recommendations/opinions provided to the applicants.

- Applicants should clearly explain why data from the patient populations selected are applicable to the EEA population unless the product is intended to be used outside the EEA.
7.3. Determine the practical steps to be undertaken during the Marketing Authorisation phase

7.3.1. Points to consider during the assessment process: identify assessment issues and processes

- The European Medicines Agency should establish a pool of experts to advise the CHMP in its assessment of the ethical aspects of clinical trials submitted with the MAA, and define their membership, required expertise, mandate and procedures, and the process by which the CHMP, EMA or other agency scientific committee, may consult them. Such consultation may be on general matters of principle involved in establishing requirements and guidance, or specific cases involving particular trials and products.

- EU Competent Authorities should develop a system for review of MAA dossiers, and identification of studies of potential ethical or GCP concern, involving review at the time of validation by the EMA product team, and during the assessment by the assessment team and CHMP, supported by the EMA product team.

7.3.2. Inspections: triggers for inspection to be identified by assessor

- The criteria used as the basis for both routine and triggered GCP inspections should be further developed.

- The processes for identifying triggers for GCP inspections should be further developed and systematised.

- Frameworks for contact with National Regulatory Authorities, to gain information on the GCP compliance and local inspection, in the countries where clinical trials take place should be developed.

7.3.3. Actions available in response to non compliance

- EU Competent Authorities should develop a system for regulatory action in case of non compliance with ethical and GCP requirements.

- Where clear serious concerns are identify the EU competent Authority should communicate these concerns to the National Regulatory Authority of the Country (ies) concerned.

7.3.4. Transparency, including improvement of EPAR content and consistency

- The CHMP assessment report and the European Public Assessment Report should describe clearly the clinical trials included in the Marketing Application dossier, listing the trials and details concerning their conduct. The applicant should provide tabular listings of this information to facilitate this process.

- The EPAR should describe the assessment of the ethical issues and GCP compliance of the trials in the Marketing Authorisation Application, steps (including inspection) taken to confirm this and expert advice sought. The EPAR should confirm that the trials have are considered to have fulfilled requirements, or, if that is not the case should describe the circumstances and details of studies which have been found not conducted in accordance with ethical requirements and GCP, and the actions taken as a consequence.
7.4. International cooperation in the regulation of clinical trials their review and inspection and capacity building in this area

7.4.1. Identification of Priorities

- The EMA will prioritise the third countries with which it will focus its interaction based firstly on the numbers of trial subjects recruited there as part of clinical trials submitted to EMA and secondly on a review of the regulatory systems in place for the supervision of clinical trials in those countries.

7.4.2. Identification of Opportunities and partners

- The EMA will identify other initiatives that are being carried out in the area of clinical trials supervision, mapping of regulatory systems in place and capacity building.
- EMA will identify contact points with the other initiatives in order to identify partnerships for joint, common or coordinated activities.

7.4.3. Action Plan

- Refer to the Action Plan outlined in section 6.3 of the Reflection paper for detailed actions.

7.4.4. Resource considerations

- EMA will identify resource requirements and budget to support EMA participation to capacity building activities, as part of its work programmes for 2011 and onwards.
- EMA will identify and work with other funding bodies in order to benefit from potential funds to support EMA or EU Member State experts contribution to capacity building exercises.
- EMA will identify and work with other funding bodies in order to identify funds that may help delegates from concerned third countries to participate and benefit from capacity building exercises.
8. References

i Charter of Fundamental Rights of the European Union (2000)  


iii Additional Protocol to the Convention on Human Rights and Biomedicine, concerning Biomedical Research (Strasbourg 2005)  

iv Universal Declaration of Human Rights of 1948,  

v Convention for the protection of Human Rights and fundamental Freedoms (COE, 1950),  
http://www.echr.coe.int/nr/dro/palys/d/dec24a7-12-12-1318-b547-5c90149167a0/eng/checked-eng.pdf


vii UNESCO. Universal Declaration on Bioethics and Human Rights (2005)  

viii Universal Declaration on the Human Genome and Human Rights (UNESCO, 1997)  

ix International Declaration on Human Genetic Data (UNESCO, 2003)  

x CIOMS-WHO International Ethical Guidelines for Biomedical Research Involving Human Subjects (Geneva 2002),  


xii Opinion n.17 of the European Group on Ethics in Science and New Technologies to the European Commission : "Ethical aspects of clinical research in developing countries"  
http://ec.europa.eu/ethical_ethics/docs/avis17_en.pdf

xiii EU Ethical considerations for clinical trials on medicinal products conducted with the paediatric population (2008)  

xiv ICH E6 Guideline on Good Clinical Practice (1995),  

xv Clinical investigation of medicinal products in the paediatric population. ICH E11.  

xvi DIRECTIVE 2001/20/EC of the European Parliament and of the Council of 4 April 2001 on the approximation of the laws, regulations and administrative provisions of the Member States relating to the implementation of good clinical practice in the conduct of clinical trials on medicinal products for human use  


xx Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data  

xxi ICH 1998 E5(R1) Ethnic Factors in the Acceptability of Foreign Clinical Data  