

Document History

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Developing the EMA's policy on access to clinical-trial data

CT data group 1; Protecting Patient Confidentiality

1. Summary

Different types of data pose different levels of risk of identifying patients. In most cases, the risk is considered sufficiently low in case of reports containing only aggregated data, such as the main body of the clinical study reports and appendixes (excluding line-listings). After de-identification of any indirect identifiers (e.g., case narratives, outliers, tables with sparse numbers), such reports could be considered for proactive publication and given unrestricted access. Applicant companies may use different transformation methods to de-identify the data. A minimum standard for de-identifying data is described in Hrynaskiewicz *et al.* (2010).

In case of the raw data and line listings, the risk is considered much higher due to the combined presence of many indirect identifiers. Further de-identifying key-coded raw data and line listings is a resource-intensive task and inevitably will compromise the analytical validity of the data, so that unrestricted proactive publication of fully de-identified raw data and line listings may not be useful. Instead, access to the original key-coded raw data and line listings could be considered under similar rules to those applicable to processing of personal data by health care professionals subject to the obligation of professional secrecy. There should also be rules to ensure that the any additional use of raw data and line listings is within the scope of the informed consent signed by trial subjects.

2. Problem statement

How can EMA ensure through its policy that patient and other personal information will be adequately protected i.e., that patients cannot be retroactively identified when clinical trial data are released, and that applicable legislation, standards, and rules regarding personal data protection will be respected?

3. Scope and definitions

- 3.1. This advice refers to any information containing clinical data (e.g., raw data, clinical study reports) that are submitted to the Agency as part of a marketing authorisation application, or subsequent submission (e.g., in the context of clinical variations of the marketing authorisation, submission of results of post-authorisation safety studies). When discussing the various

This document does not reflect the position of the European Medicines Agency on the proactive publication of clinical-trial data and will inform the European Medicines Agency in drafting its policy.

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options, a distinction is made between documents containing mainly aggregated data (i.e., the main body of the clinical study report and appendixes, excluding line-listings), and raw data and line listings, containing key-coded, patient-level data.

3.2. Personal data: Any information relating to an identified or identifiable natural person ('data subject'); an identifiable person is one who can be identified, directly or indirectly, in particular by reference to an identification number or to one or more factors specific to his physical, physiological, mental, economic, cultural or social identity¹.

In this document, a distinction is made between persons included in clinical trials (e.g., patients or healthy volunteers and their legal representatives, hereinafter referred to as "subjects"), and any other person mentioned in the submission (investigators, study site personnel, sponsor representatives, contracted workers, etc., hereinafter referred to as "clinical trial personnel").

3.3. De-identified data: Data that have been made anonymous in such a way that the data subject is no longer identifiable (directly or indirectly). A similar term is "anonymised data".

3.4. Key-coded data: These data refer to information that relates to individuals that are assigned a code, while the key making the correspondence between the code and the common identifiers of the individuals (like name, date of birth, address) is kept separately. In clinical trials, the key is typically held by the investigators. Information to the pharmaceutical company or other parties involved is provided only in this coded form.

Key-coded data constitutes information relating to identifiable natural persons for all parties that might be involved in the possible identification and should be subject to the rules of data protection legislation².

4. Clinical Trial Personnel's Data

4.1. Option 1

Personal data of clinical trial personnel (name, CV, affiliation, etc.) are considered as professional information that is essential to be made public. Clinical trial personnel have legally defined responsibilities and roles with respect to aspects of the marketing authorisation dossier and the clinical trials that are part of the dossier. Assessment of the qualifications of the researchers and other clinical trial personnel is an important public interest in the area of public health protection and scientific research. Companies are advised that non-essential information (e.g. personal address, personal phone number) should not be included in the dossier.

Option 2

Personal data relating to the principal investigator and the experts who sign the clinical study report are considered as professional information that is essential to be made public. This is justified by grounds of important public interest in the area of public health protection and scientific research. For any other clinical trial personnel there is no presumption of important public interest why such data should be made public.

Option 3

There is no presumption of important public interest why any personal data of clinical trial personnel should be made public.

4.2. There should be sufficient protection for the privacy of pharmaceutical company employees and researchers that perform non-clinical research. Similar considerations should apply to personnel participating in research that could be considered to be sensitive or controversial. In

¹ Art. 2 (a) of the Directive 95/46/EC.

² Opinion 4/2007 on the concept of personal data of the Article 29 Data Protection Working Party.

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such cases, companies should be allowed to justify de-identification of data related to clinical trial personnel.

Comments for Option 1

In general, for clinical trials there is no great concern for revealing the names of investigators and study/company personnel, as shown by the ample information generally in the public domain about the investigators involved (e.g., as listed as authors or investigators in publications of medical journals, including their affiliations, contact details and emails). In multinational studies it is also important to know who the investigator in charge in that country is.

Comments for Options 2-3

Except for a few people (the principal investigator, the persons responsible for the study or its interpretation, the experts who sign the report), there is no public health interest for disclosing such information about any other clinical trial personnel or persons whose names may appear in the dossier. Data related to such persons should be considered as personal data, not to be released without adequate de-identification. There is also a concern that publishing all investigators' names may add to the risk of identifying the clinical trial subjects.

5. Subjects' Data

- 5.1. Currently, subjects' clinical data are submitted as de-identified data (e.g., aggregated data in the form of tables within a clinical study report) or as key-coded data (e.g., using a subject identification code instead of the subject's name as part of line listings).
- 5.2. Apart from direct identification, there is a risk that clinical trial data may allow identifying the subjects indirectly, through a combination of potential indirect identifiers. For instance, a person may be identified indirectly by a telephone number, a car registration number, a social security number, a passport number or by a combination of significant criteria which allows him to be recognized by narrowing down the group to which he belongs (age, occupation, place of residence, etc.).
- 5.3. For all the clinical trial data to be submitted to the Agency (e.g., study report, data set), including any subsequent revisions, the applicant company shall assess the risk of compromising subjects' identity in case of wide publication of those data. Assessment of the risk should take into particular consideration data that could be considered to be sensitive or controversial and that might lead to discrimination if the subject can be identified, as well as situations with an intrinsic higher risk of identification such as very rare diseases. If for any data the risk of compromising subjects' identity in case of wide publication of those data is considered to be absent or sufficiently low, the applicant company shall clearly label the data as "SUITABLE FOR PROACTIVE PUBLICATION". In most cases, aggregate statistics (frequencies, sums, etc., as found in the main body of the clinical study reports and appendixes excluding line listings) might be considered as sufficiently de-identified so as not to constitute personal data.
- 5.4. In case of the main body of the clinical study reports and appendixes (excluding line listings) if the risk cannot be considered to be absent or sufficiently low (e.g., inclusion of narratives including non-aggregated indirect identifiers, description of outliers, tables with sparse data), the applicant company shall submit two sets of documents, the original documents clearly labelled as "NOT FOR PROACTIVE PUBLICATION", and the documents containing de-identified data clearly labelled as "SUITABLE FOR PROACTIVE PUBLICATION".
- 5.5. In case of raw data and line-listings, generally, available methods for de-identifying personal data cannot achieve complete de-identification while preserving sufficient analytical utility of

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the data. Consideration should be given to the possibility de-identifying and making available for wide access a subset of the data in case of e.g., the main analysis set, containing a limited number of indirect identifiers so that the risk of compromising subjects' identity in case of wide publication of those data is considered to be absent or sufficiently low whilst preserving the ability to replicate the main analysis. Where this is possible, de-identified data clearly labelled as "SUITABLE FOR PROACTIVE PUBLICATION".

- 5.6. Where de-identification of raw data and line-listings is not considered possible without compromising the analytic utility of the data, access to the original key-coded data should only be allowed under strict rules to ensure confidentiality and alignment of the purpose of access to the subjects' informed consent. Such rules should be similar to those applicable to processing of personal data for the purposes of preventive medicine, medical diagnosis, the provision of care or treatment or the management of health-care services, and where those data are processed by a health professional subject under national law or rules established by national competent bodies to the obligation of professional secrecy or by another person also subject to an equivalent obligation of secrecy³.
- 5.7. Guidance should be provided in the format of standard templates for subjects' informed consent to better inform subjects of possible further uses of the data in the interest of public health and under the chosen rules of engagement.

6. De-identification of personal data

- 6.1. Applicant companies may use different transformation methods to de-identify the data. Generally, using such methods, it is possible to adequately de-identify data in such a way that, taking into account all the means likely reasonably to be used to identify subjects, the risk of identifying a subject does not exist or is negligible; such de-identified data are no longer considered as "personal data".
- 6.2. A minimum standard for de-identifying data is described in Hrynaszkiewicz et al. (1) In some situations, this minimum standard should be supplemented by additional de-identification methods (e.g., statistical). The methods of de-identification should also be such that it is to be expected that adherence will preclude subject de-identification even when applying linkages with other data carriers (e.g., social media).
- 6.3. De-identification methods shall be individually tailored to the specific dataset and situation to ensure that a maximum of information is available while at the same time ensuring sufficient personal data protection. Methods and extent of de-identification should be adapted to sensitive or controversial situations that might lead to discrimination if the subject can be identified, as well as situations with an intrinsic higher risk of identification such as very rare diseases.
- 6.4. Applicant companies shall describe in general terms and justify, if appropriate, for each document the de-identification methods used. If the de-identification methods are deemed insufficient or excessive, the Agency shall ask the applicant company to further justify and if necessary modify the de-identification method.
- 6.5. The Agency should consider whether it wishes to systematically verify that the data submitted as de-identified data contain no personal data, or if this is considered the responsibility of the applicant company.
- 6.6. The Agency shall produce further guidance on the standards and methods for de-identifying data. Upon request, the Agency shall provide advice to applicant companies, (where necessary

³ Opinion 4/2007 on the concept of personal data of the Article 29 Data Protection Working Party.

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involving relevant patient groups and members of the public), on the adequacy of the methods for de-identifying data.

7. References

(1) Hrynaszkiewicz, I., M. L. Norton, et al. (2010). "Preparing raw clinical data for publication: guidance for journal editors, authors, and peer reviewers." BMJ **340**: c181.

173 **8. Summary of comments**

Scope	Comment
Personal data protection	The application of transformation methods to de-identify data may reduce the possibility to conduct certain types of analysis or to replicate exactly certain analyses. This aspect should be considered and adequately communicated when interpreting or publishing results from analyses based on de-identified data compared to those based on key-coded data.
Personal data protection	The proposal to de-identify data for raw data/line listings is quite complex even from a process point of view. A second set cannot be provided by default but only when justified. Applicants should not be required to provide additional documents, when necessary, beyond the internationally agreed Common Technical Document format. This will de facto void the huge benefits achieved through ICH regarding harmonized application dossiers and clinical study reports, which have largely contributed to increasingly simultaneous submissions and subsequently accelerated patient access to innovative medicines.
Personal data protection	Some personal clinical data that are part of a submission to the EMA, like narratives or lined data in tables should be carefully redacted in order to avoid disclosing details e.g. birth date, height, gender, rare disease, status or name of the hospital all could facilitate re-identification. This also applies to information such as CT scans, MRT and other imaging, interviews and genetic data. Patient level data in line listings and datasets should not be publically released. Identifiable data in the main body of study reports can be relatively easily redacted. This is not the same as anonymisation of datasets. Access to anonymised trial data should be provided in a secure environment with controls in place to prevent the data and documents from being downloaded or distributed beyond the scope of the approved use of the data. The requestor should be required to sign a legally binding agreement affirming that they will not seek to re-identify individuals.
Rules of engagement	A major reason of concern is the alignment of secondary use of Clinical Trial data and the initial Informed Consent. Patients/healthy volunteers participating to a clinical trial gave their informed consent in the frame of the planned use of their clinical data, as described in the information received before to accept participating. Overall secondary use and disclosure of data should be aligned with the original informed consent. Most of the time secondary use for novel/secondary research was not within the scope of the original informed consent, neither the intention to have patient level data published in the public domain, with risk of re-identification. Ethical review boards were not informed of this step either. These provisions (with respect to Informed Consent and Ethical Board review) could change prospectively, however is not the case for the great majority of current submitted clinical data in MAs. It is not pragmatic nor feasible to envisage amendment of past ICFs nor the ECs in each relevant country.
Personal data protection	In some situations the minimum standard would provide sufficient de-identification of personal data. In other situations, this minimum standard would have to be supplemented by additional methods (e.g., statistical). The

Scope	Comment
	current standards are in the format of a non-technical report that provides general rules. More sophisticated techniques using computer software to assess the risk have been proposed. Common electronic format could present challenges. The merits of different standards could be evaluated with this respect. Alternative methods of assessing adequacy of standards can be applied.
Personal data protection	Generally, using such methods, it is possible to adequately de-identify data in such a way that taking into account all the means likely reasonably to be used to identify subjects do not exist or are negligible, and the information would not be considered as "personal data". Even using additional methods, generally, sufficient analytical utility of the data can be preserved. It is understood that in the case of very small data sets for very rare conditions, the transformation methods used to de-identify personal data may be such that for many types of analyses, the analytical utility would be reduced.
Personal data protection	It is difficult to agree on a single standard, the risk can change based on the dataset or type of research. Standard practice is difficult to recommend, there is a need for a case-by-case approach.
Rules of engagement	Best practice rules should be developed to ensure patient confidentiality, to restrict the purpose of the use of the data towards public health benefits and to prevent the risk of misuse following uses not aligned with the initial informed consent.
Rules of engagement	Controlled access to data whereby recipients must agree not to attempt to re-identify data subjects, to protect the confidentiality of the data, and to use the data only for certain specified purposes, is far more privacy-protective than public release.
Rules of engagement	A governance function/structure should be established that will assume gate-keeper responsibilities controlling the good implementation of rules of engagement and processes necessary for MA data disclosure. The risk of re-identification of submitted personal clinical data being also linked to the actual use by third parties and this use can be monitored/restricted via adapted rules of engagement.
Personal data protection	In general, the application of transformation methods will reduce the analytical utility of the data due to the loss of information. In addition, exact replication of analyses and results may not be possible using de-identified data. The controversy arising from disputed results may cause distress to patients wondering exactly what sort of research they have engaged in. This likelihood has to be borne in mind when interpreting the results of analyses done based on de-identified data. Complete de-identification is incompatible with exact reproducibility of all analyses. It needs to be clarified whose responsibility it is to explain divergent results due to data transformations. Any journal confronted with a re-analysis of data should solicit comments from the originating company in the interest of transparency and good research abiding to hearing both sides.
Personal data	Available methods for de-identifying personal data cannot achieve complete de-

Scope	Comment
protection	identification while preserving sufficient analytical utility of the data.
Personal data protection	Aggregate statistics (frequencies, sums, etc.) might be sufficient for many analyses purposes and provide sufficient reassurance about personal data protection.
Personal data protection	The entire context needs to be described to inform any statistics.
Rules of engagement	There are practical issues with informed consent if some subject were allowed to agree or disagree within one study. If this was an entry criterion it may be more workable. But there are concerns about additional burden on sponsors or incomplete data sets. The solution needs to be practical.
Rules of engagement	If patients consent, no transformation is needed. In practice this can only be applied prospectively.
Legal	Regardless of the process followed, there should be clarity of where the responsibility lies in case of identification of subjects.
Personal data protection	EMA should set the rules for all parties involved for patient de-identification because these rules will determine the analytical utility of the data as a result and are a direct consequence of it, which will enable a far better communication to public health and to the public in general.
Personal data protection	EMA is to set these standards. It is unprecedented that individual patient data will be publicly available and sufficient safeguards should be put in place to prevent misuse from happening, including patient identification, while trying to reach transparency about the data underlying health claims.
Personal data protection	With free access patients and their relatives will be able to view all their clinical data in detail outside of clinical consultation; that may not be wise as such information may be mis-interpreted. These disclosures may affect the patient-doctor relationship.
Legal	Legal Aspects: It should be verified if release of study participant data is possible under the EU Data Protection Directive, given that study participants will not have contemplated this, or consented to it.
Personal data protection	There may be situations (e.g., unusual reaction, adverse effects), when individual data may be important. A balance would have to be struck between personal and public health interest. There need to be ways to allow analysing such data.
Rules of engagement	Data management/data access control should be defined. This can be obtained through the establishment of a governance function/structure that will assume gate-keeper responsibilities controlling the good implementation of rules of engagement and processes necessary for MA data disclosure. The risk of re-identification of submitted personal clinical data being also linked to the actual use by third parties and this use can be monitored/restricted via adapted rules of engagement.
Personal data	Releasing data, even de-identified, may give rise to severe reactions, e.g., in

Scope	Comment
protection	patients with psychosis or elderly in patients with dementia, or their carers.
Rules of engagement	In line with GCP and ICH E9 the company needs to ensure that appropriately experienced and qualified personnel, including trial statistician, is available to design, conduct, analyse and report the trial and their results. EMA (or any other regulatory authority) is able to check on this through Inspections. In any case, however, the same rules should apply to any requester of the data for the purpose of additional analyses as to the originating company that performed the initial analyses. In order to ensure good scientific practice and in the interest of public health, anyone wishing to analyse aggregate data should be sufficiently qualified and trained otherwise the requester is not sufficiently able to implement legitimate scientific research. Given statisticians who are involved in the design and analysis of clinical trials must be appropriately qualified and trained as per ICH-E9, surely these minimum standards should be expected of any requester wanting to access clinical trial data.
Personal data protection	Providing a justification on a document-by-document basis seems to be overly burdensome and not value-adding. A case-by-case gatekeeper approach is recommended.
Rules of engagement	Sufficient safeguards should be put in place to prevent misuse from happening, including patient identification, while trying to reach transparency about the data underlying health claims.
Rules of engagement	EMA' s mission and legal role necessitates its active involvement in the assessment of data held by EMA which is to be made available and necessitates an effective oversight of the process.
Rules of engagement	The MAH should always be consulted before release of information or data with the opportunity to comment and seek redactions.
Personal data protection	This would only work if not abused (excessive anonymisation of data). The Agency should refuse applications where invalid methods have been used or if an abuse may be identifiable.
Personal data protection	By signing a Personal Data Consent Form the investigator documents his/her willingness to share personal data with the sponsor and to allow the sponsor to use these data and to forward these data to involved parties - and to the public audience. A template of such a Personal Data Consent Form should be provided as an attachment of this guideline.

Annex I - Comments from participants below may or may not have been made on behalf of the organisation they are affiliated with.

Line Number	Comment and Changes proposed	Name	Affiliation
5	Comment: Overall EFPIA acknowledges the very open discussion during the series of public teleconferences and the addition or integration of some of our comments about better protection of patient confidentiality in the updated document, like the key reference to the original Informed Consent, which could be possibly further emphasized in the text. However the implications of the release of patient level data on innovation and on individual patient protection and public health through re-evaluation of data by third parties needs careful consideration and discussion among regulators, patients, academia and industry to identify the best solution to balancing the desire for transparency with the need to foster innovation. We think that public health benefits include support for continued innovation and new drug development.	Susanna Del Signore	EFPIA
6	Comment: EFSPi is of the opinion that this summary is very much in line with the discussions of the group and the difficult off set between protecting patient confidentiality and clinical trial data transparency. Much still needs to be worked out but this is a better starting point than the original one. However, parts in section 5 and section 6 of this document put forward the idea that even in the area of individual patient data some redaction and de-identification is possible without taking away the utility of the data for reproduction of original analyses and secondary analyses. EFSPi feels that this is not correct and the few exceptions should not be the basis for general policies, especially not in case arbitration is not clearly spelled out. EFSPi supports the EMA policy for transparency and is committed to contribute to EMA's clinical trial data initiative. EFSPi was instrumental in the establishment of the CPMP Statistical Guidelines that formed the basis for the ICH E9 document, outlining Good Statistical Analysis Practice. EFSPi acknowledges it is in the interest of the altruistic nature of patients participating in trials that such data will be used for further development of science as much as possible. It is also in the interest of patients that their data are handled in a strictly confidential manner to avoid misuse under all possible circumstances. It is therefore by principle a good thing making important datasets available for further scientific research. EFSPi believes that this should be implemented in a way which supports good research, avoids misuse of such data and fully protects patient confidentiality. Therefore, EFSPi proposes open access to data should only be made to aggregate level (summary) data and access to patient level data is only made available via a secure system controlled by the regulators or by the owner of the data in order to ensure patient confidentiality. The process of re-analysing data and drawing scientific valid conclusions from it is very complex, and in line with ICH E9 EFSPi believes qualified and experienced individuals should be granted access to data to ensure quality research. It requires those wanting to re-analyse the individual patient data to submit upfront a research protocol or statistical analysis plan to verify the scientific integrity of the proposed analyses. The protocol,	Stefan Driessen	EFSPi (European Federation of Statisticians in the Pharmaceutical Industry)

Line Number	Comment and Changes proposed	Name	Affiliation
	SAP and the results of the secondary analysis should be made public.		
7	Comment: It should be noted that even the main body of a CSR can include key-coded personal data relating to patients and thus redaction of this information is required. Redaction of CCI will also be needed and should be mentioned. Overall CSRs will mostly require redaction rather than de-identification.	Susanna Del Signore	EFPIA
11	Comment: CT data group 1 is considering only confidentiality and privacy aspects Proposed change (if any): This line should read "...such reports could be considered for proactive publication and given unrestricted access, subject to the outcome of other advisory group consultations."	Grant Castle for Christiane Abouzeid	UK BioIndustry Association (BIA)
11	Comment: After de-identification of all indirect identifiers the risk for re-identification may be considered low. However this specific aspect does not solve other relevant issues e.g. the unsuitable format of a Clinical Study Report for "pro-active publication". We consider the CSR as a comprehensive technical document, aimed to provide very detailed scientific information to regulatory bodies and not tailored to the general public.	Susanna Del Signore	EFPIA
12	Comment: Is it recommended by EMA for applicants to use this, if so change sentence to: Proposed change (if any): It is recommended that applicants use the minimum data standard for de-identifying data described in Hrynaszkiewicz et al.	Mary Sinnathamby	Parkinson's UK
17	Comment: EFPIA agree that unrestricted pro-active publication of raw data is not useful. Moreover we see no reason why access to key-coded data should be part of this proposal. There is no need to take this risk as access to de-identified data (compatible with the research request) would be best option.	Susanna Del Signore	EFPIA
20	Comment: either "the" or "any" should be removed from the text	Susanna Del Signore	EFPIA
21	Comment: Add at end Proposed change (if any): "and within the scope of informed assent signed on their behalf."	Anthony Johnson	UK Medical Research Council Clinical Trials Unit
23	Comment: The EMA will be the data controller in respect of any information that it holds and that it intends to release for the purposes of its policy on access to clinical trial data. Proposed change (if any): This line should read "The EMA is the data controller in respect of any information that it holds and that it intends to release for the purposes of its policy on access to clinical trial data. How can EMA ensure through its policy that patient and other personal information will be adequately protected..."	Grant Castle for Christiane Abouzeid	UK BioIndustry Association (BIA)
27	Comment: to clarify whether this advice refers to data for positive opinions or also negative opinions Proposed change (if any): 3.1. This advice refers to any information containing clinical data (e.g., raw data, clinical study reports) that are submitted to the Agency as part of a marketing authorisation application, or subsequent submission (e.g., in the context of clinical variations of the marketing authorisation, submission of results of post-authorisation safety studies), both for evaluations with a positive or a negative opinion.	François Houyez	European Organisation for Rare Diseases (Eurordis)
44	Comment: Please remove the sentence "this is similar to anonymization"; the sentence suggests these are	Susanna Del Signore	EFPIA

Line Number	Comment and Changes proposed	Name	Affiliation
	synonymous and this is not the case under the EU data privacy legislation.		
54	Comment: In respect of Section 4, "Clinical Trial Personnel's Data", the BIA feels strongly that the default position should not be that the names of pharmaceutical company personnel involved in research should not be made public. This is contrary to the position taken by companies and the EMA when releasing information in other contexts. We consider that releasing the names of such company employees can expose them to personal risks, particularly where the research involves technologies or techniques that some may find more controversial, such as stem cell or gene therapies. Proposed change (if any): The BIA considers that the assumption should be that such information should not be disclosed unless the relevant individual has consented, or unless the information becomes public as a result of publication of study data. As the controller of any personal data the EMA holds and that it intends to release for the purposes of its policy on access to clinical trial data, we assume that the EMA will comply fully with applicable data protection rules.	Grant Castle for Christiane Abouzeid	UK BioIndustry Association (BIA)
64	Comment: As previously stated we are in favour of Option 2	Susanna Del Signore	EFPIA
80	Comment: The BIA feels strongly that the default position should not be that the names of pharmaceutical company personnel involved in research should not be made public. This is contrary to the position taken by companies and the EMA when releasing information in other contexts. We consider that releasing the names of such company employees can expose them to personal risks, particularly where the research involves technologies or techniques that some may find more controversial, such as stem cell or gene therapies. The BIA's representative has raised this issue during CT data group 1 calls. Proposed change (if any): The BIA considers that the assumption should be that such information should not be disclosed unless the relevant individual has consented, or unless the information becomes public as a result of publication of study data. As the controller of any personal data the EMA holds and that it intends to release for the purposes of its policy on access to clinical trial data, we assume that the EMA will comply fully with applicable data protection rules.	Grant Castle for Christiane Abouzeid	UK BioIndustry Association (BIA)
86	Comment: We agree with comments from lines 86-91	Susanna Del Signore	EFPIA
98	Comment: The potential indirect identifiers listed here are far less likely than others, such as initials and date of birth. Proposed change (if any): This text should read: "...person may be identified indirectly by initials, date of birth, geographical location, a telephone number, a car registration number, a social security number, a passport number or by a combination of ..."	Grant Castle for Christiane Abouzeid	UK BioIndustry Association (BIA)
102	Comment: The EMA will be the data controller in respect of any information that it holds and that it intends to release for the purposes of its policy on access to clinical trial data. While it may ask companies submitting data for an indication of whether the data may be suitable for disclosure by the Agency when implementing its policy on access to clinical trial data, this cannot negate the Agency's legal obligation to ensure that it complies fully with its	Grant Castle for Christiane Abouzeid	UK BioIndustry Association (BIA)

Line Number	Comment and Changes proposed	Name	Affiliation
	obligations as data controller. Proposed change (if any): Section 5.3 should commence with the following statement "The EMA is the data controller in respect of any information that it holds and that it intends to release for the purposes of its policy on access to clinical trial data. For all the clinical trial data to be submitted to the Agency (e.g., study report, data set), including any subsequent revisions, the EMA requests that the applicant company provides its views on the risk of compromising subjects' identity in case of wide publication of those data....in cases where the applicant company considers that wide publication of those data is considered to be absent or sufficiently low, the applicant company shall indicate its view that the data as "SUITABLE FOR PROACTIVE PUBLICATION". However, as data controller, the EMA remains responsible for ensuring that the privacy of subjects is adequately safeguarded in accordance with applicable data protection laws."		
102	Comment: At the moment there is no obligation for Applicants to send in the patient data sets. In case "to be submitted" is meant to be under future guidance in terms of what kind of data and in which format, then this should be stipulated. Proposed change (if any): leave out "data set"	Stefan Driessen	EFSPI (European Federation of Statisticians in the Pharmaceutical Industry)
107	Comment: How are very rare diseases defined compared to rare diseases that have a legal definition? Proposed change (if any): Assessment of the risk should take into particular consideration data that could be considered to be sensitive or controversial and that might lead to discrimination if the subject can be identified, as well as situations with an intrinsic higher risk of identification such as rare diseases.	François Houyez	European Organisation for Rare Diseases (Eurordis)
109	Comment: Please specify who is to be arbitrator of what is considered absent or sufficiently low. For Applicants the risk needs to be absent in order not to enter into any liability issues. EFSPI proposes open access to data should only be to aggregate level (summary) data and access to patient level data is only made available via a secure system controlled by the regulators or by the owner of the data in order to ensure patient confidentiality.	Stefan Driessen	EFSPI (European Federation of Statisticians in the Pharmaceutical Industry)
114	Comment: The EMA will be the data controller in respect of any information that it holds and that it intends to release for the purposes of its policy on access to clinical trial data. While it may ask companies submitting data for an indication of whether the data may be suitable for disclosure by the Agency when implementing its policy on access to clinical trial data, this cannot negate the Agency's legal obligation to ensure that it complies fully with its obligations as data controller. Proposed change (if any): Section 5.4 should commence with the following statement: "The EMA is the data controller in respect of any information that it holds and that it intends to release for the purposes of its policy on access to clinical trial data. In case of the main body of the clinical study reports and appendixes (excluding line listings), the EMA requests that the applicant company provides its views on the risk of compromising subjects' identity in case of wide publication of those data. If the applicant company indicates that the risk cannot be considered to be absent or sufficiently low (e.g., inclusion of narratives including non-aggregated indirect identifiers,	Grant Castle for Christiane Abouzeid	UK BioIndustry Association (BIA)

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	description of outliers, tables with sparse data), the EMA requests that the applicant company shall submit two sets of documents, the original documents clearly labelled as "NOT FOR PROACTIVE PUBLICATION", and the documents containing information that the company considers to be de-identified data, indicating its view that the information is "SUITABLE FOR PROACTIVE PUBLICATION". However, as data controller, the EMA remains responsible for ensuring that the privacy of subjects is adequately safeguarded in accordance with applicable data protection laws."		
114	Comment: Requiring applicant companies to submit two versions of every CSR is unnecessary and burdensome.	Susanna Del Signore	EFPIA
120	Comment: The EMA will be the data controller in respect of any information that it holds and that it intends to release for the purposes of its policy on access to clinical trial data. While it may ask companies submitting data for an indication of whether the data may be suitable for disclosure by the Agency when implementing its policy on access to clinical trial data, this cannot negate the Agency's legal obligation to ensure that it complies fully with its obligations as data controller. Proposed change (if any): The text should read: "In case of raw data and line-listings, generally, available methods for de-identifying personal data cannot achieve complete de-identification while preserving sufficient analytical utility of the data, the EMA requests that applicant companies consider whether de-identifying and making available for wide access a subset of the data in case of e.g., the main analysis set, containing a limited number of indirect identifiers so that the risk of compromising subjects' identity in case of wide publication of those data is considered to be absent or sufficiently low whilst preserving the ability to replicate the main analysis. The EMA requests that the applicant company provides its views on this issue and whether it considers this is possible. Where this is the case, the EMA requests that the company express its view that the de-identified data is "SUITABLE FOR PROACTIVE PUBLICATION". However, as data controller, the EMA remains responsible for ensuring that the privacy of subjects is adequately safeguarded in accordance with applicable data protection laws."	Grant Castle for Christiane Abouzeid	UK BioIndustry Association (BIA)
120	Comment: EFPIA is not in favour of publication of patient level data. CSRs containing patient level data should not be published.	Susanna Del Signore	EFPIA
122	Comment: EFSPi proposes open access to data should only be to aggregate level (summary) data and access to patient level data is only made available via a secure system controlled by the regulators or by the owner of the data in order to ensure patient confidentiality.	Stefan Driessen	EFSPi (European Federation of Statisticians in the Pharmaceutical Industry)
127	Comment: If data need to be de-identified for 'wide access', i.e. with no known purpose at the time of de-identification, then this will be a futile exercise. This will be because the level of needed de-identification will have to be so severe that the resultant scientific value of the data will be reduced.	Susanna Del Signore	EFPIA
128	Comment: As far as raw data are concerned, the access under strict rules should rather be the general setting. This could become similar to the gatekeeper model that has been suggested by EFPIA but the research proposal needs	Susanna Del Signore	EFPIA

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	to be reviewed and assessed. • There is no mention of publication of the results of the additional analyses and this would seem very reasonable in terms of transparency. • As stated above, there is no need to take the risk to access key-coded data since de-identified data (in such circumstances) should be sufficient.		
136	Comment: The EMA will be the data controller in respect of any information that it holds and that it intends to release for the purposes of its policy on access to clinical trial data. While it may ask companies submitting data for an indication of whether the data may be suitable for disclosure by the Agency when implementing its policy on access to clinical trial data, this cannot negate the Agency's legal obligation to ensure that it complies fully with its obligations as data controller. Proposed change (if any): The end of section 5.6 should include a statement that "As data controller, the EMA remains responsible for ensuring that the privacy of subjects is adequately safeguarded in accordance with applicable data protection laws."	Grant Castle for Christiane Abouzeid	UK BioIndustry Association (BIA)
140	Comment: EFSPi is of the opinion that this section in contrast to the Summary in this document still makes the argument that patient level data can be sufficiently de-identified while maintaining analytical utility of the data. See first comment.	Stefan Driessen	EFSPi (European Federation of Statisticians in the Pharmaceutical Industry)
141	Comment: The EMA will be the data controller in respect of any information that it holds and that it intends to release for the purposes of its policy on access to clinical trial data. While it may ask companies submitting data for an indication of whether the data may be suitable for disclosure by the Agency when implementing its policy on access to clinical trial data, this cannot negate the Agency's legal obligation to ensure that it complies fully with its obligations as data controller. Proposed change (if any): The first sentence of section 6.1 should read: "Applicant companies may use different transformation methods to assist the EMA in ensuring that data the EMA proposes to publish are de-identified."	Grant Castle for Christiane Abouzeid	UK BioIndustry Association (BIA)
141	Comment: EFPIA is convinced that it is necessary to understand the intended purpose for sharing the data and its intended benefit to science, public health and medicine. This then allows the risk to patient confidentiality to be assessed in the context of the informed consent and the necessary mitigation actions, i.e. level of de-identification, can be confirmed. This is part of the gatekeeper model.	Susanna Del Signore	EFPIA
146	Comment: Is it recommended by EMA for applicants to use this, if so change sentence to: Proposed change (if any): It is recommended that applicants use the minimum data standard for de-identifying data described in Hrynaszkiewicz et al.	Mary Sinnathamby	Parkinson's UK
148	Comment: Confusing sentence, had difficulties understanding the exact meaning: "The methods of de-identification should also be such that it is to be expected that adherence will preclude subject de-identification even when applying linkages with other data carriers (e.g., social media).	François Houyez	European Organisation for Rare Diseases (Eurordis)
155	Comment: How are very rare diseases defined compared to rare diseases that have a legal definition?	François Houyez	European Organisation

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	Proposed change (if any): Methods and extent of de-identification should be adapted to sensitive or controversial situations that might lead to discrimination if the subject can be identified, as well as situations with an intrinsic higher risk of identification such as rare diseases.		for Rare Diseases (Eurordis)
157	Comment: The EMA will be the data controller in respect of any information that it holds and that it intends to release for the purposes of its policy on access to clinical trial data. While it may ask companies submitting data for an indication of whether the data may be suitable for disclosure by the Agency when implementing its policy on access to clinical trial data, this cannot negate the Agency's legal obligation to ensure that it complies fully with its obligations as data controller. Proposed change (if any): The first sentence of section 6.4 should read: "The EMA is the data controller in respect of any information that it holds and that it intends to release for the purposes of its policy on access to clinical trial data. Applicant companies shall explain in general terms for each document the de-identification methods used. However, as data controller, the EMA remains responsible for ensuring that the privacy of subjects is adequately safeguarded in accordance with applicable data protection laws. If the EMA considers that the de-identification methods are insufficient or excessive, the Agency shall ask the applicant company to further justify and if necessary modify the de-identification method."	Grant Castle for Christiane Abouzeid	UK BioIndustry Association (BIA)
161	Comment: The Data Protection Directive 95/46/EC defines the "data controller" as the "natural or legal person, public authority, agency or any other body which alone or jointly with others determines the purposes and means of the processing of personal data." Since the EMA has decided to operate a policy of granting broad access to study data it holds, it will be the data controller in respect of any information that it holds and that it intends to release for the purposes of its policy. It cannot delegate its legal responsibilities to a third party. Proposed change (if any): Section 6.5 should read "The Agency will consider whether it wishes to systematically verify that the data submitted as de-identified data contain no personal data."	Grant Castle for Christiane Abouzeid	UK BioIndustry Association (BIA)
161	Comment: Please clarify whether this pertains to data submitted or data to be submitted. The latter will require clear guidance from the regulators to the Applicants guaranteeing patient confidentiality, or will be the responsibility of the Agency itself disclosing the data.	Stefan Driessen	EFSPi (European Federation of Statisticians in the Pharmaceutical Industry)
172	Comment: This summary of comments is helpful and a good reference to the discussions in the group but given without context. Some of the comments are contradictory within the set of comments and some of them also contradict the positions in section 5 and 6.	Stefan Driessen	EFSPi (European Federation of Statisticians in the Pharmaceutical Industry)
n/a	I remember that during the last meeting I referred to a published, open access, clinical trial dataset and agreed to send it. Sorry for not doing this sooner. There was discussion about whether clinical trial data could still be useful to other research groups if it had been de-identified. One attendee suggested that de-identified data, if information had been removed to ensure anonymity, was	Iain Hrynaskiewicz	

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	not valuable. They said all data should only be available on a case-by-case basis. I believe strongly this is wrong. Making anonymised data available, when it is possible to protect patient privacy, can be valuable. Moreover, placing all data by default behind a barrier and requiring all reuses of data to first have to go through a request/permission process will only slow down scientific progress. Making data available open access means scientists can spend more time doing science, and less time filling in forms. Here is the example: The International Stroke Trial database Peter AG Sandercock, Maciej Niewada, Anna Członkowska, the International Stroke Trial Collaborative Group Trials 2011, 12:101 (21 April 2011) http://www.trialsjournal.com/content/pdf/1745-6215-12-101.pdf http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3104487/ The authors published the anonymised individual patient data from one of the largest trials in acute stroke ever conducted – 19,000 patients. The data are available as a spreadsheet – a CSV file – included as supplementary material with the article. The authors have subsequently reported that the data are being re-used by two other research groups (the lead author Peter Sandercock is quoted here, http://blogs.biomedcentral.com/bmcblog/2013/01/21/open-data-award-2012-get-your-votes-in-now/). Because the data are open access it's possible others are using the data too, but we not know until they publish a paper about their findings or contact the authors. Where datasets cannot be disclosed due to concerns about the privacy of subjects, metadata about the datasets should be provided so those wishing to seek data for reuse can easily see the nature of what is available. For example, datasets which cannot be published could be listed with: Name of the trial Intervention (drug/device) being studied Name(s) of investigator(s) Number of subjects File type(s) and format(s) Sponsor of study Date(s) trial conducted Date of submission of data to the EMA Trial registration number (ISRCTN/NCT number) Finally, a comment on terminology. Why does the EMA continually say “proactive publication” ? What do they mean by “proactive”? Publication is publication – do we need the adjective?		