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1 June 2021

Dr. Jicui Dong & Dr. Steve Estevão Cordeiro
World Health Organization
CH-1211 Geneva 27
Switzerland

Re: Working document QAS/20.869/Rev.1 *WHO guidelines on the transfer of technology in pharmaceutical manufacturing*

Dear Dr. Dong and Dr. Estevão:

PDA has reviewed WHO's revised proposal to update its guideline on the transfer of technology in pharmaceutical manufacturing. We sincerely thank you and the entire WHO team for your thoughtful consideration of the comments provided on the earlier proposal. In general, PDA believes that the revised draft provides a useful and relevant overview of considerations for technology transfer.

In the attached comment table, PDA suggests several specific additions that would help users understand the role of the marketing authorization holder (MAH) in a technology transfer. It is increasingly common that the MAH will be neither sending unit nor receiving unit. This trend of using contractors for all stages of manufacturing may continue to grow as companies globalize and manufacturers seek to reach new markets. Even when the MAH is not directly engaged in manufacturing, it has legal responsibilities and should engage in aspects of the technology transfer.

Because of the global reach of WHO's guidelines, PDA strongly encourages WHO to discuss the role of the MAH in more detail. This would help not only the authorization holders, but also the contracted manufacturers (sending units and receiving units) and service providers, to understand their roles in the technology transfer context. The additional content that we suggest would alert readers to the MAH's overall responsibility for compliance with regulatory expectations and commitments, as well as for the updating of regulatory documentation, without unnecessarily complicating the guideline. PDA also would be happy to provide additional expertise and assistance as WHO continues to develop this guideline.

PDA is a non-profit international professional association of more than 10,000 individual member scientists having an interest in the fields of pharmaceutical, biological, and device manufacturing and quality. Our comments have been prepared by a committee of global experts in technology transfer and pharmaceutical and biopharmaceutical manufacturing on behalf of PDA's Regulatory Affairs and Quality Advisory Board and Board of Directors.

If you have any questions, please do not hesitate to contact me via email at johnson@pda.org.

Sincerely,

Richard Johnson
President and CEO

cc: Sinéad Jones, WHO; Glenn Wright, PDA; Ruth Miller, PDA

TEMPLATE FOR COMMENTS

World Health Organization

Norms and Standards for Pharmaceuticals (NSP)
Health Products Policy and Standards (HPS)

COMMENTS ON WHO WORKING DOCUMENT: QAS/20.869/Rev1
TITLE OF THE DOCUMENT: WHO GUIDELINES ON THE TRANSFER OF TECHNOLOGY IN PHARMACEUTICAL MANUFACTURING

Name: Parenteral Drug Association
Employer:
Position, Title:
City, Country: Bethesda, Maryland, USA and Berlin, Germany

*Kindly complete the table **without modifying the format** of the document - thank you.*

Comments			
Please don't add any personal information as the comments might be published			
Line number(s)	**Comments**	**Suggested text**	**Justification**
262	PDA suggests adding a definition of Marketing Authorisation Holder (MAH). While WHO has added a few references to the role of the MAH, PDA believes that readers would benefit from a more comprehensive description of the role of the MAH, and a reminder that the MAH has legal responsibilities. The first sentence of the definition provided in the next column is WHO's definition, and we suggest adding a sentence specific to the MAH's role in technology transfer. (The definition is taken from WHO's Marketing Authorization of Pharmaceutical Products with Special Reference to Multisource (Generic) Products: A Manual for Drug Regulatory Authorities (WHO/DMP/RGS/98.5). If WHO has revised its definitions since that publication, we defer to WHO.)	Add: Marketing Authorisation Holder (MAH). The person or company in whose name the marketing authorization has been granted. This party is responsible for all aspects of the product, including quality and compliance with the conditions of marketing authorization. The marketing authorisation holder has the overall responsibility for defining the technology transfer between the SU and the RU.	With the increased usage of contract development and manufacturing organizations throughout the product lifecycle, the role of the MAH in a technology transfer can be difficult to understand and to describe. Even so, it is important to clarify that the MAH has an oversight role. We are aware that some transfers of technology between contract manufacturing and development organizations appear to occur without involvement of the MAH, but WHO should be careful to avoid suggesting that this is appropriate.
595	PDA suggests a wording change to clarify the role of the MAH in the initiation phase of the project.	12.2. During the initiation phase of the project, ~~a unit~~ the MAH (which may also be the SU) ~~should normally~~ identifies~~y~~ the need for the technology transfer. This may be because of lack of capacity, transfer from development to commercial site or transfer from one company to another.	If the SU is a CMO and is not the MAH (as is increasingly common), the SU would not be the entity to identify the need for a technology transfer. The MAH or "owner" of the product is the one to make that determination. Indeed, the MAH can decide to transfer the technology even over the objection of the SU or without the SU's knowledge. This sentence should be revised to recognize the authority of the MAH to make this decision.

Comments			
Please don't add any personal information as the comments might be published			
599	PDA suggests a wording change to clarify that the MAH is involved in the initial discussion about whether to undertake a technology transfer	12.3. The MAH~~units~~ should establish initial discussion with potential RUs and identify whether or not there is any interest for such a project (See also section on due diligence above.)	By using the term "units," WHO appears to be referring to the SU and RU. As noted above, however, the MAH may seek RUs without engaging the SU, if the SU is a CMO. In fact, since the MAH retains responsibility for compliance with regulatory commitments, the MAH should be involved in initial discussions to determine whether a potential RU is an appropriate choice.
611	PDA strongly suggests that WHO explicitly include the MAH in the technology transfer team, if the MAH is a different entity than the SU.	12.7. The MAH, SU (if different from the MAH) and RU should jointly establish a team that will coordinate activities and execute the technology transfer exercise.	Because the MAH retains responsibility for updating regulatory documentation, the MAH should participate on the technology transfer team with the RU. The MAH's participation is essential for timely regulatory notifications, which in turn are necessary to the RU's manufacturing process and timelines. If the MAH is also the SU, this participation is obvious. If the SU is a CMO, however, the need for the MAH to participate is sometimes overlooked. By revising this sentence to explicitly include the MAH, WHO can help raise awareness of the MAH's role.
650	PDA suggests a wording change to clarify the MAH's potential role in sharing process development information.	12.17. The SU and/or MAH should provide any information on the history of process development which may be required to enable the RU to perform any further development and or process optimization after successful transfer.	Initial process development might take place at MAH and it might be transferred to other CMOs before the (current manufacturer) SU. In such cases MAH would be the source of most of the historical information.
941	The European Medicines Agency's Reflection Paper on Good Manufacturing Practice and Marketing Authorisation Holders contains helpful interpretation of the role of MAHs in the outsourced manufacturing of pharmaceuticals. PDA therefore suggests adding that document to the "Further Reading" list.	Add: Reflection Paper on Good Manufacturing Practice and Marketing Authorisation Holders. EMA, 2020 (EMA/457570/2019) https://www.ema.europa.eu/en/documents/scientific-guideline/reflection-paper-good-manufacturing-practice-marketing-authorisation-holders_en.pdf	Addition of this document to the "Further Reading" list could help readers understand the role of the MAH without requiring WHO to add numerous references to the MAH throughout the document.