African Vaccine Regulatory Forum (AVAREF)

QUALITY ASSESSMENT

Short Title Protocol No. Version No. Study Drug Date of review Name of reviewers

1.1. Introduction

Note

Scientific advice

1.2. GMP compliance

Information about all manufacturers involved (Drug Substance, Drug Product, placebo etc) and evidence of GMP (manufacturing licenses/ GMP certs, QP declarations provided):

<u>Note</u>

Name and address of site (can be cut and paste from IMPD)	Function (include reference to PRx, PLx etc as relevant)	declarat	ration of valid license/ QP tion (tick if provided or comment if able/ not required)

1.3. Assessment of the IMPD¹ (PR1, PR2 etc, replicate section 3 as required)

Delete non-relevant sections of text as required, but not headings

Registered, non-mod IMPD(in this case se		roduct only SmPC has been provided, .3 is not required)		
<u>Note</u>				
Assessment of the II	MPD is	included in section 3.3		
3 S Drug substanc	e			
The Drug substance	:			
Has a monograph in	- I	Ph. Eur. \Box a Pharmacopoeia of an EU MS \Box USP/JP \Box		No 🗆
	'es □ No □	If yes: CEP no: Holder: special tests/limits, re-test period, TSE ir should be indicated:	nformation,	if relevant,
		<u>Note</u>		
Is the active substar	nce of a	an authorised drug product in the EU?	Yes □ N	0 🗆
None of the above (full S S	ection is needed):		
1 General Infoi	rmatio	n		
1.1 Nomenclature				
<u>ote</u>				
Assessor's comme	ent:			
1.2 Structure				
Does the submitted	docum	entation cover this subsection adequately	Yes □ N	lo □ NA □

<u>Note</u>

1.3 General Properties Does the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover the	
Does the submitted material cover this subsection adequately? Yes \(\) Note that the b Assessor's comment: By Manufacture 2.1 Manufacture(s) Substance: Sites declared Yes \(\) Note that the submitted material cover this subsection adequately? Yes \(\) Note that the submitted material cover this subsection adequately?	
Assessor's comment: 2 Manufacture 2.1 Manufacturer(s) Gubstance: Sites declared Assessor's comment:	
Assessor's comment: 2 Manufacture 2.1 Manufacturer(s) Substance: Sites declared Yes \(\) N Assessor's comment:	□ NA □
Assessor's comment: 2 Manufacture 2.1 Manufacturer(s) Substance: Sites declared Yes \(\) N Assessor's comment:	
Assessor's comment: 2 Manufacture 2.1 Manufacturer(s) Substance: Sites declared Yes Assessor's comment:	
2 Manufacture 2.1 Manufacturer(s) Substance: Sites declared Yes Assessor's comment:	
2.1 Manufacturer(s) Substance: Sites declared Yes Assessor's comment:	
2.1 Manufacturer(s) Substance: Sites declared Yes Assessor's comment:	
2.1 Manufacturer(s) Substance: Sites declared Yes Assessor's comment:	
Substance: Sites declared Yes N Assessor's comment:	
Substance: Sites declared Yes N Assessor's comment:	
	o 🗆 NA 🗆
See section 3.2 GMP Compliance above	
2.2 Description of Manufacturing Process and Process Controls	
Substance: Manufacturing process and its controls are adequately $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	

<u>lote a</u>	
lote <u>b</u>	
Assessor's comment:	
.2.3 Control of Materials	
Control of materials is adequately described	Yes □ No □ NA □
Note a	
Note b	
<u>Note c</u>	
Assessor's comment:	
.2.4 Control of Critical Steps and Intermediates	
Control of critical steps and intermediates is adequately described	Yes □ No □ NA □

S.2.5 Process Validation and/or Evaluation

Assessor's comment:

Process validation is adequately described	Yes □ No □ NA □
Assessor's comment:	
Manufacturing Process Development Manufacturing process development is adequately described	Yes □ No □ NA □
<u>te</u>	
Assessor's comment:	
For biological IMPs: Comment on comparability data, if relevant.	
3 Characterisation	
3 Characterisation 3.1 Elucidation of Structure and other Characteristics	Yes □ No □ NA □
3 Characterisation 3.1 Elucidation of Structure and other Characteristics Substance is sufficiently characterised	Yes □ No □ NA □
3 Characterisation 3.1 Elucidation of Structure and other Characteristics Substance is sufficiently characterised	Yes No NA
3 Characterisation 3.1 Elucidation of Structure and other Characteristics Substance is sufficiently characterised Ote Assessor's comment:	Yes No NA

Note a

Note b

Assessor's comment:	
4 Control of Drug Substance 4.1 Specification(s)	
An adequate drug substance specification, including appropriate limits, has been proposed.	Yes □ No □ NA □
<u>ote</u>	
Assessor's comment:	
4.2 Analytical Procedures	
The analytical methods have been adequately described	Yes □ No □ NA □
Assessor's comment:	

S.4.3 Validation of Analytical Procedures

For phase I trials suitability of methods commensurate with stage of development has been confirmed; acceptance limits and parameters for performing validation of the analytical methods are presented	Yes □ No □ NA □
For phase II/III trials, suitability of methods commensurate with stage of development has been demonstrated and a summary of validation results is provided	Yes □ No □ NA □
Assessor's comment:	
S.4.4 Batch Analyses	
Representative batch analyses data provided for all the relevant manufacturing process and for each drug substance manufacturer	Yes □ No □ NA □
Assessor's comment:	
<u>Note</u>	
S.4.5 Justification of Specification(s)	
Justification of specifications is acceptable	Yes □ No □ NA □
Note:	
<u>Note</u>	
Assessor's comment:	

S.5 Reference Standards or Materials

Reference Standard: A suitable reference standard is adequately described	Yes □ No □ NA □
Assessor's comment:	
6 Container Closure System	
Substance container is adequately characterised and suitable for the drug substance.	Yes □ No □ NA □
Assessor's comment:	
7 Stability	
7 Stability Substance stability is satisfactory and adequately described for all relevant manufacturing processes	Yes □ No □ NA □
Substance stability is satisfactory and adequately described for all	Yes □ No □ NA □
Substance stability is satisfactory and adequately described for all	Yes □ No □ NA □
Substance stability is satisfactory and adequately described for all relevant manufacturing processes	f-life (delete/amend
Substance stability is satisfactory and adequately described for all relevant manufacturing processes List proposed shelf-life/retest period and storage conditions of DS. Summary of stability studies provided in support of the proposed shelf columns as appropriate). State number of months for which data is av Batch details (e.g. batch number) Manufacturing process 25°C /	f-life (delete/amend
Substance stability is satisfactory and adequately described for all relevant manufacturing processes List proposed shelf-life/retest period and storage conditions of DS. Summary of stability studies provided in support of the proposed shelf columns as appropriate). State number of months for which data is av Batch details (e.g. batch number) Manufacturing process	f-life (delete/amend vailable.
Substance stability is satisfactory and adequately described for all relevant manufacturing processes List proposed shelf-life/retest period and storage conditions of DS. Summary of stability studies provided in support of the proposed shelf columns as appropriate). State number of months for which data is av Batch details (e.g. batch number) Manufacturing process 25°C / 60 % RH 30°C / 65 % RH 40°C /	f-life (delete/amend vailable.
Substance stability is satisfactory and adequately described for all relevant manufacturing processes List proposed shelf-life/retest period and storage conditions of DS. Summary of stability studies provided in support of the proposed shelf columns as appropriate). State number of months for which data is av Batch details (e.g. batch number) Manufacturing process 25°C / 60 % RH 30°C / 65 % RH 40°C / 75 % RH	f-life (delete/amend vailable. -70°C -20°C 5 °C

Assessor's comment:	
.3. P Drug Product name of IMP (repeat section for additional 1	IMPs)
2.1 Description and Composition of the Investigational Medicina	al Product
Drug product: Description and composition is adequate.	Yes □ No □ NA □
<u>lote</u>	
Assessor's comment:	
2.2 Pharmaceutical Development	V C N- C NA C
Drug product: Pharmaceutical development is adequately described	Yes □ No □ NA □
Assessor's comment:	
2.3 Manufacture	
2.3.1 Manufacturer(s)	
Drug Product: Sites declared	Yes □ No □ NA □

Assessor's comment:	
See section 3.2 GMP Compliance above.	
3.2 Batch Formula	
Drug product: batch formula is adequately described	Yes □ No □ NA □
<u>ote</u>	
Assessor's comment:	
Assessor's Comment.	
3.3 Description of Manufacturing Process and Process Cont	rols
3.3 Description of Manufacturing Process and Process Cont Drug product: Manufacturing process and process control are adequately described	rols Yes □ No □ NA □
Drug product: Manufacturing process and process control are	
Drug product: Manufacturing process and process control are	
Drug product: Manufacturing process and process control are adequately described	
Drug product: Manufacturing process and process control are adequately described	
Drug product: Manufacturing process and process control are adequately described	
Drug product: Manufacturing process and process control are adequately described ote Assessor's comment:	
Drug product: Manufacturing process and process control are adequately described ote Assessor's comment: 3.4 Controls of Critical Steps and Intermediates Drug product: Controls of Critical Steps and Intermediates are	Yes No NA NA
Drug product: Manufacturing process and process control are adequately described ote Assessor's comment: 3.4 Controls of Critical Steps and Intermediates Drug product: Controls of Critical Steps and Intermediates are	Yes No NA NA

Process validation is adequately described	Yes □ No □ NA□
Tocos validation is decidately described	
<u>ote</u>	
Assessor's comment:	
.4 Control of Excipients	
<u>lote</u>	
P.4.1 Specifications	
For excipients not described in current pharmacopoeias adequate specifications and acceptance criteria have been provided	Yes □ No □ NA □
Assessor's comment:	
Assessor's comment:	
.4.2 Analytical Procedures	
Analytical procedures are adequately described	Yes □ No □ NA □
Assessor's comment:	
Assessor S comments	
.4.3 Validation of the Analytical Procedures	
Analytical procedures are adequately validated	Yes □ No □ NA □

sessor's comment:	
1.4 Justification of Specifications	
An adequate justification for excipients specification and limits is	Yes □ No □ NA □
described	
Assessor's comment:	
<u>Note</u>	
4.5 Excipients of Animal or Human Origin	
4.5 Excipients of Animal or Human Origin	
	Yes □ No □ NA □
	Yes □ No □ NA □
The IMP contains excipients of animal origin	Yes
The IMP contains excipients of animal origin	
The IMP contains excipients of animal origin TSE Safety Confirmation provided	
The IMP contains excipients of animal origin TSE Safety Confirmation provided	
The IMP contains excipients of animal origin TSE Safety Confirmation provided	
The IMP contains excipients of animal origin TSE Safety Confirmation provided	
The IMP contains excipients of animal origin TSE Safety Confirmation provided	
The IMP contains excipients of animal origin TSE Safety Confirmation provided Assessor's comment:	
The IMP contains excipients of animal origin TSE Safety Confirmation provided Assessor's comment: 4.6 Novel Excipients	Yes No NA
The IMP contains excipients of animal origin TSE Safety Confirmation provided Assessor's comment: 4.6 Novel Excipients	
The IMP contains excipients of animal origin TSE Safety Confirmation provided Assessor's comment: 4.6 Novel Excipients	Yes No NA
The IMP contains excipients of animal origin TSE Safety Confirmation provided Assessor's comment: 4.6 Novel Excipients	Yes No NA
4.5 Excipients of Animal or Human Origin The IMP contains excipients of animal origin TSE Safety Confirmation provided Assessor's comment: 4.6 Novel Excipients Drug product: Excipients are adequately controlled	Yes No NA
The IMP contains excipients of animal origin TSE Safety Confirmation provided Assessor's comment: 4.6 Novel Excipients	Yes No NA

P.5 Control of Drug Product

P.5.1 Specification:	S
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appropriate limits, is described	Yes □ No □ NA □
<u>e</u>	
ssessor's comment:	
5.2 Analytical Procedures	
The analytical methods have been adequately described	Yes □ No □ NA □
Assessor's comment:	
5.3 Validation of Analytical Procedures For phase I trials suitability of methods commensurate with stage of levelopment has been confirmed; acceptance limits and parameters	
5.3 Validation of Analytical Procedures For phase I trials suitability of methods commensurate with stage of development has been confirmed; acceptance limits and parameters for performing validation of the analytical methods are presented for phase II/III trials, suitability of methods commensurate with stage of development has been demonstrated and a summary of	
5.3 Validation of Analytical Procedures For phase I trials suitability of methods commensurate with stage of levelopment has been confirmed; acceptance limits and parameters or performing validation of the analytical methods are presented for phase II/III trials, suitability of methods commensurate with tage of development has been demonstrated and a summary of	
5.3 Validation of Analytical Procedures For phase I trials suitability of methods commensurate with stage of development has been confirmed; acceptance limits and parameters for performing validation of the analytical methods are presented for phase II/III trials, suitability of methods commensurate with stage of development has been demonstrated and a summary of validation results is provided	

P.5.4 Batch Analyses Representative batch analyses provided for each drug product Yes □ No □ NA □ manufacturer and its link to manufacturing processes (if relevant) Assessor's comment: P.5.5 Characterisation of Impurities Drug product impurity information provided is acceptable Yes \square No \square NA \square Assessor's comment: <u>Note</u> P.5.6 Justification of Specification(s) Drug product: An adequate justification for drug product specification \quad Yes \quad No \quad NA \quad and limits is described Assessor's comment:

P.6 Reference Standards or Materials

Reference Standard: A suitable reference standard is adequately described	Yes □ No □ NA □	

Note							
<u>Vote</u>							
7 Container Clos	ure System						
Product container	is adequately chara	acterised a	and suited	for the	IMP Ye	s 🗆 No 🗆	NA 🗆
Assessor's comn	nent:						
8 Stability							
8.1 Stability Su	ımmary and Conc	lusion					
8.2 Post-appro	val Stability Prot	ocol and	Stability	Commit	tment		
8.3 Stability Da	ata						
Drug product has	been adequately te	sted rega	rding stab	ility	Ye	s 🗆 No 🗆	NA 🗆
hat is proposed sh	nelf-life and storage	condition	of IMP?				
						alata /amai	nd columns
	y studies provided i te the number of m					erete/arrier	
						erete/arrier	
						30°C / 65% RH	40°C /
Batch details (e.g. batch	te the number of m	onths for	which dat	a are av	25°C / 60%	30°C / 65%	40°C / 75% RH
Batch details (e.g. batch	te the number of m	onths for	which dat	a are av	25°C / 60%	30°C / 65%	40°C /
Batch details (e.g. batch	te the number of m	onths for	which dat	a are av	25°C / 60%	30°C / 65%	40°C /
Batch details (e.g. batch number)	te the number of m	-70°C	-20°C	a are av	25°C / 60%	30°C / 65%	40°C /

Assessor's comment:	
3.3 A Appendices	
1.1 Facilities and Equipment	
lot applicable	
A.2 Adventitious Agents Safety Evaluation	
Safety related to adventitious agents is adequate	Yes □ No □ NA □
lote: If not applicable, text below can be deleted:	
Summarise acceptability of information provided on:	
<u>'SE agents</u>	
Short description or list of materials from TSE-risk $s_{ m F}$ fur 5.2.8 (relevant EDQM TSE-Certificate or adequate	
Viral safety	
Identification of materials of biological origin: (e.g. Creagents (e. g. cell culture media blood), as well as ex	
Testing of source materials: Summarise the testing redequate?	regime. Is the testing regime appropriate and
Testing of unpurified bulk: Is the strategy for routine	e testing adequate?
Viral clearance studies: Is the study design according	g to relevant guidelines.
Summary of the viral clearance studies (model viruse heoretical viral load).	es used, viral clearance steps, total
Other adventitious agents	

A.3 Novel Excipients

Information on novel excipients has been provided in line with the respective clinical phase	Yes □ No □ NA □
Note a	
Note <u>b</u>	
Assessor's comment:	
A.4 Solvents for Reconstitution/Dilution	
Information on solvents has been provided	Yes □ No □ NA □
Assessor's comment: Note	
1.4. Comparator (Comparator 1, comparator 2 etc – individual sectors assessment form (3.S and 3.P) for IMPs to be replicated as re	tions of the quired)
The data provided for the comparator is acceptable Ye	s No NA N
<u>Note</u>	
Assessor's comment:	

Or (delete if not applicable): No information has been provided, but this is acceptable as product has the same composition as the IMP, is manufactured by the same manufacturer and is not sterile	
has the same composition as the IMP, is manufactured by the same	
<u>Note</u>	
Summary of information provided and its acceptability:	
P.1 Description and composition	
P.2 Pharmaceutical Development	
P.3 Manufacture	
P.4 Control of Excipients	
P.5 Control of Placebo Product	
P.6 Container closure system	
P.7 Stability	
Assessor's comment:	
1.6. Auxiliary medicinal products – individual sections of the asses3.P) for IMPs to be replicated as required	ssment form (3.S and
The quality data provided for non authorised auxiliary medicinal products are acceptable	Yes No NA
<u>Note</u>	
3.S	

Assessor's comment:	
1.7. Additional considerations for ATMPs or combined produ	icts (involving devices)
Additional information has been provided	Yes □ No □ NA □
<u>Note</u>	
Summarise information provided including:	
- Adequate description of transport to clinical trial site	
- Adequate description of storage at clinical trial site	
Adequate description of reconstitution of ATMP.	
Assessor's comment:	
1.8. Labelling	
Are the proposed labeling in line with ANNEX VI of the Regulation	Yes □ No □ NA □
Assessor's comment:	
w	
<u>Note</u>	

1.9. Blinding

Assessor's comment:		
<u>Note</u>		
.10. Assessor's Overall Conclusions on the Quality Part		
The quality data are acceptable		
	_	
Supplementary information needs to be provided (refer to the		
	_	
Supplementary information needs to be provided (refer to the	_	

1.10.1.REQUESTS FOR ADDITIONAL INFORMATION: QUALITY (see also Section 9):