CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

218771Orig1s000

PRODUCT QUALITY REVIEW(S)

Title:	NDA IQA Template Title Page-EXEC SUMMARY
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Office of Pharmaceutical Quality

New Drug Application (NDA)
Integrated Quality Assessment Template

NDA Executive Summary

1. Application/Product Information

NDA Number	218771		
Applicant Name	Almaject Inc.		
Drug Product Name	Teriparatide Injection		
Dosage Form	Injection		
Proposed Strength(s)	600 mcg/2.4 mL (250mcg/mL)		
NDA Classification	Type 5 – New Formulation or New Manufacturer		
Route of Administration	Subcutaneous		
Maximum Daily Dose	20 mcg		
Rx/OTC Dispensed	Rx		
Proposed Indication	Treatment of postmenopausal women with osteoporosis at high risk for fracture		
Drug Product Description	The drug product is a sterile, clear, colorless solution filled in a multi-dose, single patient use, prefilled pen intended for administering subcutaneously, a daily dose of 20mcg for 28 days. Each milliliter of drug product contains 250 mcg teriparatide.		
Co-packaged product information	NA		
Device information	N/A		
Storage Temperature/ Conditions	(b) (4)		
Review Team	**Discipline**	**Primary**	**Secondary**
	Drug Substance	Zhengfu Wang	-
	Drug Product/ Labeling	Charudharshini Srinivasan	Muthukumar Ramaswamy
	Manufacturing	Xueli Zhu	Erin Kim

	Biopharmaceutics	-	-
	Microbiology	Jianli Xue	Nandini Bhattacharya
	Other (specify)	-	-
	RBPM	Oluwafunmike (Funke) Ajomale	
	ATL	Muthukumar Ramaswamy	
Consults	CDRH: Bingjie Liang/Shruti Mistry		

2. Final Overall Recommendation - Approval

3. Action Letter Information

a. Expiration Dating: Storage condition and shelf-life for the proposed product is the same as that recommended for the previously approved product, Bonsity (teriparatide) injection, which is 24 months from the date of manufacture, when stored at 2°C to 8°C.

b. Additional Comments for Action- none

4. Basis for Recommendation:

a. Summary of Rationale for Recommendation:

The Office of Pharmaceutical Quality Review team has assessed the Chemistry, Manufacturing, and Controls (CMC) information for NDA 218771 and determined that the NDA meets all applicable standards to support the quality and purity of the drug product. As such, OPQ recommends approval of this NDA from a quality perspective.

Teriparatide is a 34 amino acid peptide. The amino acid sequence of teriparatide is identical to N terminal (1-34) portion of the human parathyroid hormone. The proposed product, teriparatide injection, 600mcg/2.4 mL (250mcg/mL) is a sterile solution filled in a multi-dose single patient use prefilled pen and intended for delivering a daily dose of 20mcg subcutaneously. For the proposed drug product, the applicant, Almaject Inc is seeking therapeutic equivalence designation to the listed drug, Forteo (teriparatide) injection, 600mcg/2.4 mL (250mcg/mL).

The applicant, Almaject Inc. has referenced Alvogen's approved NDA 211939, Bonsity (teriparatide) injection, for all CMC information. Thus, the proposed drug substance, drug product formulation, manufacturing process and control, and container closure system used for the proposed product are the same as the approved NDA 211939. Almaject Inc. is a subsidiary of Alvogen Inc. (the owner of the approved NDA 211939) and share resources and quality system documentation.

Since this NDA references NDA 211939 for all CMC information about the drug substance teriparatide, it is concluded, the applicant has provided sufficient information about the drug substance to support this NDA. It is to be noted that the limit used for total methionyl sulfoxides (NMT (b) (4)%, sum of Met^{8}, Met^{18} and $Met^{8,18}$) in drug substance specification (b) (4) specified in USP Teriparatide monograph (NMT 0.5%). The limits specified for total impurities and other impurities in drug substance specification meets the USP monograph for teriparatide.

Regarding (b) (4)
(b) (4)
(b) (4)
(b) (4)

The proposed product formulation is the same as the formulation sued in Forteo. Each milliliter of proposed drug product contains 250 mcg teriparatide, 0.41 mg glacial acetic acid, 0.10 mg sodium acetate provided as 0.16mg sodium acetate trihydrate, 45.4 mg mannitol, 3 mg metacresol, and water for injection. The target pH of the product is 4.0. Therefore, we conclude that Forteo and the proposed Almaject drug products contain the same active ingredient, the dosage form (solution for injection), the product strength, (600mcg/2.4mL), product concentration (250 mcg/mL), and dose strength (20 mcg per dose).

The applicant drug product and finished product specification includes tests for appearance/visual inspection, color, pH, particulate matter by light obscuration, sterility, bacterial endotoxins, identification, and assay (teriparatide), metacresol content, product-related impurities (specified, each unspecified, and total impurities), impurities (b) (4) (b) (4), bioidentity, container content for injections, break loose and sustaining force, and essential performance requirement tests such as dose (volume) accuracy, injection force and dose button pull force.

To support the proposed application, the applicant provided purity profile comparison between Forteo and Alvogen drug product using multiple lots of Forteo and Alvogen drug product. The applicant identified the impurities present in Forteo lots and Bonsity batches. Bonsity batches used in the study were used in phase 3 studies and non-clinical immunogenicity studies.

Both the proposed drug product and Forteo are formulated in (b) (4) (b) (4) (b) (4)

(b) (4)

(b) (4)

The results from the purity profile comparison study indicated that major impurities observed in both Forteo, and the proposed drug product are (b) (4) (b) (4) (b) (4). These impurities are present in both drug products at (b) (4)% to (b) (4)% level.

The USP monograph for teriparatide injection specifies limits for teriparatide succinimide (30), and rhPTH (1-30) and all the remaining impurities present in the product are considered as unspecified impurities, controlled with a limit of NMT (b) (4)%. Based on the impurity profile comparison, it is concluded that the individual impurity levels and total impurity levels present in the Alvogen drug product and Forteo drug product are comparable or within limits specified in USP drug product monograph.

Like, Forteo, the proposed pen is intended for delivering subcutaneously a daily dose of 20 mcg for 28 days with labeling instruction to discard any unused portion 28 days after first use. The applicant provided dose accuracy comparison between Almaject (Alvogen) drug product and Forteo® injection. The mean delivered dose data results are close to the label claim dose of 20mcg and statistically equivalent to 20mcg using an equivalence test with (b) (4)% error margin and (b) (4)% confidence interval.

CDRH reviewed the essential performance requirements testing of the finished drug device combination product. CDRH review concluded that it is adequate to support the NDA. Refer to CDRH review dated April 29, 2024, in DARRTS.

The storage conditions and shelf-life for the proposed product is the same as that recommended for Alvogen's teriparatide injection. The recommendation from process/facility, microbiology, drug product, labeling and drug substance reviewers for this NDA is adequate. All manufacturing facilities associated with the application are acceptable. The overall manufacturing inspection recommendation in Panorama for NDA 218771 is approve (See below, for a Panorama screen shot of the facility recommendation for NDA 218771 recorded on May 13th, 2024).

(b) (4)

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(b) (4)

Overall, the NDA218771 is recommended for APPROVAL from OPQ perspective.

b. Is the overall recommendation in agreement with the individual discipline recommendations? Yes

Recommendation by Subdiscipline:

Drug Substance	**-**	**Adequate**
Drug Product	**-**	**Adequate**
Quality Labeling	**-**	**Adequate**
Manufacturing	**-**	**Adequate**
Biopharmaceutics	**-**	**N/A**
Microbiology	**-**	**Adequate**

Environmental Assessment: Categorical Exclusion - Adequate
QPA for EA(s): No

5. Life-Cycle Considerations
Established Conditions per ICH Q12: No
Comments:

Comparability Protocols (PACMP): No
Comments:

Additional Lifecycle Comments:
None

Muthukumar Ramaswamy 05-13-2024

Application Technical Lead Name and Date:

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CHAPTER IV: LABELING

For more details about the items in this template, please see Chapter IV (Labeling) of the NDA IQA Guide

1.0 PRESCRIBING INFORMATION

Assessment of Product Quality Related Aspects of the Prescribing Information:

1.1 HIGHLIGHTS OF PRESCRIBING INFORMATION

Item	Information Provided	Items in Proposed Labeling (choose "Adequate", "Inadequate", or "N/A")	Assessor's Comments (If an item is Inadequate, provide more details on the issues, as appropriate)
Established name(s)[1]	TERIPARATIDE injection, for subcutaneous use	Adequate	
Route(s) of administration	Injection, subcutaneous	Adequate	
Summary of the dosage form(s) and strength(s) in metric system	Injection: (b) (4) (b) (4) (250 mcg/mL) in single-patient-use pen containing 28 daily doses of 20 mcg (3)	Adequate	The following changes are made in the Prescribing Information (PI) draft labeling: Injection: 600 mcg/2.4 mL (250 mcg/mL) in single-patient-use pen containing 28 daily doses of 20 mcg (3)
Assess if the tablet is scored. If product meets guidelines and criteria for a scored tablet, state "functionally scored".		N/A	

[1] Established name = [Drug] [Route of Administration] [Dosage Form]

For injectable drug products for parental administration, use appropriate package type term (e.g., single-dose, multiple-dose, single-patient-use). Other package terms include pharmacy bulk package and imaging bulk package.	"single-patient use" provided	Adequate	
If the drug product contains an active ingredient that is a salt, clearly state whether the strength is based on the active moiety (e.g., Tablets: 10 mg of drug-x) or active ingredient (e.g., Tablets: 10 mg of drug-x hydrochloride).	TERIPARATIDE injection	Adequate	

1.2 FULL PRESCRIBING INFORMATION

1.2.1 Section 2 (DOSAGE AND ADMINISTRATION)

Item	Information Provided	Items in Proposed Labeling (choose "Adequate", "Inadequate", or "N/A")	Assessor's Comments (If an item is Inadequate, provide more details on the issues, as appropriate)
Special instructions for product preparation (e.g., reconstitution and resulting concentration, dilution, compatible diluents, storage conditions needed to		N/A	

maintain the stability of the reconstituted or diluted product)			
Important administration instructions supported by product quality information (e.g., do not crush or chew extended-release tablets, instructions for mixing with food)		Adequate	
For parenteral products: include statement: *"Parenteral drug products must be inspected visually for particulate matter and discoloration prior to administration, whenever solution and container permit"*	Provided	Adequate	
If there is a USP monograph for the drug product and it contains a labeling requirement, ensure the labeling requirement is fulfilled. Note the labeling requirement may be applicable to	USP monograph for TERIPARATIDE injection Labeling requirement: *"Label it to indicate that the material has been produced by methods based on recombinant DNA technology"*	Adequate	<u>The following changes are made in the Prescribing Information (PI) draft labeling</u>: Teriparatide Injection (b) (4) (b) (4)

another section of the PI (e.g., Section 11).			
For radioactive products, include radiation dosimetry for the patient and healthcare practitioner(s) who administer the drug		N/A	
For hazardous products, include the statement *"DRUG X is a hazardous drug. Follow applicable special handling and disposal procedures.*[x]*"* with x numerical citation to "OSHA Hazardous Drugs".		N/A	

1.2.2 Section 3 (DOSAGE FORMS AND STRENGTHS)

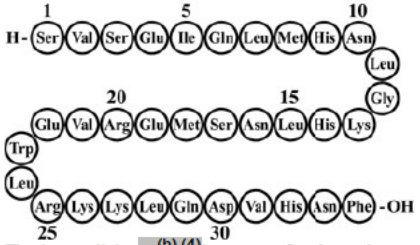
Item	Information Provided	Items in Proposed Labeling (choose "Adequate", "Inadequate", or "N/A")	Assessor's Comments (If an item is Inadequate, provide more details on the issues, as appropriate)
DOSAGE FORMS AND STRENGTHS section			
Available dosage form(s)	Injection	Adequate	
Strength(s) in metric system	20 mcg (b) (4) once a day	Adequate	
If the active ingredient is a salt, apply the USP Salt Policy per FDA Guidance. Clearly state whether the strength is based on the active moiety (e.g., Tablets: 10 mg of drug-x) or active ingredient (Tablets: 10 mg of drug-x hydrochloride).		Adequate	
A description of the identifying characteristics of the dosage forms, including shape, color, coating, scoring, imprinting, and color and clarity of the solution, when applicable	Injection: (b) (4) (b) (4) (250 mcg/mL) in single-patient-use pen containing 28 daily doses of 20 mcg	Adequate	**Section 3 (DOSAGE FORMS AND STRENGTHS)** The following changes are made in the Prescribing Information (PI) draft labeling: Injection: 600 mcg/2.4 mL (250 mcg/mL) of teriparatide in a clear, colorless solution in a single-patient-use pen containing 28 daily doses of 20 mcg.

Assess if the tablet is scored. If product meets guidelines and criteria for a scored tablet, state “functionally scored”		N/A	
For injectable drug products for parental administration, use appropriate package type term (e.g., single-dose, multiple-dose, single-patient-use). Other package type terms include pharmacy bulk package and imaging bulk package.	single-patient-use prefilled pen	Adequate	

Section 11 (DESCRIPTION)

Item	Information Provided	Items in Proposed Labeling (choose "Adequate", "Inadequate", or "N/A")	Assessor's Comments (If an item is Inadequate, provide more details on the issues, as appropriate)
DESCRIPTION section			
Proprietary and established name(s)	Teriparatide Injection, (b) (4)	Adequate	The following changes are made in the Prescribing Information (PI) draft labeling: Teriparatide Injection, (b) (4) (b) (4)
Dosage form(s) and route(s) of administration		Adequate	
If the active ingredient is a salt, apply the USP Salt Policy and include the equivalency statement per Salt Guidance and MAPP. For example: "TRADENAME contains 100 mg of drug-x (equivalent to 123.7 mg of drug-x hydrochloride)"		N/A	

List names of all inactive ingredients. Use USP/NF names in alphabetical order. Avoid brand names.	(b) (4)	Adequate	The following changes are made in the Prescribing Information (PI) draft labeling: *"Each pen is filled to deliver 2.4 mL. Each mL contains 250 mcg teriparatide (as a free base), 0.41 mg glacial acetic acid, 0.10 mg sodium acetate (provided as 0.16 mg sodium acetate trihydrate), 45.4 mg mannitol, 3 mg metacresol, and water for injection. The drug product is a pH 4.0 solution".* *"To the Applicant: Updated the pen volume". "Added additional qualitative and quantitative information for the inactive ingredient sodium acetate".*
For parenteral injectable dosage forms, include the name and quantities of all inactive ingredients. For ingredients added to adjust the pH or make isotonic, include the name and statement of effect.	The drug product is a pH 4.0 solution.	Adequate	
If alcohol is present, must provide the amount of alcohol in terms of percent volume of absolute alcohol		N/A	
Sterility statement (if applicable)	Yes	Adequate	
Pharmacological/Therapeutic class	Teriparatide Injection (b) (4) is a recombinant human parathyroid hormone analog (PTH 1-34).	Adequate	See above comment. Teriparatide Injection (b) (4) is a recombinant human parathyroid hormone analog (PTH 1-34).

Chemical name, structural formula, molecular weight	It has an identical sequence to the 34 N-terminal amino acids (the biologically active region) of the 84-amino acid human parathyroid hormone. The molecular formula of teriparatide is C181H291N55O51S2 and the molecular weight is 4117.8 daltons. Its amino acid sequence is shown below:  Teriparatide, (b) (4) is manufactured using a strain of *Pseudomonas fluorescens* modified by recombinant DNA technology.	Adequate	
If radioactive, statement of important nuclear characteristics.		N/A	
Other important chemical or physical properties (such as pKa or pH)		Adequate	

2. Section 11 (DESCRIPTION) Continued

Item	Information Provided	Items in Proposed Labeling (choose "Adequate", "Inadequate", or "N/A")	Assessor's Comments (If an item is Inadequate, provide more details on the issues, as appropriate)
For oral prescription drug products, include gluten statement (if applicable)		N/A	
Remove statements that may be misleading or promotional (e.g., "synthesized and developed by Drug Company X," "structurally unique molecular entity")		N/A	

If there is a USP monograph for the drug product and it contains a labeling requirement, ensure the labeling requirement is fulfilled. Note the labeling requirement may be applicable to another section of the PI (e.g., Section 2).		Adequate	The following changes are made in the Prescribing Information (PI) draft labeling: Teriparatide Injection, (b) (4) (b) (4)

1.2.4 Section 16 (HOW SUPPLIED/STORAGE AND HANDLING)

APPEARS THIS WAY ON ORIGINAL

Item	Information Provided	Items in Proposed Labeling (choose "Adequate", "Inadequate", or "N/A")	Assessor's Comments (If an item is Inadequate, provide more details on the issues, as appropriate)
HOW SUPPLIED/STORAGE AND HANDLING			
Available dosage form(s)	Injection	Adequate	
Strength(s) in metric system	(b) (4) (250 mcg/mL)	Adequate	*600 mcg/2.40 mL (250 mcg/mL)*
Available units (e.g., bottles of 100 tablets)	(b) (4)	Adequate	*See comments above on strength expression.* The following changes are made in the Prescribing Information (PI) draft labeling: *Teriparatide Injection,* (b) (4) *is available as single-patient-use pens in the following package size:* • *600 mcg/2.40 mL (250 mcg/mL) NDC 72611-752-01.* (b) (4)
Identification of dosage forms (e.g., shape, color, coating, scoring, imprinting, and color and clarity of the solution, when applicable); Include NDC(s)		N/A	

Assess if the tablet is scored. If product meets guidelines and criteria for a scored tablet, state "functionally scored"		N/A	
For injectable drug products for parental administration, use appropriate package type term (e.g., single-dose, multiple-dose, single-patient-use). Other package terms include pharmacy bulk package and imaging bulk package.		Adequate	
Special handling about the supplied product (e.g., protect from light, refrigerate). If there is a statement to "Dispense in original container," provide reason why (e.g., to protect from light or moisture, to maintain stability, etc.). For hazardous drugs, state "DRUG X is a hazardous drug. Follow applicable special handling and disposal procedures.[x]" with x numerical citation to "OSHA Hazardous Drugs."	• The Teriparatide Injection delivery device should be stored under refrigeration at 2°C to 8°C (36°F to 46°F) at all times. • Recap the delivery device when not in use to protect the cartridge from physical damage and light. • When using Teriparatide Injection, minimize the time out of the refrigerator; deliver the dose immediately following removal from the refrigerator. • Do not freeze. Do not use Teriparatide Injection if it has been frozen.	Adequate	

Section 16 (HOW SUPPLIED/STORAGE AND HANDLING) (Continued)

Item	Information Provided	Items in Proposed Labeling	Assessor's Comments

		(choose “Adequate”, “Inadequate”, or “N/A”)	(If an item is Inadequate, provide more details on the issues, as appropriate)
Storage conditions. Where applicable, use USP storage range rather than storage at a single temperature.	The Teriparatide Injection delivery device should be stored under refrigeration at 2°C to 8°C (36°F to 46°F) at all times.	Adequate	
Latex: If product does not contain latex and manufacturing of product and container did not include use of natural rubber latex or synthetic derivatives of natural rubber latex, state: *“Not made with natural rubber latex. Avoid statements such as “latex-free.”*		N/A	
Include information about child-resistant packaging	(b) (4)	N/A	

1.2.5 Other Sections of Labeling

There may be other sections of labeling that contain product-quality related information. For example, there are specific required/recommended warnings for certain inactive ingredients [e.g., aspartame, aluminum in large and small volume parenterals, sulfites, FD&C Yellow Number 5 (tartrazine), and benzyl alcohol]. Please notify the prescription drug review division if the product contains any of these inactive ingredients.

Please include your comments about other sections of labeling if they contain product quality information.

1.2.6 Manufacturing Information After Section 17 (for drug products)

Item	Information Provided	Items in Proposed Labeling (choose "Adequate", "Inadequate", or "N/A")	Assessor's Comments (If an item is Inadequate, provide more details on the issues, as appropriate)
Manufacturing Information After Section 17			
Name and location of business (street address, city, state, and zip code) of the manufacturer, distributor, and/or packer	Distributed by: Almaject, Inc. Morristown, NJ 07960 PI752-XX	Adequate	

2.0 PATIENT LABELING

Assessment of Product Quality Related Aspects of Patient Labeling (e.g., Medication Guides, Instructions for Use, Patient Information):

Item (MEDICATION GUIDE)	Information Provided	Items in Proposed Labeling (choose "Adequate", "Inadequate", or "N/A")	Assessor's Comments about Carton Labeling (If an item is Inadequate, provide more details on the issues, as appropriate)
Patient Labeling			
Established name[2]	Teriparatide Injection, (b) (4) (ter i par a tide) for subcutaneous use	Adequate	*Refer to the IR*
Special preparation instructions (if applicable)		N/A	
Storage and handling information (if applicable)	Store Teriparatide Injection in the refrigerator between 36°F to 46°F (2°C to 8°C) until ready to use. Use Teriparatide Injection right away after you remove it from the refrigerator.	Adequate	Section 17 PATIENT COUNSELING INFORMATION contains this instruction. This label is aligned with Forteo prescribing information.
If the product contains a desiccant, ensure the desiccant has a warning (e.g., "Do not eat.") and the size and shape of the desiccant differs from the dosage form.		N/A	
Active ingredient(s) (if applicable)	Active ingredient: teriparatide	Adequate	
Alphabetical listing of inactive ingredients (if applicable)	Inactive ingredients: glacial acetic acid, sodium acetate, mannitol, metacresol, and water for injection.	Adequate	

[2] Established name = [Drug] [Route of Administration] [Dosage Form]

Name and location of business (street address, city, state, and zip code) of manufacturer, distributor, and/or packer	Distributed by: Almaject, Inc. Morristown, NJ 07960 USA PL752-XX	Adequate	

Any deficiencies should be listed at the end in the "ITEMS FOR ADDITIONAL ASSESSMENT." NA

3.0 CONTAINER AND CARTON LABELING

3.1 Carton and Container Labels

(b) (4)

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Item	Items in Proposed Labeling (choose "Adequate", "Inadequate", or "N/A")	Assessor's Comments about Container Labeling (If an item is Inadequate, provide more details on the issues, as appropriate)
Established name[3], (font size and prominence)	Adequate	
Strength(s) in metric system	Adequate	
Route(s) of administration	Adequate	
If the active ingredient is a salt, include the equivalency statement per Salt Guidance and MAPP.	N/A	
Net contents (e.g., tablet count, volume of liquid)	Adequate	
"Rx only" displayed on the principal display	Adequate	
NDC	Adequate	
Lot number and expiration date	Adequate	
Storage conditions. If applicable, include a space on the carton labeling for the user to write the new beyond-use-date (BUD).	Adequate	
For injectable drug products for parental administration, use appropriate package type term (e.g., single-dose, multiple-dose, single-patient-use). Other package terms include pharmacy bulk package and imaging bulk package, and these products require a "Not for direct infusion" statement.	Adequate	

[3] Established name = [Drug] [Route of Administration] [Dosage Form]

For parenteral injectable dosage forms, include the name and quantities of all active and inactive ingredients in alphabetical order. For ingredients added to adjust the pH or make isotonic, include the name and statement of effect.	Adequate	*Container Carton Labeling IRs communicated to the Applicant:* (b) (4)
If alcohol is present, must provide the amount of alcohol in terms of percent volume of absolute alcohol	N/A	
Linear Bar code	Adequate	

Item	Items in Proposed Labeling (choose "Adequate", "Inadequate", or "N/A")	Assessor's Comments about Container Labeling (If an item is Inadequate, provide more details on the issues, as appropriate)
Name of manufacturer/distributor /packer	Adequate	
If there is a Medication Guide, must include a statement about dispensing a Medication Guide to each patient.	Adequate	*See above*
No text on Ferrule and Cap overseal, unless a cautionary statement is required.	N/A	
If there is a USP monograph for the drug product and it contains a labeling requirement, ensure the labeling requirement is fulfilled.	Adequate	*See above*
When a drug product differs from the relevant USP standard of strength, quality, or purity, as determined by the application of the tests, procedures, and acceptance criteria set forth in the relevant compendium, its difference shall be plainly stated on its label.	N/A	
And others, if space is available.	N/A	

Assessment of Carton and Container Labeling: *{Adequate, upon IR response}*

To be sent to the Applicant:

Container Carton Labeling IRs

1) (b) (4)

3. ITEMS FOR ADDITIONAL ASSESSMENT

Assess consistency of product-quality information in prescription drug labeling (PI, c/c labeling, and FDA-approved patient labeling). See Carton/Container Labeling Specific Resources for a presentation about inappropriate inconsistencies of product quality information between labeling. If there are inappropriate inconsistencies between the labeling (e.g., established name, strength(s), package type term, discard statement, identifying characteristics, storage, reconstitution/dilution instructions), please list these as deficiencies in this section.

N/A

Overall Assessment and Recommendation:

Adequate upon IR response.

Primary Labeling Assessor Name and Date: Charudharshini Srinivasan, Ph.D., 04/10/2024; 05/06/2024

Secondary Assessor Name and Date (and Secondary Summary, as needed): Muthukumar Ramaswamy, Ph. D., 05/06/2024

Charudharshini Srinivasan

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Muthukumar Ramaswamy

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CHAPTER VII: MICROBIOLOGY

IQA NDA Assessment Guide Reference

Product Information	
NDA Number	218771
Assessment Cycle Number	MR01
Drug Product Name/ Strength	Teriparatide Injection, (b) (4) 20 mcg/dose
Route of Administration	Subcutaneous
Applicant Name	Almaject, Inc.
Therapeutic Classification/ OND Division	CDER/OND/OCHEN/DGE
Manufacturing Site	(b) (4)
Method of Sterilization	(b) (4)

Assessment Recommendation: **Adequate**

Assessment Summary:

List Submissions being assessed (table):

Document(s) Assessed	Date Received
IR response	4/3/2024
Original submission	8/4/2023

Highlight Key Issues from Last Cycle and Their Resolution: N/A

Remarks: None

Concise Description of Outstanding Issues: None

Supporting Documents: (b) (4) (adequate) dated 7/2/2019 for maximum dose; (b) (4) (adequate) dated 3/16/2023 for requalification of the (b) (4) dated 8/7/2023 and (b) (4) dated 12/20/2022 for depyrogenation validation of the plungers/seals.

The sponsor states that Almaject's proposed product is the same as the FDA-approved product (teriparatide injection) under Alvogen, Inc.'s NDA 211939 in terms of formulation, chemistry, manufacturing and controls information and the clinical and

nonclinical studies, but it would be approved with different conditions of use (i.e., therapeutically equivalent to Forteo®). The only differences between the referenced NDA 211939 and this NDA are in labeling and additional immunogenicity and analytical bridging studies to support a TE rating to the listed drug, Forteo®. The reviewer notes the same maximum dose (20 mcg once a day) is proposed for Almaject's NDA 218771 as in NDA 211939 (b) (4) (adequate) dated 7/2/2019).

A LoA dated 7/27/2023 was provided for referencing NDA 211939. It is noted an (b) (4) (b) (4) Only the manufacturing site at (b) (4) (b) (4) is proposed for NDA 218771 as indicated in 356h.

Note: The referenced NDA 211939 is approved by the Agency in 2019. Product quality microbiology information was reviewed in N211939MR01.pdf (adequate) dated 7/2/2019 and deemed adequate. (b) (4) (b) (4)

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Assessment: ***Adequate***

MICROBIOLOGY LIST OF DEFICIENCIES

None

Primary Microbiology Assessor Name and Date:
Jianli Xue, Ph.D.
CDER/OPQ/OPMA/DPMA IV
4/4/2024

Secondary Assessor Name and Date (and Secondary Summary, as needed):
Nandini Bhattacharya, Ph.D.
CDER/OPQ/OPMA/DPMA II
4/4/2024

Jianli Xue

Digitally signed by Jianli Xue
Date: 5/08/2024 01:49:28PM
GUID: 584afcd70041453da94854122880ab0c

Nandini Bhattacharya

Digitally signed by Nandini Bhattacharya
Date: 5/08/2024 02:00:34PM
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/s/

MUTHUKUMAR RAMASWAMY
05/14/2024 05:08:15 PM