CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER: 202231Orig1s000

OTHER REVIEW(S)



REGULATORY PROJECT MANAGER PLR FORMAT LABELING REVIEW

Application: NDA 202231

Name of Drug: Proprietary name - none

Established name - Levothyroxine Sodium for Injection

Applicant: APP Pharmaceuticals, LLC

Labeling Reviewed

Submission Date: August 30, 2010

Receipt Date: August 30, 2010

Summary Description

Indication: myxedema coma

Dosage form: Lyophilized Powder for Injection

Route of administration: Intravenous (IV)

Proposes new indication, dosage form, dosing regimen, and route of administration

Drug chemical classification: 7-Drug Already Marketed but Without an Approved NDA

Review priority: Standard

Review

The submitted labeling was reviewed in accordance with 21 CFR 201.56 and 201.57 and relevant labeling guidance. Labeling issues are identified on the following pages with an "X."

Recommendations

All labeling issues identified on the following pages with an "X" will be conveyed to the applicant. The applicant will be asked to resubmit labeling that addresses all the identified labeling issues. The resubmitted labeling will be used for further labeling discussions.

Linda GalgayMarch 23, 2011Regulatory Project ManagerDate

CKET

1

For more information, see Draft Guidance for Industry: Labeling for Human Prescription Drug and Biological Products - Implementing the New Content and Format Requirements; also refer to http://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/LawActsandRules/ucm084159.htm. Check that the following items appear (in the following order): Highlights Limitation Statement (required statement) (required bolding) Drug names, dosage form, route of administration, and controlled substance symbol (required information) (required bolding) Initial U.S. Approval (required information) (required bolding) Boxed Warning (required bolding) Recent Major Changes (for a supplement) Indications and Usage Dosage and Administration Dosage Forms and Strengths Contraindications (required heading – if no contraindications are known, it must state "None") Warnings and Precautions Adverse Reactions (required AR contact reporting statement) (required bolding) for AR contact reporting statement) Drug Interactions (optional heading – can be omitted) Drug Interactions (optional heading – can be omitted) Patient Counseling Information Statement (required statement) (required bolding) Revision Date (required information) (required bolding)	FILING REVI	IEW
For more information, see Draft Guidance for Industry: Labeling for Human Prescription Drug and Biological Products - Implementing the New Content and Format Requirements; also refer to http://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/LawsActsandRules/ucm084159.htm. Check that the following items appear (in the following order): Highlights Limitation Statement (required statement) (required bolding) Drug names, dosage form, route of administration, and controlled substance symbol (required information) (required bolding) Initial U.S. Approval (required information) (required bolding) Recent Major Changes (for a supplement) Indications and Usage Dosage and Administration Dosage Forms and Strengths Contraindications (required heading - if no contraindications are known, it must stare "None") Warnings and Precautions Adverse Reactions (required AR contact reporting statement) (required bolding for AR contact reporting statement) Verguired bolding for AR contact reporting statement) Use in Specific Populations (optional heading - can be omitted) Patient Counseling Information Statement (required statement) (required bolding) Revision Date (required information) (required bolding)	ights Overview 08.30.10	
New Content and Format Requirements; also refer to http://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/ LawsActsandRules/ucm084159.htm. Check that the following items appear (in the following order): Highlights Limitation Statement (required statement) (required bolding) Drug names, dosage form, route of administration, and controlled substance symbol (required information) (required bolding) Initial U.S. Approval (required information) (required bolding) Recent Major Changes (for a supplement) Indications and Usage Dosage and Administration Dosage Forms and Strengths Contraindications (required heading – if no contraindications are known, it must state "None") Warnings and Precautions Adverse Reactions (required AR contact reporting statement) (required bolding) for AR contact reporting statement) Drug Interactions (optional heading – can be omitted) Drug Interactions (optional heading – can be omitted) Patient Counseling Information Statement (required statement) (required bolding) Revision Date (required information) (required bolding) Revision Date (required information) (required bolding) Revision Date (required information) (required bolding) Indications (page (e.g., would fit on one-half page if printed on 8.5" x and two-column format)		
http://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/ LawsActsandRules/ucm084159.htm. Check that the following items appear (in the following order): Highlights Limitation Statement (required statement) (required bolding) Drug names, dosage form, route of administration, and controlled substance symbol (required information) (required bolding) Initial U.S. Approval (required information) (required bolding) Boxed Warning (required bolding) Recent Major Changes (for a supplement) Indications and Usage Dosage and Administration Dosage Forms and Strengths Contraindications (required heading – if no contraindications are known, it must state "None") Warnings and Precautions Adverse Reactions (required AR contact reporting statement) (required bolding for AR contact reporting statement) Drug Interactions (optional heading – can be omitted) Drug Interactions (optional heading – can be omitted) Patient Counseling Information Statement (required statement) (required bolding) Revision Date (required information) (required bolding)	,	
LawsActsandRules/ucm084159.htm. Check that the following items appear (in the following order): • Highlights Limitation Statement (required statement) (required bolding) • Drug names, dosage form, route of administration, and controlled substance symbol (required information) (required bolding) • Initial U.S. Approval (required information) (required bolding) • Boxed Warning (required bolding) • Recent Major Changes (for a supplement) • Indications and Usage • Dosage and Administration • Dosage Forms and Strengths • Contraindications (required heading − if no contraindications are known, it must state "None") • Warnings and Precautions • Adverse Reactions (required AR contact reporting statement) (required bolding for AR contact reporting statement) • Drug Interactions (optional heading − can be omitted) • Patient Counseling Information Statement (required statement) (required bolding) • Revision Date (required information) (required bolding) [format] Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format)		
Check that the following items appear (in the following order): • Highlights Limitation Statement (required statement) (required bolding) • Drug names, dosage form, route of administration, and controlled substance symbol (required information) (required bolding) • Initial U.S. Approval (required information) (required bolding) • Boxed Warning (required bolding) • Recent Major Changes (for a supplement) • Indications and Usage • Dosage and Administration • Dosage Forms and Strengths • Contraindications (required heading – if no contraindications are known, it must state "None") • Warnings and Precautions • Adverse Reactions (required AR contact reporting statement) (required bolding for AR contact reporting statement) • Drug Interactions (optional heading – can be omitted) • Drug Interactions (optional heading – can be omitted) • Patient Counseling Information Statement (required statement) (required bolding) • Revision Date (required information) (required bolding) [format] Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format)		
 Highlights Limitation Statement (required statement) (required bolding) Drug names, dosage form, route of administration, and controlled substance symbol (required information) (required bolding) Initial U.S. Approval (required information) (required bolding) Boxed Warning (required bolding) Recent Major Changes (for a supplement) Indications and Usage Dosage and Administration Dosage Forms and Strengths Contraindications (required heading - if no contraindications are known, it must state "None") Warnings and Precautions Adverse Reactions (required AR contact reporting statement) (required bolding for AR contact reporting statement) Drug Interactions (optional heading - can be omitted) Use in Specific Populations (optional heading - can be omitted) Patient Counseling Information Statement (required statement) (required bolding) Revision Date (required information) (required bolding) Revision Date (required information) (required bolding) Revision Date (required firormation) (required bolding) Iformat Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format) 		
bolding) • Drug names, dosage form, route of administration, and controlled substance symbol (required information) (required bolding) • Initial U.S. Approval (required information) (required bolding) • Boxed Warning (required bolding) • Recent Major Changes (for a supplement) • Indications and Usage • Dosage and Administration • Dosage Forms and Strengths • Contraindications (required heading – if no contraindications are known, it must state "None") • Warnings and Precautions • Adverse Reactions (required AR contact reporting statement) (required bolding for AR contact reporting statement) • Drug Interactions (optional heading – can be omitted) • Use in Specific Populations (optional heading – can be omitted) • Patient Counseling Information Statement (required statement) (required bolding) • Revision Date (required information) (required bolding) [format] Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format)	ear (in the following order):	
 Drug names, dosage form, route of administration, and controlled substance symbol (required information) (required bolding) Initial U.S. Approval (required information) (required bolding) Boxed Warning (required bolding) Recent Major Changes (for a supplement) Indications and Usage Dosage and Administration Dosage Forms and Strengths Contraindications (required heading - if no contraindications are known, it must state "None") Warnings and Precautions Adverse Reactions (required AR contact reporting statement) (required bolding for AR contact reporting statement) Drug Interactions (optional heading - can be omitted) Use in Specific Populations (optional heading - can be omitted) Patient Counseling Information Statement (required statement) (required bolding) Revision Date (required information) (required bolding) Revision Date (required information) (required bolding) Iformat Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format) 	at (required statement) (required X	
 Boxed Warning (required bolding) Recent Major Changes (for a supplement) Indications and Usage Dosage and Administration Dosage Forms and Strengths Contraindications (required heading - if no contraindications are known, it must state "None") Warnings and Precautions Adverse Reactions (required AR contact reporting statement) (required bolding for AR contact reporting statement) Drug Interactions (optional heading - can be omitted) Use in Specific Populations (optional heading - can be omitted) Patient Counseling Information Statement (required statement) (required bolding) Revision Date (required information) (required bolding) [format] Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format) 	, , , , , , , , , , , , , , , , , , , ,	
 Recent Major Changes (for a supplement) Indications and Usage Dosage and Administration Dosage Forms and Strengths Contraindications (required heading - if no contraindications are known, it must state "None") Warnings and Precautions Adverse Reactions (required AR contact reporting statement) (required bolding for AR contact reporting statement) Drug Interactions (optional heading - can be omitted) Use in Specific Populations (optional heading - can be omitted) Patient Counseling Information Statement (required statement) (required bolding) Revision Date (required information) (required bolding) [format] Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format) 	· · ·	ety approval
 Indications and Usage Dosage and Administration Dosage Forms and Strengths Contraindications (required heading - if no contraindications are known, it must state "None") Warnings and Precautions Adverse Reactions (required AR contact reporting statement) (required bolding for AR contact reporting statement) Drug Interactions (optional heading - can be omitted) Use in Specific Populations (optional heading - can be omitted) Patient Counseling Information Statement (required statement) (required bolding) Revision Date (required information) (required bolding) [format] Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format) 	ing)	
 Dosage Forms and Strengths Contraindications (required heading - if no contraindications are known, it must state "None") Warnings and Precautions Adverse Reactions (required AR contact reporting statement) (required bolding for AR contact reporting statement) Drug Interactions (optional heading - can be omitted) Use in Specific Populations (optional heading - can be omitted) Patient Counseling Information Statement (required statement) (required bolding) Revision Date (required information) (required bolding) [format] Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format) 	ipplement)	
 Dosage Forms and Strengths Contraindications (required heading - if no contraindications are known, it must state "None") Warnings and Precautions Adverse Reactions (required AR contact reporting statement) (required bolding for AR contact reporting statement) Drug Interactions (optional heading - can be omitted) Use in Specific Populations (optional heading - can be omitted) Patient Counseling Information Statement (required statement) (required bolding) Revision Date (required information) (required bolding) [format] Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format) 		
 Contraindications (required heading - if no contraindications are known, it must state "None") Warnings and Precautions Adverse Reactions (required AR contact reporting statement) (required bolding for AR contact reporting statement) Drug Interactions (optional heading - can be omitted) Use in Specific Populations (optional heading - can be omitted) Patient Counseling Information Statement (required statement) (required bolding) Revision Date (required information) (required bolding) [format] Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format) 		
 Contraindications (required heading - if no contraindications are known, it must state "None") Warnings and Precautions Adverse Reactions (required AR contact reporting statement) (required bolding for AR contact reporting statement) Drug Interactions (optional heading - can be omitted) Use in Specific Populations (optional heading - can be omitted) Patient Counseling Information Statement (required statement) (required bolding) Revision Date (required information) (required bolding) [format] Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format) 		
 Adverse Reactions (required AR contact reporting statement) (required bolding for AR contact reporting statement) Drug Interactions (optional heading – can be omitted) Use in Specific Populations (optional heading – can be omitted) Patient Counseling Information Statement (required statement) (required bolding) Revision Date (required information) (required bolding) [format] Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format) 	,, , , , , , , , , , , , , , , , , , ,	neading with
(required bolding for AR contact reporting statement) • Drug Interactions (optional heading – can be omitted) • Use in Specific Populations (optional heading – can be omitted) • Patient Counseling Information Statement (required statement) (required bolding) • Revision Date (required information) (required bolding) [format] Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format)		
 Drug Interactions (optional heading - can be omitted) Use in Specific Populations (optional heading - can be omitted) Patient Counseling Information Statement (required statement) (required bolding) Revision Date (required information) (required bolding) [format] Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format) 		
 Use in Specific Populations (optional heading – can be omitted) Patient Counseling Information Statement (required statement) (required bolding) Revision Date (required information) (required bolding) [format] Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format) 		
 Patient Counseling Information Statement (required statement) (required bolding) Revision Date (required information) (required bolding) [format] Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format) 		
• Revision Date (required information) (required bolding) [format] Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format)	_	ble
[format] Highlights, excluding the boxed warning, must be limited in length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format)	ation) (required holding)	
length to one-half page (e.g., would fit on one-half page if printed on 8.5" x 11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format)	3	
11 paper, single spaced, minimum 8 point type with ½ inch margins on all sides, in a two-column format)		
sides, in a two-column format)		
	it type with 72 men margins on an	
	nust be in hold type	
[format] All headings must be presented in the center of a horizontal line		
in upper-case letters and bold type. The horizontal line can be a solid or		
dashed line.	nonzontal line call be a solid of	
[format] If there are multiple subheadings, each subheading must be	rs each subheading must be	
preceded by a bullet point.	o, each subficacing must be	
[format] The information should be concisely summarized without	cicely summarized without	
repetition and presented in an easily accessible format (e.g., bulleted,	•	
tabular). There should be no redundancy of information.		
[format] Use command language (e.g., use "Discontinue" instead of "You		
should discontinue.")	oc Discontinue histeau of 100	
[format] Each summarized statement should be located under the	auld be located under the	
appropriate Highlights heading and must reference the section(s) or		



LABELING CHECKLIST	FILING REVIEW
subsection(s) of the Full Prescribing Information (FPI) that contains more	
detailed information.	
[format] The preferred presentation of referencing in Highlights is the	
numerical identifier in parentheses [e.g., (1.1)] following the summarized	
labeling information, corresponding to the location of information in the	
FPI.	
[format] There should be white space between each major heading in	
Highlights.	
[format] The type size for all labeling information, headings, and	X
subheadings must be a minimum of 8 points, except for labeling	
information that is on or within the package from which the drug is to be	
dispensed (i.e., trade labeling), which must be a minimum of 6 points. See	
Appendix E of Implementation Guidance for type size requirements.	
[format] There is no requirement for a specific typeface for labeling as long	
as it is clear and legible. However, Arial Narrow font is not recommended	
because it may render the labeling illegible.	
[format] Do not use the asterisk (*) to footnote information in tables in	
Highlights since this symbol is used in the Table of Contents (i.e.,	
*Sections or subsections omitted from the full prescribing information are	
not listed.)	
[format] We are no longer going to review the labeling for the "TM" or	
"R" symbols. Companies can add these symbols at will in Word and	
Adobe versions. These symbols will not appear in the rendering of	
labeling in SPL format due to style sheet restrictions.	



LABELING CHECKLIST	FILING REVIEW
SECTION II: Highlights Details	
Highlights Limitation Statement	
Must appear at beginning of Highlights in bold type and be placed on the line immediately beneath the heading – HIGHLIGHTS OF PRESCRIBING INFORMATION	
The verbatim statement must read: "These highlights do not include all the information needed to use (insert name of drug product in upper case letters) safely and effectively. See full prescribing information for (insert name of drug product in upper case letters)."	X
Drug names, dosage form, route of administration,	
and controlled substance symbol (must appear in bold type)	
With SPL R4, the product title in HL is no longer added automatically. Since this field is added as free text, check carefully.	
 Include proprietary name and either established name of drug, OR proper name of biological product. 	
• For the established name of a drug, the active moiety is generally used if the product is a salt. The salt is sometimes included in the name when it is important to know what salt is present for therapeutic reasons (e.g., a lot of Na or K; affect on therapeutic performance is known - absorption, distribution, metabolism, excretion). Include the entire drug substance name for esters, chelates, and complexes.	
 Also, the established name and expression of strength should match. As a general rule, if the strength is in terms of the salt/ester, the name includes the salt/ester. If the strength is in terms of the active moiety, the name is in terms of the active moiety. 	X
The drug names must be followed by drug's dosage form and	
 Note that for biologic products, the dosage form and route of administration must be on the next line (i.e., underneath the proper name) since the proper name does not include the drug's dosage form or route of administration. See 21 CFR 600.3 (k) and Section 351 of the PHS Act If the route of administration is typical for the dosage form and is 	
commonly understood (e.g., tablets or capsules), omit the route of administration (for oral use). If the route of administration is not typical, it must be included.	
 If applicable, must include the controlled substance symbol designating the schedule in which the controlled substance is listed. 	N/A
 However, do not include a controlled substance symbol after drug names, dosage forms, and route of administration unless DEA scheduling action is final. 	



DOCKET

Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.

