CENTER FOR DRUG EVALUATION AND RESEARCH

Approval Package for:

Application Number: 019710/S021

Trade Name: OPTIRAY

Generic Name: IOVERSOL INJECTION

Sponsor: MALLINCKRODT MEDICAL, INC.

Approval Date: 05/23/97

CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION: 019710/S021

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	Included	Pending Completion	Not Prepared	Not Required
Approval Letter	X			
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Final Printed Labeling				
Medical Review(s)				
Chemistry Review(s)	X			
EA/FONSI				
Pharmacology Review(s)				
Statistical Review(s)				
Microbiology Review(s)				
Clinical Pharmacology Biopharmaceutics Review(s)				
Bioequivalence Review(s)				
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Correspondence				

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Application Number: 019710/S021

APPROVAL LETTER

DEPARTMENT OF HEA H & HUMAN SERVICES

Public Health Service

Food and Drug Administration
Rockville MD 20857

NDA 19-710/S-021

Mallinckrodt Medical, Inc.
675 McDonnell Boulevard
P.O. Box 5840
St. Louis, Missouri 63134

MAY 2 8 1997

Attention: Clarice Kassoff
Sr. Regulatory Affairs Associate

Dear Ms. Kassoff:

Please refer to your supplemental new drug application dated December 6, 1996, received December 10, 1996, submitted under section 505(b) of the Federal Food, Drug, and Cosmetic Act for Optiray (ioversol injection).

We acknowledge receipt of your submission dated May 1, 1997, which notes your commitment

The supplemental application provides for

We have completed the review of this supplemental application and it is approved.

We remind you that you must comply with the requirements for an approved NDA set forth under 21 CFR 314.80 and 314.81.

If you have any questions, please contact Ms. Amy Chapman, Consumer Safety Officer Tech., at (301) 443-7515.

Sincerely yours,

/S/

Eldon E. Leutzinger, Ph.D.
Chemistry Team Leader, DNDCII
Division of Medical Imaging and
Radiopharmaceutical Drug Products
Office of Drug Evaluation III
Center for Drug Evaluation and Research

cc:
Orig. NDA 19-710/S-021
HFD-160/Div. Files
HFD-161/Chapman
HFD-160/Salako/Leutzinger /S/ 5/20/97
HFD-820/ONDC Division Director
HFD-92/DDM-DIAB
DISTRICT OFFICE
R/D by: Achapman-05-21-97 nda\19710s21.ap
R/D init by: Salako-05-22-97/Leutzinger-05-22-97
F/T by: AChapman-05-23-97
APPROVAL (AP)

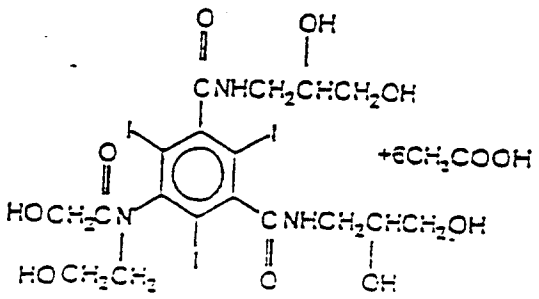
APPEARS THIS WAY
ON ORIGINAL

APPEARS THIS WAY
ON ORIGINAL

CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER: 019710/S021

CHEMISTRY REVIEW(S)

CHEMIST'S REVIEW	1. ORGANIZATION HFD-160	2. NDA Number(s) 19,710
3. Name and Address of Applicant (City & State): Clarice H. Kassoff Sr. Regulatory Affairs Associate Mallinckrodt Medical, Inc. 675 McDonnell Blvd. St. Louis, MO 63042		4. AF No. 5. Supplement(s) Number(s) Date(s) SCM-021 02/12/97
6. Drug Name: Optiray	7. Nonproprietary Name: Ioversol Injection	8. Amendments & Other (reports, etc) - Dates Doc. Date: 12/06/96 CDER Date: 12/13/96 Ass. Date: 01/21/97
9. Supplement Provides For: Ioversol.		
10. Pharmacological Category: Contrast Agent for Diagnostic Imaging	11. How Dispensed: ☒ Rx ☐ OTC	12. Related IND(s)/ NDA(s)/DMF(s)
13. Dosage Form(s):	14. Potency(ies):16%, 24%, 30%, 32%, and 35% w/v.	
15. Chemical Name and Structure: Ioversol; MF: $C_{18}H_{24}I_3N_3O_9$; MW: 807.13. 		16. Records/Reports Current: ☐ Yes ☐ No Reviewed: ☐ Yes ☐ No
17. Comments: See chemist's review notes and draft letter.		
18. Conclusions and Recommendations: From the standpoint of chemistry, manufacturing and controls (CMC), supplement SCM-021 is recommended for approval		
CC: Original NDA#19,710; HFD-160/Division File; HFD-160/Medical Officer/Jones HFD-160/Chemist/Salako; HFD-160/CSO/Cusack; R/D initialed by Leutzinger		
19. REVIEWER		
Name Qansy Salako, Ph.D.	Signature /S/	Date Completed 04/18/97

/S/ 4/29/97

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APPLICATION NUMBER: 019710/S021

ADMINISTRATIVE DOCUMENTS

D-V

MEMORANDUM OF TELECON

DATE: May 19, 1997

APPLICATION NUMBER: NDA 19-710/S-021; Optiray (ioversol injection)

BETWEEN:

Name: Clarice Kassoff, Mary Hamilton and Sandeep Nema, Ph.D.
Phone: (314) 895-2046
Representing: Mallinckrodt Medical

AND

Name: Dr. Eldon Leutzinger, Dr. Qansy Salako and Amy Chapman
Division of Medical Imaging and Radiopharmaceutical Drug Products, HFD-160

SUBJECT: Chemistry Review dated April 29, 1997 and correspondence dated 12-6-96 and 5-1-97. The following are the major points of the conference:

- Storage condition in the labeling currently states "controlled room temperature" and then shows a range of 20°C-26°C. Current USP definition of controlled room temperature is 20°C-25°C.

  Sponsor states that stability studies were conducted before the ICH guidelines therefore, that is the reason for the incorrect storage statement. The storage statement will be revised so that it reads "20°C-25°C".

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The sponsor agreed to do so.

/S/

Amy Chapman
Consumer Safety Technician

cc: Original NDA 19-710/S-021
HFD-160/Div. File
HFD-160/Amy Chapman
HFD-160/Salako/Leutzinger
T-Con init by: Salako-5-22-97
TELECON

APPEARS THIS WAY
ON ORIGINAL

MEMORANDUM OF TELEPHONE CONFERENCE
May 8, 1997

NDA NUMBER: 19-710
PRODUCT NAME: Optiray™
FIRM: Mallinckrodt Medical, Inc,
CALL INITIATED BY: Clarice Kassoff, Mallinckrodt, Regulatory Affairs
CALL PLACED TO: Vivian Greenman, Microbiologist, FDA, HFD-805

SUBJECT: Follow-up to Meeting of March 25, 1997, Between HFD-160 and Mallinckrodt

BACKGROUND:

A series of meetings concerning an alternate synthesis for Ioversol (drug substance for Optiray) have been held between Mallinckrodt and HFD-160. The most recent meeting was held on March 25, 1997. At that time, chemistry/manufacturing and sterility assurance issues were discussed. Proposed qualification/validation protocols and procedures for establishing product sterility assurance were summarized in the pre-meeting submission of March 12, 1997. Since a microbiologist or sterilization engineer was not present at the meeting with FDA, several of the comments and questions raised by Ms. Greenman could not be addressed. At the termination of the meeting, it was agreed that a teleconference would be scheduled in order to respond to questions concerning sterilization. The telephone conference was arranged for May 8, 1997. Mallinckrodt was requested to send an outline of the specific issues and questions they wished to discuss.

SUMMARY:

The following members from Mallinckrodt were present and participated in the discussion:

Dave Kruse
Alicia Napoli
Valerie Dust-Kemme
Clarice Kassoff
⟩ Corporate Hdqtrs, St.Louis, MO.

Steve Holden
Kaye Denning
Joe Sherrill
Scott Frazier
⟩ Raleigh, North Carolina

3 Page(s) Redacted

Since there were no further questions, Ms. Kassoff thanked Ms. Greenman, and the conversation was terminated at this time.

/S/ 5/12/97

Vivian Greenman

/S/ 5/13/97

APPEARS THIS WAY
ON ORIGINAL

CC: NDA: 19-710
HFD 160/Div. File
HFD 160/V. Greenman, S. Cusack
Drafted by: V. Greenman
Init. by P.H. Cooney
PC#: 19710.MTC

APPEARS THIS WAY
ON ORIGINAL