
Guidance for Industry

Bioavailability and Bioequivalence Studies for Nasal Aerosols and Nasal Sprays for Local Action

DRAFT GUIDANCE

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For questions on the content of the draft document contact Wallace Adams, 301-594-5618.

**U.S. Department of Health and Human Services
Food and Drug Administration
Center for Drug Evaluation and Research (CDER)**

**Biopharmaceutics
April 2003**

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**U.S. Department of Health and Human Services
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Contains Nonbinding Recommendations

Draft — Not for Implementation

TABLE OF CONTENTS

| | | |
|-------------|---|-----------|
| I. | INTRODUCTION..... | 1 |
| II. | BACKGROUND | 2 |
| A. | BA and BE Data | 3 |
| | 1. <i>Local Delivery BA/BE Concepts.....</i> | 3 |
| | 2. <i>Systemic Exposure and Systemic Absorption BA/BE Concepts.....</i> | 4 |
| B. | CMC and In Vitro BA Tests (Noncomparative) Versus BE Tests (Comparative) | 5 |
| III. | FORMULATION AND CONTAINER AND CLOSURE SYSTEM..... | 5 |
| A. | Formulation..... | 5 |
| B. | Container and Closure System..... | 6 |
| IV. | DOCUMENTATION OF BA AND BE | 6 |
| A. | NDAs | 6 |
| B. | ANDAs | 6 |
| | 1. <i>Solution Formulations.....</i> | 7 |
| | 2. <i>Suspension Formulations with PK Systemic Exposure Data.....</i> | 7 |
| | 3. <i>Suspension Formulations without PK Systemic Exposure Data.....</i> | 7 |
| C. | Postapproval Change | 8 |
| V. | IN VITRO STUDIES | 8 |
| A. | Batches and Drug Product Sample Collection..... | 8 |
| | 1. <i>NDAs.....</i> | 8 |
| | 2. <i>ANDAs.....</i> | 9 |
| B. | Tests and Metrics | 9 |
| | 1. <i>Single Actuation Content (SAC) Through Container Life.....</i> | 11 |
| | 2. <i>Droplet Size Distribution by Laser Diffraction.....</i> | 12 |
| | a. <i>Nasal sprays.....</i> | 12 |
| | b. <i>Nasal aerosols.....</i> | 13 |
| | 3. <i>Drug in Small Particles/Droplets, or Particle/Droplet Size Distribution by Cascade Impactor... 14</i> | 14 |
| | a. <i>Nasal sprays: Drug in Small Particles/Droplets.....</i> | 14 |
| | b. <i>Nasal aerosols: Particle/Droplet Size Distribution.....</i> | 15 |
| | 4. <i>Drug Particle Size Distribution by Microscopy.....</i> | 15 |
| | 5. <i>Spray Pattern.....</i> | 16 |
| | a. <i>For nonimpaction systems.....</i> | 17 |
| | b. <i>For impaction systems.....</i> | 17 |
| | c. <i>For both nonimpaction and impaction systems.....</i> | 18 |
| | 6. <i>Plume Geometry.....</i> | 18 |
| | 7. <i>Priming and Repriming.....</i> | 20 |
| VI. | CLINICAL STUDIES FOR LOCAL DELIVERY | 20 |
| A. | General Information | 20 |
| | 1. <i>NDAs.....</i> | 20 |
| | 2. <i>ANDAs.....</i> | 21 |
| B. | Clinical Study Batches..... | 21 |

Contains Nonbinding Recommendations

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| | | |
|-------|--|----|
| C. | Clinical BE Study Design and Subject Inclusion Criteria..... | 22 |
| D. | Clinical BE Study Endpoints | 23 |
| VII. | PK STUDIES FOR SYSTEMIC EXPOSURE | 24 |
| A. | General Information | 24 |
| B. | Study Batches..... | 25 |
| C. | Study Design and Subject Inclusion Criteria | 25 |
| D. | Study Measures | 26 |
| VIII. | PD OR CLINICAL STUDIES FOR SYSTEMIC ABSORPTION..... | 26 |
| A. | General Information | 26 |
| B. | Clinical Study Batches..... | 27 |
| C. | Clinical BE Study Designs and Subject Inclusion Criteria | 27 |
| D. | Clinical BE Study Endpoints for Corticosteroids | 28 |
| IX. | NUMBER OF RESERVE SAMPLES FOR BA AND BE TESTING | 29 |
| X. | MULTIPLE STRENGTHS..... | 29 |
| A. | Solution Formulation Nasal Sprays..... | 30 |
| B. | Suspension Formulation Nasal Sprays..... | 30 |
| XI. | SMALLER CONTAINER SIZES | 31 |
| | REFERENCES..... | 31 |
| | TABLE 1 | 32 |

Note: The following stand alone documents will be provided when completed.

APPENDIX A: DECISION TREE FOR PRODUCT QUALITY STUDIES

APPENDIX B: STATISTICS FOR IN VITRO BA DATA

APPENDIX C: NONPROFILE IN VITRO BE DATA — USING PBE STATISTICS

APPENDIX D: NONPROFILE IN VITRO BE DATA — USING PBE STATISTICS

APPENDIX E: STATISTICS FOR IN VITRO PROFILE COMPARISONS

APPENDIX F: STATISTICS FOR ALLERGIC RHINITIS STUDIES

APPENDIX G: STATISTICS FOR SYSTEMIC EXPOSURE AND ABSORPTION

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This draft guidance, when finalized, will represent the Food and Drug Administration's (FDA's) current thinking on this topic. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public. You can use an alternative approach if the approach satisfies the requirements of the applicable statutes and regulations. If you want to discuss an alternative approach, contact the FDA staff responsible for implementing this guidance. If you cannot identify the appropriate FDA staff, call the appropriate number listed on the title page of this guidance.

I. INTRODUCTION

This guidance is intended to provide recommendations to applicants who are planning product quality studies to measure bioavailability (BA) and/or establish bioequivalence (BE) in support of new drug applications (NDAs) or abbreviated new drug applications (ANDAs) for locally acting drugs in nasal aerosols (metered-dose inhalers (MDIs)) and nasal sprays (metered-dose spray pumps). This guidance addresses BA and BE studies of prescription corticosteroids, antihistamines, anticholinergic drug products, and the over-the-counter (OTC) mast-cell stabilizer cromolyn sodium. Applicability of the guidance to other classes of intranasal drugs that may be developed in the future should be discussed with the appropriate CDER review division.

This guidance does not cover studies of nasal sprays included in an applicable OTC monograph² or studies of (1) metered-dose products intended to deliver drug systemically via the nasal route or (2) drugs in nasal nonmetered dose atomizer (squeeze) bottles that require premarket approval.

The first draft of this guidance was issued in June 1999 for comment. Because of changes made as a result of comments received to the docket, internal discussions, and deliberations of the Advisory Committee for Pharmaceutical Science, we have decided to issue the guidance once again in draft. A series of attachments are being developed and will be posted with this draft

¹ This guidance has been prepared by the Oral Inhalation and Nasal Drug Products Technical Committee, Locally Acting Drug Products Steering Committee, Biopharmaceutics Coordinating Committee, with contributions from the Inhalation Drug Products Working Group, the Chemistry, Manufacturing, and Controls Coordinating Committee, in the Center for Drug Evaluation and Research (CDER) at the Food and Drug Administration.

² 21 CFR 341. Cold, Cough, Allergy, Bronchodilator, and Antiasthmatic Drug Products for Over-the-Counter Human Use.

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