

# Registration Patents and Exclusivity for 505(b)(2)

Mark Rosengarten, M.A., Dolores Massari, M.S., Susan Mondabaugh, Ph.D.  
Hurley Consulting Associates Ltd., One Main Street, Chatham, NJ 07928

## Objectives

- To develop 505(b)(2) submission strategies that are consistent with legal and regulatory requirements and have the potential to provide exclusivity protection and maximize patent protection
- To determine that no patents listed in the Orange Book will be infringed
- To determine if the 505(b)(2) submission is eligible for 1 or more types of exclusivity
- To determine potential barriers to 505(b)(2) approach

## Methods

### Step 1: Research existing patents

Review patents listed in Orange Book and exclusivity periods

**Electronic Orange Book**  
Approved Drug Products  
with  
Therapeutic Equivalence Evaluations  
Current through July 2004

[Preface](#)  
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[Search by Active Ingredient](#)   [Search by Applicant Holder](#)  
[Search by Proprietary Name](#)   [Search by Application Number](#)  
[Search by Patent](#)

The products in this list have been approved under section 505 of the Federal Food, Drug, and Cosmetic Act.

Drug questions email: [CDER.DIG@CDER.FDA.GOV](mailto:CDER.DIG@CDER.FDA.GOV)

U.S. Department of Health and Human Services  
Food and Drug Administration  
Center for Drug Evaluation and Research  
Office of Pharmaceutical Science  
Office of Generic Drugs

### Step 2: Research patents

Review Paragraph IV Certifications submitted to FDA

**Paragraph IV Patent Certifications**  
As of September 1, 2004

Below is a list of drug products for which an Abbreviated New Drug Application (ANDA) has been received by the Office of Generic Drugs (OGD) containing a Paragraph IV patent certification. This list includes the name of the drug product, dosage form, strength (where applicable), reference listed drug (RLD), and the date on which the first substantially complete generic drug application was submitted to the Agency on a prospective basis beginning 9/1/04. The Agency will not disclose the identity of the applicant. The information will be updated on a bi-monthly basis and will be as current as the last update. The information should be used for reference only. The Agency will make every effort to assure the accuracy of the information disclosed in this list. However, any discrepancies or omissions should be discussed with the Regulatory Branch.

Drug Name	Dosage Form	Strength	Patent No.	Expiration Date	RLD
Ranitidine	Injection	25 mg/mL, 2 mL and 40 mL vials	512086	JUN 23, 2009	Zantac
Ranitidine	Tablets	75 mg, 150 mg and 300 mg	512086	JUN 23, 2009	Zantac
Ranitidine	Capsules	150 mg and 300 mg	512086	DEC 23, 2009	Zantac

### Step 3: Determine type of data to be submitted:

- Bioequivalence and bioavailability data comparing new dosage form to reference listed drug
- Toxicology and other preclinical data
- Clinical studies to support approval of a new indication
- Clinical studies to demonstrate safety and efficacy of an NCE not approved in the US
- Clinical studies in pediatric patients

### Step 4: Determine any potential applicable exclusivity

- New Chemical Entity exclusivity (NCE or significant change)
- Patent exclusivity (and restoration under Waxman-Hatch)
- Orphan Drug exclusivity
- Pediatric exclusivity

## Evaluation

- New regulations that went into effect on June 18, 2003, apply to patent submissions and listing requirements made on or after August 18, 2003. A Paragraph IV patent certification must certify one of the following:
  - Patent information has not been filed
  - The patent has expired
  - The patent will expire on a specific date
  - The patent is invalid or will not be infringed
- Clinical Data
  - No exclusivity for bioavailability or bioequivalence data alone
  - 5 years exclusivity for an NCE that requires clinical studies conducted by the applicant for approval
  - 3 years exclusivity for a significant change to an approved entity, such as a new indication that requires clinical studies conducted by the applicant for approval
  - 7 years exclusivity for an orphan drug
  - 6 months exclusivity added to existing exclusivity for conducting and submitting pediatric studies in response to a written request
- Barriers to 505(b)(2) Strategies
  - Unexpired patents for reference listed drug for which non-infringement can not be certified
  - Unexpired exclusivities:
    - Patent
    - NCE or significant change
    - Orphan drug
    - Pediatric

## Results - Example

Orange Book Search

- Patents and Exclusivity for Zantac:

Patent and Exclusivity Search Results from query on Appl No 602921 Product 001 in the OR\_04 list.

Appl No	Patent No	Patent Expiration	Drug Substance Class	Drug Product Class	Patent No	Patent Expiration
602921	001	512086	JUN 23, 2009			
602921	001	512086	DEC 23, 2009			

**Exclusivity Data**  
There is no unexpired exclusivity for this product.

Paragraph IV Certifications as of September 1, 2004 submitted for Zantac (ranitidine):

Drug Name	Dosage Form	Dosage Strength	RLD
Ranitidine	injection	25 mg/mL, 2 mL and 40 mL vials	Zantac
Ranitidine	tablets	75 mg, 150 mg and 300 mg	Zantac
Ranitidine	capsules	150 mg and 300 mg	Zantac
Ranitidine	oral solution	15 mg/mL	Zantac

## Conclusions

Carefully developed 505(b)(2) submission strategies may provide market protections through various exclusivities available for a new sponsor or for innovator of a marketed NCE.

- 505(b)(2) applications are subject to marketing protections of other applicants
  - During the period that the 5 year (NCE) or 3 year (new clinical trials) exclusivity is in effect, FDA may not accept or approve certain applications that rely on the protected product for approval.
  - The only exception is a 505(b)(2) application that contains a Paragraph IV certification that can be submitted to FDA after 4 years but not approved until the exclusivity expires.
  - A 505(b)(2) application can not be approved during pediatric or orphan drug exclusivity periods of the protected product.
- Applications submitted under 505(b)(2) may also be protected by exclusivities
  - Patent exclusivity may restore up to five years of patent life for a new product based on the regulatory review period (testing phase and approval phase).
  - Orphan Drug exclusivity is available for a drug that treats a rare disease affecting fewer than 200,000 patients in the US.
  - Pediatric exclusivity can add 6 months to other existing exclusivities.