

---

# Pedigree Requirements for Prescription Drugs

An Industry Study from  
CLS MedTurn, Healthcare Services

October, 2006



Copyright © October 2006, CLS MedTurn  
All rights reserved.

No part of this book may be reproduced in any form without written permission from the author and the publisher. Inquiries regarding permission for use of the material contained in this book should be addressed to:

Sharon Joyner-Payne  
C/O Carolina Supply Chain Services, LLC  
2601 Pilgrim Court  
Winston-Salem, NC 27106  
800-765-1277  
sharon.joyner-payne@inmar.com

# Executive Summary

On June 9, 2006, the FDA issued a statement indicating that it is moving forward on its initiative to establish a nationwide, mandatory tracking system for prescription drugs. Some form of this program has been in existence since the signing of the Prescription Drug Marketing Act (PDMA) on April 22, 1988. This act set forth the goal of curbing the ever-growing problem of the distribution and sale of counterfeit drugs by requiring distributors to provide documentation (or “pedigree”) of the chain of custody of drug products throughout the distribution system. The implementation of this program, however, was significantly delayed due to concerns expressed by the forerunners in the prescription drug wholesale industry, and in an effort to allow members of the industry to develop the technology necessary to implement an electronic pedigree. Yet, because of the “increasingly sophisticated threats from drug counterfeiters,” the FDA has decided to officially lift the hold on implementation of the PDMA, and has stated that the program will go into effect in December, 2006. In the meantime, members of the drug wholesaling industry and the FDA Counterfeit Drug Task Force are encouraged to submit opinions or concerns relating to the pending legislation.

## Required Elements of a Pedigree<sup>1</sup>

1. The proprietary and established name of the drug
2. Dosage
3. Container size
4. Number of containers
5. The drug’s lot or control number(s)
6. The business name and address of all parties to each prior transaction involving the drug, starting with the manufacturer
7. The date of each previous transaction.

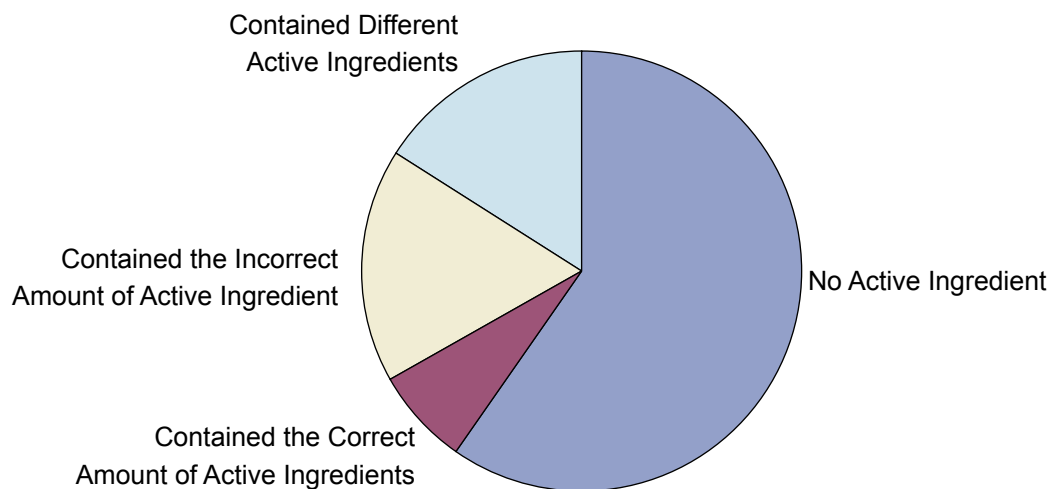
<sup>1</sup>This information from: “State and Federal Pedigree Requirements & the Impact on the Pharmaceutical Supply Chain,” by Kevin Nicholson, RPh, JD, Vice President, National Association of Chain Drug Stores, August 27, 2006.

This report shall examine the PDMA, the development of electronic pedigrees, and the impact of these regulations on state legislation.

## Background

Counterfeit drugs are defined as “those sold under a product name without proper authorization, where the identity of the source of the drug is knowingly and intentionally mislabeled in a way that suggests that it is the authentic approved product.” Counterfeit drugs may include those that are missing the active ingredient, have an insufficient amount of the active ingredient, have the wrong ingredient, or are deceptively labeled to indicate that they are FDA approved.

### Types of Counterfeit Drugs<sup>1</sup>



<sup>1</sup>“Fact Sheet: Counterfeit Drugs,” World Health Organization, November, 2003, [www.wpro.who.int/media\\_centre/fact\\_sheets/fs\\_200311\\_Counterfeit+drugs.html](http://www.wpro.who.int/media_centre/fact_sheets/fs_200311_Counterfeit+drugs.html).

Counterfeit drugs comprise an estimated eight to ten percent of prescription drugs sold worldwide, and represent a \$30 billion global industry. Technological advances, globalization, porous borders, and sophisticated new counterfeiting methods have resulted in a jump in the number of counterfeit drug investigations opened by the FDA in the last few years. Further, the precision with which drugs can be counterfeited as a result of this sophisticated technology makes an accurate estimate of the number of prescription drugs in circulation virtually impossible. While the American drug market still remains relatively safe, these technological advances, as well as the corresponding increase in FDA investigations, have resulted in a need for legislation to address the growing problem of drug counterfeiting.

## The Prescription Drug Marketing Act of 1987 (PDMA)

The PDMA was enacted to ensure the safety and purity of the prescription drugs purchased by consumers, and “to avoid an unacceptable risk that counterfeit, adulterated, misbranded, sub-potent, or expired drugs were being sold to the American Public.” The PDMA amended the Federal Food, Drug, and Cosmetic Act (FD&C Act), and originally set forth the following goals:

1. Require state licensing of wholesale distributors of prescription human drugs under Federal guidelines that included minimum standards for storage, handling, and recordkeeping;
2. Ban the reimportation of prescription human drugs produced in the United States, except when reimported by the manufacturer or for emergency use;
3. Ban the sale, trade, or purchase of drug samples;
4. Ban trafficking in or counterfeiting of drug coupons;
5. Mandate storage, handling, and recordkeeping requirements for drug samples;
6. Require practitioners to request drug samples in writing;
7. Prohibit, with certain exceptions, the resale of prescription human drugs purchased by hospitals or health care facilities; and
8. Set forth criminal and civil penalties for violations of these provisions.

In its efforts to achieve these goals, the FDA issued a proposed rule on March 14, 1994 to implement the PDMA. This rule provided that all wholesalers, with the exception of “authorized distributors of record (ADR)” (those wholesalers that frequently do business with major manufacturers and have an “ongoing relationship” with those manufacturers) would be required to provide to the next recipient of the drug a statement (pedigree) identifying each prior sale, purchase, or trade of the drug, and the contact information of every party to those transactions.

Members of the industry were permitted to submit comments related to this regulation by August 15, 1994. Taking these comments into consideration, the Agency issued a final regulation on December 3, 1999 (Title 21, Code of Federal Regulations (CFR) Part 203). Subsequently, the U.S. Small Business Administration, the Pharmaceutical Distributors Association, and other stakeholders submitted petitions requesting that the FDA reconsider the regulation and stay its implementation. The effective date for the final regulation was thereby delayed in 2001 as a result of the concerns expressed in and around these petitions.

PDMA Key Dates <sup>1</sup>	
April 22, 1988	The Prescription Drug Marketing Act was signed by the President.
August 26, 1992	PDMA was modified by the Prescription Drug Amendments of 1992.
March 14, 1994	The Agency issued a proposed rule implementing the PDMA.
May 30, 1994	Comment period to close; comment period subsequently was extended to August 15, 1994.
December 3, 1999	The Agency published final regulations in 21 CFR part 203 implementing the provisions of the PDMA.
March 13, 2000	Received petition from U. S. Small Business Administration to reconsider final rule.
March 31, 2000	Received petition from Pharmaceutical Distributors Association to stay implementation of final regulation until October 1, 2001.
March 29, 2000	Met with industry representatives.
May 3, 2000	Agency delayed effective date for certain requirements of the final rule and reopened the administrative record.
May 16, 2000	House Committee on Appropriations issues report accompanying the Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Bill 2001 (report 106-619)
September 19, 2000	Agency announced the public hearing.
October 27, 2000	Agency held public hearing.
November 20, 2000	Comment period on public hearing closed.
February 2001	Agency submits report to Congress.
July 2003	FDA Counterfeit Drug Task Force established.
October 2003	Task Force issues Interim Report
February 2004	FDA issues report on Combating Counterfeit Drugs, indicates that it will use an e-pedigree, and stays the implementation of the PDMA until December 1, 2006.
June 9, 2006	FDA announces expiration of the stay, effective December 1, 2006, and renounces its 2007 goal for widespread implementation of the PDMA.

<sup>1</sup>Information obtained primarily from: "The Prescription Drug Marketing Act: Report to Congress: Attachment C: List of Key Dates," June, 2001, [www.fda.gov/oc/pdma/report2001/](http://www.fda.gov/oc/pdma/report2001/).

## Primary Concerns with the PDMA

The primary concerns expressed with regard to the final rule issued in 1999 included the following:

- Confusion as to who would qualify as an authorized distributor.
- Whether or not authorized distributors should be exempt from maintaining and passing on a pedigree.
- What the term “each prior sale” would include.
- Whether or not blood centers that provide some health care services should be permitted to distribute blood derivative products.
- Secondary wholesalers would not be able to get the necessary pedigree information from suppliers that qualify as “authorized distributors,” as they are not required by the PDMA to provide this information. (If that information is not provided, a secondary distributor could not legally sell the product.)
- The expense for both primary and secondary wholesalers of adopting mandatory pedigree programs.
- Higher prescription drug prices for retailers and consumers.
- A decrease in competition in the marketplace.
- The ineffectiveness of a pedigree plan on deterring criminal activity.

The FDA focused its 2001 review on the first four of these items, and indicated both regulatory and statutory changes would be necessary to address those concerns. As such, the Agency decided to stay the implementation of 21 CFR §203 until 2004.

## The Electronic Pedigree

In 2003 the FDA created the Counterfeit Drug Task Force to deal with the growing problem of counterfeit drugs. This Task Force issued a report in 2004 in which it outlined a plan to address the increasing problem of counterfeit drug sales. This outline encompassed the goals of the PDMA and the 1999 rule, but updated them by indicating that new electronic track and trace technology will replace the paper pedigree originally suggested by the Act. The “e-pedigree” will be tracked electronically, either by means of radio-frequency identification (RFID), a barcode, or possibly mass serialization. The 2004 report expressed hope that widespread implementation of this e-pedigree would be possible by 2007, and thereby extended the stay on the finalization of 21 CFR §203 to December 1, 2006. By this deadline, the FDA hopes to overcome the three main obstacles that have delayed implementation of the e-pedigree: “technological hurdles, congressional overseers, and complaints from secondary wholesalers.”

## Radio-Frequency Identification (RFID)

Technological hurdles include the selection and adaptation of the means by which e-pedigrees will be tracked. The FDA has indicated a desire to ultimately utilize RFID technology, but because of the complexity of this method and its associated cost, widespread utilization by 2007 is unlikely. RFID is a relatively new technology, still in the investigational stage in many parts of the industry.

While down the road RFID will likely be the most effective and timely method of tracking prescription drugs, industry stakeholders have expressed concerns related to its reliability and security. For instance, possible uses of the technology might include embedding consumer information in the RFID tag as part of the pedigree requirement. This could potentially result in an unauthorized disclosure of personal health information. To ease these concerns, the FDA has indicated that it will provide education to consumers regarding the risks and benefits of RFID, and will determine a way to inform consumers when they have received a product that has been tagged electronically.

### Where are we now?

By the December deadline the FDA hopes to resolve the following issues:

- Who will fall into the category of “authorized distributors of record,” and what impact will their exemption from the tracking process have on other primary and secondary wholesalers?
- How will the FDA protect any personal health information that might potentially be exposed due to the tracking process? The main issue in question is whether or not the tracking device will be disabled once it reaches the retailer or consumer, or if the tracking process should continue beyond that point.
- How will the FDA standardize the tracking process? (E.g. will it use specific or random numbers? Barcodes or RFID?)
- Development of a universal drug pedigree program that will supersede conflicting state regulations.
- The provision of consumer education on prescription drug tracking.

While the stay will officially be lifted by the December 1, 2006 deadline, the FDA has acknowledged that its 2007 goal of widespread e-pedigree implementation is unattainable. It still hopes to begin execution of the program in 2007, but admits that its application will initially be limited to only those drugs that present the highest risk of counterfeit, or fall into one of the following categories:

1. High value in the US Market, as indicated by:
  - a. High sales volume/price;
  - b. A “specialty” product used to treat serious or life-threatening illnesses (e.g. cancer or AIDS);
  - c. High demand for the drug; or
  - d. A shortage of the drug.
2. Prior indicators of risk of, or vulnerability to, counterfeiting, or adulteration.
3. Reasonable probability of risk or vulnerability (for newly-approved drugs with a high priority review status).
4. Other violations of law (i.e. drugs distributed by those wholesalers or distributors who are suspected of taking part in illegal activity).

High Risk Drugs <sup>1</sup>		
Lipitor	Immune Globulin (IGIV)	Tamiflu
Nexium	Gamimune	Sustiva
Risperdal	Gammagar	Trizivir
Plavix	Epogen	Zerit
Procrit	Serostim	Diflucan
Epovir	Oxycotin	Lamisil
Combivir	Zyprexa	

<sup>1</sup>“Securing the Drug Supply from Counterfeiting Protects Brand Profits,” by Brenda Kelly, Vice President of Marketing, SupplyScape, Winter, 2004.

## The State Response

The developments in the FDA e-pedigree program have sparked further advancement in state pedigree legislation as well. As of August, 2006, fifteen states have enacted some form of pedigree legislation. Florida, boasts the most developed regulation, which is considered the “Granddaddy of state pedigree laws.” Under Florida law, anyone engaged in wholesale distribution of prescription drugs, including authorized distributors of record, must provide pedigree information. The only exceptions to this requirement are manufacturers and members of affiliated groups composed of at least 50 retail pharmacies, warehouses, or repackagers. However, it is important to note that “a pedigree is not required upon the return of a prescription drug to the wholesale supplier, or when the drug is adulterated or otherwise unusable, and is transferred to a licensed reverse distributor or destruction facility.”

In 2003, Florida enacted the “Prescription Drug Protection Act (PDPA),” which made selling drugs without a pedigree a felony, established government authority to shut down criminal wholesalers and seize drugs, and set forth the following requirements for wholesalers:

- Surety bonds;
- Background checks;
- Designation of an Authorized Representative;
- Due diligence on the part of wholesalers with respect to the authorization of prior transactions; and
- Licensing of freight forwarders exporting prescription drugs.

In July, 2006, House Bill No. 371 amended the pedigree requirements set forth in the PDPA; exempting drop shipments of drugs from the pedigree requirements and creating additional forms of pedigrees for direct purchase transactions. With these amendments, the Florida pedigree laws were finalized.



State	Summary of Law	Affect on Reverse Logistics?
CA	E-pedigrees required for all distributions from manufacturer to pharmacy or other dispenser, effective January 1, 2007.	Reverse distributors DO NOT need to provide pedigree information.
	Non-resident wholesalers must have \$100,000 surety bond to be licensed.	
CO	Pedigree required for prescription drugs that leave the normal chain of distribution.	No specific mention
	Wholesaler inspections required.	
CT	Commissioner of Consumer Protection to establish a working group to submit recommendations regarding the development of a pedigree program.	No specific mention
FL	Paper/e-Pedigree of each wholesale distribution of drug, which must be approved by Dept. of Health.	Reverse distributors DO NOT need to provide pedigree information.
	Each recipient must provide certification that it has authenticated the pedigree.	
	Criminal liability for noncompliance.	
	Two exemptions from requirement to provide pedigree: 1. Manufacturer when selling or distributing its own drugs. 2. An affiliated group of 50+ retail pharmacies, warehouses, or repackagers who distribute among the group.	
IN	Paper/e-Pedigree approved by Board of Pharmacy for all drugs that leave the normal chain of distribution.	Reverse distributors DO NOT need to provide pedigree information.
	\$100K surety bond required.	
IA	Requirements to be promulgated by the Board of Pharmacy.	No specific mention.
MS	Requirements to be promulgated by the Board of Pharmacy for all drugs that leave the normal chain of distribution.	No specific mention.
NE	Pedigree required for prescription drugs that leave the normal chain of distribution.	No specific mention.
	\$100K surety bond required.	
NV	Statement of prior sales may include only three sales to wholesale distributors.	No specific mention.
	Wholesalers may only engage in "bona fide transactions."	
	Wholesalers must certify claims of ADR status.	
NJ	Pedigrees required from non-ADRs.	No specific mention.
	Discretionary authentication requirement.	
	"Wholesaler" does not include chain pharmacy warehouses.	
NM	Requirements to be promulgated by the Board of Pharmacy.	No specific mention.
OK	Requirements to be promulgated by the Board of Pharmacy for all drugs that leave the normal chain of distribution.	No specific mention.
TX	Pedigree required for prescription drugs that leave the normal chain of distribution.	No specific mention.
VA	Requirements to be promulgated by the Board of Pharmacy for all drugs that leave the normal chain of distribution.	No specific mention.
	"Wholesaler" does not include chain pharmacy warehouses.	
<p><sup>1</sup>All information provided by: "State and Federal Pedigree Requirements &amp; the Impact on the Pharmaceutical Supply Chain," by Kevin Nicholson, RPh, JD, Vice President, National Association of Chain Drug Stores, August 27, 2006.</p>		

## Conclusion

The growing problem of drug counterfeiting requires that the FDA and state legislature take action to protect the American drug supply and consumers of prescription drugs. The developing PDMA legislation, potentially combined with RFID technology and corresponding state regulations, is an affirmative step in the direction of securing the drug supply and curbing the counterfeiting problem. While it recognizes that many concerns still must be addressed, the FDA insists that these concerns will no longer delay the implementation of the e-pedigree program, and asserts that “companies should continue to tag drug products, build infrastructure across the supply chain for using an e-pedigree, and remain vigilant in their responsibility to provide a safe and effective drug product to the patient.”

## Acknowledgments

CLS MedTurn would like to thank the following individuals for their dedication and contributions to the development of this document.

**Kristen Lewis** - CLS Legal Department

**Emma Lloyd** - CLS General Counsel

## References and Endnotes

- <sup>1</sup> “FDA Announces New Measures to Protect Americans from Counterfeit Drugs,” June 9, 2006, [www.fda.gov/bbs/topics/NEWS/2006/NEW01386.html](http://www.fda.gov/bbs/topics/NEWS/2006/NEW01386.html).
  - <sup>2</sup> “Statement of Randall W. Lutter, Ph.D. before the Subcommittee on Criminal Justice, Drug Policy, and Human Resources,” July 11, 2006, [www.fda.gov/ola/2006/counterfeit0711.html](http://www.fda.gov/ola/2006/counterfeit0711.html).
  - <sup>3</sup> Statement of Randall W. Lutter, Ph.D, *supra*.
  - <sup>4</sup> “FDA Imposes Long-Delayed Rule to Require Tracking of Prescription Drugs,” by Barnaby J. Feder, *The New York Times*, June 10, 2006.
  - <sup>5</sup> “The Prescription Drug Marketing Act: Report to Congress,” June, 2001, [www.fda.gov/oc/pdma/report2001/](http://www.fda.gov/oc/pdma/report2001/).
  - <sup>6</sup> “The Prescription Drug Marketing Act: Report to Congress, Attachment E: The Guidance Letter,” August 1, 1988, [www.fda.gov/oc/pdma/report2001/](http://www.fda.gov/oc/pdma/report2001/).
  - <sup>7</sup> “FDA Turns to RFID to Track Prescription Drugs” by Bob Brewin, *Federal Computer Week*, July 17, 2006.
  - <sup>8</sup> “Draft Compliance Policy Guide 160.900: Prescription Drug Marketing Act – Pedigree Requirements Under 21 CFR Part 203,” June, 2006, [www.fda.gov/oc/initiatives/counterfeit/cpg.html](http://www.fda.gov/oc/initiatives/counterfeit/cpg.html).
  - <sup>9</sup> “State and Federal Pedigree Requirements & the Impact on the Pharmaceutical Supply Chain,” by Kevin Nicholson, RPh, JD, Vice President, National Association of Chain Drug Stores, August 27, 2006.
  - <sup>10</sup> “Statewide Pharmaceutical Services: Pedigree Papers: Frequently Asked Questions,” Florida Department of Health, [www.doh.state.fl.us/pharmacy/ddc-FAQs-Pedigree.html](http://www.doh.state.fl.us/pharmacy/ddc-FAQs-Pedigree.html).
  - <sup>11</sup> “State and Federal Pedigree Requirements,” *supra*.
  - <sup>12</sup> “FDA Counterfeit Drug Task Force Report: 2006 Update,” [www.fda.gov/oc/initiatives/counterfeit/report6\\_06.html](http://www.fda.gov/oc/initiatives/counterfeit/report6_06.html).
- “Fact Sheet: Counterfeit Drugs,” World Health Organization, November, 2003, [www.wpro.who.int/media\\_centre/fact\\_sheets/fs\\_200311\\_Counterfeit+drugs.html](http://www.wpro.who.int/media_centre/fact_sheets/fs_200311_Counterfeit+drugs.html).
- “The Prescription Drug Marketing Act: Report to Congress: Attachment C: List of Key Dates,” June, 2001, [www.fda.gov/oc/pdma/report2001/](http://www.fda.gov/oc/pdma/report2001/).
- “Securing the Drug Supply from Counterfeiting Protects Brand Profits,” by Brenda Kelly, Vice President of Marketing, SupplyScape, Winter, 2004.