Guidance for Industry

Standards for Securing the Drug Supply Chain - Standardized Numerical Identification for Prescription Drug Packages

DRAFT GUIDANCE

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Food and Drug Administration
Office of the Commissioner (OC)
Center for Drug Evaluation and Research (CDER)
Center for Biologics Evaluation and Research (CBER)
Office of Regulatory Affairs (ORA)
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This draft guidance, when finalized, will represent the Food and Drug Administration's (FDA's) current thinking on this topic.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 address provisions set forth in Section 505D of the Federal Food, Drug, and Cosmetic Act (the act) regarding development of standardized numerical identifiers (SNIs) for prescription drug packages. In this guidance, FDA is identifying package-level SNIs, as an initial step to facilitating other measures for securing the drug supply chain.

FDA's guidance documents, including this guidance, do not establish legally enforceable responsibilities. Instead, guidances describe the Agency's current thinking on a topic and should be viewed only as recommendations, unless specific regulatory or statutory requirements are cited. The use of the word *should* in Agency guidances means that something is suggested or recommended, but not required.

[1] This guidance has been prepared by the Office of the Commissioner (OC), the Center for Drug Evaluation and Research (CDER), the Center for Biologics Evaluation and Research (CBER), and the Office of Regulatory Affairs (ORA) at the Food and Drug Administration.

II. BACKGROUND

A. Food and Drug Administration Amendments Act of 2007

On September 27, 2007, the Food and Drug Administration Amendments Act of 2007 (FDAAA) (Public Law 110-85) was signed into law. Section 913 of this legislation created section 505D of the Federal Food, Drug, and Cosmetic Act (the act), which requires the Secretary of Health and Human Services (the Secretary) to develop standards and identify and validate effective technologies for the purpose of securing the drug supply chain against counterfeit, diverted, subpotent, substandard, adulterated, misbranded, or expired drugs. Section 505D directs the Secretary to consult with specific entities to prioritize and develop standards for identification, validation, authentication, and tracking and tracing of prescription drugs. No later than 30 months after the date of enactment of FDAAA, the statute also directs the Secretary to develop an SNI to be applied to a prescription drug at the point of manufacturing and repackaging at the package or pallet level, sufficient to facilitate the identification, validation, authentication, and tracking and tracing of the prescription drug. An SNI applied at the point of repackaging is to be linked to the SNI applied at the point of manufacturing, and to the extent practicable, the SNI should be harmonized with international consensus standards for such an identifier. (See Section 505D(b)(2).) The provisions in section 505D(b) of the act complement and build on FDA's longstanding efforts to further secure the U.S. drug supply.

FDA sought public comment on specific questions related to development of an SNI by opening a docket to receive information. 73 FR14988 (March 20, 2008). We also shared this request with State governments, other Federal agencies, and with foreign governments. We received 59

comments from a range of stakeholders, including manufacturers, wholesalers, pharmacies, trade and health professional organizations, technology vendors, health professionals, consumers, and state governments. The standards included in this guidance are based on information received in response to our request for comment and the agency's familiarity with identification standards already in use for certain prescription biologics.

B. Scope of this Guidance

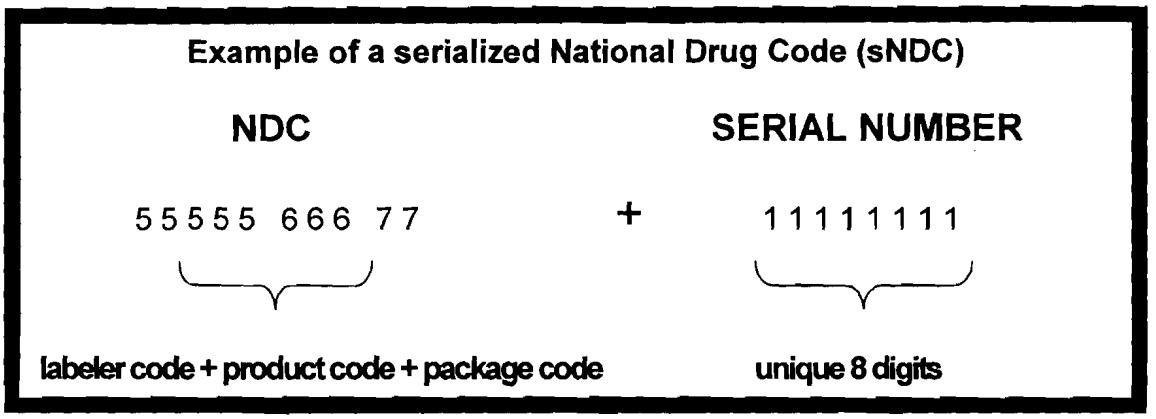
This guidance addresses only package-level SNI. For this purpose, FDA considers the package to be the smallest saleable unit placed into interstate commerce by the manufacturer or the repackager for sale to the pharmacy or other dispenser of the drug product. Standards for prescription drug SNI for the pallet level or other intermediate levels, such as cases, are not included in this guidance. Linking of a repackager SNI to a manufacturer SNI is also not addressed in this guidance. Additionally, standards for track and trace, authentication, and validation are not included in this guidance. This guidance is intended to be the first of several guidances and regulations that FDA may issue to implement section 505D of the act; issuance of this guidance is intended to assist with the development of standards and systems for identification, authentication, and tracking and tracing of prescription drugs.

III. STANDARDIZED NUMERICAL IDENTIFIERS

A. What should be designated as a package-level SNI?

Although manufacturers and repackagers are not required to use an SNI, for those manufacturers and repackagers who do, the SNI for most prescription drug packages should be a serialized National Drug Code (sNDC). The sNDC is composed of the National Drug Code (NDC) (as set

forth in 21 CFR Part 207)[2] that reflects each corresponding manufacturer or repackager, combined with a unique 8-digit numerical serial number generated by the manufacturer or repackager for each individual package. An example is shown below with a 10-digit NDC.



FDA recognizes that some prescription drugs approved under Section 351 of the Public Health Service Act, such as blood and blood components, do not use NDC numbers. Instead, such products currently use other recognized consensus standards for identification and labeling, e.g. ISBT 128 (see http://iccbba.org/about_gettoknowisbt128.html, and Guidance for Industry: Recognition and Use of a Standard for Uniform Blood and Blood Component Container Labels (http://www.fda.gov/cber/gdlns/unilabbld.htm) or Codabar. In addition, hematopoietic stem cells derived from peripheral and cord blood use the ISBT 128 standard for product package identification. Using these standards, a unique identification number is created for each individual product package. Therefore, for such products that do not use NDC numbers, FDA is considering use of ISBT 128 or Codabar as the SNI.

B. Does the SNI include expiration date and/or lot or batch number?

[2] Use of the sNDC as SNI is consistent with both existing provisions of part 207 and with FDA's proposed amendments to that provision, which would affect the assignment of NDCs. See 71 FR 51276 (August 29, 2006).

Expiration date and/or lot or batch number are not part of the SNI. Addition of this information within the SNI will increase the length of, and introduce complexity into, the SNI. Expiration date and/or lot or batch number are already readily accessible because FDA regulations require this information to be included on the label of each drug product. (See 21 CFR §§ 201.17, 201.18, 211.130, 211.137, 610.60, and 610.61.) However, if a manufacturer or repackager chooses to include expiration date and/or lot or batch number with the SNI, it should ensure that the resulting number still permits users to distinguish and make use of the SNI. For example, expiration date and lot or batch number may be incorporated in accordance with the GS1 standards for use of Global Trade Item Numbers (GTIN)[3] (discussed below).

C. Why did FDA select the serialized NDC for package-level SNI?

FDA chose the sNDC because we believe that it serves the needs of the drug supply chain as a means of identifying individual prescription drug packages. That identification can in turn facilitate authentication and tracking and tracing of the prescription drugs. Because the sNDC incorporates an 8-digit numerical serial number with the NDC, it should provide appropriate robustness to support billions of units of marketed products without duplication of an SNI. This approach will allow manufacturers and repackagers to assign serial numbers to combine with the NDC for unique identification of individual product packages. The SNI can also be linked to other identifiers used for manufacturing and shipping purposes. As already noted, defining the SNI is expected to be a first step to facilitate the development of other standards and systems for securing the drug supply chain. Many aspects of the implementation of package-level SNI will take shape in the future, as the standards that make use of SNI are developed.

[3] See www.GS1.org -- Healthcare GTIN Allocation Rules (http://www.gs1.org/docs/gsmp/healthcare/GS1_Healthcare_GTIN_Allocation_Rules.pdf).

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118 At this time, FDA is not specifying a particular means of incorporating the SNI onto the package.
119 The SNI identified in this guidance is compatible with, and flexible for, encoding into a variety
120 of machine readable forms of data carriers, such as 2-dimensional bar codes and RFID,[4] leaving
121 options open as technologies useful for securing the supply chain continue to be identified, and
122 standards making use of SNI are developed. FDA expects that SNI generally will be applied to
123 each package in both human readable and machine readable forms. A redundant human readable
124 SNI on the package will provide the ability to identify the package when electronic means are
125 unavailable (e.g., in the event of hardware/software failure). FDA also is not specifying a
126 location on the package where an SNI should be placed, although any SNI would need to be
127 placed on the package in a manner that does not obstruct FDA required labeling information.

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129 In addition to facilitating other actions to secure the drug supply chain, adoption of the sNDC as
130 the SNI satisfies the requirement in 505D(b)(2) that the SNI developed by FDA be harmonized,
131 to the extent practicable, with international standards for such an identifier.[5] Specifically, use of
132 sNDC is compatible with, and may be presented within, a serialized Global Trade Item Number
133 (serialized GTIN or sGTIN). GTIN is a global standard for item and object identification,
134 established by GS1, a consensus-based, not-for-profit, international standards organization that
135 works with manufacturers, distributors, retailers, and others in the drug supply chain. FDA has
136 been an active observer and participant in GS1 standards development related to healthcare and

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[4] FDA's enforcement policy with respect to the application of current good manufacturing practices to RFID technology is provided in Compliance Policy Guide (CPG) Section 400.210. See http://www.fda.gov/oc/initiatives/counterfeit/rfid_cpg.html. This CPG would apply if an SNI were embedded into an RFID tag.

[5] The potential alternative SNI for blood and certain other biologics identified above also use international consensus standards (ISBT 128).

drug products. According to documentation from GS1, the GTIN is used worldwide by twenty-three industry sectors, including healthcare, and has been adopted by sixty-five countries to uniquely identify pharmaceutical products. A GTIN may be used to uniquely identify items at the package level throughout the supply chain; combining a serial number with the GTIN ("serializing") results in an sGTIN that is unique to the individual package.