Pediatric Oncology Drug Shortages: A Multifaceted Problem

The consensus statement by Unguru et al1 concerning national shortages of therapies used to treat children with cancer accomplishes 2 important tasks: it highlights a serious public health threat and proposes steps to address the problem. The working group (WG) has outlined 6 recommendations. All are constructive approaches and, in the case of the recommendations that are within US Food and Drug Administration’s (FDA’s) purview, the FDA has already taken steps to implement actions.

The first recommendation (Support Current and Develop Innovative Measures to Prevent Drug Shortages) might be perceived as primarily in the FDA’s purview. Addressing the complex issue of drug shortages continues to be a high priority for the FDA. On October 31, 2013, the FDA released a strategic plan to improve the agency’s response to imminent or existing shortages and to identify longer-term approaches for addressing the underlying causes of drug shortages.2 This plan also highlights opportunities for drug manufacturers and others to prevent drug shortages by promoting and sustaining quality manufacturing. One critical element that limits the FDA’s responses, however, is the reality that the agency does not have authority to force the manufacture and distribution of a drug product. Companies that make these products are private businesses and the FDA’s influence is therefore limited in some of the arenas identified in the WG’s 5 “action items” under their first recommendation. Even so, the FDA has an important role in implementing some of these action items.

For example, the action item to “implement a proposed FDA quality metric to incentivize and reward high-quality manufacturing practices” is something that the FDA is considering as part of its strategic plan to address manufacturing and quality issues, such as “batch failures” or quality transgressions, that are most often the root cause of shortages. The FDA will be working with industry and other stakeholders on these efforts.

Another action item that the FDA has implemented involves rapid access to international suppliers of drugs or ingredients during a shortage. Early notification from manufacturers about possible shortages has enabled the FDA to work with manufacturers to restore production of many lifesaving therapies. Once notified of a shortage, the agency works with the manufacturer to investigate the issue leading to the manufacturing disruption and identifies other manufacturers who can make up the shortfall. When manufacturers of the FDA-approved drug are not able to immediately resolve a shortage of a medically necessary drug, the FDA will take appropriate actions to address the drug shortage. These actions may include, for example, not objecting to the shipment of alternative versions of the product with the same active ingredient, when appropriate, until the shortage of the FDA-approved version is resolved.

AUTHORS: Dianne Murphy, MD, FAAP, a Gregory Reaman, MD, b and Capt Valerie Jensen, RhP c

aOffice of Pediatric Therapeutics, Office of the Commissioner, Food and Drug Administrations; bOffice of Hematology and Oncologic Products, and cCenter for Drugs, Food and Drug Administrations, Silver Spring, Maryland

KEY WORD oncology drug shortages

ABBREVIATIONS

FDA—Food and Drug Administration
WG—working group

Opinions expressed in these commentaries are those of the author and not necessarily those of the American Academy of Pediatrics or its Committees.

doi:10.1542/peds.2013-4018
Accepted for publication Dec 11, 2013

Address correspondence to Dianne Murphy, MD, FAAP, Food and Drug Administration, Office of Pediatric Therapeutics, Office of the Commissioner, 10903 New Hampshire Ave, WO32-5150, Silver Spring, MD 20903. E-mail: dianne.murphy@fda.hhs.gov

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275). Copyright © 2014 by the American Academy of Pediatrics

FINANCIAL DISCLOSURE: The authors have indicated they have no financial relationships relevant to this article to disclose.

FUNDING: No external funding.

POTENTIAL CONFLICT OF INTEREST: The authors have indicated they have no potential conflicts of interest to disclose.

COMPANION PAPER: A companion to this article can be found on page e716, online at www.pediatrics.org/cgi/doi/10.1542/peds.2013-2946.
The FDA evaluates the drug for quality to ensure there are no significant risks for US patients. Information about the alternate supply of the drug is posted on the FDA Drug Shortage Web site, along with the “Dear Healthcare Professional” letter from the company distributing the drug. At present, there are 8 shortage products where this approach is being used.

Some of the action items are not in the FDA’s remand (Amend Laws to Allow Greater Price Increases for Generic Oncology Drugs on the Critical Drug List; Create a National Stockpile of Critical Drugs) or are best addressed by those caring for the affected patients (Create a Critical Drug and Shortage List).

The FDA is actively working on the WG’s fourth action item (Create an Improved Information Source for Drug Shortages). In addition to enhancing the FDA Drug Shortage Web site, the FDA is working to improve communications, such as launching a new mobile app, so that individuals can instantaneously access drug shortage information via their smartphones.

There are few more heart-wrenching moments in life than to hear of a child, whether or not he or she is enrolled in a clinical trial, who requires a specific product for the treatment of cancer and to know that a critical component of that therapy is not available. The FDA is composed of scientists and other professionals, many of whom are parents and grandparents, who are truly dedicated to decreasing the frequency with which drug shortages occur. Drug shortages are, however, a complex issue requiring multiple solutions. The Consensus WG has provided useful insights and recommendations for these solutions. The FDA is committed to being an active partner in this activity, and we look forward to continuing progress in this area.

REFERENCES


Pediatric Oncology Drug Shortages: A Multifaceted Problem
Dianne Murphy, Gregory Reaman and Capt Valerie Jensen
Pediatrics 2014;133;e728
DOI: 10.1542/peds.2013-4018 originally published online February 2, 2014;

Updated Information & Services
including high resolution figures, can be found at:
http://pediatrics.aappublications.org/content/133/3/e728

Subspecialty Collections
This article, along with others on similar topics, appears in the following collection(s):
Hematology/Oncology
http://classic.pediatrics.aappublications.org/cgi/collection/hematology_oncology_sub
Cancer/Neoplastic
http://classic.pediatrics.aappublications.org/cgi/collection/cancer_neoplastic_sub
Pharmacology
http://classic.pediatrics.aappublications.org/cgi/collection/pharmacology_sub

Permissions & Licensing
Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
https://shop.aap.org/licensing-permissions/

Reprints
Information about ordering reprints can be found online:
http://classic.pediatrics.aappublications.org/content/reprints
Pediatric Oncology Drug Shortages: A Multifaceted Problem
Dianne Murphy, Gregory Reaman and Capt Valerie Jensen

Pediatrics 2014;133;e728
DOI: 10.1542/peds.2013-4018 originally published online February 2, 2014;

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://pediatrics.aappublications.org/content/133/3/e728