Drug Shortages

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Shortages, safety and security of drug supply chain in the news…a look back

Lawmakers ask FDA chief to brief them on her trip to China, outline new concerns on drug tainting

Drug shortage in hospitals continues to grow

OTC drugs stolen in US cargo robbery

Massive theft of drug precursors in Australia

The cancer drug shortage is beyond unconscionable

Theft from Connecticut warehouse

FDA finds more fake cancer drug in U.S.

Drug shortages set to reach record levels

Shortage and Supply Chain Security Legislation

Act	Title	Focus
SAFE DOSES ACT 22 Sept 2012	Strengthening and Focusing Enforcement to Deter Organized Stealing and Enhance Safety Act	Civil and Criminal penalties, against counterfeit and cargo thefts involving medical products.
FDASIA 9 July 2012	Food and Drug Administration Safety and Innovation Act	Title VII Supply chain controls, Title X Drug Shortages
Drug Quality and Security Act (DQSA) of 2013 27 November 2013	Compounding Quality Act and Drug Supply Chain Security Act (DSCSA)	Compounding, Serialization, suspect and illegitimate product
DIRECTIVE 2011/62/EU 1 July 2011	Falsified Medicines Directive (EU)	introduces measures to prevent the entry of falsified medicines into the legal supply chain

FDASIA Title X Drug Shortages

Title X	Drug Shortages
1001	Discontinuance or interruption in the production of life-saving drugs
1002	Annual reporting on drug shortages
1003	Coordination; task force and strategic plan
1004	Drug Shortage list
1005	Quotas applicable to drugs in shortage (CS)
1006	Attorney General report on drug shortages
1007	Hospital repackaging of drugs in shortage
1008	Study on drug shortages

- 31 October 2013: Proposed Rule: Permanent Discontinuance or Interruption in Manufacturing of Certain Drug or Biological Products (estimated date of final rule: January 2015)

FDASIA Title X Drug Shortages

Discontinuance or Interruption in the Production of Life-Saving Drugs

- "life supporting; life sustaining; or intended for use in the prevention or treatment of a debilitating disease or condition," including drugs used in emergency medical care or during surgery;
- Notify of a permanent discontinuance or an interruption of the manufacture of the drug that is "likely to lead to a meaningful disruption" in the supply of that drug in the United States" and the reasons for such discontinuation or interruption.
- 6 months or if not possible, as soon as practicable.
- Drugs subject to reporting do not include biologics (voluntary notification) or radio pharmaceutical drugs. However the Proposed Rule proposes to include biologics.

FDASIA Title X

- ✓ Public disclosure to “the maximum extent practicable” - shortage list on website
- ✓ Coordinate with Attorney General to address DEA controlled substance quotas
- ✓ Expedited inspections and reviews
- ✓ Biologic notifications added via Proposed Rule
- ✓ Task Force- coordination and communication; develop a Strategic Plan 1 year after enactment
- ✓ Consideration of shortage in regulatory action
- ✓ Annual report to Congress and trend analysis- including names of manufacturers failing to notify

FDASIA Title X
Failure to Meet Requirements

- Letter from FDA
- Response letter (30 days) with basis for non-compliance
- Publicly available within 45 days
- Included in annual report to Congress
- Hindsight is 20/20
- One recent example of “Non-Compliance with Notification” on website

http://www.fda.gov/Drugs/DrugSafety/DrugShortages/ucm403902.htm

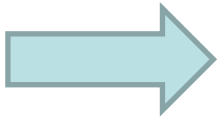
FDASIA Title X – other provisions of note

- Public Health exception – information may not be publically disclosed if Secretary determines that disclosure of such information would adversely affect the public health (e.g., hoarding)
- Notifications not construed as admissions of any violation of FDCA or as evidence of off-label promotion
- Reporting mechanism for health care providers and others to report evidence of shortage
- Review and Construction: Determinations, findings, actions or omissions of FDA related to this section (1003) will not be subject to judicial review or be used as a defense to any enforcement action by the FDA.

Safety and Security of Supply Chain

Process

- Review and update of procedures and global standards and incorporate new notifications
- Ensure appropriate personnel with appropriate qualifications handling the issues
- Ensure speed in identifying and escalating potential issues
- Ensure timely notifications
- Build new processes as needed for new requirements

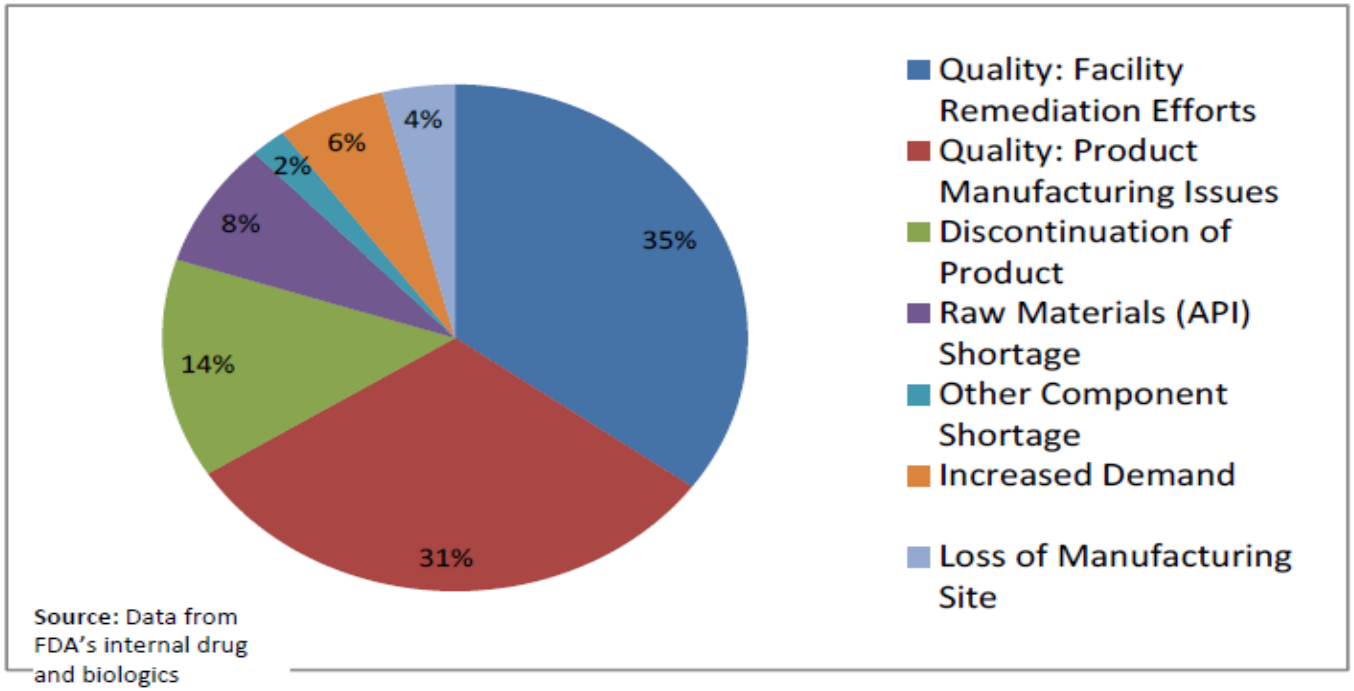


Protection of patient supply and safety and security of supply chain

Evaluation of Potential Root Causes

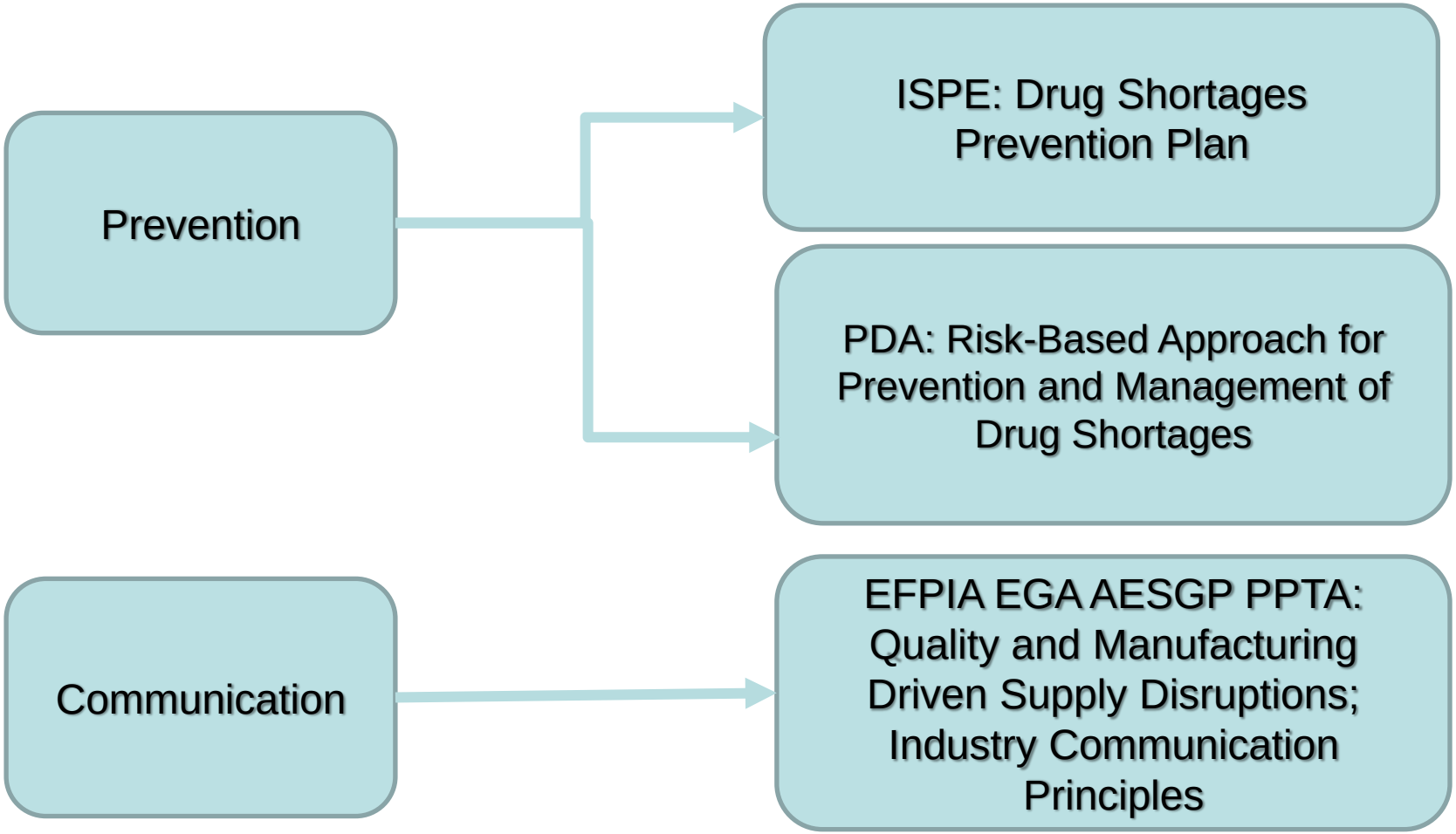
Task Force Strategic Plan: Failures in product or facility quality are the primary factor leading to disruptions in manufacturing*

Figure 2. Drug Shortages by Primary Reason for Disruption in Supply in 2012



Source: Data from FDA's internal drug and biologics shortages databases.

Inter-association collaboration to prevent and address shortages



ISPE Systems Model

PDA Risk Triage Method

1. Define impact to patient

Therapeutic Use & Consequences if Product not Available			Availability of Alternatives: No Alternatives Available	Availability of Alternatives: Alternative Products Available: Similar Therapy	Availability of Alternatives: Exact Product Available but in Other Presentations
	Medically Necessary Product, Life supporting or Life sustaining	Fatal or severe irreversible harm if the patient is not treated with the product	Risk Level A	Risk Level A	Risk Level B
	Acute short term or chronic long term	Severe harm but reversible if patient is not treated with the product	Risk Level A	Risk Level B	Risk Level C
	Other indications	Inconvenience if patient is not treated with the product	Risk Level B	Risk Level C	Risk Level C

2. At each risk level consider the Likelihood of a drug shortage, and

3. Define priority

Risk Level	Likelihood of Shortage: High	Likelihood of Shortage: Moderate	Likelihood of Shortage: Low
Risk Level A	Risk Priority Level 1	Risk Priority Level 1	Risk Priority Level 2
Risk Level B	Risk Priority Level 1	Risk Priority Level 2	Risk Priority Level 3
Risk Level C	Risk Priority Level 2	Risk Priority Level 3	Risk Priority Level 3

4. Develop and implement risk control strategies

Final thoughts

- Robust inventory management and awareness
- Communication internally and externally
- Oversight of contract manufacturers and suppliers
- Coordination with FDA Drug Shortage Office
- Strong quality culture
- Continuous improvement in manufacturing, including capital investment and supply chain management
- Agility and flexibility