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COMMENTARY

When government agencies turn to unregulated drug sources: Implications for the drug supply chain and public health are grave

Prashant Yadav*, Rebecca Lynn Weintraub, Andy Stergachis

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ABSTRACT

Objective: To highlight how sourcing practices for lethal injections drugs are undermining state and federal regulatory structures established to preserve the security and integrity of the medicines supply chain in the United States.

Summary: Unable to find sources for execution products approved by the U.S. Food and Drug Administration (FDA), some states have started sourcing the required drugs or active ingredients from unapproved foreign manufacturers or have contracted with small compounding pharmacists to compound them. Many states have passed legislation barring the disclosure of information regarding the origin and chain of custody for prisons' stocks of compounded lethal injection drugs. This creates a regulatory vacuum and prevents the responsible authorities (e.g., FDA, Drug Enforcement Agency, state boards of pharmacy) from performing their crucial roles to ensure quality and supply chain transparency for medicines in circulation.

Conclusion: By purchasing medicines from non–FDA-approved suppliers and enacting lethal injection sourcing secrecy laws, states are undermining the robust enforcement of chain of custody and pharmaceutical supply chain transparency. The secrecy surrounding the execution drug procurement risks creating illicit supply channels. Once an illicit supply channel is established with a supplier, it creates risks that other drug products move through it, particularly in a context where the FDA, Drug Enforcement Agency, and state boards of pharmacy are prevented from performing their usual regulatory duties. Lawmakers have the obligation and authority to step in and close this regulatory gap to promote public health and safety.

Ensuring the safety and efficacy of medicines is imperative for patients, physicians, and public health. Apart from therapeutic failure and risks of illnesses or death, poor-quality or harmful medicines can erode public confidence in the health system.[1] Usually, pharmacists, physicians, and other health professionals in the United States have little reason to worry about issues of medicine safety and quality because of the system of safeguards run by the U.S. Food and Drug Administration (FDA), Drug Enforcement Agency (DEA), and state professional regulatory boards and agencies. However, recent efforts by departments of corrections in some states to secure drugs for use in lethal injections are undermining the integrity of the supply chain and putting patients at risk.

A regulatory vacuum for execution drugs

Over the last few years, the FDA-approved pharmaceutical manufacturers of the drugs used in lethal injections in the United States have turned away from supplying these drugs to prisons,[2] ending "the open market for execution drugs."[3] Moreover, the European Commission has imposed strict controls on the export of drugs used to carry out lethal injections. Unable to purchase manufactured products for executions, state officials have contracted with small compounding pharmacists to prepare formulations of the required drugs or in some instances have turned to unapproved foreign suppliers.

* **Correspondence**: Prashant Yadav, PhD, Visiting Scholar, Global Health and Social Medicine Harvard Medical School, 641 Huntington Avenue, Boston, MA 02115.
E-mail address: Prashant_Yadav@hms.harvard.edu (P. Yadav).

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Key Points

Background:

- Some states are sourcing lethal injection drugs or active ingredients from unapproved foreign manufacturers and contracted with small compounding pharmacists to compound them.

Findings:

- Many states have passed legislation barring the disclosure of information regarding the origin and chain of custody for prisons' stocks of compounded lethal injection drugs, thereby preventing responsible authorities from ensuring quality and supply chain transparency for these medicines.
- The secrecy surrounding the procurement of execution drugs risks creating illicit supply channels by undermining the robust enforcement of chain of custody and pharmaceutical supply chain transparency.

Compounding pharmacies are licensed by state pharmacy boards, but they are not required to register with the FDA or inform the FDA which medicines they are making (except large industrial scale compounding pharmacies). Compounding pharmacies prepare medicines using raw ingredients that cannot be easily tracked back to the original manufacturer for information on quality and integrity.[4] The sources of raw materials used by compounding pharmacies have been questioned,[5] and lapses in quality control have caused patient injury and death.[6]

The bipartisan Drug Quality and Security Act was enacted in 2012 to safeguard public safety, maintaining access to safe compounded medications for Americans while protecting patients from the risks of substandard and adulterated compounded drugs. Track-and-trace legislation under implementation in the United States also seeks to create a strong chain of custody through each step in the drug distribution system in the U.S. pharmaceutical market. However, legislative and other initiatives to ensure transparency across the pharmaceutical supply chain are undermined by states when they procure or compound medicines for use in executions. Many states have passed legislation barring the disclosure of information regarding the origin and chain of custody for prison stocks of compounded lethal injection drugs. These execution secrecy laws and policies, which have been implemented by 23 of 31 states with the death penalty, effectively—and in some cases explicitly—exempt the suppliers of lethal injection drugs from oversight by state boards of pharmacy. The Commonwealth of Virginia, for example, exempted the pharmacy supplying its execution drugs from "the jurisdiction of the Board of Pharmacy, Board of Medicine or the Department of Health Professionals" in legislation passed in 2016.[7]

Execution secrecy laws create a regulatory vacuum that prevents the responsible authorities from ensuring quality standards for certain medicines in circulation in those states. By exempting state regulatory authorities from acting, these laws obstruct independent state intervention and frustrate FDA and DEA investigation, even in cases of gross negligence. The likelihood of detection of substandard drugs is already low in compounding supply and use settings,[8] and these odds are even lower when pharmacies are offered blanket anonymity and state impunity. Even when executions are botched because of quality failings from compounded drugs, secrecy laws prevent the FDA and DEA from identifying the source of these violations and ensuring that the pharmacy is not also preparing similar poor-quality medications for patients.

Falsified and substandard products circulate when responsible regulatory authorities are ill equipped to detect problems or act against them.[1] With the passage of execution secrecy statutes, there are no safeguards in place to prevent pharmacies and suppliers from exploiting the loopholes created by these laws, allowing poor-quality medicines to infiltrate the market, putting the public and prisoners at risk.

An unregulated route for substandard medicines to enter the patient market

When states have been unable to purchase execution drugs domestically, they have turned to unapproved foreign suppliers. The first recorded instance of this occurred in 2010, when states faced a domestic shortage of sodium thiopental.[9,10] Several states purchased supplies of sodium thiopental from a British wholesaler that was operating out of the back room of a driving school.[9] Following a lawsuit against the FDA for allowing the import and release of unapproved products, unapproved execution drugs were later seized by the DEA.[11,12] States then sought to purchase unapproved thiopental supplies from India. In one instance, a company issued a product recall because it was unable to guarantee the drugs' safety, potentially resulting in "serious adverse health consequences to the public." Another attempted purchase was made from a small drug supplier in India operating out of a mall, which was shut down shortly thereafter for illegally selling psychotropic drugs and opioids to the United States and Europe online.[13]

Small compounding pharmacies working with states to prepare execution drugs must first find sources for the active pharmaceutical ingredients (APIs) necessary to make these drugs. Compounding pharmacies have struggled to locate ingredients for many of the drugs in states' execution cocktails domestically. In the past several years, the majority of compounding pharmacies asked by states to prepare compounded execution drugs have been unable to comply. As recently as June of 2017, a compounding pharmacy indicated in court that it was unable to obtain the raw ingredients necessary to compound pentobarbital. In response, a representative for the Ohio Department of Corrections suggested the state might purchase the necessary pharmaceutical ingredients itself overseas and supply those ingredients to the pharmacy to compound.[9] The State of California Department of Corrections and Rehabilitation (CDRC) earlier this year announced their intention to use compounded sodium thiopental or pentobarbital in executions, despite warnings from experts that because these drugs' ingredients are not available for purchase in the United States, "any pharmacist who agrees to compound execution drugs for the CDRC will do so using ingredients procured on the black market."[14]