

One in seven drug supply chain issue reports tied to drug shortages

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One in seven reports of drug supply chain issues are associated with drug shortages, according to a study [published](#) online April 5 in *JAMA*

Network Open.

Katherine Callaway Kim, from the University of Pittsburgh School of Medicine, and colleagues estimated the proportion of supply chain issue reports the U.S. Food and Drug Administration or the American Society of Health-Systems Pharmacists associated with drug shortages overall and with the COVID-19 pandemic.

The analysis included data from the IQVIA Multinational Integrated Data Analysis database, comprising more than 85% of drug purchases by U.S. pharmacies from wholesalers and manufacturers (2017 to 2021).

The researchers identified 571 drugs exposed to 731 supply chain issue reports, which were matched to 7,296 comparison medications with no reports. When accounting for drug characteristics, 13.7% of supply chain issue reports were associated with subsequent [drug shortages](#) versus 4.1% of comparators (marginal odds ratio [mOR], 3.7).

For both drugs with and without reports, shortages increased in February to April 2020 (34.2% of drugs with supply chain issue reports and 9.5% of comparison drugs; mOR, 4.9). These shortages then decreased after May 2020 (9.8 and 3.6%, respectively; mOR, 2.9). There were significant associations by formulation (parenteral mOR, 1.9 versus oral mOR, 5.4), by World Health Organization essential medicine status (essential mOR, 2.2 versus nonessential mOR, 4.6), and for brand-name versus generic status (brand-name mOR, 8.1 versus generic mOR, 2.4).

"These findings suggest that ongoing policy work is needed to protect U.S. drug supplies from future supply shocks," the authors write.

One author disclosed ties to the [pharmaceutical industry](#).

More information: Katherine Callaway Kim et al, Drug Shortages Prior to and During the COVID-19 Pandemic, *JAMA Network Open* (2024). [DOI: 10.1001/jamanetworkopen.2024.4246](https://doi.org/10.1001/jamanetworkopen.2024.4246)

Mariana P. Socal et al, Drug Shortages—A Study in Complexity, *JAMA Network Open* (2024). [DOI: 10.1001/jamanetworkopen.2024.4168](https://doi.org/10.1001/jamanetworkopen.2024.4168)

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