

Increasing risk of drug withdrawal in newborns as US opioid epidemic accelerates

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Taking a combination of opioids (strong prescription painkillers) and psychotropic medications (widely used to treat mental health conditions such as anxiety and depression) during pregnancy is associated with a greater risk of drug withdrawal in newborns, finds a study in The *BMJ* today.

In the US, about every 25 minutes an infant is born with signs of [drug withdrawal](#) (also known as neonatal abstinence syndrome). These can range from difficulties with feeding and sleeping to irritability, breathing problems and seizures.

Drug withdrawal is a well known complication of opioid exposure in the womb (in utero), but other psychotropic medications can also cause signs of withdrawal - and are increasingly being prescribed to pregnant women who are also receiving an opioid.

So a team of US researchers based at Brigham and Women's Hospital and Harvard Medical School, set out to assess the impact of in utero exposure to both psychotropic medications and opioids on number of cases and severity of neonatal drug withdrawal.

They analysed data from over 200,000 [pregnant women](#) who were enrolled in the Medicaid program - a US government program that pays for healthcare services - and who received a prescription for an opioid.

They then examined whether the risk of [neonatal abstinence syndrome](#)

was increased among infants whose mothers were also prescribed psychotropic [medication](#).

After taking account of several factors that could have affected the results (known as confounders), the absolute risk for neonatal drug withdrawal was substantially higher among women exposed to opioids and psychotropic medications than among women exposed to opioids alone.

The absolute risk of withdrawal among women exposed to [prescription opioids](#) alone was around 1%. Exposure to any single additional [psychotropic medication](#) (antidepressants or benzodiazepines or gabapentin) was associated with an increased risk of withdrawal. The highest risk was among women exposed to gabapentin (11.4%).

There was no significant increase in risk with atypical antipsychotics (newer types of antipsychotic drugs) and Z drugs (act in a similar way to benzodiazepines to ease symptoms of insomnia). The severity of the withdrawal symptoms also seemed to increase with concurrent exposure to psychotropic medications and opioids.

The authors point out that this is an observational study, so no firm conclusions can be drawn about cause and effect, and they outline some limitations which could have introduced bias. However, results remained similar after further analyses were carried out, suggesting they are robust.

"In conclusion, our findings suggest that among women using prescription opioids during pregnancy, co-exposure to antidepressants, benzodiazepines, and gabapentin might be associated with an increased risk of drug withdrawal in the neonate," write the authors..

They suggest that clinicians "should be cautious in prescribing these

medications together in late pregnancy and in prescribing psychotropic medications to women with known or suspected illicit opioid use."

Our findings also imply that it will be important for neonatologists and pediatricians to rethink treatment protocols for infants born to [women](#) who were prescribed multiple drugs during their pregnancy."

In a linked editorial, Stephen Patrick, Assistant professor of pediatrics and health policy at Vanderbilt University in Tennessee and colleagues say, despite some limitations "these findings are important in targeting prevention efforts and potentially in tailoring treatment of [opioid](#) exposed infants."

They point out that use of medications in pregnancy "must balance the health of the mother with the potential impact on developing fetus" and call for more funding for research and prevention, and an expansion of treatment options for affected mothers and their infants."

More information: Risk of neonatal drug withdrawal after intrauterine co-exposure to opioids and psychotropic medications: cohort study, *BMJ*, www.bmj.com/content/358/bmj.j3326

Editorial: Prescribing opioids and psychotropic drugs in pregnancy, *BMJ*, www.bmj.com/content/358/bmj.j3616

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