

Treating the common cold during pregnancy

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ABSTRACT

QUESTION Many of my pregnant patients inquire as to what medication they can use when they experience symptoms of the common cold, such as cough, congestion, sneezing, and fever. I am hesitant to recommend over-the-counter cold remedies because I have heard conflicting information regarding the safety of these products. What is known about the safety of cold medications during pregnancy?

ANSWER Although there are many over-the-counter brands of cold medications, most products are quite similar, with some containing up to 5 medicinal ingredients. The evidence-based information for all these ingredients suggests no increased risk with short-term use. However, pregnant women should read labels carefully and, when necessary, consult with pharmacists to ensure they are not taking medicine they do not require.

RÉSUMÉ

QUESTION Plusieurs de mes patientes enceintes me demandent quels médicaments prendre lorsqu'elles souffrent de symptômes du rhume, comme la toux, la congestion nasale, les éternuements et la fièvre. J'hésite à leur recommander des médicaments en vente libre contre le rhume, parce que j'ai entendu des renseignements contradictoires quant à leur innocuité. Que sait-on de la sécurité des médicaments contre le rhume durant la grossesse?

RÉPONSE Même si les marques de médicaments en vente libre contre le rhume sont nombreuses, la plupart des produits se ressemblent beaucoup et certains contiennent jusqu'à 5 ingrédients médicinaux. Les renseignements fondés sur des données scientifiques ne font pas valoir de risque accru avec un usage de courte durée. Par ailleurs, les femmes enceintes devraient lire attentivement les étiquettes et consulter leur pharmacien au besoin pour s'assurer de ne pas prendre de médicaments dont elles n'ont pas besoin.

Symptoms such as cough, nasal stuffiness, discharge, sneezing, and sore throat can be due to a mild upper respiratory illness also known as the common cold. It is caused by numerous viruses and is usually a self-limiting illness. However, sometimes the infection spreads to other nearby organs, leading to a serious bacterial infection.¹ Because of immunologic changes during pregnancy, pregnant women are susceptible to many infections.² Although there are many over-the-counter (OTC) medications that help to relieve symptoms of the common cold, there are only a few medicinal ingredients in these products.

Analgesics

Analgesics commonly found in OTC cold medications are acetaminophen, ibuprofen, and acetylsalicylic acid (ASA). The safety of acetaminophen in pregnancy is well documented. The Collaborative Perinatal Project monitored 50282 mother-child pairs, 226 of which had first-trimester exposure to acetaminophen and 781 of which had been exposed anytime during pregnancy.³ In a surveillance study involving 229 101 completed pregnancies, 9146 newborns had been exposed to acetaminophen in the first trimester.⁴ In addition, as part of a larger study,

697 women who had used acetaminophen with or without codeine in the first trimester were assessed following delivery and there was no increased risk of major malformations among their offspring.⁵

Ibuprofen and ASA are both nonsteroidal anti-inflammatory drugs (NSAIDs). In the same surveillance study as above, 3178 newborns were exposed to ibuprofen in the first trimester and there was no association with an increased risk of birth defects.⁴ A meta-analysis conducted by the Motherisk Program found no evidence of an overall increase in the risk of major malformations associated with ASA use during the first trimester.⁶

In 2001, a study of 1462 women who had received prescriptions for NSAIDs 30 days before conception or during pregnancy did not find associations between NSAIDs and congenital birth defects, preterm delivery, or intrauterine growth retardation. However, they did find a statistically increased risk of spontaneous abortion (SAB) when compared with a nonexposed group. It is important to note that although an association with SABs was found, both the NSAID group and the comparison group in this study had substantially lower rates of SABs than is expected in the general population.⁷

Acetylsalicylic acid use has been associated with delivery complications and adverse effects in newborns; therefore, use in analgesic doses is not recommended in late pregnancy.^{8,9} Low doses of ASA (40 to 150 mg) have not been associated with concerns at any stage of pregnancy.^{10,11} However, the use of NSAIDs, other than low-dose ASA, in the third trimester is associated with premature closure of the ductus arteriosus and should be avoided if possible.¹²

Cough suppressants

Dextromethorphan (DM) is a cough suppressant commonly found in OTC cold medications. There are a number of human studies on the use of DM during pregnancy that did not find an association between this drug and an increased risk of birth defects. The Collaborative Perinatal Project, for example, followed 300 mother-child pairs who took DM during the first trimester and 580 mother-child pairs with exposure anytime during pregnancy.³

A prospective comparative study, which was conducted by researchers in the Motherisk Program, investigated pregnancy outcomes in 184 women exposed to DM.¹³ Another group investigated 59 pregnancies exposed to DM in the first trimester.¹⁴ Neither group documented an increased risk of major malformations above the baseline.

Decongestants

Pseudoephedrine and phenylephrine are the most common oral decongestants in OTC cold medications. In some studies, decongestant use in the first trimester has been associated with a small increase of defects thought to arise, in some instances, from vascular disruption, such as gastroschisis, small intestinal atresia, and hemifacial microsomia.¹⁴ However, there are several cohort and case-control studies that failed to show any increased risk of malformations when oral decongestants were used during pregnancy.^{15,16} In addition, there was no increased risk for malformations in a recent Swedish population-based case-control study involving 2474 women exposed to oral decongestants during the first trimester and 1771 women exposed at the end of pregnancy.¹⁷

Xylometazoline and oxymetazoline are inhaled decongestants, which are also available OTC. Xylometazoline is absorbed systemically after topical use (American Medical Association Council on Drugs, unpublished data, 1994); however, the extent of systemic absorption and whether or not it crosses the placenta are unknown. The results of one human study of 207 women who used xylometazoline in the first trimester of pregnancy failed to show any increase in incidence of birth defects.¹⁴ Oxymetazoline was evaluated in human pregnancies, and a single dose given to each of 12 pregnant women did not alter maternal or fetal circulation.¹⁸ It is important to note that although OTC inhaled decongestants

are considered relatively safe for use during pregnancy, women should be cautioned regarding rebound effects from overuse of these products.

Antihistamines

Diphenhydramine and chlorpheniramine are the most commonly used antihistamines in cold preparations. These first-generation antihistamines are associated with drowsiness but have not been found to increase the risk of malformations above baseline.^{19,20}

Expectorants

Guaifenesin is an expectorant also found in many cold medications. There have been several studies involving hundreds of pregnant women that did not report increased risk of major malformations.^{3,14,21}

Conclusion

Pregnant women suffering from the common cold can be reassured about the safety of short-term use of OTC cold medications. These drugs, however, should not be used indiscriminately or for extended periods of time. In addition, use should be confined to only those products that are appropriate for the symptoms. ❁

Competing interests

None declared

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MOTHERISK

Motherisk questions are prepared by the Motherisk Team at the Hospital for Sick Children in Toronto, Ont. **Dr Erebara** and **Ms Bozzo** are members, **Ms Einarson** is Assistant Director, and **Dr Koren** is Director of the Motherisk Program. **Dr Koren** is supported by the Research Leadership for Better Pharmacotherapy during Pregnancy and Lactation. He holds the Ivey Chair in Molecular Toxicology at the University of Western Ontario in London.

Do you have questions about the effects of drugs, chemicals, radiation, or infections in women who are pregnant or breastfeeding? We invite you to submit them to the **Motherisk Program** by fax at 416 813-7562; they will be addressed in future Motherisk Updates.

Published Motherisk Updates are available on the College of Family Physicians of Canada website (www.cfpc.ca) and also on the Motherisk website (www.motherisk.org).

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