

THE ROLE OF COUGH SYRUPS & COLD MIXTURES FOR TREATMENT OF THE COMMON COLD IN CHILDREN

Both adults and children are highly prone to developing acute respiratory infections, most of which are due to viral infections and last less than seven to ten days. Majority of these infections are mild and do not require any medications. An example of these infections is the common cold which can cause a runny or blocked nose, fever, cough, sore throat and poor appetite.¹

Cough and cold mixtures have been used to treat the common cold in children despite poor or no evidence of their advantage over placebo in clinical trials.^{2,3,4} They consist of a mixture of drugs such as decongestants, mucolytics, expectorants, alcohol, antihistamines and antitussives to name a few. Examples of each group is shown below.^{5,6}

- *Decongestants: Pseudoephedrine, Phenylephrine*
- *Mucolytics: Bromhexine, Acetylcysteine*
- *Expectorants: Guanfensine*
- *Antihistamines: Chlorpheniramine, Diphenhydramine, Clemastine, Hydroxyzine, Bropheniramine*
- *Antitussives: Codeine & codeine derivatives, Dextromethorphan*

Many studies have shown that cough syrups in children are not useful in symptom reduction.^{2,3,4} However, they can cause a wide range of unwanted harmful effects especially in younger children. Their harmful effects are increased when ingested in higher than the recommended doses, a situation that frequently occurs when children accidentally take them or when care givers use the wrong amounts.⁶

Decongestants may cause changes in heart rate, blood pressure, induce irritability, insomnia and seizures.⁵ Expectorants may cause abdominal pain, nausea, vomiting and diarrhoea.⁶ Mucolytics which thin secretions may cause airway spasms and abdominal upsets.⁵ Cough and cold syrups contain the older generation of antihistamines listed above. These can slow the rate of breathing or stop breathing, increase sleepiness, cause dry mouth, changes in heart rate and excitability in some children instead of sedation.^{5,6}

Antitussives such as codeine and codeine derivatives are converted into morphine in the body and can be used to suppress cough. They can cause nausea, vomiting, constipation, excessive sleep, reduction in level of consciousness and respiratory depression resulting in death with increasing doses.^{5,6} Furthermore, they can also cause adolescent and adult opioid addictions. They are disallowed below 12 and 18 years in the European Union and United States respectively.^{7,8}

Some cough mixtures contain alcohol (ethanol) which is used to dissolve water insoluble ingredients. The alcohol content may be as high as 8% and can cause toxicity if ingested in higher doses or if your child is unable to metabolise the normal doses of ethanol.⁹

Cough mixtures are marketed for symptomatic relief despite studies demonstrating any real benefit. They do however pose a significant risk to children as discussed above. Various warnings and recommendations have been made around the world to restrict their use in children. These include the World Health Organisation and virtually every respiratory and paediatric organisation in the West. Furthermore no university textbook or curriculum advocates for their use in children.

Though parents may feel helpless giving no medication when their child is unwell, it is high time to assess the risk posed by giving over the counter cold and cough medications especially when they have not been shown to be of any help but can instead make your child even worse.

All is not lost, many children overcome the common cold on their own. For those who may have symptoms that are bothersome, there are strategies that are much safer to use. If fever is very high, paracetamol may be helpful. Normal saline drops or sprays as well as adequate hydration is useful for nasal congestion. Honey can be safely used in children above one year to relieve cough.¹⁰ Always remember to assess your child for signs that their condition is worsening. If this occurs, it is best to have them assessed immediately at the nearest hospital.

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The Allergy Society of Kenya (ASOK) urges the Kenyan Public to beware the potential harm and ineffectiveness of treating the common cold with cough syrups & cold mixtures.

References

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