University of Waterloo STAT 231 – W. H. Cherry

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Inhaled hormones cut asthma risks, study concludes

Canadian researchers have found that the risk of fatal or life-threatening asthma attacks is significantly lowered by regular use of inhaled corticosteroids.

Dr. Pierre Ernst, of Montreal General Hospital's epidemiology and biostatistics department, and colleagues reported their findings in the *Journal of the American Medical Association*.

Corticosteriods are hormone preparations used to combat inflammation. The researchers reviewed Saskatchewan's computerized drug register to identify 12,300 residents of Saskatchewan who had been prescribed 10 or more asthma drugs between 1978 and 1987

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They found that 44 of those patients had died from asthma attacks and another 85 had suffered near-fatal attacks. The patients ranged in age from 5 to 54.

They compared the 129 fatal or near-fatal cases with 655 cases drawn from the full list. Among these patients, 269 had been prescribed inhaled corticosteroids in the previous year, but of this group only 37 had been dispensed 12 units or more.

The risk of a fatal or near-fatal attack

among the 37 was only one-tenth that of patients not prescribed corticosteroids and significantly lower than those using corticosteroids less often than once a month.

"The most straightforward interpretation of this finding is that sufficient use of inhaled corticosteroids provides better overall control of asthma and less likelihood of a sudden overwhelming attack", the team said in its report.

They added that their findings provide strong support for current guidelines that recommend the use of inhaled cortico-steroids in the treatment of moderate and severe asthma.

REFERENCE: Ernst, P., Spitzer, W. O., Suissa, S., Cockcroft, D., Habbick, B., Horwitz, R.I., Boivin, J.-F., McNutt, M. and A.S. Buist: Risk of fatal and near-fatal asthma in relation to inhaled corticosteroid use. *JAMA* **268**(#24): 3462-3464 (1992). [DC Library call number: PER R15.A48]

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