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The Effect of Ventolin® and Isuprel®  
on the Breathalyzer® Result

by  
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THE EFFECT OF VENTOLIN R AND ISUPREL R ON THE BREATHALYZER R RESULTINTRODUCTION

Ventolin and Isuprel are commonly used bronchodilators available as inhalers or mistometers for the treatment of bronchial asthma, emphysema or chronic bronchopulmonary disorders. Occasionally one of these inhalers has been used before a Breathalyzer test. It has been suggested in court that these inhalers may cause erroneous Breathalyzer results which may persist for more than fifteen minutes.

METHOD and RESULTS

Normal subjects who had a zero Breathalyzer result, used one of the two inhalers and then provided samples into the Breathalyzer over a period of time. The results are shown in Table 1. The test using Isuprel was given as a double dose and was repeated twice.

DISCUSSION

Ventolin inhaler contains salbutamol and freon as a propellant<sup>1</sup>. There was no effect of these compounds on the Breathalyzer test. (Table 1).

Isuprel contains isoproterenol HCl in a vehicle of ethyl alcohol, ascorbic acid and inert propellants.<sup>1</sup> The ethyl alcohol in the Isuprel inhaler causes the typical mouth alcohol effect on the Breathalyzer<sup>2-5</sup> (Table 1). This effect disappears within seven minutes.

CONCLUSION

Ventolin inhaler has no effect on the Breathalyzer result. Isuprel inhaler may cause an erroneously high Breathalyzer result if used within seven minutes prior to the Breathalyzer test.

TABLE 1: BREATHALYZER RESULTS AFTER USE OF VENTOLIN OR ISUPREL INHALERS

<u>VENTOLIN</u>		<u>ISUPREL</u>			
Time Since Use of Inhaler (mins)	Breathalyzer Result (g%)	Time Since Use of Inhaler (mins)	Breathalyzer Result (g%)	Time Since Use of Inhaler (mins)	Breathalyzer Result (g%)
0.25	0.00	0.25	0.14	0.17	0.160
3.0	0.00	6.5	0.00	3.5	0.028
6.0	0.00	13.0	0.00	7	0.009
9.0	0.00			9.5	0.00
12.0	0.00			15	0.00
15.0	0.00				

ACKNOWLEDGEMENTS

The author acknowledges the assistance of R. Charlebois, F. McAuley and L. McAuley.

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