

Research paper on drug profile of salbutamol

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1. The chemical name of salbutamol is α 1-[(tert-Butylamino)methyl]-4-hydroxy-m-xylene- α , α' -diol; α 1-[[[1, 1-dimethylethyl)amino]methyl]-4-hydroxy-1, 3-benzenedimethanol; CAS Reg. No. 18559-94-9. The molecular formula of Salbutamol is C₁₃H₂₁NO₃. It is a white or almost white, crystalline powder and is odorless (World Health Organization 2006, p. 845). It belongs to the category of antiasthmatic drug. The generic name is Salbutamol (Elling, Jackson & Jackson 2007, p. 121). The Australian trade name of Salbutamol is Albuterol (AMH, 2011).

2. a. Salbutamol is specifically indicated in the following conditions:

Asthma(acute)

Reversible obstruction of airways (Including COPD) and other similar conditions and maintenance asthma therapy.

Protection from asthma induced from exercise.

Hyperkalemia, specifically in renal failure patients.

Cystic Fibrosis patients indicated aerosolized form with pulmozyme and ipratropium bromide.

A β 2-agonist, salbutamol is also used in obstetrics. It also finds its usage as tocolytic in intravenous form administered defer premature labor by relaxing the smooth muscles of uterine.

b. Salbutamol is an approved indication in South Australia and is indicated in the condition of asthma. The Salbutamol is indicated for symptomatic relief of acute asthma and protection against exercise induced asthma, and for symptomatic relief of bronchospasm in COPD and allergic reactions. During asthma crisis, the Salbutamol is administered through spacers and metered dose inhalers (MDI's), instead of nebulizers (Using B2 Stimulants in Asthma,

1998).

3. Over the Counter medicines for Salbutamol available are Proventil, Ventolin HFA, ProAir HFA, Proventil HFA, Accuneb (Hopkins 1999, p. 238).

The complementary alternative medicines of Salbutamol are Salmeterol, Formoterol, and Terbutaline. Concomitant therapy with other sympathomimetic amines causes excessive sympathetic stimulation (tremor, tachycardia). B blockers antagonize the effects of β - agonists and may precipitate asthma, so they are contraindicated. Hypokalaemia resulting from β 2-agonists therapy may be potentiated by xanthine derivatives, steroids or diuretics. Antidepressant drugs may potentiate cardiovascular effects.

For completing this paper, several sources of information have been referred to. These are:

Australian Medicines Handbook 2011 – This book is being referred to gather information about Salbutamol. This Source is relevant as it is the book published by the Australian Medicines Handbook Pty Ltd. It provides reliable, concise and practical drug information.

Paramedic Field Guide – This book provides extensive information on the drugs and their profile. It also provides the indications of the drugs. The book is referred and used by various scholars and is a relevant source of information.

Australian Prescriber – Australian Prescriber is a journal of therapeutics and drugs. It shares the latest and relevant information on the drugs and their prescribed indications.

References

AMH Book 2011, Australian Medicines Handbook Pty Ltd, Australia

Bob Elling, Lee M. Jackson & Lee Jackson (2007). Paramedic Field Guide.

Massachusetts : Jones & Bartlett Learning. 121.

(1998). Using B2 stimulants in asthma. Australian Prescriber. 1 (1), 1.

Sidney John Hopkins (1999). Drugs and pharmacology for nurses. UK:

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