Inhaled corticosteroids are considered by many to be the most effective therapy available for adults and children with asthma. Recently, it has been recognized that inflammation is present in patients with mild asthma, and US and UK guidelines now recommend that therapy with inhaled corticosteroids is initiated at a much earlier stage (1,2). In addition, the new guidelines emphasize the need to gain early control of asthma. This may now mean starting with a higher dose of inhaled or oral corticosteroid and then stepping down the treatment dosage, rather than gradually increasing the dosage until control is achieved. Hence, inhaled corticosteroids are being prescribed to more patients, at larger doses and for longer periods of time than ever before. However, despite their proven efficacy in the treatment of asthma, the increase in the frequency of use of high-dose corticosteroid therapy has resulted in concern about possible systemic adverse events.

Beclomethasone dipropionate (BDP) was the first inhaled corticosteroid introduced into the marketplace. Its introduction in 1972 represented a significant therapeutic advance as its low oral bioavailability, high systemic clearance and inhalation formulation imparted a much wider therapeutic ratio than any oral corticosteroid. Since then, other inhaled corticosteroids have been developed and licensed for clinical use. Budesonide was introduced in the UK in 1983. Currently, budesonide and BDP are the most widely prescribed inhaled corticosteroids in the countries where they are available, and high-dose formulations of these drugs have constituted the most rapidly growing segment of inhaled corticosteroid prescriptions (3). Although BDP and budesonide differ in potency (systemic and topical), glucocorticoid receptor affinity, systemic bioavailability, clearance and systemic half-life, both drugs effectively reduce inflammation of the airways (4,5).

Over the years there have been many studies evaluating all aspects of BDP and budesonide, and some of these have directly compared the two drugs. Recently there have been suggestions that budesonide may offer advantages over BDP, in terms of both efficacy and safety, in the treatment of asthma. The aim of this supplement is to clarify the evidence and to attempt to determine, from an objective scientific perspective, whether there is any difference between the two treatments. Hence, this supplement represents an overview of the scientific literature that has evaluated the efficacy and systemic activity of both inhaled BDP and budesonide. The separate sections, in turn, focus on the pharmacokinetics, efficacy, effects on adrenal function (including skin thinning and cataracts), effects on bone density and metabolism, and effects on growth in children of the two inhaled corticosteroids; also, each section focuses on studies in which a direct comparison of the two drugs has been undertaken.

**References**