

Losing weight with Alli: What Healthcare Professionals need to know

Professor David Haslam

You can't miss them! Every pharmacy's window is festooned with Alli posters. Leading the way as the must have over the counter (OTC) drug for weight loss what can Alli actually achieve? Professor David Haslam, General Practitioner and Chair of NOF presents the facts.

Weight management is indicated in overweight and obese individuals as a means of reducing the associated cardiometabolic risk: diabetes, heart disease and stroke as well as sleep apnoea, PCOS, non-alcoholic steatohepatitis, cancer and even Alzheimer's dementia.

The cornerstones of successful weight management are and always will be sustainable dietary changes and improvements in physical activity. However, for some individuals these first line methods have induced inadequate or only temporary weight loss. Different, more intensive regimes are required. For some, second line therapies may include low-carbohydrate low-fat diets, meal replacement regimes, VLCDs and ultimately bariatric surgery. For others, drug therapy provides an effective solution.

Until recently there has been a dichotomy in the provision of anti-obesity pharmacotherapy. Genuinely effective regimes such as xenical, reductil and acomplia have been restricted to the physician's clinic. In the past some of the most toxic compounds known to man have been used as weight loss remedies, including mercury, strychnine, arsenic, tobacco and even tape worms which have allegedly been traded for their reducing effect. Although there may seem to be a substantial number of remedies which masquerade as scientifically validated weight loss drugs, close scrutiny reveals a dearth of evidence behind the majority of them. The Pink Patch is a good example of the quality of product designated solely as an OTC aid to weight loss but for which there is no evidence, either for the effectiveness of the actual ingredients, or that the technology – a pharmaceutical patch – works in delivering the contents into the body through the skin. The Pink Patch is licensed as a 'medical device' rather than a drug or food product allowing it to circumnavigate effective legislation and the provision of robust evidence.

The new era of pharmacological obesity aids

Xenical (orlistat 120mg) and Reductil (sibutramine) are widely prescribed and backed by robust evidence of improvement in cardiometabolic parameters rather than mere weight reduction per se. **Alli** is a 60 mg (half the Rx strength) formulation of orlistat, which has recently become available OTC through pharmacies. Much of its benefit surrounds the fact that for the first time, *an effective evidence based remedy is available directly to the public*. Its existence ensures that a new cohort of patients can gain access to effective weight loss programmes. Alli's comprehensive patient support programme encourages the public to embrace pharmacists rather than shopkeepers as health care providers.

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Not a miracle cure

Orlistat was first licensed in the UK at the 120mg dose in 1999 and it is essential that it is used in conjunction with a low to moderate fat diet and a substantial level of physical activity. Weight loss isn't any easier under the influence of orlistat, but is more effective. If the appropriate lifestyle changes are adhered to, more weight will be lost on the drug than off it; it is no miracle cure. It works by inhibiting gastric and pancreatic lipase in the stomach lumen and small intestine, allowing 30% of dietary fat to pass through the intestine unabsorbed, thereby effectively reducing caloric intake.

Side effects

Due to the negligible systemic absorption, orlistat does not accumulate in the body, even with long-term treatment. Side-effects are related to the increased level of fat in the bowel. Adverse effects are typically transient and usually affect the gastrointestinal tract; unabsorbed fat is excreted in the faeces, leading to increased defecation, soft stools, oily discharge, flatulence, and abdominal discomfort. The side effects, or 'treatment effects' can be used to a patient's advantage, as only food which is inappropriately high in fat will cause the adverse reaction, allowing it to be avoided subsequently. Patients who exceed a daily intake of 30% dietary fat or more are likely to experience gastrointestinal side effects.

What to expect

Patients should be advised to expect only modest weight reductions of about 5% of initial body weight which is nonetheless highly clinically significant. NICE guidelines advise that orlistat can be used in patients aged between 18-75 years with a BMI of ≥ 30 or ≥ 28 in the presence of associated risk factors, such as type-2 diabetes, hypertension or hyperlipidaemia.

Alli: Proven efficiency

The evidence behind 120mg orlistat demonstrates good, well maintained weight loss, and the main outcome study – XENDOS – shows protection against being diagnosed with type II diabetes. Orlistat also improves serum lipid values more than can be explained by weight reduction alone.

Because of the shape of the dose response curve for orlistat, the 60mg formulation has around 85% of the efficacy of the 120mg, with fewer adverse effects.

Based on pooled analysis, weight change from baseline after 6 months of treatment is around -2.09 kg, -4.40 kg and -5.18 kg for placebo, 60 mg and 120 mg, respectively. There is some further weight loss in all three groups over the next 6 months of treatment, although 92% of the efficacy at 12 months is achieved at the 6 month point.

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A study of 'Actual Use' of Alli¹ demonstrated an 80% customer satisfaction rate, alongside a median weight loss of around 5% after ≥ 60 days of use. Other, randomised placebo-controlled studies showed a weight reduction of 50% more than diet and physical activity alone². Evidence shows that the use of orlistat 60mg improves patterns of food purchases, suggesting a long-term commitment to healthy eating³.

Potential concerns

OTC drugs may fall into the wrong hands, especially as it can be acquired online, with no pharmacist back-up. However if a child, or a person with an eating disorder such as anorexia were to access the drug, due to the nature of its action it would do no harm. A more realistic concern is that someone who may have been about to consult their GP or nurse, might instead be moved to buy Alli, and thereby suffer from a less comprehensive level of care than their surgery might have provided.

Summary

Overall, the major potential benefits of the improved availability of Alli to a population not traditionally well served by current health care services, is likely to massively outweigh the risks, and Alli should be welcomed, not just as a new drug formulation, but as the catalyst to the creation of a whole new stratum of weight management for obese and overweight individuals – the Pharmacy.

References

¹ Schwartz SM, Bansal VP, Hale C, Rossi M and Engle JP. Compliance, Behavior Change, and Weight Loss With Orlistat in an Over-the-Counter Setting *Obesity* 2008;16:623–629. doi:10.1038/oby.2007.96

² Anderson JW. Orlistat for the management of overweight individuals and obesity: a review of potential for the 60-mg, over-the-counter dosage. *Expert Opin Pharmacother* 2007; 8: 1733-42

³ Improved patterns of food purchases among households that purchased over-the-counter 60mg orlistat. Daggy B. et al Poster presentation, The Obesity Society Oct 4th 2008, Phoenix