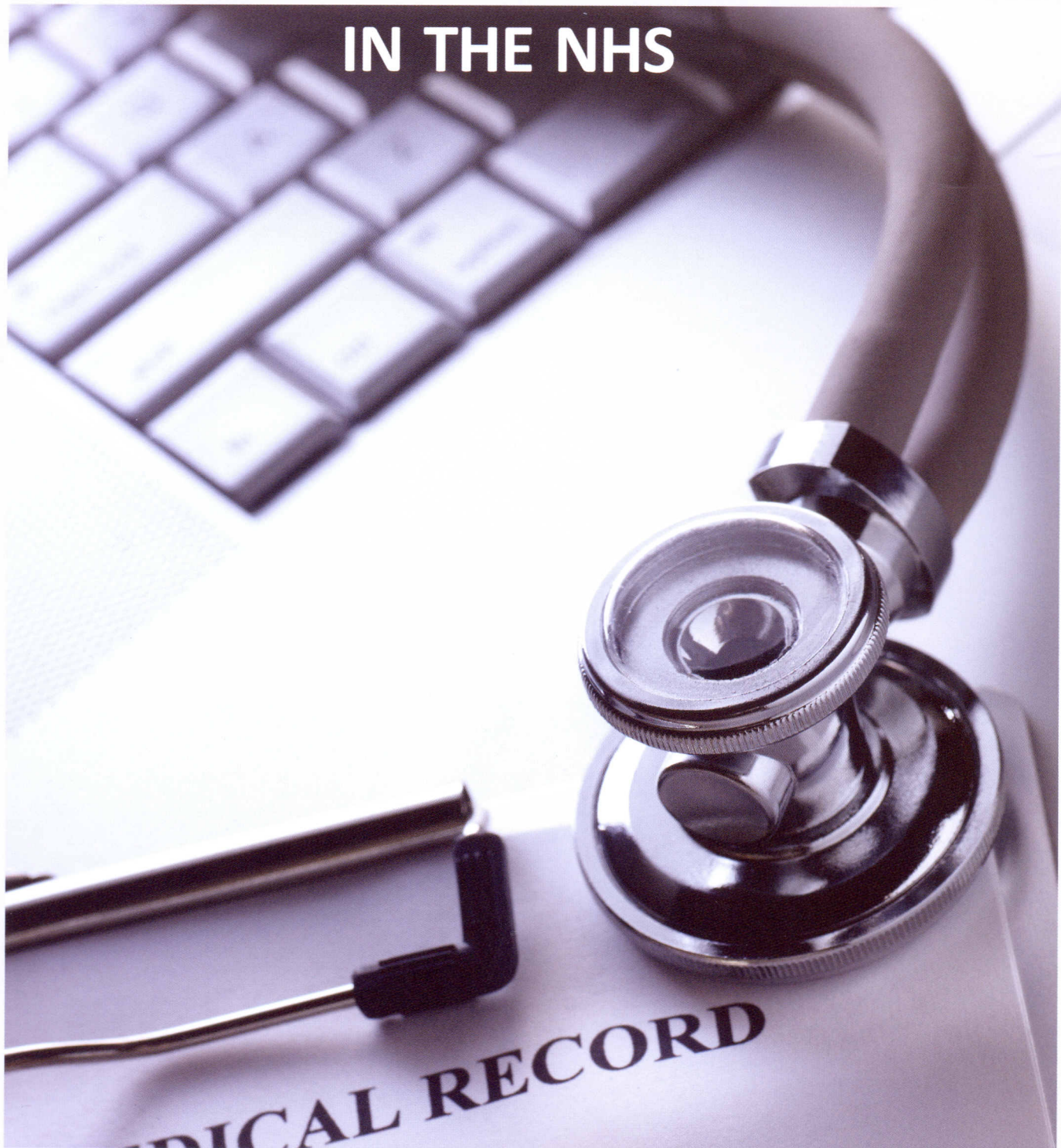


Healthcare

IN THE NHS



Telehealth • Telemedicine • Estates Management
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Use of very low energy, nutrient complete formula foods, as total food replacement for weight control

To fully understand the medical value of nutrient-complete formulated foods as a tool for weight management, there are a few fundamental concepts that need to be explained. These include the protein sparing modified fast; the mechanisms and value of ketogenic diets, minimum safe energy intakes and enteral food formulas. The value of this approach is amply demonstrated by substantial clinical evidence accumulated over a period of nearly 40 years.

Beginning in 1975, a series of reports from the Bistrian and Blackburn medical team demonstrated the value of a very low-energy dietary regime for weight management in a variety of difficult obese patients. This team had the advantage of considerable nutrition expertise and they devised a protein sparing modified fast – essentially a home-concocted Very Low Calorie Dietary formulation that was nutrient complete. Unfortunately the remarkable success (and safety) of this approach was obscured by commercial greed – not by the medical team, but by external commercial exploitation. A commercial product was developed and widely sold that contained virtually no nutrition. It was based upon a hydrolyzed nutritionally incomplete protein (collagen) in cherry syrup. This product was heavily promoted and widely hyped and inevitably, it resulted in a number of deaths.

Quite properly, the Liquid Protein Diets have not been available since the late 1970s. Unfortunately however, a total lack of nutritional understanding led to the assumption that low energy liquid formulations were dangerous as a concept. In fact there are now nearly 40 years of world-wide experience with numerous properly formulated nutritionally complete products which should be evidence enough of safety.

There is an often stated mantra, surprisingly even from nutrition specialists, that there must be some level of calorie intake (in the neighbourhood of 1000 to 1200 calories per day) below which diets become unsafe. Once again, it is simply the superficial understanding of food and nutrition biochemistry that has given this notion some credence. All common foods may be thought of basically as recycled nutrients from the plants and animals we choose to consume. All are complex formulations of the chemicals that make up the composition of those plants and animals. Many of these chemicals are common to all living things and some of them are useful and even necessary for human health. They also contain large numbers of chemicals that are either inert or toxic to other animals, including humans. The key point, however, is that there is no naturally occurring food that contributes all the required nutrients for humans. We therefore require a varied diet to

attempt to create a mix that will maximize the chemistry we need and minimise the problematic substances.

The crucial point here is that – given the varying chemistry of the plants and animals we consume – it is virtually impossible to assemble a nutrient-complete daily diet with a total of less than around 1200 calories. When food diets with lower calorie intakes are provided, nutrient deficiencies invariably cause illness. It is very important to note here that it is the nutrient deficiencies – and not the low calorie count – that causes the problems.

When it became clear that nutrient complete enteral feeds could be provided that contained, by design, all the essential nutrients, it demonstrated that the minimum calorie intake was nowhere near the 1200 calorie barrier. In fact, modern formulations have a calorie component determined primarily by the calorie contribution of the essential amino acids and essential fatty acids (and to a lesser extent by the lactose from the necessary milk component, which provides very high quality proteins to the formulations). These limits however are closer to 400 calories per day, not 1200.

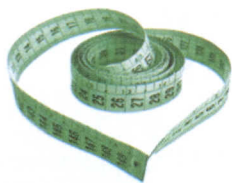
The most effective and safe formulations are those that induce ketosis. Ketones are a by-product of the incomplete breakdown of free fatty acids. They are essential for sparing protein utilization and helpful in controlling the hormonal balance between insulin and glucagon, which helps control hunger. Many of the body's tissues can use free fatty acids as fuel, but critically there are a few (including the brain) that cannot. Unless there are sufficient ketones present, which are water soluble and can pass through the blood brain barrier to provide energy for brain function and survival, the body must de-amine amino acids from proteins to create glucose. Glucose can not be created from fat. This is why ketones are protein sparing. Virtually all tissues, with the possible exception of liver, can use ketones for energy.

It is clear from the controlled accessibility of very low energy diets through healthcare professionals, that detailed records are available of the successful results of this form of treatment. A large number of these results have been published. Proper nutrition, provided in defined very low calorie formulations, results in maximum safe rates of weight loss and there is considerable evidence to support its value to modern medicine.

S.N Kreitzman Ph.D, R.Nutr.
(UK Registered Nutritionist)

V. Beeson

Howard Foundation Research Ltd.



Lipotrim

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Programme Run By
Healthcare Professionals
Since 1987**

The Lipotrim Weight Management Programme is a successful pharmacy and GP based programme, which has run in the UK, Jersey and the Republic of Ireland since 2001 after more than 13 years of successful and safe use, exclusively, in the GP arena.

The Lipotrim programme is an ideal treatment option for patients with high blood pressure and those with type II diabetes since weight loss is recommended to help alleviate these conditions.

There is no shortage of evidence that weight loss has a dramatic effect on diabetes.

The pharmacy based programmes are ideal for treating all excess weight, prevention of obesity being an important role. People screened for the Lipotrim Pharmacy Programme visit their local pharmacist on a weekly basis for both monitoring and to be given their supplies. The pharmacist provides support, education, advice and encouragement to help individuals through the programme. In cases with co-morbidities, in conjunction with GPs.

The Lipotrim Programme is divided into three phases, the weight loss phase uses the total food replacement concept, which helps to ensure appropriate nourishment while also creating a substantial calorie gap for rapid weight loss. The three phases are weight loss, transition and maintenance. The critical transition phase is where traditional foods are re-introduced according to a structured schedule; Lipotrim maintenance products may be introduced at this time. Maintenance formulas are foods with a special soluble fibre added which slows the absorption of sugars from the gut and aids in appetite control. A normal healthy diet is followed. The formulas effectively reduce the Glycemic Index of the entire meal.

Non-invasive Weight Losses comparable to bariatric surgery

"The current burden of morbid obesity in the UK is approximately 720,000 patients who meet NICE criteria for eligibility for surgery. Last year, (2008-9) only 4,000 operations for morbid obesity were performed in the public and private sector combined."

The Provision of Bariatric Surgery in the United Kingdom

PAST, PRESENT AND FUTURE CONSIDERATIONS: THE ROAD TO EXCELLENCE

Department of Bariatric Surgery, Imperial College Healthcare, Charing Cross Hospital, London, United Kingdom September, 2009

Obviously, something more readily available than just surgery is needed, not only for treatment but also to prevent the progression from overweight to obesity and then to the massive obesity that passes the NICE threshold for surgical intervention. Even if the number of patients being treated by surgery was doubled, the impact on the problem would still be small. Therefore, doubling the costs of the surgery and aftercare would raise the treatment percentage from a paltry 0.5% to a marginally less paltry 1.1%. This is still far short of the treatment needs of the seriously overweight population. Most surveys now estimate that 60% of the UK population is overweight and about 30% already obese. Assuming a total population of 60 million people in the UK, the number of people with a weight problem calculates to 36 million overweight and 18 million obese.

In an audit from Irish pharmacies using Lipotrim, 7259 people lost more than 5% of their prediet weight. 2969 lost more than 10%. In Prestwich pharmacy, Manchester, 94% lost more than 5% of their prediet weight, 47% lost more than 10% and 21% of the patients lost more than 20% with Lipotrim.

Of the 1148 patients in the Prestwich audit, 271 were morbidly obese with a BMI > 40 kg/m². The median BMI was 45.1 at enrolment. At audit, 237 patients had lost over 5%, 141 had lost over 10% and 34 patients had lost over 20% of pre-diet weight.

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2011

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It is stating the obvious that there is a need for general practitioners to continue to update their knowledge of specialist medical and surgical advances, which have taken place during the past few years.



The many distinguished contributors to this publication have put together a collection of monographs which, in my opinion every general practitioner should study, discuss with their colleagues the implications for their practice and management of patients.

I suggest that the specialist nursing colleagues working in the general practice, as well as the practice nurses should take this opportunity to update their knowledge. General practice is no longer the sole province of the family practitioner.

Specialist medical practitioners, whatever their field, will also benefit by sparing a few minutes of their time reading these contributions.

I must express my thanks to all the contributors and my distinguished colleagues Jill Palmer and Louis Selwyn, who have provided this most interesting contribution to post-graduate medical education.

Dr. E. David McCrae Tod OBE FRCGP,
Editor in Chief and Chief Executive, NHSTA