AUDIT RESULTS USING THE LIPOTRIM PATIENT TRACKER BY PHARMACIST GARETH EVANS

Audit Results using the Lipotrim Patient Tracker

by Gareth Evans

The current excitement generated by the press coverage of the Newcastle University study of diabetic patients using weight loss by a very low-calorie diet to “cure” diabetes, necessitates a wider recognition of the well-established programmes already available. The Lipotrim weight loss programme, monitored exclusively by healthcare professionals has been in extensive use in the UK for more than 25 years. A rapidly expanding network of nearly 2000 pharmacies currently offer the VLCD service and although many have used manual methods to audit their patients’ achievements, the newly provided Patient Tracker computer software for managing patient records has permitted continuous auditing of results and detailed evaluation of population subsets.

For example, in addition to auditing the total experience of patients enrolled in the pharmacist-run service, the results can be examined in many different ways. The cohort can be divided by gender, by age, by initial or final BMI, by amount or percentage of weight loss achieved, or by medical history (hypertension, diabetes, depression, thyroid problems etc.). The programme extends beyond weight loss, as there is a refeeding transition back to ordinary foods and a full maintenance programme, which is proving extremely successful in the pharmacy environment. With this Tracker audit tool, therefore, evidence is also available documenting the long-term maintenance outcome after dieting.

As a pharmacist who has been using the Tracker to keep my Lipotrim patients’ records for some time now, I would like to share a current audit of my patients’.

Materials and Methods

Overweight or obese people requesting the programme are assessed for suitability on the basis of initial BMI and a detailed medical history. Those requiring medical cooperation, such as those with type 2 diabetes or medicated hypertension make suitable arrangements with their GP prior to dieting or are excluded. Those with contraindicated conditions, such as insulin dependant diabetes or pregnancy are excluded from the programme.

Suitable candidates follow a strict regime of total food replacement using nutrient complete formulas, essentially very low fat enteral feeds, with adequate fluid intake and only black tea or coffee permitted in addition. Appropriate prescribed medications are continued as well. No other foods, beverages or supplements are permitted.

Dieters are monitored and weights recorded weekly – only 1 week’s supply of formulas can be obtained at each visit and obvious non-compliance is corrected or the dieter is offered alternative weight loss advice.

Records are maintained on the Patient Tracker programme.

Results

Total Population of Dieters completing 3 or more weeks on Total Food Replacement

Mean Start Weight 91 kg – Mean End Weight 81 kg

Total weight lost to date of audit – 3865 kg

Table 1 N= 382 330 Females 52 Males

Mean	**Start wt**	91kg	**Start BMI**	32.7	**End BMI**	29.0	**% wt loss**	10.8
Median	**Start wt**	88.2 kg	**Start BMI**	32.0	**End BMI**	28.4	**% wt loss**	9.0

The next series of tables demonstrates the value of the Lipotrim service in overweight patients, reducing the likelihood of their progression to obesity, as well as obese, super obese, morbid obese or even super-morbid obese patients.

Table 2 N= 121 BMI 25-30

Mean	**Start BMI**	28.1	**End BMI**	25.4	**% wt loss**	9.3
Median	**Start BMI**	28.3	**End BMI**	25.4	**% wt loss**	8.0

Table 3 N= 141 BMI 30-35

Mean	**Start BMI**	32.4	**End BMI**	28.9	**% wt loss**	10.9
Median	**Start BMI**	32.3	**End BMI**	29.1	**% wt loss**	12.0

Table 4 N= 73 BMI 35-40

Mean	**Start BMI**	36.9	**End BMI**	32.4	**% wt loss**	12.9
Median	**Start BMI**	36.7	**End BMI**	32.6	**% wt loss**	11.0

Table 5 N= 29 BMI 40-45

Mean	**Start BMI**	42.2	**End BMI**	36.1	**% wt loss**	14.4
Median	**Start BMI**	42.0	**End BMI**	36.3	**% wt loss**	11.0

Table 6 N= 5 BMI 45-50

Mean	**Start BMI**	47.4	**End BMI**	37.2	**% wt loss**	21.2
Median	**Start BMI**	47.3	**End BMI**	36.9	**% wt loss**	22.0

Other subsets of the patient information that are of interest include:

Table 7: Obese people who exceeded the 5% criterion for medical benefit of weight loss.

Tables 8and 8a: Some dieters choose to interrupt their diet for varied reasons and then return for a subsequent diet period. Their first and second dieting courses can be examined separately.

Table 9: After a period of weight loss, it is necessary to re-introduce carbohydrates in a controlled manner to minimise weight regain due to carbohydrate loading. Minimal weight change is expected despite reintroduction of normal foods. This phase is 1 week long.

Table 10: The Tracker software distinguishes between periods of dieting and maintenance providing evidence of minimal recidivism when patients are properly supported in the pharmacy environment.

Table 7 N= 231 BMI > 30 who lost 5% or more of initial weight

Mean	Start BMI	35.3	End BMI	30.8	% wt loss	12.7
Median	Start BMI	34.5	End BMI	30.1	% wt loss	11.0

Table 8 N= 78 Dieters who had 2 dieting courses First time

Mean	Start BMI	32.1	End BMI	29.1	% wt loss	9.0
Median	Start BMI	31.2	End BMI	28	% wt loss	7.5

Table 8a N= 78 Dieters who had 2 dieting courses Second time

Mean	Start BMI	31.1	End BMI	29.6	% wt loss	4.7
Median	Start BMI	29.7	End BMI	28.1	% wt loss	3.5

Table 9 N= 140 Refeeding week

Mean	Start BMI	27.5	End BMI	27.4	% wt loss	-.2
Median	Start BMI	26.6	End BMI	26.6	% wt loss	0

Table 10 N= 249 Maintenance after dieting

Mean	Start BMI	28.1	End BMI	28.1	% wt loss	0.1
Median	Start BMI	27.2	End BMI	27.0	% wt loss	0

Patients who are medicated for various weight related ailments can often be considered as different categories of patient. Many hypothyroid patients have experienced great difficulty with weight management. Depression and hypertension often have a weight component in the aetiology of the problem.

Table 11: Examines patients on medication for hypertension

Table 12: Examines patients on medication for hypothroidism

Table 13: Examines patients on medication for Depression

Table 11 N= 22 Patients with High Blood Pressure

Mean	Start BMI	36.2	End BMI	32.0	% wt loss	11.6
Median	Start BMI	37	End BMI	32.2	% wt loss	8.5

Table 12 N= 9 Patients with thyroid hormone replacement

Mean	Start BMI	34.5	End BMI	29.4	% wt loss	14.2
Median	Start BMI	34.7	End BMI	28.9	% wt loss	10.0

Table 13 N= 13 Patients with Depression

Mean	Start BMI	33.2	End BMI	28.2	% wt loss	13.0
Median	Start BMI	32.2	End BMI	28.9	% wt loss	11.0

Discussion

The extreme flexibility of the Patient Tracker software, in addition to documenting and visualising each individual patient's experience, allows for presentation of evidence of the weight loss achievements of cohorts of patients. This has become important for commissioning and the new ability of grouping patients from an individual surgery permits certification to the surgery of the collective progress of their patients, These results can be of value for CPD as well.

As can be seen from the multiple tables presented as illustration, the percentage of initial weight lost generally averages well over 5% and in most cases over 10%. Even the median values, which documents the half-way values of the ranges, are generally very close to the mean. Successful weight loss is found even in the extremely high BMI patients, who are usually refractory to weight management attempts.

In addition to demonstrating the successful loss of weight by the dieters, regardless of the sub-category for grouping, it is important to note that even though there are some variations in patients' experiences with re-feeding (Table 9) and follow on maintenance

(Table 10), the overall lack of weight regain from the patients post-diet demonstrates the value of the pharmacist and the Lipotrim programme for long term weight control.

Conclusion

Despite the fact that these results reflect the efforts of a single pharmacist in a programme that currently lists nearly 2000 pharmacies throughout the UK and Ireland, it is important to have the tools that can satisfy the need for documentation of achievement in this era of evidence-based treatments. The success of this pharmacy service has considerably enhanced my professional satisfaction as a pharmacist.