

Omega Laser Systems Ltd

Monklands Hospital Pilot Study Stopping Smoking 1995

*Low level laser therapy – Pilot Study to
assess the effectiveness as a treatment for
stopping smoking*

Low Level Laser Therapy

Project Evaluation to assess the effectiveness of the therapy as a treatment for stopping smoking

Anne Penman, Monklands Hospital, Scotland

Brief description of the project evaluation

In 1996 Monklands and Bellshill Hospital NHS Trust audited smokers within the organisation in order to determine support mechanisms required to aid staff in quitting. When the smoking policy was implemented the trust offered a comprehensive discounted series of programmes to help support staff to stop smoking.

Within this programme was an alternative therapy approach – Laser Therapy Programme – which rapidly became the only form of support staff were interested in using. This was due to word of mouth spreading the success rate around the organisation. Over a 14 months period approximately 140 staff members undertook this programme with a success rate (point prevalence at 1 year) of 46%.

This was reflected in further work using this programme with staff at the Stobhill and Ayr Hospitals. Following discussions the trust decided to investigate the possibility of offering the Laser Therapy Programme to patients. An approach was made to the total purchasing practice (Wellwynd) in order to initially fund a 6 month pilot service accessible to patients.

The aims of Anne Penman's Pilot study:

- to determine the effectiveness of low level laser therapy in aiding participants to stop smoking and continue to abstain from tobacco assessed at 6 and 12 month periods
- reduce smoking rates and thus the subsequent burden on the national health service

Details of the study

Wavelength and power:	820nm 50mW single probe						
Energy Density per point:	24 J/cm ²						
Pulsing repetition rate:	continuous						
Number of points:	6 per ear bilaterally + 5 body points						
Additional testing:	Carbon monoxide monitor tester was used before the initial treatment to assess 1) if the participants remained smoke free they has real and visual evidence of the change 2) if they did not remain smoke free it would be detected						
Frequency of treatment:	Day 1 1 hour Day 3 30 minutes booster						
Number of patients:	Participants recruited through self and NHS referrals. <table><tr><td>TOTAL</td><td>70</td></tr><tr><td>Men</td><td>39</td></tr><tr><td>Women</td><td>31</td></tr></table>	TOTAL	70	Men	39	Women	31
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Men	39						
Women	31						
Ages:	40 – 80 years						
Cost and motivation:	FOC – all in house in the hospital with cardiovascular, respiratory or diabetic disorders. It was identified that they did want to stop smoking						
Counselling:	All received exactly the same induction and treatment.						
Success criteria:	complete abstinence from tobacco at 3, 6 and 12 months. Reduction in tobacco consumption is not considered a success.						

Results – clinical data

Male				Female			
Age	Number	Success	6 months	Age	Number	Success	6 months
40-50	4	2	50%	40-50	6	3	50%
51-60	19	12	63%	51-60	12	7	58%
61-70	10	6	60%	61-70	9	4	44%
71-80	6	3	50%	71-80	4	2	50%
Total	39	23	59%	Total	31	16	52%

Anne Penman Monklands Hospital Data

Discussion

Amongst a hospital population of 70 men and women who were motivated to give up but had been unable to do so, an average of 55% successfully quit for up to 6 months follow up. The 12 month data was never made available.

It can be argued that this particular patient population is not typical, that the motivation was greater as they were suffering from respiratory and cardiac problems. Also cessation in Hospital necessarily shows higher efficacy.

However the figures correspond reasonably well with the subsequent figures from Anne Sheridan (1999 – 2000 clinical data) and from Middlesex University (2001 double blind study).

