

Photobiomodulation in the management of oral mucositis for adult head and neck cancer patients receiving irradiation: the LiTEFORM RCT

Michael Nugent,^{1*} Valerie Bryant,² Chrissie Butcher,³ Holly Fisher,⁴ Sean Gill,³ Rebecca Goranova,⁵ Shaun Hiu,⁴ Lyndsay Lindley,⁶ James O'Hara,⁷ Yemi Oluboyede,⁴ Joanne Patterson,⁸ Tim Rapley,⁹ Tomos Robinson,⁴ Nikki Rousseau,^{4,10} Vicky Ryan,⁴ Ramkumar Shanmugasundaram,¹¹ Linda Sharp,⁴ Ruby Smith Whelan,³ Deborah D Stocken,¹⁰ Laura Ternent,⁴ Janet Wilson⁴ and Jenn Walker³

¹Department of Oral and Maxillofacial Surgery, City Hospitals Sunderland NHS Foundation Trust, Sunderland, UK

²Change Head and Neck Cancer Research Patient Involvement Group, Sunderland, UK

³Newcastle Clinical Trials Unit, Newcastle University, Newcastle upon Tyne, UK

⁴Population Health Sciences Institute, Newcastle University, Newcastle upon Tyne, UK

⁵Plymouth Oncology Centre, University Hospitals Plymouth NHS Trust, Plymouth, UK

⁶Social Policy Research Unit, University of York, York, UK

⁷Ear, Nose and Throat Department, Newcastle upon Tyne Hospitals NHS Foundation Trust, Newcastle upon Tyne, UK

⁸School of Health Sciences, University of Liverpool, Liverpool, UK

⁹Department of Social Work, Education and Community Wellbeing, Northumbria University, Newcastle upon Tyne, UK

¹⁰Leeds Institute of Clinical Trials Research, University of Leeds, Leeds, UK

¹¹Clinical Oncology, University Hospital Southampton NHS Foundation Trust, Southampton, UK

*Corresponding author Michaelnugent@nhs.net

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Disclaimer: This report contains transcripts of interviews conducted in the course of the research and contains language that may offend some readers.

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Plain English summary

The LiTEFORM RCT

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Plain English summary

Around 9 out of 10 head and neck cancer patients undergoing treatment experience pain, swelling and sores in their mouth (oral mucositis). This can lead to weight loss, painful ulcers, difficulty talking, eating and drinking, and even hospitalisation.

Current care includes helping patients to keep their mouth and teeth clean, encouraging them to have a healthy diet and prescribing mouthwashes, painkillers and mouth-coating gels. However, these treatments give limited help in preventing or treating this condition.

The LiTEFORM trial looked at whether or not low-level laser therapy could be used to prevent and treat oral mucositis. Patients were allocated to one of two arms at random: active laser or fake (sham) laser. Neither the patients nor the hospital staff knew which laser was being used.

Eighty-seven people joined the study during the time allowed (44 received low-level laser therapy and 43 received sham treatment); however, this was a smaller number than the planned target of 380 people. As a result, no meaningful conclusion can be drawn from the results about whether the therapy is beneficial or cost-effective.

People receiving the low-level laser therapy reported slightly more soreness in their mouth than those receiving the sham laser, but this could be down to chance. The number of participants is too small to draw conclusions about whether or not the low-level laser is helpful. Some patients found the laser treatment sessions to be difficult.

Setting up a new service delivering laser therapy at the same time as cancer treatments was more complicated than originally anticipated. Problems included the scheduling of appointments, finding suitable rooms and having enough trained staff with time to deliver laser therapy.

However, this study has provided us with knowledge on how best to set up a laser therapy service in the NHS as part of the cancer treatment pathway and the costs involved. These findings could help future studies looking into low-level laser therapy for those with head and neck cancer.

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