

PRESS RELEASE

**The first 'complete guide' on scalp cooling published in *The Oncologist*
University of Huddersfield paper aims to support clinical staff**

<http://theoncologist.alphamedpress.org/content/early/2017/09/25/theoncologist.2017-0263.abstract?sid=2c9faec6-1aa5-4c7e-9995-7e49b19edc3c>

Academics from the University of Huddersfield, UK, have published the first 'complete guide' on scalp cooling which aims to be a major point of reference for clinical staff.

The review article published in *The Oncologist* includes the most relevant and important information in the field of chemotherapy-induced alopecia (CIA) and prevention strategies.

The paper includes the physiology of human hair follicles, the different chemotherapy drugs currently used in the clinic and their mechanisms of action, the biological models available to study CIA, as well as all potentially promising therapeutic interventions.

Researcher Nik Georgopoulos from the Department of Biological Sciences, explains: "Hair loss is the most visibly distressing side effect of commonly administered chemotherapeutic agents. Psychological health has huge relevance to lifestyle, diet, and self-esteem. It is therefore important for clinicians to fully appreciate the psychological burden that it places on patients. Any intervention that could reduce the side effects of chemotherapy would be expected to lead to improvements in both the initiation and completion of therapy, in patient quality of life, and possibly survival outcomes."

The article ultimately focuses on scalp cooling, because it represents the only currently available modality for the reduction or prevention of CIA.

Evidence was presented from all recent clinical and biological studies which directly supports the efficacy of scalp cooling as an approach to prevent CIA and demonstrates the enormous potential of scalp cooling to ease the psychological burden and lead to vast improvement in patient quality-of-life.

Chemotherapy works by targeting all rapidly dividing cells in the body. Hair is the second fastest dividing cell, and this is the reason why many chemotherapy drugs cause alopecia. The hair follicles in the growth phase are attacked, resulting in hair loss approximately two weeks after the commencement of the chemotherapy treatment.

The damage that chemotherapy causes to the hair follicle can be alleviated by using scalp cooling, also known as the 'cold cap.'

Scalp cooling works by reducing the temperature of the scalp by a few degrees immediately before, during and after the administration of chemotherapy. There are a number of mechanisms by which cooling protects the hair follicles: vasoconstriction reduces the amount of chemotherapy that reaches the hair follicles, reduced drug diffusion through the cell membrane, decreased cell division, reduced active transport mechanisms, and a general reduction in metabolic activity.

Developed in Huddersfield the Paxman Scalp Cooling System is the world-leading hair loss prevention system for chemotherapy patients. It has been used by over 100,000 patients, in 32 countries and is responsible for helping patients to keep their hair and retain normality during chemotherapy. The cap works by lowering scalp temperature before, during and after the administration of chemotherapy.

ENDS

Notes to editor:

More information about Paxman

Paxman is the leading global expert in scalp cooling, for the prevention of hair loss during chemotherapy.

Used all over the world, the Paxman Scalp Cooling System is available in two models. The single model provides cooling for one patient and is suitable for a small chemotherapy suite or private bed, whilst the double system provides cooling for one or two patients simultaneously with each cap working independently.

Made from lightweight, silicone tubing, the scalp cooling cap is soft and flexible - providing a snug yet comfortable cap during treatment. Moulding to all head shapes and sizes, liquid coolant passes through the cap extracting heat from the patient's scalp, ensuring the scalp remains at an even, constant temperature to minimise hair loss.

Backed by leading oncologists from around the world, the system has achieved global success in many hospitals and specialist cancer treatment centres.

Media Contacts

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