



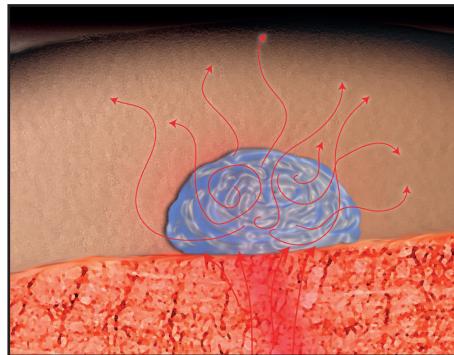
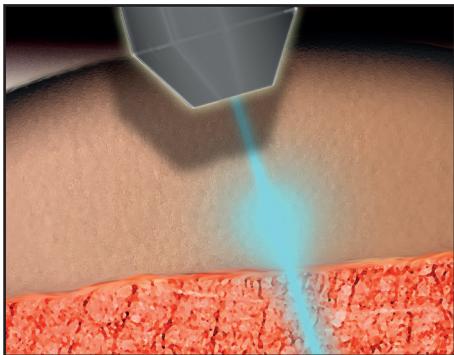
**ADVANCED  
SKIN DEFENCE  
FROM DAY ONE**

**Skin care during and after radiotherapy**  
*Supporting your skin when it needs it most*

## R1 and R2 is a two-step cosmetic skin care system, providing hydration, moisturisation and skin defence.

Skin toxicity is one of the side effects of radiotherapy that can affect the patient's therapeutic programme and may reduce their quality of life.

The effects on the skin of ionising radiation varies according to the volume irradiated, dose administered, treatment guidelines and radio-sensitivity of exposed tissue. Side effects may vary and include erythema, pigmentation, hair loss, atrophy, fibrosis, dryness and peeling of skin, oedema and ulceration. The acute inflammatory reaction caused by cell destruction in the basal layer of the epidermis, and by dermal exposure, manifests itself as erythema and may gradually develop into exudative dermatitis.



### Why has Radiaderm R1 and R2 been developed?

R1 and R2 help with the problem of the side effects experienced by skin during and after radiotherapy treatment.

This innovative system cools the damaged area in two stages by reducing the inflammatory response through cooling, hydrating and defending the skin in the short-term and long-term, and includes UVA and UVB stabilisers. It also incorporates LACTOKINE™ in its formulation.

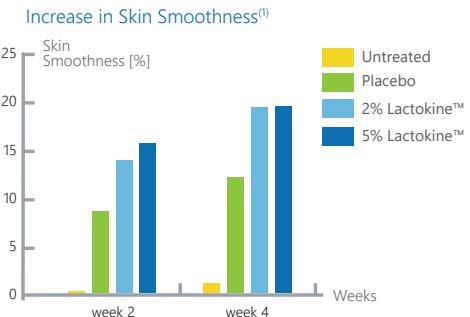
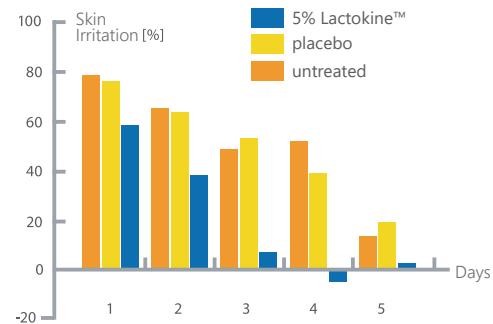
## Lactokine™ Information (Supplied by CLR)

### What is Lactokine™

Lactokine™ is a clinically tested milk-based fluid that has been used in personal care products for over 15 years. It is a skin conditioning agent which also assists in the reduction of skin irritation.

Along with other lactose proteins, LACTOKINE™ contains milk-derived factors that assist skin to maintain a smooth and elastic texture.

Results of Lactokine™ when used in 5% Concentration.



### Summary

- Increase in cell vitality
- Stimulation of Collagen synthesis
- Increase in skin smoothness

**INCI Name:** Milk Protein

**Dosage:** 2.0 - 5.0%

**pH:** Due to the isoelectric points of the proteins the pH should be fixed between 5.8 and 7 to maintain optimum solubility

(1) (Lactokine™ fluid) is a product of CLR Chemisches Laboratorium Dr. Kurt Richter GmbH, Berlin, Germany. Brochure 310-02-06, Pages 5, 6 and 8.



## Step one Cooling Gel

Radiaderm R1™ Cooling Gel is the first step of the full R1 & R2 System. It cools, hydrates and stabilises skin temperature through physical means. Immediately R1 is applied to the skin it provides hydration.

Radiaderm R1™ includes LACTOKINE™ in its formulation. Along with other lactose proteins, LACTOKINE™ contains milk-derived factors that assist skin to maintain a smooth and elastic texture.



DEFENDS SKIN



COOLS AND HYDRATES



HELPS TO STABILISE SKIN  
TEMPERATURE



CONTAINS LACTOKINE™



## Step two Soothing Lotion

Radiaderm R2™ Soothing Lotion with Lactokine™ (milk protein) represents the second step in a two-step skin care system designed to follow on from the cooling and hydrating effects of Radiaderm R1™. Radiaderm R2™ lotion is formulated to soothe, moisturise and smooth skin. Radiaderm R2™ nourishes your skin by replacing lost moisture and promotes elasticity/suppleness of skin.

Radiaderm R2™ contains UVA/UVB stabilisers that reinforce the skin's natural barrier by helping to prevent the formation of free radicals caused by UV exposure.



MOISTURISES AND SMOOTHES  
AFFECTED AREA



PROMOTES ELASTICITY



CONTAINS UVA & UVB  
STABILISERS



CONTAINS LACTOKINE™



### Outcome of one of our many completed clinical evaluations

This evaluation was carried out on two groups of patients. The first group received radiotherapy to the head and neck, the second group to the pelvic area. Before applying R1 and R2, all patients had received some radiotherapy.

In the first group, most of the patients reported pain and significant damage was observed to their skin. The second group also suffered from pain in the irradiated area due to epithelial damage.

When both groups began with R1 and R2, a significant improvement was observed in all of the patients. Once the R1 was applied, they felt a slight itching sensation in the areas of skin that were most irritated, then they began to feel a pleasant cooling and soothing effect.

Afterwards, after the application of R2 Soothing Lotion, if they felt that the skin had become dry and tight again, they applied R2.

All patients were able to continue with their radiotherapy treatment without interruption.



Before applying R1 & R2



After 16 days

Germany - University Heidelberg

### Extracts received from clinical evaluations from other hospitals internationally

#### Norway - Oslo University Hospital

In our clinical experience application of R1 and R2 was well tolerated and seemed to be effective. No patient developed grade III or IV dermatitis.

#### Germany – University Heidelberg

Our case series reveals that the application of R1 and R2 is feasible, safe and effective. Patients do much better during radiation. They have a better quality of life.

#### USA - South Florida Radiation Oncology (Wellington)

The 2 step system relieves patient discomfort during radiation treatment and appears to help soothe and minimize the post-radiation reaction. We will recommend the use of this treatment for routine use for patients undergoing radiation therapy starting with their first treatment before symptoms occur.

#### Czech Republic – Fakultní Nemocnice Ostrava

"From the viewpoint of the patient, we classify R1 and R2 very high: The products were easy to use." "We recommend the use of this 2-step system for routine use in a radiotherapy practice."

#### *Further clinical trials have been carried out in Germany and Spain.*

#### Germany – University Heidelberg

This was a randomized multi center study with 20 hospitals participating. The title of the trial was to "Evaluate the effects of R1&R2 in patients with Head & Neck cancer receiving platin-based radio-chemotherapy". The results of the trial showed that "The experimental prophylactic treatment R1R2 is obviously tolerated very well and does not interfere with treatment." - No Grade 2 or Grade 3 dermatitis was present in the R1R2 group at follow up.

#### Spain - La Paz University Hospital Madrid

A single centre study on 102 patients to "Evaluate the effects of R1&R2 in patients with Head & Neck and breast cancer receiving platin-based radiochemotherapy". The results of the trial showed patients who used R1&R2 received less side effects, more than 66% showed no evidence of radiation dermatitis.

# PRODUCT INFORMATION

Radiaderm R1™ & R2™ are cosmetic preparations containing Lactokine™.

Both products are free from fragrance and anti-oxidants.

Radiaderm R2™ has UVA/UVB stabilisers. Both products contain Milk Proteins.

**For more information, visit our website:**  
**www.radiaderm.com**



RADIADERM™ R1R2 System	
Contains	R1™ - 1 tube of 120ml R2™ - 1 tube of 120ml
Product Code	R1/R2 SYS

RADIADERM R2™	
Contains	R2™ - 1 tube of 120ml
Product Code	R2



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