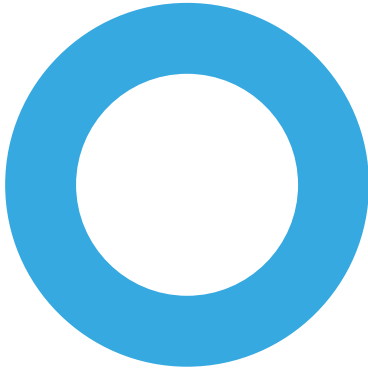
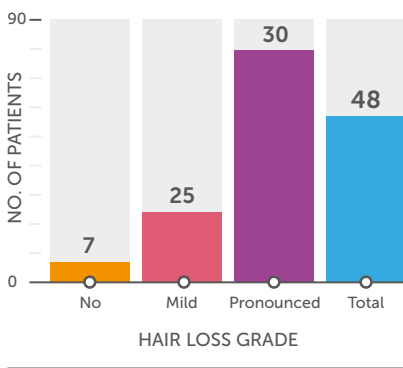



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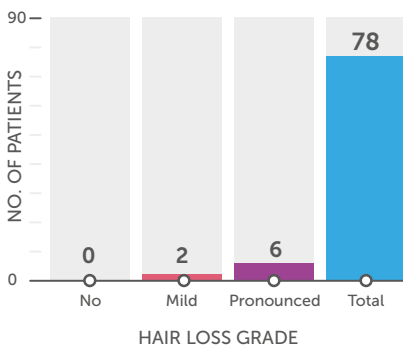


Observational study reports a 40% reduction of head covers when using the Paxman system in breast cancer patients.

EVALUATION OF HAIR LOSS
SCALP COOLED PATIENTS (n=160)



EVALUATION OF HAIR LOSS
NON SCALP COOLED PATIENTS (n=86)



Results

- A head cover was still used by 51% of the scalp cooled patients, so improvement in effectiveness is desirable.
- 38% of scalp cooled patients were thought to have purchased a wig needlessly.
- Another study conducted by Auvinen et al, 2010 showed unnecessary purchases totalled to 80%.
- Arrangements are made by patients' hairdressers to consult and reserve a wig before chemotherapy.
- This arrangement should not be restricted to scalp cooled patients, as the incidence of CIA without scalp cooling is sometimes overestimated.
- Study carried out by Mols et al, 2009 in breast cancer patients (n=175) were satisfied with their wig, however two thirds of them felt it was expensive which, again is a reason for postponing the purchase.
- The high frequency of wigs and head covers purchased to camouflage potential hair loss illustrates the importance of CIA for patients undergoing systemic therapy.
- While some patients lose almost all of their hair but do not wear a head covering and vice versa, it has come to our attention that head cover use still best reflects the patients' satisfaction with scalp cooling.

Purchase and use of wig and head cover (from before starting chemotherapy to 6 months after chemotherapy) and growth of hair during and after chemotherapy (n= 246).

	Wig and head cover	Scalp cooled (n=160)n(%)	Non scalp cooled (n=86)n(%)
PURCHASE/USE	Purchase wig	84 (53)	66 (77)
	Used wig	52 (33)	59 (69)
	Purchased head cover	117 (73)	83 (97)
	Used head cover	81 (51)	78 (91)
GROWTH	During chemotherapy	31 (24)	5 (7)
	Within 3 weeks after chemotherapy	19 (19)	10 (16)
	3-6 weeks after chemotherapy	45 (46)	27 (43)
	6-8 weeks after chemotherapy	18 (18)	18 (28)
	8 weeks after chemotherapy	17 (17)	8 (28)
	Missing	30	18
SATISFIED WITH CURRENT HAIR STYLE	3 weeks after chemotherapy	111 (85)	57 (78)
	6 months after chemotherapy	111 (94)	50 (86)



Methods

- In this observational study Dr. Corina van den Hurk et al, 2013 looked at scalp cooled patients (n=160) compared to non scalp cooled patients (n=86), all with several types of cancers.
- Patients were spread across 13 different hospitals, 2 of which did not have scalp cooling available.

Chemotherapy regimens include:

- Taxane and/or anthracycline-based chemotherapy.
- FEC (5-Fluorouracil, Epirubicin, Cyclophosphamide) regimen used 1997-2002 (62 patients).

Scalp cooling times:

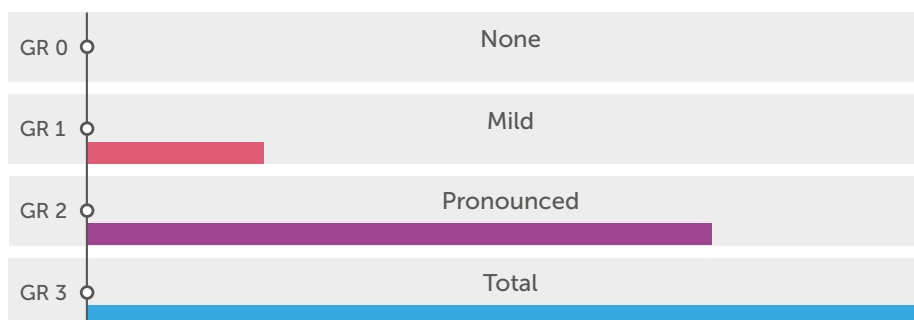
- Pre-infusion cooling time 30 minutes.
- Cooling was maintained during the infusion period.
- Post-infusion cooling time of 90 minutes for majority of patients.
- Hair loss graded according to questionnaire format below.

Patient age range was:

Age (years)	Scalp cooled n=160 (%)	Non scalp cooled n=86 (%)
<49	70 (44%)	43 (50%)
50-49	63 (39%)	29 (34%)
>60	27 (17%)	14 (16%)

Patients completed questionnaires related to comfort and acceptability of scalp cooling. Observational study was scored using the WHO & VAS system.

Hair loss graded according to criteria in below:



Long duration of CIA, the wish of patients to camouflage or rather prevent it and the reduced need for head covering in 40% of the patients, makes scalp cooling a worthwhile supportive intervention.

40%

reduction in the use of head covers.

38%

of scalp cooled patients thought to have purchased a wig needlessly.

C.J.G. van den Hurk, M.E. van den Akker-van Marle et al. Impact of scalp cooling on chemotherapy-induced alopecia, wig use and hair growth of patients with cancer.

Improvement can be obtained by studying scalp cooling times (Hurk van den et al., 2012a) and temperatures, by adapting indications (e.g. type of chemotherapy and patient motivation), but also by adapting patient information about CIA and scalp cooling. For example, patients should be advised not to buy a wig as a precaution, but to wait until it becomes necessary.

The use of scalp cooling will probably increase, because of increasing cancer incidence, more frequent use of chemotherapy in solid tumours and improved acquaintance with scalp cooling in hospitals, but also among patients. In order to compare scalp cooling outcomes in the future, a questionnaire should be developed and validated to evaluate the extent of CIA and its impact on patient's lives.



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