

# Short post-infusion cooling time of scalp cooling in the prevention of docetaxel-induced hair loss

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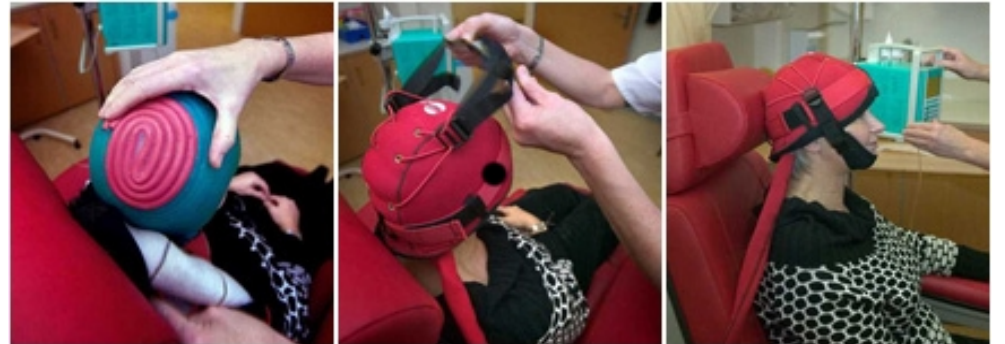
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## Background

- Severe hair loss is very common in chemotherapy patients
- Chemotherapy-induced alopecia is distressing
- Scalp cooling:
  - Reduces hair loss
  - Applied before, during and after chemotherapy infusion
- Post-infusion cooling time:
  - Impact on final result scalp cooling unknown
  - Arbitrarily chosen, based on
    - Pharmacokinetics of cytostatics
    - Clinical experiences

## Methods

- 3-weekly docetaxel regimens, mono- or combination (exception: TAC scheme)
- Randomised trial in 11 hospitals
- Scalp cooling:
  - Pre cooling time 30 minutes
  - 1<sup>st</sup> phase: post cooling time 90 minutes
  - 2<sup>nd</sup> phase: randomisation post cooling time 45 vs 90 minutes
  - Using Paxman system



## Results

### Patient characteristics:

- 166 (17%) scalp cooled patients out of 980 patients with 3-weekly docetaxel chemotherapy (eligible/ non-eligible and scalp cooling offered/ not offered)
- Non scalp cooled: 31% male, mean age 57 (range 25-92)
- Scalp cooled patients
  - 36% male, mean age 59 (range 35-79)
  - 49% mamma, 34% prostate, 23% lung carcinoma
  - 15% treated in adjuvant setting
  - 39% 75 mg/m<sup>2</sup> and 61% 100 mg/m<sup>2</sup> docetaxel

### Effectivity and Tolerance

- 1<sup>st</sup> phase: 90 minutes: 84% (n=51) no head cover/ wig
- 2<sup>nd</sup> phase:
  - 45 minutes: 88% (n=40) no head cover/ wig
  - 90 minutes: 74% (n=39) no head cover/ wig
- Tolerance of scalp cooling
  - Mean=69 on VAS scale, range 0 (bad) – 100 (good)
  - Headache: 80% no, 13% mild, 7% moderate/severe
  - 5% of patients stopped scalp cooling because of intolerance

## Discussion/ Conclusion

- Good hair preservation with scalp cooling in 3-weekly docetaxel schedules, even if post-infusion time is reduced from 90 to 45 minutes
- Ongoing trial with randomisation 45 vs 20 minutes
- Shorter cooling time declines burden of scalp cooling in patients and is a great advantage in time schedules of day care units

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