Scalp cooling for prevention of chemotherapy-induced alopecia

The ‘real world’ experience

Corina van den Hurk

2019
21-23 JUNE
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MASCC Multinational Association of Supportive Care in Cancer
ISOO International Society of Oral Oncology
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Disclosures

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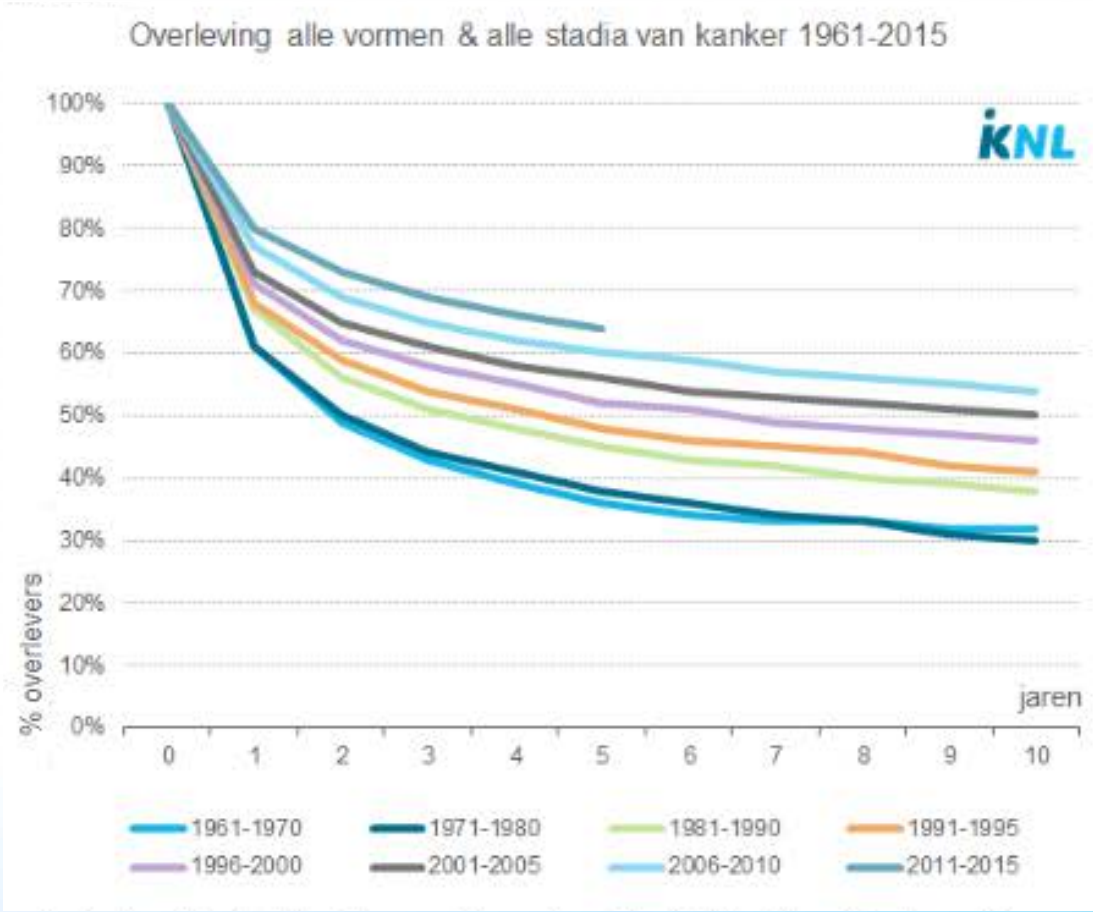

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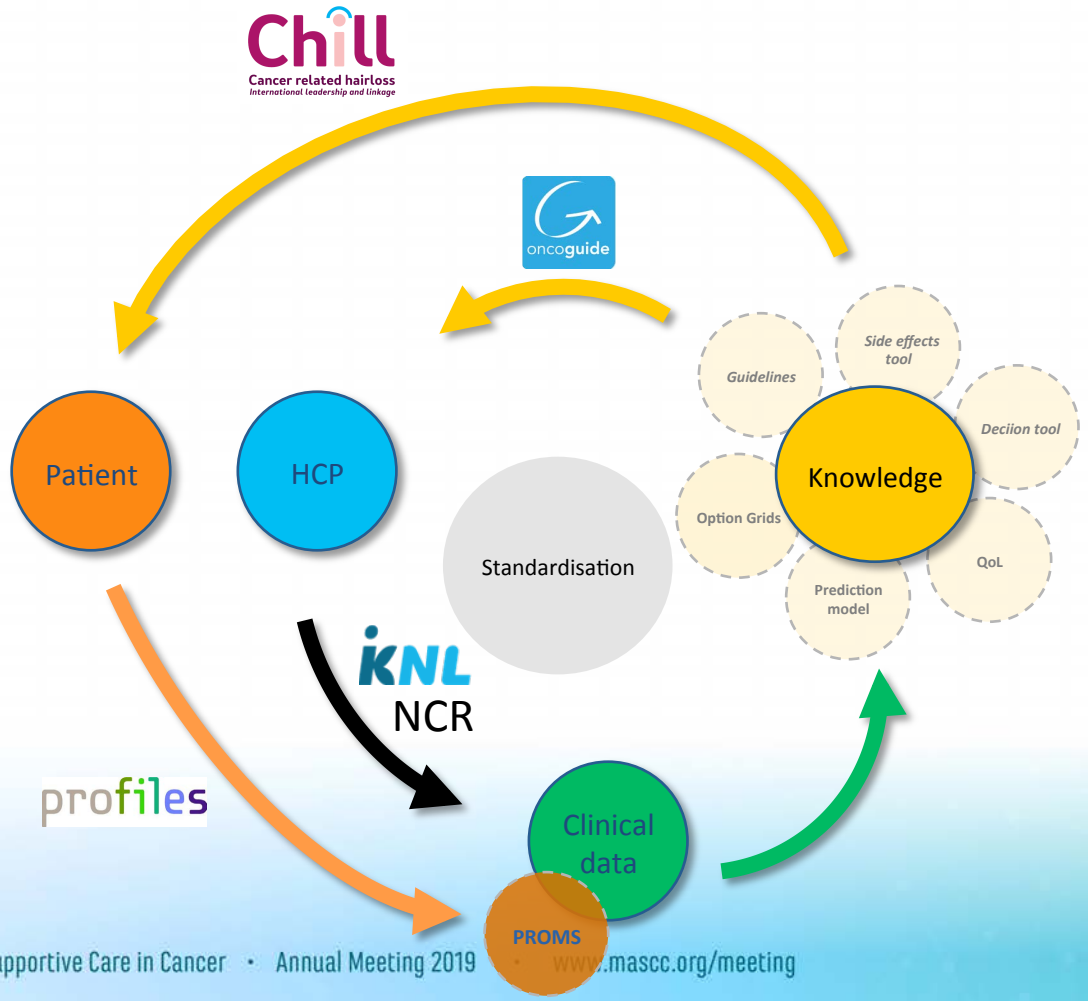

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Dutch Registry/ Give hair a chance foundation
Wim Breed, MD PhD

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Dutch ‘real life’ registry

- Prospective, longitudinal
- 2006-2017, 68 Dutch hospitals (60%), n>7000
- Adults, both sexes
- Solid tumor: 75% breast, 8% prostate
- All stages of disease: 62% Adjuvant
- Post-infusion cooling times: 90 minutes, except
  - docetaxel 20 mins
  - taxol 90 or 45

Dutch ‘real life’ registry

HCP

- Chemotherapy type, dose and infusion time
- Cancer type and stage

Patient

- Baseline: patient characteristics (e.g. type of hair, thickness of hair)

Each scalp cooling session:

- Cooling procedure (e.g. cooling time, wetting the hair)
- Result on hair preservation

Harvest from a ‘real life’ registry

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Improving supportive care

- Knowledge: efficacy, safety (by linking to NCR)
- Detecting best practices/ benchmark
- Guidelines (NCCN/eviQ)
- Patient information

Knowledge: efficacy

Overall 57% no wig/head cover

Chemotherapy (mg/m2)	Number of patients	% no wig/head cover
		Overall
A60C600	1442	44
D75	710	94
D100	241	72
D75A50C500	159	12
F500A50C500	59	53
F500E90C500	628	51
F500E100C500	607	33
F500E100C500-D100[a]	808	44
Irino 350	196	27
T80	415	86
T90	87	79
T175Car[b]	178	39

A: doxorubicine, C: cyclofosfamide, Car: carboplatin, D: docetaxel
E: epirubicine, F: 5-fluorouracil, Irino: irinotecan, T: paclitaxel
* 3xFEC followed by 3xD ** AUC6

Best practices

Overall 57% no wig/head cover

Chemotherapy (mg/m2)	Number of patients	% no wig/head cover	
		Overall	Variation between hospitals (min-max)[c,d]
A60C600	1442	44	19-72
D75	710	94	82-100
D100	241	72	38-88
D75A50C500	159	12	0-18
F500A50C500	59	53	n.a.
F500E90C500	628	51	40-82
F500E100C500	607	33	7-60
F500E100C500-D100[a]	808	44	25-79
Irino 350	196	27	7-37
T80	415	86	60-95
T90	87	79	n.a.
T175Car[b]	178	39	22-70

A: doxorubicine, C: cyclofosfamide, Car: carboplatin, D: docetaxel
E: epirubicine, F: 5-fluorouracil, Irino: irinotecan, T: paclitaxel
* 3xFEC followed by 3xD ** AUC6

Best practices

Variation in protocols/ satisfaction

- Inclusion n>10
  - Satisfaction with information about scalp cooling: 80-100% of patients
  - Satisfaction nursing expertise: 55-100% of patients
- Wetting the hair: 0-100% of patients

Knowledge: determinants

Influence of infusion time and wetting hair on efficacy

Irinotecan 350 mg/m^2 n=189
A60C600 mg/m^2 n= 1408

	Irinotecan (n (%))				AC (n (%))			
	Infusion time (min.)			p-value	Infusion time (min.)			p-value
Head cover	30	60	90		0-25	26-40	40+	
Yes	16 (64)	53 (75)	70 (75)		134 (59)	408 (54)	239 (57)	
No	9 (36)	18 (25)	23 (25)		95 (41)	344 (46)	183 (43)	
Total	25	71	93	0.5	229	752	422	0.5

Knowledge: determinants

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No	9 (36)	18 (25)	23 (25)		95 (41)	344 (46)	183 (43)	
Total	25	71	93	0.5	229	752	422	0.5
	Wetting the hair				Wetting the hair			
Head cover	Yes		No	p-value	Yes		No	p-value
Yes	41 (30)		96 (70)		331 (42)		448 (58)	
No	15 (29)		37 (71)		386 (61)		243 (39)	
Total	56		133	0.9	717		691	<0.0001

Knowledge: determinants

Influence of infusion time and wetting hair on efficacy

	Uni variate OR (p-value)	Multi variate		
		OR*	95% CI	p-value
Irinotecan				
Infusion time (min.)				
30	1.0	1.0	-	-
60	0.6 (NS)	0.4	(0.1-1.1)	0.08
90	0.6 (NS)	0.3	(0.09-0.9)	0.03
Wetting the hair	1.0 (NS)	0.8	(0.4-1.9)	0.6

*corrected for: age, previous chemotherapy, hair mass, post-infusion cooling time; NS: non significant
AC: additionally corrected for adjuvant/palliative setting and hair type **Irinotecan**: additionally corrected for gender

Knowledge: determinants

Influence of infusion time and wetting hair on efficacy

	Uni variate OR (p-value)	Multi variate		
		OR*	95% CI	p-value
Irinotecan				
Infusion time (min.)				
30	1.0	1.0	-	-
60	0.6 (NS)	0.4	(0.1-1.1)	0.08
90	0.6 (NS)	0.3	(0.09-0.9)	0.03
Wetting the hair	1.0 (NS)	0.8	(0.4-1.9)	0.6
AC				
Infusion time (min.)				
0-25	1.0	1.0	-	-
26-40	1.2 (NS)	1.0	(0.7-1.3)	0.9
40+	1.1 (NS)	0.8	(0.6-1.1)	0.2
Wetting the hair	2.2 (<0.0001)	2.3	(1.8-2.9)	<0.0001

*corrected for: age, previous chemotherapy, hair mass, post-infusion cooling time; NS: non significant
AC: additionally corrected for adjuvant/palliative setting and hair type **Irinotecan**: additionally corrected for gender

Knowledge: determinants

Influence of infusion time and wetting hair on efficacy

- n>7000
- Uncorrected for chemotherapy type/dose

Characteristics	Uni variate OR	Multi variate[a]		
		OR	95% CI	P-value
Dampen hair				
No[d]	1.0	1.0	-	-
Yes	1.4	1.5	(1.3-1.6)	<0.0001

Harvest from a ‘real life’ registry

Improving supportive care

- Knowledge: efficacy, safety (by linking to NCR)
- Detecting best practices/ benchmark
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Work in progress

- International CHILL registry, sharing data
- CIA among scalp cooled and non-scalp cooled patients
- In the USA, Australia, the UK and the Netherlands

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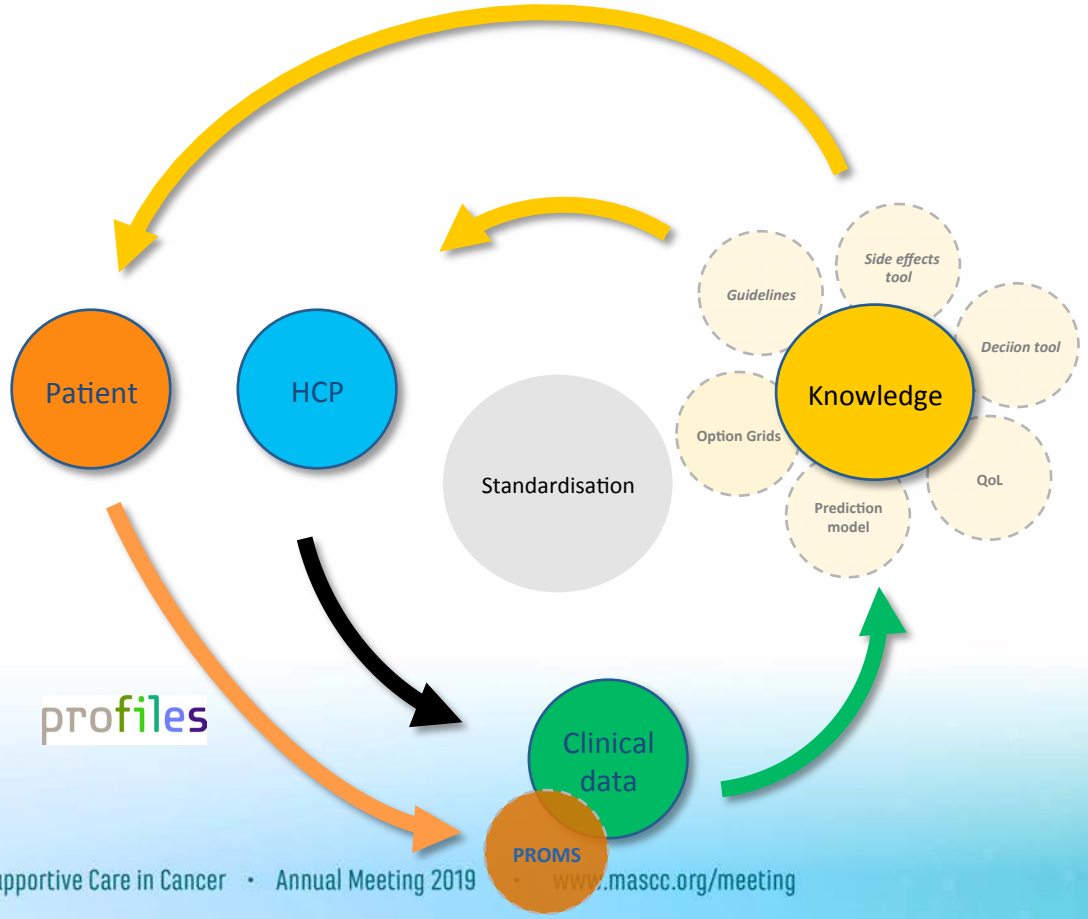
Chill
Cancer related hairloss
International leadership and linkage

profiles

International Chill registry

Cancer related hairloss
International leadership and linkage



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Chill

Cancer related hairloss

International leadership and linkage

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