	Consecutive patients eligible for screening	Patients eligible to be asked for IC	Patients with no IC on file†	Patients enrolled into the trial
Number of patients	441 (100%)	369 (100%)	100 (100%)	269 (100%)
Age at screening, median (IQR)	7 (4,13)	7 (4,13)	7 (4,13)	8 (4,13)
Sex				
Female	179 (41%)	151 (41%)	46 (46%)	105 (39%)
Male	262 (59%)	218 (59%)	54 (54%)	164 (61%)
Type of malignancy				
Acute lymphoblastic leukaemia	170 (39%)	157 (43%)	42 (42%)	115 (43%)
Acute myeloid leukaemia	15 (3%)	13 (4%)	6 (6%)	7 (3%)
Hodgkin lymphoma	30 (7%)	25 (7%)	5 (5%)	20 (7%)
Non-Hodgkin lymphoma	35 (8%)	29 (8%)	9 (9%)	20 (7%)
Central nervous system tumour	58 (13%)	47 (13%)	16 (16%)	31 (12%)
Other solid tumours	133 (30%)	98 (27%)	22 (22%)	76 (28%)
Centre*				
1	56 (13%)	46 (14%)	26 (26%)	20 (7%)
2	95 (22%)	87 (24%)	9 (9%)	78 (29%)
3	34 (8%)	34 (9%)	3 (3%)	31 (12%)
4	114 (25%)	93 (25%)	58 (58%)	35 (13%)
5	20 (5%)	15 (4%)	0 (0%)	15 (6%)
6	122 (28%)	94 (25%)	4 (4%)	90 (33%)

Data are presented as number (%) unless otherwise stated. IQR=interquartile range. *There were no significant differences between the groups except for centre (p <0·001). Percentages may not total 100 because of rounding. IC=informed consent. †not distinguishable whether patients were asked for informed consent or not.

***Table 1*: Patient characteristics**

	All periods*	**39·0°C periods**	**38·5°C periods**
Number of randomization periods*	2547 (100%)	1210 (100%)	1337 (100%)
Age at screening (years), median (IQR)	7 (4, 12)	7 (4, 12)	7 (4, 12)
Sex			
Female	1058 (42%)	495 (41%)	563 (42%)
Male	1489 (58%)	715 (59%)	774 (58%)
Type of malignancy			
Acute lymphoblastic leukaemia	1488 (58%)	698 (58%)	790 (59%)
Acute myeloid leukaemia	50 (2%)	16 (1%)	34 (3%)
Hodgkin lymphoma	106 (4%)	53 (4%)	53 (4%)
Non-Hodgkin lymphoma	147 (6%)	72 (6%)	75 (6%)
Central nervous system tumour	271 (11%)	137 (11%)	134 (10%)
Other solid tumours	485 (19%)	234 (19%)	251 (19%)
Centre†			
1	221 (9%)	96 (8%)	125 (9%)
2	765 (30%)	321 (27%)	444 (33%)
3	290 (11%)	201 (17%)	89 (7%)
4	432 (17%)	241 (20%)	191 (14%)
5	63 (2%)	29 (2%)	34 (3%)
6	776 (30%)	322 (27%)	454 (34%)
Chemotherapy intensity (expected neutropenia)			
1 (none)	1103 (43%)	525 (43%)	578 (43%)
2 (≤10 days)	1356 (53%)	649 (54%)	707 (52%)
3 (>10 days)	61 (2%)	26 (2%)	35 (3%)
4 (myeloablative)	27 (1%)	10 (1%)	17 (1%)
Time since diagnosis (months), median (IQR)	8 (3, 16)	8 (3, 16)	7 (3, 16)
Bone marrow involvement	115 (5%)	50 (4%)	65 (5%)
Type of central venous access device			
None	110 (4%)	55 (5%)	55 (4%)
Port-type	2379 (93%)	1132 (94%)	1247 (93%)
Tunneled	55 (2%)	22 (2%)	33 (2%)
Non-tunneled	3 (0%)	1 (0%)	2 (0%)
Relapsed malignancy	180 (7%)	92 (8%)	88 (7%)

Data are presented as number (%) unless otherwise stated. IQR=interquartile range. * Periods referring to monthly randomization of centres with all their study patients. † There were no significant differences between the groups except for centre (p <0·001). Percentages may not total 100 because of rounding.

***Table 2*: Patient characteristics and risk factors for fever in neutropenia in randomization periods**

	Total (195 years)	39·0°C (92 years)	38·5°C (103 years)	Mixed Poisson regression, univariate		Mixed Poisson regression, multivariate *	
Safety outcomes	**360 FN (100%)‡**	**151 FN (100%)‡**	**209 FN (100%)‡**	**Rate ratio (95% CI)**	**p-value**	**Rate ratio (95% CI)**	**p-value**
Safety relevant event	72 (0·37)	22 (0·24)	50 (0·49)	0·56 (0·72†)	0·0001†	0·53 (0·67†)	<0·0001†
- Serious medical complication	30 (0·15)	9 (0·10)	21 (0·20)	0·48 (0·21 to 1·07)	0·073	0·49 (0·22 to 1·10)	0·085
- Death	0 (0)	0 (0)	0 (0)	Model failure	··	Model failure	··
- ICU admission	16 (0·08)	4 (0·04)	12 (0·12)	0·37 (0·10 to 1·34)	0·13	0·38 (0·10 to 1·38)	0·14
- Severe sepsis	22 (0·11)	7 (0·08)	15 (0·15)	0·56 (0·39 to 0·79)	0·0010	Model failure	
- Bacteraemia	56 (0·29)	18 (0·20)	38 (0·37)	0·54 (0·28 to 1·04)	0·065	0·62 (0·34 to 1·12)	0·12
Clinically defined Infections	92 (0·47)	43 (0·34)	49 (0·48)	0·97 (0·55 to 1·72)	0·92	0·99 (0·58 to 1·68)	0·97
MDI (other than bacteraemia)	146 (0·76)	53 (0·58)	93 (0·90)	0·64 (0·44 to 0·95)	0·027	0·67 (0·45 to 0·98)	0·039
SIRS/Sepsis	289 (1·48)	126 (1·37)	163 (1·58)	0·91 (0·73 to 1·13)	0·37	0·91 (0·70 to 1·18)	0·48
Septic Shock (included in severe sepsis)	2 (0·01)	0 (0)	2 (0·02)	Model failure	··	Model failure	··
Relapse of infection	5 (0·03)	2 (0·02)	3 (0·03)	Model failure	··	Model failure	··
Unexplained fever	160 (0·82)	72 (0·78)	88 (0·86)	0·94 (0·76 to 1·17)	0·59	0·96 (0·77 to 1·19)	0·69

Data are presented as number (annual rate) unless otherwise stated. FN=fever in neutropenia. MDI=Microbiologically documented infection. ICU=intensive care unit. SIRS=systemic inflammatory response syndrome. * Adjusted for chemotherapy intensity, time since diagnosis, bone marrow involvement, type of central venous access device, and past FN; † one-sided 95% upper confidence bound / one-sided p-value; ‡ Multiple outcomes per FN episode may apply.

***Table 3*: Safety related outcomes, analysis of fever limit 39·0°C versus 38·5°C per chemotherapy year**

	Total (195 years)	39·0°C (92 years)	38·5°C (103 years)	Mixed Poisson regression, univariate		Mixed Poisson regression, multivariate *	
Efficacy outcomes				**Rate ratio (95% CI)**	**p-value**	**Rate ratio (95% CI)**	**p-value**
FN	360 (1·85)	151 (1·64)	209 (2·03)	0·83 (0·98†)	0·030†	0·85 (1·03†)	0·076†
FN at fever limit	279 (1·43)	98 (1·06)	181 (1·76)	0·65 (0·52 to 0·80)	<0·0001	0·63 (0·49 to 0·82)	0·0006
FN below fever limit	81 (0·42)	53 (0·58)	28 (0·27)	2·01 (1·17 to 3·47)	0·012	1·86 (1·40 to 2·48)	<0·0001
Treatment days							
- Hospitalization	2998 (15·4)	1122 (12·2)	1876 (18·2)	0·67 (0·46 to 0·96)	0·031	..	..
- ICU treatment	193 (0·99)	10 (0·11)	183 (1·8)	0·06 (0·00 to 20·39)	0·35	..	..
- Intravenous antibiotics	2609 (13·4)	1054 (11·4)	1555 (15.1)	0·76 (0·52 to 1·09)	0·14	..	..
- Oral antibiotics	258 (1·3)	152 (1·6)	106 (1·0)	1·60 (0·65 to 3·92)	0·31	..	..
- Antiviral therapy	233 (1·2)	98 (1·1)	135 (1·3)	0·87 (0·63 to 1·19)	0·37	..	..
- Antifungal therapy	487 (2·2)	199 (2·5)	288 (2·8)	0·90 (0·68 to 1·19)	0·46	..	..
Delay of chemotherapy	1241 (6·4)	437 (4·7)	804 (7·8)	0·61 (0·33 to 1·12)	0·11	..	..

Data are presented as number (annual rate) unless otherwise stated. FN=fever in neutropenia. ICU=intensive care unit. * Adjusted for chemotherapy intensity, time since diagnosis, bone marrow involvement, type of central venous access device, and past FN; † One-sided 95% upper confidence bound / one-sided p-value.

***Table 4*: Efficacy related outcomes, analysis of fever limit 39·0°C versus 38·5°C per chemotherapy year**