



Clinical trial results:

A randomized phase II multicenter study with a safety run-in to assess the tolerability and efficacy of the addition of oral selinexor (KPT-330) to standard induction chemotherapy in AML and high risk myelodysplasia (MDS) (IPSS-R > 4.5) in patients aged >= 66 years .

A study in the frame of the masterprotocol of parallel randomized phase II studies in elderly AML

Summary

EudraCT number	2014-001876-75
Trial protocol	NL BE
Global end of trial date	19 September 2024

Results information

Result version number	v1 (current)
This version publication date	03 January 2026
First version publication date	03 January 2026

Trial information

Trial identification

Sponsor protocol code	HOVON103AMLSelinexor
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Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	-
WHO universal trial number (UTN)	-
Other trial identifiers	EC number: MEC2015-521

Notes:

Sponsors

Sponsor organisation name	HOVON
Sponsor organisation address	Dr. Molewaterplein 40, Rotterdam, Netherlands,
Public contact	HOVON Data Center, Erasmus MC Cancer Institute, Clinical Trial Center, +31 107041560, hdc@erasmusmc.nl
Scientific contact	HOVON Data Center, Erasmus MC Cancer Institute, Clinical Trial Center, +31 107041560, hdc@erasmusmc.nl

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	No
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	No

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	29 December 2023
Is this the analysis of the primary completion data?	Yes
Primary completion date	28 December 2023
Global end of trial reached?	Yes
Global end of trial date	19 September 2024
Was the trial ended prematurely?	Yes

Notes:

General information about the trial

Main objective of the trial:

For part A of the study (if applicable):

1. To assess the safety and tolerability of selinexor added to standard induction chemotherapy for AML (frequency and severity of toxicities and the durations of neutropenia and thrombocytopenia) and select the feasible dose level for part B
2. To assess in a randomized comparison the effect of selinexor on the CR rate.

For part B:

1. To assess the safety and tolerability of selinexor added to standard induction chemotherapy for AML (frequency and severity of toxicities and the durations of neutropenia and thrombocytopenia) as regards the selected dose level of selinexor
2. To assess in a randomized comparison the effect of selinexor on the CR rate.

Protection of trial subjects:

Insurance and monitoring

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	01 July 2016
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Netherlands: 53
Country: Number of subjects enrolled	Belgium: 17
Country: Number of subjects enrolled	Switzerland: 35
Worldwide total number of subjects	105
EEA total number of subjects	70

Notes:

Subjects enrolled per age group

In utero	0
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Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	0
From 65 to 84 years	105
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

All subjects gave written informed consent and were screened according to the inclusion- and exclusion criteria

Period 1

Period 1 title	Overall period (overall period)
Is this the baseline period?	Yes
Allocation method	Not applicable
Blinding used	Not blinded

Arms

Are arms mutually exclusive?	Yes
Arm title	Control group
Arm description: -	
Arm type	Active comparator
Investigational medicinal product name	Daunomycin
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection/infusion
Routes of administration	Intravenous use

Dosage and administration details:

Daunomycin Days 45mg/m² 3hr infusion on days 1,2,3

Investigational medicinal product name	Cytarabine
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection/infusion
Routes of administration	Intravenous use

Dosage and administration details:

Cytarabine 200mg/m² continuous infusion(24hrs) on days 1 thru 7

Arm title	Experimental
Arm description: -	
Arm type	Experimental
Investigational medicinal product name	Daunomycin
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection/infusion
Routes of administration	Intravenous use

Dosage and administration details:

Daunomycin Days 45mg/m² 3hr infusion on days 1,2,3

Investigational medicinal product name	Cytarabine
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection/infusion
Routes of administration	Intravenous use

Dosage and administration details:

Cytarabine 200mg/m² continuous infusion(24hrs) on days 1 thru 7

Investigational medicinal product name	SELINEXOR
Investigational medicinal product code	KPT-330
Other name	
Pharmaceutical forms	Capsule, hard
Routes of administration	Oral use

Dosage and administration details:

60 or 80 mg twice weekly on days 1,3,8,10,15,17,22,24

In part A of the study selinexor is started at a dose level of 60 mg twice weekly orally. Decisions regarding dose escalation to 80 mg twice weekly of each cycle, continuation with current dose level or reducing the dose is based on the incidence of DLT (dose limiting toxicity: death within 30 days of start cycle I and before start of cycle II) and will be performed according to the rules defined in section 17. If the decision is made to escalate to 80mg, a discussion with the Selinexor drug provider must occur first in order to evaluate the decision based on the most current safety data.

Number of subjects in period 1	Control group	Experimental
Started	53	52
Completed	34	27
Not completed	19	25
Adverse reactions	6	4
Consent withdrawn by subject	1	1
Other	4	9
Lack of efficacy	8	11

Baseline characteristics

Reporting groups

Reporting group title	Overall period
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Reporting group description: -

Reporting group values	Overall period	Total	
Number of subjects	105	105	
Age categorical			
Units: Subjects			
From 65-84 years	105	105	
Age continuous			
Units: years			
median	69		
full range (min-max)	65 to 80	-	
Gender categorical			
Units: Subjects			
Female	37	37	
Male	68	68	

End points

End points reporting groups

Reporting group title	Control group
Reporting group description: -	
Reporting group title	Experimental
Reporting group description: -	

Primary: Primary endpoint

End point title	Primary endpoint ^[1]
End point description:	

End point type	Primary
End point timeframe:	
See publication	

Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.

Justification: See attached chart/documents for results

End point values	Control group	Experimental		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	53	52		
Units: Whole	53	52		

Attachments (see zip file)	List of reported non-SAE's/Seli-nonsaedata103-2Dec2025.pdf List of reported SAE's/Seli-saedata103-2Dec2025.pdf Statistical data section from publication/s41375-022-01657-3.
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Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Adverse events will be reported from the first study-related procedure until 30 days following the last protocol treatment or until the start of subsequent systemic therapy for the disease under study, if earlier.

Adverse event reporting additional description:

Adverse events occurring after 30 days should also be reported if considered related to study drug. Grade 3 or 4 adverse events considered related to study drug must be followed until recovery or until 6 months after the last protocol treatment, whichever comes first.

Assessment type	Systematic
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Dictionary used

Dictionary name	CTCAE
Dictionary version	4

Reporting groups

Reporting group title	Control group
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Reporting group description: -

Reporting group title	Experimental
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Reporting group description: -

Serious adverse events	Control group	Experimental	
Total subjects affected by serious adverse events			
subjects affected / exposed	21 / 51 (41.18%)	24 / 51 (47.06%)	
number of deaths (all causes)	34	40	
number of deaths resulting from adverse events			
Vascular disorders			
Vascular disorders	Additional description: All combined		
subjects affected / exposed	1 / 51 (1.96%)	1 / 51 (1.96%)	
occurrences causally related to treatment / all	0 / 1	1 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Surgical and medical procedures			
Surgical and medical procedures	Additional description: All combined		
subjects affected / exposed	1 / 51 (1.96%)	0 / 51 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
General disorders and administration site conditions			
General disorders and administration site conditions	Additional description: All combined		

subjects affected / exposed	1 / 51 (1.96%)	2 / 51 (3.92%)	
occurrences causally related to treatment / all	1 / 1	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 2	
Respiratory, thoracic and mediastinal disorders			
Respiratory, thoracic and mediastinal disorders	Additional description: All combined		
subjects affected / exposed	3 / 51 (5.88%)	3 / 51 (5.88%)	
occurrences causally related to treatment / all	1 / 3	3 / 3	
deaths causally related to treatment / all	0 / 1	2 / 2	
Psychiatric disorders			
Psychiatric disorders	Additional description: All combined		
subjects affected / exposed	0 / 51 (0.00%)	1 / 51 (1.96%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Investigations			
Investigations	Additional description: All combined		
subjects affected / exposed	0 / 51 (0.00%)	1 / 51 (1.96%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Injury, poisoning and procedural complications			
Injury, poisoning and procedural complications	Additional description: All combined		
subjects affected / exposed	0 / 51 (0.00%)	1 / 51 (1.96%)	
occurrences causally related to treatment / all	0 / 0	1 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cardiac disorders			
Cardiac disorders	Additional description: All combined		
subjects affected / exposed	1 / 51 (1.96%)	2 / 51 (3.92%)	
occurrences causally related to treatment / all	1 / 1	1 / 2	
deaths causally related to treatment / all	1 / 1	1 / 2	
Nervous system disorders			
Nervous system disorders	Additional description: All combined		
subjects affected / exposed	4 / 51 (7.84%)	4 / 51 (7.84%)	
occurrences causally related to treatment / all	2 / 4	4 / 4	
deaths causally related to treatment / all	2 / 3	1 / 1	
Gastrointestinal disorders			

Gastrointestinal disorders	Additional description: All combined		
	subjects affected / exposed	1 / 51 (1.96%)	3 / 51 (5.88%)
	occurrences causally related to treatment / all	0 / 1	2 / 4
	deaths causally related to treatment / all	0 / 0	0 / 0
Hepatobiliary disorders	Additional description: All combined		
	subjects affected / exposed	1 / 51 (1.96%)	1 / 51 (1.96%)
	occurrences causally related to treatment / all	0 / 1	1 / 1
	deaths causally related to treatment / all	0 / 0	0 / 0
Renal and urinary disorders	Additional description: All combined		
	subjects affected / exposed	2 / 51 (3.92%)	1 / 51 (1.96%)
	occurrences causally related to treatment / all	0 / 2	1 / 1
	deaths causally related to treatment / all	0 / 0	0 / 0
Infections and infestations	Additional description: All combined		
	subjects affected / exposed	11 / 51 (21.57%)	16 / 51 (31.37%)
	occurrences causally related to treatment / all	9 / 11	16 / 18
	deaths causally related to treatment / all	2 / 2	5 / 6
Metabolism and nutrition disorders	Additional description: All combined		
	subjects affected / exposed	0 / 51 (0.00%)	1 / 51 (1.96%)
	occurrences causally related to treatment / all	0 / 0	0 / 1
	deaths causally related to treatment / all	0 / 0	0 / 0

Frequency threshold for reporting non-serious adverse events: 0 %

Non-serious adverse events	Control group	Experimental	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	49 / 51 (96.08%)	50 / 51 (98.04%)	
Vascular disorders	Additional description: All combined		
	subjects affected / exposed	11 / 51 (21.57%)	11 / 51 (21.57%)
	occurrences (all)	12	12
General disorders and administration site conditions			

General disorders and administration site conditions	Additional description: All combined		
subjects affected / exposed	16 / 51 (31.37%)	12 / 51 (23.53%)	
occurrences (all)	19	15	
Immune system disorders	Additional description: All combined		
Immune system disorders	Additional description: All combined		
subjects affected / exposed	4 / 51 (7.84%)	1 / 51 (1.96%)	
occurrences (all)	5	1	
Respiratory, thoracic and mediastinal disorders	Additional description: All combined		
Respiratory, thoracic and mediastinal disorders	Additional description: All combined		
subjects affected / exposed	7 / 51 (13.73%)	13 / 51 (25.49%)	
occurrences (all)	10	18	
Psychiatric disorders	Additional description: All combined		
Psychiatric disorders	Additional description: All combined		
subjects affected / exposed	3 / 51 (5.88%)	5 / 51 (9.80%)	
occurrences (all)	3	6	
Investigations	Additional description: All combined		
Investigations	Additional description: All combined		
subjects affected / exposed	20 / 51 (39.22%)	22 / 51 (43.14%)	
occurrences (all)	53	67	
Injury, poisoning and procedural complications	Additional description: All combined		
Injury, poisoning and procedural complications	Additional description: All combined		
subjects affected / exposed	3 / 51 (5.88%)	2 / 51 (3.92%)	
occurrences (all)	3	2	
Cardiac disorders	Additional description: All combined		
Cardiac disorders	Additional description: All combined		
subjects affected / exposed	5 / 51 (9.80%)	12 / 51 (23.53%)	
occurrences (all)	6	16	
Nervous system disorders	Additional description: All combined		
Nervous system disorders	Additional description: All combined		
subjects affected / exposed	0 / 51 (0.00%)	8 / 51 (15.69%)	
occurrences (all)	0	11	
Blood and lymphatic system disorders	Additional description: All combined		
Blood and lymphatic system disorders	Additional description: All combined		
subjects affected / exposed	38 / 51 (74.51%)	34 / 51 (66.67%)	
occurrences (all)	63	45	
Eye disorders			

Eye disorders subjects affected / exposed occurrences (all)	Additional description: All combined		
	9 / 51 (17.65%)	6 / 51 (11.76%)	
	9	7	
Gastrointestinal disorders Gastrointestinal disorders subjects affected / exposed occurrences (all)	Additional description: All combined		
	40 / 51 (78.43%)	43 / 51 (84.31%)	
	83	83	
Hepatobiliary disorders Hepatobiliary disorders subjects affected / exposed occurrences (all)	Additional description: All combined		
	4 / 51 (7.84%)	2 / 51 (3.92%)	
	5	3	
Skin and subcutaneous tissue disorders Skin and subcutaneous tissue disorders subjects affected / exposed occurrences (all)	Additional description: All combined		
	25 / 51 (49.02%)	20 / 51 (39.22%)	
	36	28	
Renal and urinary disorders Renal and urinary disorders subjects affected / exposed occurrences (all)	Additional description: All combined		
	5 / 51 (9.80%)	7 / 51 (13.73%)	
	5	8	
Musculoskeletal and connective tissue disorders Musculoskeletal and connective tissue disorders subjects affected / exposed occurrences (all)	Additional description: All combined		
	3 / 51 (5.88%)	6 / 51 (11.76%)	
	3	7	
Infections and infestations Infections and infestations subjects affected / exposed occurrences (all)	Additional description: All combined		
	31 / 51 (60.78%)	28 / 51 (54.90%)	
	66	63	
Metabolism and nutrition disorders Metabolism and nutrition disorders subjects affected / exposed occurrences (all)	Additional description: All combined		
	30 / 51 (58.82%)	32 / 51 (62.75%)	
	90	98	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
04 September 2017	Amendment 1 The reason for this amendment is that the protocol and ICF have been modified following several updates of the Investigator Brochure. In addition, after reviewing the reported side effects, we have decided that the extensive eye examination is no longer mandatory, except when clinically necessary. We have also added the missing CVs and/or research statements for several participating centers. A memo announcing the official start date of the study has also been added.
26 January 2018	Amendment 2 The reason for this amendment is that two centers have been added for participation and that there are updates to the IMPD.
06 August 2018	Amendment 3 The reason for this change is: IMPD update

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported

Online references

<http://www.ncbi.nlm.nih.gov/pubmed/35869267>