# Syllabus







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# Voorwoord

De concentratie van de kinderoncologie en de succesvolle integratie van zorg en onderzoek voor kinderen met kanker is in Nederland gerealiseerd. Wij vieren in 2023 het 5- jarig bestaan; het eerste lustrum van het ontstaan van het Prinses Máxima Centrum. Dit is mede mogelijk gemaakt door de samenwerking met de Shared Care ziekenhuizen die dagelijks gezamenlijk de best mogelijke zorg bieden aan kinderen met kanker en hun gezin. De Shared Care dagen bieden de mogelijkheid om informatie uit te wisselen, ervaringen te delen en workshops bij te wonen. Tegelijkertijd organiseert SKION tijdens de SKION-dagen al meer dan 20 jaar bijeenkomsten voor de professionals van de kinderoncologie, met als doel de laatste trial updates te bespreken en de ontwikkelingen met elkaar te delen, die relevant zijn in de kinderoncologie.

Het was dus logisch om de Shared Care dagen en SKION dagen bij elkaar te brengen. En de waardering voor dit samenzijn is onverminderd hoog: veel inschrijvingen én groot enthousiasme om mee te denken over de inhoud van beide dagen. 'Een ontmoeting van nieuwsgierige professionals in de kinderoncologie' is het thema voor beide dagen. Twee dagen zijn volledig gewijd aan het verkennen van nieuwe ideeën, het verdiepen van je kennis en het ontmoeten van gelijkgestemde professionals die graag hun horizon willen verbreden. Dat is precies wat de SKION & Shared Care dagen te bieden hebben!

Wat staat er op het programma:

1. Allereerst wordt een overzicht gepresenteerd van studies en richtlijnen voor Hematooncologie, Quality of Life, Neuro-oncologische aandoeningen en Solide tumoren. De aandacht is gericht op de nieuwe ontwikkelingen in een vertaling voor een breder publiek. We horen graag je of jullie evaluatie.

2. In de workshops gaan we nader in op zaken die relevant zijn voor alle professionals in het Máxima, in de Shared Care Centra en daarbuiten. Er zijn 9 workshops ontwikkeld; enkele voorbeelden zijn: van 'vermoeidheid bij kanker'; tot 'stress-pijn-angst reductie', of een workshop Advance Care Planning, 'hoe begeleid je een gezin goed?'.

Wij realiseren ons goed dat het niet altijd makkelijk is om tijd vrij te maken in jullie drukke agenda's, maar tegelijkertijd weten wij dat de professionals behoefte hebben om te leren van andere disciplines. Om invulling te geven aan hun nieuwsgierigheid: hebben wij daarom de 4 disciplines van de kinderoncologie: hemato-oncologie, neuro-oncologie, solide tumoren en quality of life, weten samen te stellen en op te nemen in ons programma. Op die manier krijgen jullie een complete update van alles dat relevant is in de kinderoncologie in Nederland en daarbuiten.

Wij verwachten jullie hiermee een zeer gevarieerd en boeiend programma te bieden met veel ruimte voor actieve participatie, Jullie zijn allen van harte uitgenodigd op 23 en 24 november a.s. in het Bartholomeus Gasthuis te Utrecht. We heten jullie van harte welkom!

Namens de SKION & Shared Care dagen Commissie

Marc Bierings, Marc Vincent, Natasja Dors en Renske Karens



# Preface

The concentration of pediatric oncology and the successful integration of care and research for children with cancer have been realized in the Netherlands. In 2023, we celebrate the 5th anniversary; the first lustrum of the establishment of the Princess Máxima Center. This has been made possible through collaboration with Shared Care hospitals that collectively provide the best possible care for children with cancer and their families on a daily basis. The Shared Care days provide the opportunity to exchange information, share experiences, and attend workshops. Simultaneously, SKION has been organizing meetings for pediatric oncology professionals during the SKION days for over 20 years, aiming to discuss the latest trial updates and share relevant developments in pediatric oncology with each other.

It was therefore logical to merge the Shared Care days and SKION days. The appreciation for this gathering remains high: many registrations and great enthusiasm to contribute to the content of both days. 'A meeting of curious professionals in pediatric oncology' is the theme for both days. Two days are dedicated to exploring new ideas, deepening knowledge, and meeting like-minded professionals eager to broaden their horizons. That is exactly what the SKION & Shared Care days have to offer!

What is on the agenda:

1. First, an overview of studies and guidelines for haemato-oncology, quality of life, neurooncology, and solid tumors will be presented. The focus is on new developments translated for a broader audience. We would love to hear your evaluations.

2. In the workshops, we will delve into matters relevant to all professionals at Máxima, Shared Care Centers, and beyond. 9 workshops have been developed; some examples include: 'fatigue in cancer'; 'stress-pain-anxiety reduction', and Advance Care Planning workshop, 'how to support a family effectively?'.

We are well aware that it is not always easy to find time in your busy schedules, but at the same time, we know that professionals have a need to learn from other disciplines. To meet their curiosity, we have thus managed to compile and include the 4 disciplines of pediatric oncology: haemato-oncology, neuro-oncology, solid tumors, and quality of life, in our program. This way, you will receive a complete update on everything relevant in pediatric oncology in the Netherlands and beyond.

With this, we expect to offer you a very varied and captivating program with ample room for active participation. You are all invited on November 23 and 24 at the Bartholomeus Gasthuis in Utrecht. We extend a warm welcome to all of you!

On behalf of the SKION & Shared Care Days Committee

Marc Bierings, Marc Vincent, Natasja Dors and Renske Karens



# Programma SKION & Shared Care dagen 23 november

08:30 - 09:00 09:00 - 09:15 09:15 - 10:15 10:15 - 10:45 10:45 - 12:15	Ontvangst Opening Richtlijnevaluatie in de praktijk Pauze Updates Hemato-oncologie	10:45 - 12:15	<b>Workshop:</b> Integrative Medicine, De actualiteit van evidence-based complementaire zorg - Annette Feenstra, verpleegkundig specialist en
			Miranda Dierselhuis, kinderoncoloog <b>Workshop:</b> Als er geen overeenstemming wordt gevonden over de behandeling - Babet Drenth, medisch maatschappelijk werker <b>Workshop:</b> De invloed van ziekte op een gezin - Eveline Fuijkschot, psycholoog Shared
12:15 - 13:30	Lunch		Care
13:30 - 15:00	Updates Quality of Life	13:30 - 15:00	<b>Workshop:</b> Delen best practices Shared Care: best practices: een patientjourney, koorts en goed zorgen in de diensturen - Danielle Martens, kinderarts Shared Care, Lotte Helder, kwaliteit adviseur en een verpleegkundige
			<ul> <li>Workshop: Scenario Vitaal bedreigd kind: ACTIE - Jan Loeffen, kinderoncoloog, Bianca van Rossum, kinderoncologie verpleegkundige en Indra Morsing, kinder-intensivist</li> <li>Workshop: Vermoeidheid bij kanker: de evidence en de dagelijkse praktijk - Raphaele van Litsenburg, fellow en Patrick van de Torre,</li> </ul>
	_		fysiotherapeut
15:00 - 15:30 15:30 - 16:30	Pauze Bas Tops Innovatie rondom diagnostiek		Workshop: Kinderkanker zonder grenzen - Gertjan Kaspers, directeur Academy & Outreach, Wout Alers, directeur zorg, Kathelijne Kraal, kinderoncoloog en Minke
			Huibers, fellow kinderoncologie <b>Workshop:</b> Stress-pijn-angstreductie SPAR (ren) doen we SAMEN - SPAR groep Laura Beek, psycholoog en Brieke Hampsink, physician assistent
16:30 - 16:45	Afsluiting		<b>Workshop:</b> Advance Care Planning, hoe begeleid je een gezin goed? - Kinder Comfort Team, Erna Michiels, kinderoncoloog en VKKN



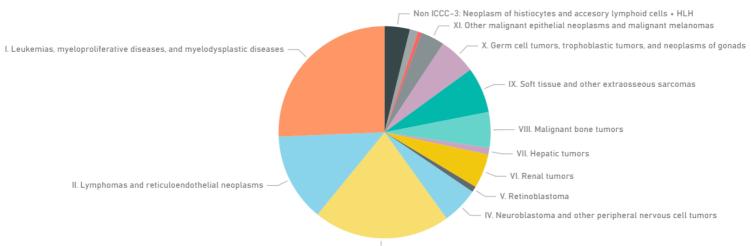
# Programma SKION & Shared Care dagen 24 november

08:30 – 09:00 09:00 – 09:15	Ontvangst Opening		
09:15 – 10:15	Updates Neuro-oncologie	09:15 – 10:45	<b>Workshop:</b> Wat betekent Kunstmatige Intelligentie voor het Princes Máxima Centrum - Marc Wijnen, kinderchirurg en Myrthe Buser, arts onderzoeker
			<b>Workshop:</b> Scenario Vitaal bedreigd kind: ACTIE - Jan Loeffen, kinderoncoloog, Bianca van Rossum, kinderoncologie verpleegkundige en Indra Morsing, kinder- intensivist
10:15 10:45	Pouzo		<b>Workshop:</b> Kinderkanker zonder grenzen - Gertjan Kaspers, directeur Academy & Outreach, Wout Alers, directeur zorg, Kathelijne Kraal, kinderoncoloog en Minke Huibers, fellow kinderoncologie
10:15 – 10:45	Pauze		
10:45 – 12:15	Nationale samenwerking & hoe gaan we samen verder?	11:15 – 12:15	<b>Workshop:</b> Integrative Medicine. De actualiteit van evidence-based complementaire zorg - Annette Feenstra, verpleegkundig specialist en Miranda Dierselhuis, kinderoncoloog
			<b>Workshop:</b> Communicatie met ouders in stressvolle situaties - Esther van den Bergh, psycholoog
			<b>Workshop:</b> Advance Care Planning, hoe begeleid je een gezin goed? - Kinder Comfort Team, Erna Michiels, kinderoncoloog en VKKN
12:15 – 13:30	Lunch		
13:30 – 15:00	Updates Solide tumoren	13:30 – 15:00	<b>Workshop:</b> Nieuwe regeling voor levensbeëindiging bij kinderen 1-12 jaar: waarom en wat kan en mag er straks? - Eduard Verhagen, kinderoncoloog Shared Care, Marc Bierings, kinderoncoloog en Ghislaine van Thiel, ethicus
			Workshop: Slaapzorgpad voor alle kinderen met kanker - Sigrid Pillen, kinderarts
			<b>Workshop:</b> Stress-pijn-angstreductie SPAR (ren) doen we SAMEN - SPAR groep Laura Beek, psycholoog en Brieke Hampsink, physician assistent
15:00 – 15:30	Pauze		
15:30 – 16:30	Prof. dr. Gabe Sonke Zinnige zorg		
16:30 – 16:45	Afsluiting		



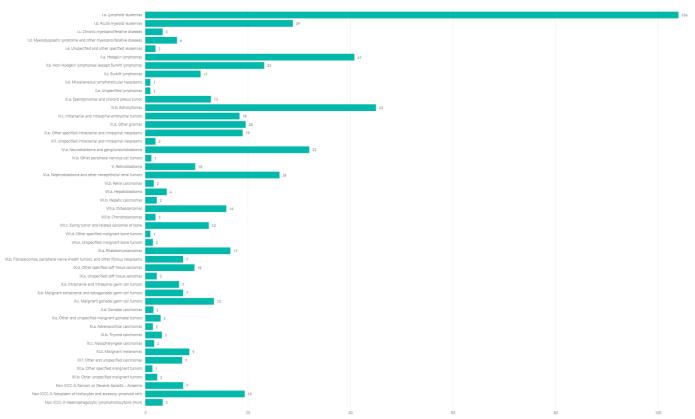
# **Basisregistratie**

In de Basisregistratie worden sinds 2003 alle kinderen tussen de 0 en 18 jaar met een (pre-)maligne aandoening geregistreerd. Tussen 2018 en 2022 zijn er gemiddeld 559 nieuwe primaire diagnoses per jaar geregistreerd. In 2022, het meest recente volledige jaar, zijn 593 nieuwe primaire diagnoses geregistreerd. In Figuur 1 zijn de in de Basisregistratie gemiddeld geregistreerde diagnoses over de jaren 2018-2022 uitgesplitst naar ICCC-3 hoofdklasse. In Figuur 2 zijn de gemiddelde in de Basisregistratie geregistreerde diagnoses over de jaren 2018-2022 uitgesplitst naar ICCC-3 subklasse.



III. CNS and miscellaneous intracranial and intraspinal neoplasms —

### Figuur 1. Verdeling diagnoses in Basisregistratie 2018-2022 uitgesplitst naar ICCC-3 klasse (SKION, 2023)

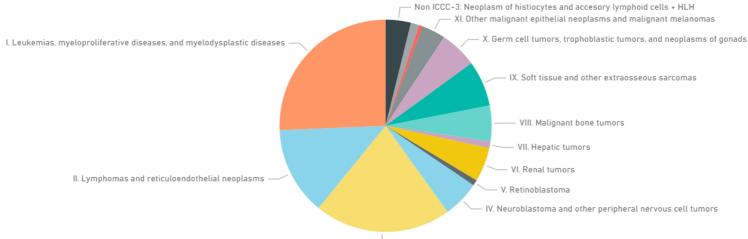


**Figuur 2.** Gemiddeld aantal geregistreerde ziektegevallen per jaar in Basisregistratie 2018-2022 uitgesplitst naar ICCC-3 subklasse (SKION, 2023).



# **Basic Registry**

In the Basic Registry, since 2003, all children between the ages of 0 and 18 with a (pre-)malignant condition are registered. Between 2018 and 2022, an average of 559 new primary diagnoses per year were registered. In 2022, the most recent complete year, 593 new primary diagnoses were registered. In Figure 1, the total number of diagnoses registered in the Basic Registry for period 2018-2022 are broken down by ICCC-3 main class. In Figure 2, the yearly average diagnoses registered in the Basic Registry for period 2018-2022 are broken down by ICCC-3 main class.



III. CNS and miscellaneous intracranial and intraspinal neoplasms —



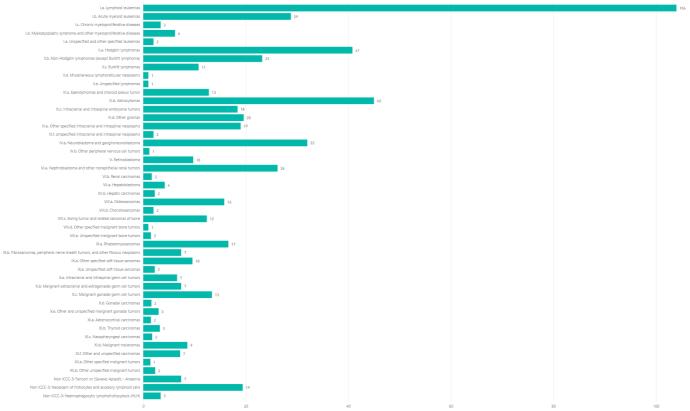


Figure 2. Average number of registered cases per year in the Basic Registry 2018-2022 broken down by ICCC-3 subclass (SKION, 2023).



# Richtlijnen

Voor een actueel overzicht van de richtlijnen in de kinderoncologie verwijzen wij naar <u>de vernieuwde</u> pagina's op de website van SKION.



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# 5-ALA in children and adolescents

Protocol:	Clinical safety study on 5-Aminolevulinic acid (5- ALA) in children and adolescents with supratentorial brain tumors
Local Investigator:	Baarsen, van K.M.
National Coordinating Investigator:	Hoving, E.W. & Baarsen, van K.M.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	5-ALA in children and adolescents
General	
Sponsor:	Universitätsklinikum Münster
Coordinating Investigator:	-
Study status:	Open for inclusion
Study status: Research phase:	Open for inclusion Fase II
-	

Study design:	The study protocol is a prospective, open, single-armed, multinational, multicenter, phase II study for application of 5- ALA in children and adolescents with supratentorial brain tumors.
Primary objective:	To determine the safety of 5-ALA for fluorescence-guided resections in children and adolescents with supratentorial, intra-axial brain tumors.
Study population:	Age 3 - <18 years First radiological diagnosis of intra-axial, supratentorial contrast-enhancing tumor on MRI or recurrent supratentorial intra-axial brain tumor (malignant glioma, astrocytoma, malignant ependymoma, AT/RT, Oligodendroglioma, etc.)
Study participation:	Multicenter
Scope:	International



Start international recruitment:	01-02-2023
Start national recruitment:	01-02-2023
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	80
National recruitment:	
Recruitment target national:	10
Actual number of patients included:	3



Protocol:	Non-invasive characterization of paediatric brain tumours using metabolic imaging at high magnetic field
Local Investigator:	Plasschaert, S.L.A.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	7T MITCH
General	
Sponsor:	UMC Utrecht
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	_

# Research phase:-Research areas:Neuro-oncology

Study design:	This is an observational study. The study will be conducted at and coordinated from the University Medical Center Utrecht (UMCU) and includes children with a LGG or a DIPG. The majority of children will be included and centred in the Prinses Máxima Centrum (PMC) for Paediatric Oncology, Utrecht. Subjects will visit the research facility three times within 12 months (see section 5.3). The duration of the study depends on the inclusion of the required number of subjects, with an expected overall duration of 24 months.
Primary objective:	To determine whether metabolic imaging at 7 Tesla is feasible and suitable to detect changes in phospholipids and APT levels in paediatric brain tumours.



Study population:	Patients are recruited from the Prinses Máxima Centrum for Paediatric Oncology (PMC). Patients and their parents / legal guardian will be asked for participation in the study by their paediatric oncologist. On average, 30-50 children are diagnosed with a LGG in the Netherlands every year. We think it is feasible to include 20 patients with LGG in 2 years. Although pontine tumours are rare, we think it is possible to include 5 patients with a DIPG.
Study participation:	Multicenter

# Scope:

# Planning and Recruitment

### Planning:

Start international recruitment:	-
Start national recruitment:	24-12-2020
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	25
National recruitment:	
Recruitment target national:	25
Actual number of patients included:	15

National



ALCL-VBL		
Protocol:		International cooperative prospective study for children and adolescents with standard risk ALK-positive anaplastic large cell lymphoma (ALCL) estimating the efficacy of vinblastine
Local Investigator:		Veening, M.A.
National Coordinating Invest	tigator:	Veening, M.A.
Is Princess Máxima Center the national coordinating center?:		No
Link to protocol:		ALCL-VBL
General		
Sponsor:		German Paediatric Oncology Group
Coordinating Investigator:		-
Study status:		Open for inclusion
Research phase:		Fase III
Research areas:		Hemato-oncology
Design		
Study design:	International prospective open-label study: a non-randomized study assessing the efficacy of a 24-months Vinblastine monotherapy in standard risk (SR) ALCL patients	
Primary objective:	To show that it is possible to cure at least 75% of patients belonging to the SR group with Vinblastine-monotherapy for 24 months	
Study population:	Children and ALCL	d adolescents with standard risk ALK-positive
Study participation:	Multicenter	
Scope:	Internationa	I



Start international recruitment:	04-11-2022
Start national recruitment:	04-11-2022
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	106
National recruitment:	
Recruitment target national:	10
Actual number of patients included:	2



### ALD 104 / BlueBirdBio Inc

Protocol: A Phase 3 Study of Lenti-D Drug Product After Myeloablative Conditioning Using Busulfan and Fludarabine in Subjects = 17 Years of Age With Cerebral Adrenoleukodystrophy (CALD) Local Investigator: Lindemans, C.A. National Coordinating Investigator: -Is Princess Máxima Center the national No coordinating center?: Link to protocol: ALD 104 / BlueBirdBio Inc General BlueBirdBio Inc Sponsor: Coordinating Investigator: -Study closed Study status:

Fase III

Stem Cell Transplantation

Research phase:

Research areas:

Study design:	This will be an international, non-randomized, open-label, multi-site study in male subjects with CALD (= 17 years of age at enrollment). Approximately 35 subjects will be infused with eli-cel after myeloablative conditioning with busulfan and fludarabine. The study has 4 distinct phases after informed consent/assent:
	<ul> <li>Screening and Enrollment. Subjects who meet eligibility criteria based on screening assessments are considered enrolled. Patients who do not meet eligibility criteria are considered screen failures.</li> <li>CD34+ Cell Collection, Transduction, Disposition of eli-cel, and Reconfirmation of Eligibility</li> <li>Conditioning and Washout, followed by eli-cel Infusion on Day 1</li> <li>Maintenance (Follow-up) (Day 2 through Month 24)</li> </ul>



From Screening through when it is assessed that the subject is stably transplanted (by approximately the Month 3 Visit), visits will occur at one of a small number of sites (referred to as primary study sites). However, due to the rarity of CALD, it is likely that some subjects may have to travel far for participation at the primary study sites. Therefore, after the subject is stably transplanted, arrangements will be made wherever possible to open up a suitable site closer to the subject's home (referred to as secondary study sites) where they should attend subsequent visits. In all cases, subjects will be asked to return to their primary study site for their assessments for Month 12 and Month 24 Visits to ensure consistency in key efficacy assessments. Screening Phase tests and procedures will determine study eligibility. Subjects who are confirmed to be eligible and are enrolled in the study will undergo hematopoietic stem cell (HSC) mobilization mediated by granulocyte colony stimulating factor (G-CSF, either filgrastim or lenograstim) and plerixafor, and cells will be harvested by apheresis using institutional practice treatment guidelines. The harvested cells will be selected for the CD34+ marker to enrich for HSCs, transduced with Lenti-D lentiviral vector (LVV), stored frozen in cryopreservation solution while aliquots are being tested to ensure they meet product quality specifications. Only after the transduced cells are dispositioned for clinical use and the drug product is at the clinical site will the subject undergo myeloablation with busulfan intravenous (IV) and fludarabine IV. There should be a minimum of 48 hours of washout after conditioning before drug product infusion. Eli-cel will be administered by IV infusion through a central venous catheter. Back-up cells (mobilized peripheral blood mononuclear cells [PBMCs]) will also be harvested during apheresis and stored frozen in accordance with institutional guidelines. If back up cells cannot be procured from apheresis, a bone marrow (BM) harvest may be performed. All subjects will be followed for approximately 24 months post-drug product infusion under this protocol. Then, subjects are expected to be followed for an additional 13 years under a separate follow-up protocol (LTF-304).

Primary objective: To evaluate the efficacy and safety of Lenti-D Drug Product (also known as elivaldogene autotemcel or Skysona, hereafter referred to as eli-cel) after myeloablative conditioning with busulfan and fludarabine in subjects with CALD



Study population:	Males aged 17 years and younger, and active CALD as defined by: a. Elevated very long chain fatty acids (VLCFA) values, and b. Active central nervous system (CNS) disease established by central radiographic review of brain magnetic resonance imaging (MRI) demonstrating i. Loes score between 0.5 and 9 (inclusive) on the 34-point scale, and ii. Gadolinium enhancement (GdE) on MRI of demyelinating lesions.
Study participation:	Multicenter
Scope:	International

Start international recruitment:	-
Start national recruitment:	24-09-2020
Expected date end of national recruitment:	24-03-2023
International recruitment:	
Recruitment target protocol:	35
National recruitment:	
Recruitment target national:	6
Actual number of patients included:	1



ALL 11\_(Fin. Lead)

Protocol:	ALL 11 - Treatment study protocol of the Dutch Childhood Oncology Group for Children and adolescents (1-19 year) with newly diagnosed acute lymphoblastic leukemia
Local Investigator:	Pieters, R.
National Coordinating Investigator:	Pieters, R.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	ALL 11_(Fin. Lead)

### **Published articles**

Improved Outcome for ALL by Prolonging Therapy for IKZF1 Deletion and Decreasing Therapy for Other Risk Groups: https://ascopubs.org/doi/full/10.1200/JCO.22.02705

### General

Sponsor:	Stichting Kinderoncologie Nederland
Coordinating Investigator:	-
Study status:	Study closed
Research phase:	Fase III
Research areas:	Hemato-oncology

Design	
Study design:	<ul> <li>Stratification</li> <li>Standard risk (SR) group:</li> <li>MRD-negativity at TP1 (day 33) and at TP2 (day 79 before start of Protocol M) AND</li> <li>no CNS involvement or testis involvement at diagnosis AND</li> <li>no prednisone poor response at day 8 AND</li> <li>absence of any HR criterium</li> <li>Medium risk (MR) group</li> <li>inconclusive/missing MRD results or MRD-positivity at TP1 and/or at TP2, but MRD level at day 79 &lt; 10–3 AND</li> <li>absence of any HR criterium</li> </ul>



	<ul> <li>3. High Risk (HR) group:</li> <li>MRD level &gt; 10-3 or unknown at TP1 and MRD level of = 10-3 at TP2, OR</li> <li>presence of the t(4;11)(q11;q23) translocation or the corresponding fusion gene MLL/AF4, OR</li> <li>no complete remission at day 33</li> <li>Note: children with Down syndrome that fulfill the HR criteria are assigned to the MR group</li> </ul>
Primary objective:	<ol> <li>To improve the overall outcome as compared to the previous protocols of the DCOG, especially ALL-9 and ALL-10. This is aimed for by decreasing therapy for part of the patients (TEL/AML1, Down syndrome, PPR only), increasing therapy for IKZF1 mutated cases, decreasing the cumulative dose of anthracyclines, omitting cranial irradiation and total body irradiation and individualizing asparaginase therapy for all patients.</li> <li>Does a continuous schedule of Asparaginase lead to less allergic reaction/inactivation of Asparaginase than the standard non continuous schedule of Asparaginase? Patients are randomized to receive noncontinuous PEGasparaginase in IA (induction) and intensification of the Medium Risk group (standard arm A) or to receive continuous arm B) with the same cumulative number of doses of PEGasparaginase.</li> <li>Does prophylactic administration of infravenous immunoglobulins reduce the number of infections during the intensive treatment phases? Patients are randomized in the induction and MR treatment group to receive or not receive prophylactic immunoglobulins.</li> <li>Individualize the dose schedule of asparaginase by therapeutic drug monitoring in order to detect silent inactivation of asparaginase, to prevent allergic/anaphylactic reactions, to switch Asparaginase preparation in time and to prevent too high levels with possible toxicity.</li> </ol>
Study population:	Newly diagnosed patients with T-lineage or precursor-B lineage ALL (patients with mature B-ALL are not eligible) Age between > 1 and < 19 years Informed consent signed by parents/guardians and patient if 12 years or older Diagnosis ALL confirmed by DCOG laboratory Patient should be treated in a Dutch Childhood Oncology Centre Patient should be >3 months settled in The Netherlands at diagnosis.



Study participation:	Multicenter
Scope:	National

Start international recruitment:	-
Start national recruitment:	01-04-2012
Expected date end of national recruitment:	01-07-2020
International recruitment:	
Recruitment target protocol:	630
National recruitment:	
Recruitment target national:	259
Actual number of patients included:	464



### ALL SCTped FORUM 2012

Protocol:

Allogeneic Stem Cell Transplantation in Children and Adolescents with Acute Lymphoblastic Leukaemia Local Investigator: Bierings, M.B. National Coordinating Investigator: Bierings, M.B. Is Princess Máxima Center the national No coordinating center?: Link to protocol: ALL SCTped FORUM 2012

### **Published articles**

Total Body Irradiation or Chemotherapy Conditioning in Childhood ALL: A Multinational, Randomized, Noninferiority Phase III Study: https://ascopubsorg.proxy.library.uu.nl/doi/full/10.1200/JCO.20.02529

### General

Sponsor:	St. Anna Children's Hospital Vienna
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	Fase III
Research areas:	Hemato-oncology, Stem Cell Transplantation

### Design

Study design:

The ALL SCTped 2012 FORUM is a multinational, multicentre, randomized, controlled, prospective phase III study for the therapy and therapy optimisation for children and adolescents with ALL in complete remission. The randomization is closed since December 2018, the study continued as registration.



Primary objective:	Stratum 1 – randomisation related question was closed in December 2018; patients are in active follow-up: To show that a non total body irradiation (TBI) containing conditioning (Flu/Thio/ivBu or Flu/Thio/Treo) results in a non-inferior survival as compared to conditioning with TBI/Etoposide in children older than 4 years after HSCT from a Human leucocyte antigen (HLA) identical sibling donor (MSD) or a HLA matched donor (MD).
	Stratum 1 – MSD/MD: To explore the impact of risk factors on the incidence of adverse events of special interest (AESIs) and on overall survival and event free survival in the entire MSD/MD cohort (question 3 and 5).
	Stratum 2 - MMD: To explore event free survival (EFS) after HSCT from HLA mismatched donors using mismatched unrelated donors (MMD), mismatched cord blood or HLA haplo-identical family members.
Study population:	Children and adolescents less than 21 years old with the diagnosis ALL in first or any following remission with high risk (HR) or very HR of recurrence of ALL.
Study participation:	Multicenter
Scope:	International

Start international recruitment:	10-09-2014
Start national recruitment:	04-09-2018
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	1800
National recruitment:	
Recruitment target national:	33
Actual number of patients included:	31



ALLTogether	
Protocol:	ALLTogether1: A Treatment study protocol of the ALLTogether Consortium for children and young adults (1-45 years of age) with newly diagnosed acute lymphoblastic leukaemia (ALL).
Local Investigator:	Sluis, van der I.M.
National Coordinating Investigator:	Sluis, van der I.M.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	<u>ALLTogether</u>

### General

Sponsor:	Karolinska University Hospital
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	Fase III
Research areas:	Hemato-oncology, Stem Cell Transplantation

Study design:	The treatment protocol is an international multi-centre prospective, open label study arranged as a master protocol with additional non-randomised and randomized interventions. The randomised interventions are phase III and one of the non-randomised interventions is a phase II trial.
Primary objective:	he Primary Objective is to improve survival and quality of survival in children and young adults with acute lymphoblastic leukaemia (ALL) by testing a number of randomised and non- randomised interventions. Since failure of the current treatment of ALL in children and young adults are due to both under- and overtreatment, both under- and over-treatment related adverse outcomes are targeted.



	<ul> <li>Thus, these interventions are designed to either:</li> <li>decrease the risk of serious side-effects and therapy-failure by treatment-related death for patients at low risk of relapse.</li> <li>decrease the risk of relapse for patients at high risk of relapse and therapy-failure by death from disease.</li> <li>decrease the risk of relapse and reduce toxic side-effects for patients with genetic lesions targetable by Tyrosine-kinase inhibition by the addition of Imatinib to standard chemotherapy.</li> <li>decrease the risk of serious side-effects for patients with high-risk B-cell precursor ALL by making them available for experimental immunotherapy.</li> </ul>
Study population:	Patients with newly diagnosed T-lymphoblastic (T-cell) or B- lymphoblastic precursor (BCP) leukaemia (ALL), age 0- < 46 years, with the exception of infants with KMT2A-rearranged (KMT2A-r) BCP ALL. In the Netherlands patients with age 0 - = 25 years will be included.
Study participation:	Multicenter
Scope:	International

Start international recruitment:	25-06-2020
Start national recruitment:	07-07-2020
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	6430
National recruitment:	
Recruitment target national:	550
Actual number of patients included:	318



# APAL2020D - Venetoclax AML

Protocol:	Randomized phase 3 trial of fludarabine/cytarabine/gemtuzumab ozogamicin with or without venetoclax in children with relapsed AML
Local Investigator:	Goemans, B.F.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	APAL2020D - Venetoclax AML
General	
Sponsor:	Prinses Máxima Centrum

Coordinating Investigator:	Zwaan, C.M.
Study status:	Open for inclusion
Research phase:	Fase III
Research areas:	Hemato-oncology

Study design:	This is an open-label phase 3 randomized multicenter international trial in children with relapsed acute myeloid leukemia (AML), to assess if venetoclax combined with FLA+GO (fludarabine, high-dose cytarabine, and gemtuzumab ozogamicin) will improve overall survival compared to FLA+GO.
Primary objective:	To compare the overall survival (OS) of venetoclax in combination with fludarabine and high dose cytarabine (FLA), and gemtuzumab ozogamicin (GO) (FLA+GO+VEN) compared with FLA+GO alone.



Study population:	The target population of this study is: children and adolescents under the age of 18, however a limited number of young adult patients between the age of 18 and 21 years of age may be included. A minimum of 80% patients under 18 years of age is required. This study includes children, adolescents, and young adults without FLT3/ITD mutation in: ? second relapse, who are sufficiently fit to undergo another round of intensive chemotherapy ? first relapse who per investigator discretion cannot tolerate additional anthracycline containing chemotherapy. Refractory patients to the last line of therapy are not eligible as they will be treated in another subtrial.
Study participation:	Multicenter

Scope: International

# Planning and Recruitment

Start international recruitment:	01-04-2022	
Start national recruitment:	17-08-2022	
Expected date end of national recruitment:	-	
International recruitment:		
Recruitment target protocol:	48	
National recruitment:		
Recruitment target national:	5	
Actual number of patients included:	2	



Protocol:	An international prospective umbrella trial for children with atypical teratoid/rhabdoid tumours (ATRT) including A randomized phase III study evaluating the non-inferiority of three courses of high-dose chemotherapy (HDCT) compared to focal radiotherapy as consolidation therapy
Local Investigator:	Franke, N.E.
National Coordinating Investigator:	Franke, N.E.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	ATRT01

### General

Sponsor:	German Paediatric Oncology Group
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	Fase III
Research areas:	Neuro-oncology

### Design

Study design:

Prospective, open label multicentre, international, umbrella trial including a randomized phase III study evaluating the non-inferiority of 3 courses of high-dose chemotherapy compared to focal radiotherapy plus standard chemotherapy as a consolidation measure following conventional chemotherapy in children with ATRT ranging from 12 - 35 months at the time of consolidation (RT vs. HDCT).



Primary objective:	Part A:
	To test the non-inferiority, as evaluated by 2-year overall survival (OS), of three courses of HDCT compared to focal
	RT plus conventional chemotherapy as consolidation therapy following conventional chemotherapy in children with ATRT aged 12 – 35 months at consolidation therapy. Part B:
	To assess the efficacy, as evaluated by OS, of three courses of HDCT as a consolidation measure following conventional- type chemotherapy in children with ATRT aged <12 months or with contraindications to RT at the time of HDCT and not eligible for randomization within Part A of this protocol, compared to historical controls. Part C:
	To assess the efficacy, as evaluated by overall survival, of RT as a consolidation measure combined with conventional-type chemotherapy in children aged =36 months with ATRT or contraindications to HDCT and ineligibility for Part A, compared to historical controls.
Study population:	Patients with ATRT of any site and any stage.
Study participation:	Multicenter
Scope:	International

Start international recruitment:	16-01-2023
Start national recruitment:	16-01-2023
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	152
National recruitment:	
Recruitment target national:	10
Actual number of patients included:	3



Caterpillar	
Protocol:	The efficacy of a lock solution containing taurolidine, citrate and heparin for the prevention of tunneled central line-associated bloodstream infections in pediatric oncology patients, a randomized controlled, mono-centre trial
Local Investigator:	Wijnen, M.H.W.A.
National Coordinating Investigator:	Wijnen, M.H.W.A.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	<u>Caterpillar</u>

### General

Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Closed for inclusion
Research phase:	Fase III
Research areas:	Quality of Life

Study design:	Investigator-initiated, mono-center, open-labelled randomized controlled trial (RCT).
Primary objective:	To compare the efficacy of the TCHL to the HL in the prevention of tunneled CLABSIs in pediatric oncology patients
Study population:	Pediatric oncology patients (n=462), ranging from 0-19 years old, who will receive a tunneled CVAD in the Princess Maxima Center.
Study participation:	Monocenter
Scope:	National



Start international recruitment:	19-10-2020
Start national recruitment:	19-10-2020
Expected date end of national recruitment:	30-08-2023
International recruitment:	
Recruitment target protocol:	462
National recruitment:	
Recruitment target national:	462
Actual number of patients included:	464



Protocol:	CHildhood International Protocol – Acute Myeloid Leukemia (CHIP-AML) 2022: A phase III, open label trial in newly diagnosed pediatric de novo AML patients - A study by the NOPHO- DB-SHIP consortium.
Local Investigator:	Goemans, B.F.
National Coordinating Investigator:	Kaspers, G.J.L.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	CHIP-AML22
General	

# Sponsor:Prinses Máxima CentrumCoordinating Investigator:-Study status:Open for inclusionResearch phase:Fase IIIResearch areas:Hemato-oncology

### Design

This will be an multinational randomized phase III open-label Study design: study with two sequential randomisations and therefore two sequential parallel group comparisons, with safety run-ins for GO, flt3-inhibitor and venetoclax. Results will also be put into perspective of that of a large, historical and similarly defined cohort very recently treated according to protocol NOPHO-DBH AML-2012 with similar chemotherapy and allo-SCT, by the same consortium. That historical cohort is also well characterized regarding treatment response, as measured by flow cytometry-based MRD status at different time-points, and events such as refractory disease, relapse and death in remission. Several objectives of CHIP-AML21 can not be proven by adequately powered randomized studies, in view of the rarity of the subgroups, and require historical comparisons.



Primary objective:	The overall objective of this study is to improve event-free survival, and to reduce the burden of treatment toxicity through reduction of consolidation chemotherapy.
Study population:	Children and adolescents from birth up to and including 18 years of age, with newly diagnosed and de novo acute myeloid leukemia (AML). Enrollment into the study will be based on local diagnostics. For each randomization and arm, there will be specific inclusion and exclusion criteria.
Study participation:	Multicenter
Scope:	International

Start international recruitment:	14-07-2023
Start national recruitment:	14-07-2023
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	905
National recruitment:	
Recruitment target national:	120
Actual number of patients included:	1



CMMR-D	
Protocol:	Dendritic cell vaccines to prevent cancer in Constitutional Mismatch Repair Deficiency (CMMR-D) syndrome.
Local Investigator:	Jongmans, M.C.J.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	Yes
Link to protocol:	<u>CMMR-D</u>
General	
Sponsor:	Radboud Universitair Medisch Centrum
Coordinating Investigator:	-
Study status:	Study closed

Research phase:	-
Research areas:	Hemato-oncology, Solid tumors, Neuro- oncology

Study design:	Observatie met bloedafname
Primary objective:	In deze pilot-studie is in tumoren van patiënten met constitutioneel mismatch repair deficiëntie syndroom (CMMRD) gezocht gaan naar neoantigenen, waartegen we in een vervolgstudie een vaccin gebaseerd op dendritische cellen (DC) zullen proberen te ontwikkelen. Daarnaast wordt onderzocht of in patiënten met CMMRD al immuunresponsen tegen neoantigenen aanwezig zijn, die door DC vaccinatie versterkt kunnen worden.
Study population:	kinderen en volwassen met een op DNA niveau bevestigde diagnose CMMRD.
Study participation:	Multicenter
Scope:	National



Start international recruitment:	-
Start national recruitment:	10-03-2021
Expected date end of national recruitment:	17-04-2023
International recruitment:	
Recruitment target protocol:	10
National recruitment:	
Recruitment target national:	10
Actual number of patients included:	6



#### 12 .... ..... .

Protocol:		Analyse van patiëntgerichte communicatie tijdens het diagnosetraject bij kinderen met hematologische maligniteiten.
Local Investigator:		Grootenhuis, M.A.
National Coordinating Inves	tigator:	Grootenhuis, M.A.
Is Princess Máxima Center national coordinating center		No
Link to protocol:		CONTACT/Optimaliseren diagnosegesprek
General		
Sponsor:		Prinses Máxima Centrum
Coordinating Investigator:		-
Study status:		Open for inclusion
Research phase:		-
Research areas:		Hemato-oncology, Quality of Life
Design		
Study design:	The current observational prospective pilot study uses a mixed-methods design, comprising both qualitative (audio-recordings and interviews) and quantitative (standardized questionnaires) components.	
Primary objective:	processes domains of	ve of this pilot study is to describe communication during the diagnosis trajectory according to the patient-centered communication and to evaluate rent and HCP experiences with the diagnosis
Study population:	We expect	to include 30 children (one of) their parents and

We expect to include 30 children, (one of) their parents and Study population: their primary healthcare provider between start of the study over the course of one year. The inclusion criteria are (1) a new hematologic malignancy diagnosis, (2) children aged 0-18 years at the time of diagnosis.

Study participation: Monocenter

National Scope:



-
19-05-2022
-
-
30
106



Da Vincy Trial	
Protocol:	Da Vincy Trial: optimal Duration of Aprepitant therapy for nausea and Vomiting INduced by ChEmotherapY in children: a double-blind placebo-controlled crossover randomized phase III trial
Local Investigator:	Vos - Kerkhof, de E.
National Coordinating Investigator:	Zwaan, C.M.
Is Princess Máxima Center the national coordinating center?:	Yes
Link to protocol:	Da Vincy Trial

#### General

Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	Fase III
Research areas:	Hemato-oncology, Neuro-oncology, Solid tumors, Stem Cell Transplantation

Study design:	a double-blind placebo-controlled randomized cross-over phase III study
Primary objective:	To evaluate the effect of prolonged duration of (fos)aprepitant prophy-laxis on the prevention of delayed CINV (complete remission in the 24-72 hours after the final dose of chemotherapy) in children. The current 3-day regimen is compared to a regimen of (fos)aprepitant prophylaxis during the complete course of chemotherapy in the same patient in subsequent similar courses of chemotherapy, creating an intrapatient comparison of anti-emetic control. To ensure that treatment lasts equally long in both arms the 3-day regimen will be prolonged with placebo, and participants and medical staff (with the exception of phar-macy personnel) will be blinded.



Study population:	patients (= 6 months to = 18 years) who have documented malignancy and who are scheduled to receive moderate and highly emetogenic chemotherapy.
Study participation:	Monocenter
Scope:	National

Start international recruitment:	03-02-2022
Start national recruitment:	21-12-2021
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	76
National recruitment:	
Recruitment target national:	76
Actual number of patients included:	39



Dabrafenib roll-over	
Protocol:	An open label, multi-center, roll-over study to assess longterm effect in pediatric patients treated with Tafinlar (dabrafenib) and/or Mekenist (trametinib). CDRB436G2401
Local Investigator:	Lugt, van der J.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	Dabrafenib roll-over
General	
Sponsor:	Novartis Pharma B.V.
Coordinating Investigator:	-
Study status:	Open for inclusion

#### Design

Research areas:

Study design:	This is a global single-arm, open-label, multi-center study to collect data on the long-term effects of dabrafenib, trametinib or the combination in pediatric subjects who have been treated on Novartis sponsored trials. No formal hypothesis will be tested. Additionally, this study will provide continued access to study medication(s) for subjects who have previously participated in dabrafenib and/or trametinib treatment studies (parent studies).
Primary objective:	To assess the long-term safety of treatment with dabrafenib, trametinib or the combination

Neuro-oncology



Study population:	Pediatric patients (or young adults at the time of consent to this study) who have participated in an eligible parent protocol will be eligible to enroll into the observational period of this study. In addition, those patients who are currently eligible to receive treatment with dabrafenib and/or trametinib in the parent protocol, and who in the opinion of the investigator, would benefit from continued treatment will be eligible to take part in the treatment period of this study.
Study participation:	Multicenter
Scope:	International

Start international recruitment:	-
Start national recruitment:	17-01-2023
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	3
Actual number of patients included:	3



DIAMONDS	
Protocol:	Diagnosis and Management of Febrile Illness using RNA Personalised Molecular Signature Diagnosis
Local Investigator:	Tissing, W.J.E.
National Coordinating Investigator:	Tissing, W.J.E.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	<u>DIAMONDS</u>
General	
Sponsor:	UMC Utrecht
Coordinating Investigator:	-
Study status:	Closed for inclusion
Research phase:	-

# Design

Research areas:

#### Study design: DIAMONDS Search is the first clinical component of the DIAMONDS study. The DIAMONDS consortium will acquire clinical data and research samples (including but not limited to RNA samples) from subjects with infectious or inflammatory disease through prospective recruitment of patients attending at the participating European, West African and Asian DIAMONDS consortium clinical sites (emergency department, inpatient and out-patient settings), as part of an observational study. DIAMONDS Search is designed to obtain research samples and clinical information required for the prototype PMSD device configuration and design. In total, an estimated 5,000 samples from adults and children will recruited. These will be supplemented with samples from well-curated collections held by collaborators.

Other indications, Quality of Life



	For prospective recruitment, subjects will have research samples collected at presentation, during the acute illness and at convalescence, where possible taken at the same blood draw alongside their usual clinical tests, but otherwise as agreed by the patient or their carer/parent. Written consent and assent (if applicable) will be obtained for all subjects taking part. Clinical nodes will work with existing or new local networks of collaborating centres and investigators. The Principal Investigator in each node will take responsibility for local networks including budget and local ethics. Prospective patients will be recruited into DIAMOND Search over 2.5 years.
	For existing sample collections. The prospective data and samples will be merged with existing RNA expression libraries and Biobanks. These will be drawn from previous studies performed by the consortium and collaborators, and will include only those patients and their samples for whom their use in future research has been agreed by participants, parents or guardian.
Primary objective:	We will discover and validate RNA-based biomarkers that distinguish children and adults with infectious and inflammatory conditions.
Study population:	<ul> <li>The focus of recruitment will be on patient groups who are less well represented in the existing gene expression database and RNA biobank collected as part of PERFORM or other completed studies. This will include recruitment across vulnerable groups of all ages, as these groups might benefit most from a PMSD diagnostic device.</li> <li>The target conditions include:</li> <li>Autoinflammatory diseases: for instance, PFAPA Syndrome, Familial Mediterranean Fever, among others.</li> <li>Rheumatological and inflammatory diseases: including those affecting the young (e.g. Kawasaki disease, systemic JIA) and adults (e.g. rheumatoid arthritis, vasculitis, lupus); inflammatory bowel disease</li> <li>Immunodeficiencies: including (a) co-morbidities or immunosuppressive conditions, such as HIV or underlying cancer; (b) iatrogenic immunosuppression, such as chemotherapy or steroids; (c) primary immunodeficiencies</li> <li>Patients with underlying complex diseases and/or co-morbidities (including major post-operative patients, onco-hematologic disorders, pulmonary disorders (COPD, asthma), metabolic disorders or chronic neurological disorders)</li> </ul>



	<ul> <li>Pregnant women with suspected infection</li> <li>Neonates with suspected sepsis or encephalopathy caused by infection, hypoxic brain insult or cerebral bleed</li> <li>Tropical diseases: including Malaria, Dengue, Typhoid, Hepatitis A, Chikungunya, Zika</li> <li>Geographically located and atypical infections: TB, Rickettsial infection, Tick Borne Encephalitis, severe enterovirus infection, leishmaniasis, brucellosis and mycoplasma infection. Patients with confirmed or suspected Lyme disease may also be included.</li> <li>Emerging pathogens such as SARS-CoV-2</li> </ul>
Study participation:	Multicenter
Scope:	International

Start international recruitment:	-
Start national recruitment:	03-09-2021
Expected date end of national recruitment:	01-09-2023
International recruitment:	
Recruitment target protocol:	5000
National recruitment:	
Recruitment target national:	500
Actual number of patients included:	402



emdrage	
Protocol:	Qualitative study into the position of feelings of loss and grief in daily care for parents of critically ill children during end-of-life and after death
Local Investigator:	Grootenhuis, M.A.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	emBRACE
General	
Sponsor:	UMC Utrecht
Coordinating Investigator:	-
Study status:	Closed for inclusion
Research phase:	-
Research areas:	Solid tumors, Neuro-oncology, Quality of Life

Study design:	This study will consist of two sub-studies. Sub-study 1 comprises objectives 1 through 4. An exploratory qualitative research design will be used and data will be collected through a series of individual face to face semi structured interviews, a background questionnaire, and three questionnaires regarding coping (CERQ), grief (TGI-SR) and distress (HADS). The data will be analysed using a grounded theory approach, wherefore the coding program NVivo will be
	used. Sub-study 2 comprises objective 5. The regular follow-up conversation will be recorded using a voice recorder, thereafter a face to face interview will be conducted with the parents, and a telephone based interview will take place with the HCP(s). Data will be analysed using content analysis and a qualitative process evaluation.



Primary objective:	1) Identify how parents experience and cope with feelings of loss and grief during end of life and after the death of their child. (2) To understand the position of feelings of loss and grief in the interaction between HCPs and parents during end-of-life. (3) To explore the parents' experiences with bereavement care provided by regular HCPs during end-of- life and after the death of their child. (4) To explore the impact of HCPs' support in handling feelings of loss and grief during end-of-life after the death of the child. (5) To gain insight in the content of follow-up conversations after the death of the child, and how these are experienced by involved HCPs and parents.
Study population:	Sub-study 1: Parents of children in the end of life phase (estimated life-expectancy of <3 months) and bereaved parents who have lost their child in the previous 1 month till 6 months. All children (aged between 0- and 18 years old) must have received care by a regular health care professional prior to death. Around 10-15 parents will be included from the neonatology departments, 20-25 parents will be included from various specialisms within paediatrics. Sub-study 2: Parents who have lost their child (aged between 0- and 18 years old) and are invited back to the hospital for a follow-up conversation with the HCPs. Around 10 to 15 follow-up conversations will be recorded, and interviews will take place with the parent(s) and HCPs present to that conversation.
Study participation:	Multicenter
Scope:	National

#### Planning:

Start international recruitment:	-
Start national recruitment:	06-07-2021
Expected date end of national recruitment:	01-01-2022
International recruitment:	
Recruitment target protocol:	-

Recruitment target protocol:



#### National recruitment:

Recruitment target national:

50

-

Actual number of patients included:



### ENERGICE

Protocol:	Resting energy expenditure in children with cancer	
Local Investigator:	Tissing, W.J.E.	
National Coordinating Investigator:	Tissing, W.J.E.	
Is Princess Máxima Center the national coordinating center?:	No	
Link to protocol:	ENERGICE	
General		
Sponsor:	Prinses Máxima Centrum	
Coordinating Investigator:	-	
Study status:	Study closed	
Research phase:	-	
Research areas:	Quality of Life	

#### Design

Study design:	In this prospective observational study resting energy expenditure (REE) and body composition (BC) will be measured around 6 weeks, three months and six months after diagnosis. Indirect calorimetry will be used to measure REE while BC will be determined by bio-electric impedance (BIA). Furthermore, physical activity and dietary intake will be measured during the week following the REE and BV measurements using an accelerometer on the wrist and a food diary. At last, at each time point a blood sample will be taken for cytokine analysis and validation of differences in metabolism on cellular level.
Primary objective:	The investigate the REE of children with a hematological, solid or brain malignancy during treatment.
Study population:	All children between 4-18 years with a newly diagnosed hematological, solid or brain malignancy for which treatment with chemotherapy is intended.



Study participation:	Monocenter
Scope:	National

Start international recruitment:	-	
Start national recruitment:	13-02-2020	
Expected date end of national recruitment:	09-05-2023	
International recruitment:		
Recruitment target protocol:	90	
National recruitment:		
Recruitment target national:	90	
Actual number of patients included:	101	



### EsPhALL2017 COGAALL1631

Protocol:	International phase 3 trial in Philadelphia chromosome-positive acute lymphoblastic leukemia (Ph+ ALL) testing imatinib in combination with two different cytotoxic chemotherapy backbones
Local Investigator:	Pieters, R.
National Coordinating Investigator:	Pieters, R.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	EsPhALL2017 COGAALL1631
General	
Sponsor:	Universita degli studi di Milano Bicocca
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	Fase III

Research areas:

# Design

Study design:	EsPhALL 2017/COG AALL1631 is an international collaborative protocol conducted by COG and EsPhALL with the primary objective of reducing treatment-related morbidity and mortality without adversely impacting DFS in Ph+ and ABL-class fusion positive ALL patients classified as Standard Risk (SR) based on low minimal residual disease (MRD) at week 10-12 of therapy.
Primary objective:	To compare disease-free survival (DFS) of Standard Risk (SR) pediatric Ph+ ALL treated with continuous imatinib combined with either a high-risk COG ALL chemotherapy backbone or the more intensive EsPhALL chemotherapy backbone.

Hemato-oncology



Study population:	Patients with BCR-ABL1 fusion genes: newly diagnosed ALL (B-ALL or T-ALL) or mixed phenotypic acute leukemia (MPAL meeting 2016 WHO definition) with definitive evidence of BCR-ABL1 fusion by karyotype, FISH and/or RT-PCR. Age > 1 year and < 21 years at ALL diagnosis.
Study participation:	Multicenter
Scope:	International

Start international recruitment:	27-08-2018
Start national recruitment:	09-11-2018
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	280
National recruitment:	
Recruitment target national:	28
Actual number of patients included:	13



**Euronet C2** 

Protocol:European Network-Paediatric Hodgkin's<br/>Lymphoma Study Group (EuroNet-PHL) Second<br/>International Inter-Group Study for Classical<br/>Hodgkin's Lymphoma in Children and<br/>AdolescentsLocal Investigator:Beishuizen, A.National Coordinating Investigator:Beishuizen, A.Is Princess Máxima Center the national<br/>coordinating center?:NoLink to protocol:Euronet C2

#### **Published articles**

Risk and Response Adapted Treatment Guidelines for Managing First Relapsed and Refractory Classical Hodgkin Lymphoma in Children and Young PeopleNAP

Recommendations from the EuroNet Pediatric Hodgkin Lymphoma Group: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7000476/

General	
Sponsor:	University of Giessen
Coordinating Investigator:	-
Study status:	Closed for inclusion
Research phase:	Fase III
Research areas:	Hemato-oncology

Study design:	The EuroNet-PHL-C2 trial is an international, multicentre, randomised controlled trial. EuroNet-PHL-C2 is risk adapted with stage and risk factors defining the treatment level (TL) and it is response adapted with response to chemotherapy defining the radiotherapy indication. Patients are risk stratified in to one of three Treatment Levels
	(TL)



	<ul> <li>? TL-1, TL-2 and TL-3 for low, intermediate and advanced HL respectively.</li> <li>Patients in TL-1 are not randomised, but patients in TL-2 and TL-3 are randomised between standard COPDAC-28 versus intensified DECOPDAC-21 as soon as the TL is confirmed.</li> </ul>
Primary objective:	<ol> <li>To increase event-free survival in ERA PET-negative intermediate and advanced stage patients (TL-2 and TL-3) without radiotherapy by using intensified consolidation chemotherapy (DECOPDAC-21).</li> <li>To demonstrate in ERA PET-positive TL-2 and TL-3 patients that the combination of intensified consolidation chemotherapy (DECOPDAC-21) plus restricted field RT to sites that remain FDG-PET positive at the late response assessment (LRA) is comparable to the standard consolidation chemotherapy (COPDAC-28) plus standard involved node radiotherapy.</li> <li>To further reduce the radiotherapy indication in early stage patients by increasing the threshold for a positive FDG PET scan at early response assessment (ERA) to Deauville</li> <li>while still preserving a 5 year EFS estimate at a target of 90% or above.</li> </ol>
Study population:	EuroNet-PHL-C2 is open to patients with untreated classical Hodgkin's lymphoma under 18 years of age. There may be country-specific lower age limits. In Australia, France, Italy, New Zealand and UK the upper age limit can be raised to under 25 years of age (on the date of written informed consent) for patients treated within specific teenage-young adult (TYA) cancer units.
Study participation:	Multicenter
Scope:	International



Start international recruitment:	20-10-2016
Start national recruitment:	20-10-2016
Expected date end of national recruitment:	31-12-2020
International recruitment:	
Recruitment target protocol:	132
National recruitment:	
Recruitment target national:	132
Actual number of patients included:	100



Protocol:

Prospective non–randomized multi-center study for epidemiology and characterization of Myelodysplastic Syndromes (MDS) and Juvenile Myelomonocytic Leukemia (JMML) in childhood.

Local Investigator:	Haas, de V.
National Coordinating Investigator:	Haas, de V.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	EWOG MDS'06

#### General

Sponsor:	University Medical Center Freiburg
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	-
Research areas:	Hemato-oncology

Study design:	Prospective, non-randomized, multi-center study
Primary objective:	To assess the epidemiology and to characterize subtypes of MDS and JMML in childhood. • To evaluate the frequency of the different subtypes of MDS in childhood and adolescence by a standardized diagnostic approach • To evaluate the frequency of cytogenetic and molecular abnormalities, using array-CGH to evaluate the frequency of subtle chromosomal imbalances, using mFISH to identify unknown chromosomal aberrations
Study population:	Confirmed diagnosis of MDS or JMML (morphology, cytogenetics) Age less than 18 years



Study participation:	Multicenter
Scope:	International

Start international recruitment:	14-03-2007
Start national recruitment:	29-12-2006
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	100
National recruitment:	
Recruitment target national:	100
Actual number of patients included:	27



Protocol:	Acquired aplastic anemia: a best available treatment guideline for Dutch Childhood Oncology Group centers.
Local Investigator:	Bierings, M.B.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	EWOG SAA 2010
General	
Sponsor:	University Medical Center Freiburg
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	-
Research areas:	Hemato-oncology

Study design:	To developed a nation-wide registry on pediatric aplastic anemia at the DCOG trial office including data on all patients diagnosed with AA in the Netherlands in children below 19 years of age, and to add these data to the EWOG-AA database
	To improve the quality of the diagnosis of aplastic anemia by setting up a standardized central review
	process of blood and bone marrow smears and trephine biopsies
	To build up a cell bank at the DCOG laboratory from left over material from peripheral blood and bone
	marrow for further research and add-on studie



Primary objective:	This protocol gives a guideline for diagnosis, treatment and follow up of children with Aplastic Anemia. It is especially important to clarify cases of patients presenting with pancytopenia as caused by inherited syndromes, pre- leukemic myelodysplasia and auto-immune cytopenia. The protocol then gives guidelines for treatment and biological studies.
Study population:	Confirmed diagnosis of SAA Age: 6 months to less than 18 year
Study participation:	Multicenter
Scope:	International

Start international recruitment:	-
Start national recruitment:	03-09-2010
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	100
Actual number of patients included:	23



Fanconi Anemie Protocol:	Diagnostiek, behandeling en follow-up van patiënten met Fanconi anemie.
Local Investigator:	Bierings, M.B.
National Coordinating Investigator:	Bierings, M.B.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	Fanconi Anemie
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	-

#### Hemato-oncology

# Design

Research areas:

Study design:	Doelstelling van deze richtlijn is te streven naar het verbeteren van levensduur en kwaliteit van FA patiënten. Dit kan worden gerealiseerd door een uniforme en geprotocolleerde patiëntenzorg in alle centra in Nederland die betrokken zijn bij diagnostiek, behandeling en follow-up van FA patiënten. Daarnaast worden de gegevens van de Nederlandse patiënten prospectief geregistreerd in een database die wordt beheerd door de Stichting Kinderoncologie Nederland (SKION, www.skion.nl). Dit is ook van belang voor Nederlandse participatie in internationale onderzoeken zoals bijvoorbeeld publicaties over het voorkomen van solide tumoren bij Fanconi anemie patiënten alsmede evaluatie van transplantatie- richtlijnen, m.b.t. effectiviteit en toxiciteit op korte en
	richtlijnen, m.b.t. effectiviteit en toxiciteit op korte en lange termijn.



1. Retrospectieve en prospectieve inventarisatie van de Primary objective: Fanconi anemie patiënten in Nederland, de medische problematiek van deze patiënten en hun behandelingstraject. Het gaat hierbij om klinische en laboratoriumgegevens zoals leeftijd, geslacht, uitslag MMC-test en moleculaire diagnostiek, congenitale afwijkingen, hematologische parameters, androgeen gebruik, transfusies, transplantatiegegevens, solide tumoren, endocrinopathie en doodsoorzaken. Deze gegevens zullen worden verzameld en opgeslagen in een centrale database bij de SKION. 2. Geprotocolleerde diagnostiek voor Fanconi anemie patiënten, inclusief moleculaire subtypering. 3. Gestandaardiseerde centrale review van bloed- en beenmerg preparaten via de SKION. Het opzetten van een celbank voor opslag van beenmerg- en bloedmonsters van Fanconi anemie patiënten bij de SKION. Deze celbank is bedoeld voor toekomstige onderzoeksinitiatieven. 4. Het beschikbaar stellen van een "best available treatment " behandelrichtlijn voor Fanconi anemie patiënten in Nederland. 5. Langdurige follow-up van Fanconi anemie patiënten volgens een gestructureerd follow-up schema, om het verdere beloop, complicaties en het voorkomen van secundaire tumoren te registreren. 6. De mogelijkheid bieden aan onderzoekers in en buiten Nederland verdere add-on studies te koppelen aan dit klinische protocol, dan wel te participeren in internationale studies naar FA.



Study population:	<ul> <li>Fanconi anemie is zowel klinisch als genetisch zeer heterogeen. Inmiddels zijn 13 zogenaamde complementatie groepen gedocumenteerd, gebaseerd op cel-fusie experimenten (FA-A, B, C, D1, D2, E, F, G, I, J, L, M, N).6-11 ledere complementatie groep representeert een ander gen en inmiddels zijn alle 13 genen geïdentificeerd.7;9;10 Van de meeste genen zijn vele verschillende mutaties beschreven, met verschillende functionele consequenties. De ziekte is doorgaans autosomaal recessief, met uitzondering van het FANCB gen, dat op het X-chromosoom gelegen is, en dus een geslachtsgebonden overervingpatroon heeft.12 In Nederland komt, in tegenstelling tot de rest van de wereld, met name de c.67delG mutatie van het FANCC gen, gelegen op chromosoom 9q22.3 relatief vaak voor.</li> <li>De indruk bestaat dat dit gepaard gaat met een relatief mild fenotype.</li> </ul>
Study participation:	Multicenter
Scope:	International

Start international recruitment:	01-01-2008
Start national recruitment:	01-09-2007
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	1000
National recruitment:	
Recruitment target national:	100
Actual number of patients included:	41



FaR-RMS	
Protocol:	FaR-RMS - An overarching study of Children and adults with Frontline and Relapsed Rhabdomyosarcoma
Local Investigator:	Merks, J.H.M.
National Coordinating Investigator:	Merks, J.H.M.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	FaR-RMS
General	
Sponsor:	University of Birmingham
Coordinating Investigator:	-
Study status:	Open for inclusion

Fase III

Solid tumors

### Design

Research phase:

Research areas:

Study design:	FaR-RMS is an over-arching study for patients with newly diagnosed and relapsed RMS including multi-arm, multi-stage questions with three principal aims. These are to evaluate systemic therapy through the introduction of new agent regimens, the duration of maintenance therapy, and radiotherapy to improve local control.
Primary objective:	<ul> <li>Phase I Dose Finding Studies</li> <li>To determine the recommended phase II dose</li> <li>(RP2D) of new systemic therapy regimens.</li> <li>o The first combination to be tested is irinotecan in combination with ifosfamide, vincristine and actinomycin D (IRIVA)</li> </ul>



Frontline Chemotherapy Questions

• To compare systemic therapy regimens for patients with VHR disease at diagnosis (CT1A).

o The first new combination regimens to be compared are IVADo and IRIVA in a dose intense schedule

• To compare new systemic therapy regimens with standard chemotherapy for patients with HR disease at diagnosis. The standard chemotherapy is ifosfamide, vincristine, actinomycin D (IVA) (CT1B).

o The first new combination regime to be compared is irinotecan combined with IVA (IRIVA) in a dose intense schedule

**Radiotherapy Questions** 

• To determine whether pre-operative or standard postoperative radiotherapy is better for patients with resectable disease (RT1A).

• To determine whether dose escalation of radiotherapy improves the outcome in patients with a higher local failure risk (RT1B/C).

• To determine whether radiotherapy treatment of all sites of disease, including metastatic sites, when compared to radiotherapy treatment to the primary site and involved regional lymph nodes alone, improves the outcome for patients with unfavourable metastatic disease (RT2).

Maintenance Chemotherapy Questions

• To determine whether the addition of a further 12 cycles of vinorelbine and cyclophosphamide (VnC) to standard 12 cycles of maintenance chemotherapy (i.e. 24 cycles total) improves the outcome for patients with VHR disease at diagnosis (CT2A).

• To determine whether the addition of a further 6 cycles of to the standard 6 cycles (i.e. 12 cycles total) improves the outcome for patients with localised HR disease at diagnosis (CT2B).

#### **Relapsed RMS Question**

• To determine whether new systemic therapy regimens improve outcome in relapsed RMS (CT3). Initial new systemic therapy combination to be tested: The addition of temozolomide (T) to vincristine and irinotecan (VIR), (VIRT)

Study population: Patients with newly diagnosed or relapses rhabdomyosarcoma



Study participation:	Multicenter
Scope:	International

Start international recruitment:	26-10-2020
Start national recruitment:	26-10-2020
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	1672
National recruitment:	
Recruitment target national:	140
Actual number of patients included:	46



intravenously as prophylaxis or therapy to children and adolescents with invasive fungal infections (FOCUS) Bont, L. J. Local Investigator: National Coordinating Investigator: -Is Princess Máxima Center the national No coordinating center?: Link to protocol: FOCUS General Radboud Universitair Medisch Centrum Sponsor: Coordinating Investigator: \_ Open for inclusion Study status: Fase IV Research phase: Research areas: Hemato-oncology, Solid tumors, Neurooncology, Stem Cell Transplantation

Pharmacokinetics of fluconazole given orally or

Study design:	Prospective, open-label, multi-centre, observational pharmacokinetic study
Primary objective:	Primary objective: To establish an improved fluconazole dosing regimen for paediatric and adolescent patients aged 2-18 years.
	<ul> <li>Exploratory objectives:</li> <li>To explore the role of renal function on the clearance of fluconazole.</li> <li>To explore the bioavailability of oral fluconazole versus intravenous fluconazole in paediatric patients.</li> </ul>
Study population:	children and adolescents with invasive fungal infections
Study participation:	Multicenter
Scope:	International



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10-05-2023
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#### FU poli botsarcomen

Protocol:

Functional outcome, quality of life and adverse events after local therapy for bone sarcoma in children; a multidisciplinary and standardized approach feeding into optimal follow-up care for the future'

Local Investigator:	Merks, J.H.M.
National Coordinating Investigator:	Merks, J.H.M.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	FU poli botsarcomen

#### General

Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	-
Research areas:	Solid tumors, Quality of Life

#### Design

Study design:	Prospective cross-sectional nationwide cohort study
Primary objective:	To determine functional outcome after local therapy in pediatric bone sarcoma survivors
Study population:	patients and survivors of pediatric Ewing sarcoma or osteosarcoma
Study participation:	Monocenter
Scope:	National

#### **Planning and Recruitment**



Start international recruitment:	-
Start national recruitment:	01-11-2021
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	125
Actual number of patients included:	131



GAPNBL	
Protocol:	68Ga-OPS-202 in pediatric neuroblastoma patient; exploratory, non-randomized, open label, comparative study – GAP NBL study
Local Investigator:	Braat, A.J.A.T.
National Coordinating Investigator:	Braat, A.J.A.T.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	<u>GAP NBL</u>
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Open for inclusion

Research phase:	-
Research areas:	Solid tumors

Study design:	A prospective explorative, investigator initiated, pilot study investigating the accuracy and safety of 68 Ga-SATO in NBL patients, compared to current clinical standard, M 123IBG imaging on 20 time points.
Primary objective:	To assess the short term safety and tolerability of 68 Ga- SATO, according to CTCAE v5.0
Study population:	Paediatric patients, 0-18 years of age, with (clinical suspicion of) neuroblastoma, who are referred for conventional M123IBG imaging.
Study participation:	Monocenter
Scope:	National



Start international recruitment:	22-08-2023
Start national recruitment:	28-02-2023
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	20
National recruitment:	
Recruitment target national:	20
Actual number of patients included:	5



## Gaps in education

Protocol:	CAYA cancer survivors' perspectives on barriers and facilitators in education and career support (programs)
Local Investigator:	Kremer, L.
National Coordinating Investigator:	Kremer, L.
Is Princess Máxima Center the national coordinating center?:	Yes
Link to protocol:	Gaps in education
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	-

 Research phase:

 Research areas:
 Other indications, Quality of Life

## Design

Study design:	nan
Primary objective:	nan
Study population:	nan
Study participation:	Multicenter
Scope:	European

#### **Planning and Recruitment**

Start international recruitment:	-
Start national recruitment:	10-10-2023
Expected date end of national recruitment:	-



International recruitment: Recruitment target protocol:	12
National recruitment:	
Recruitment target national:	12
Actual number of patients included:	-



Protocol:	International cooperative Phase III trial of the HIT-HGG study group for the treatment of high grade glioma, diffuse intrinsic pontine glioma, and gliomatosis cerebri in children and adolescents < 18 years.
Local Investigator:	Vuurden, van D.G.
National Coordinating Investigator:	Vuurden, van D.G.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	HIT-HGG-2013

## General

Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	Fase III
Research areas:	-

Study design:	nan
Primary objective:	nan
Study population:	nan
Study participation:	Multicenter
Scope:	International



Start international recruitment:	15-08-2023	
Start national recruitment:	08-08-2023	
Expected date end of national recruitment:	-	
International recruitment:		
Recruitment target protocol:	167	
National recruitment:		
Recruitment target national:	167	
Actual number of patients included:	-	



HR-NBL2	
Protocol:	High-Risk Neuroblastoma Study 2 of SIOP- Europa-Neuroblastoma (SIOPEN)
Local Investigator:	Tytgat, G.A.M.
National Coordinating Investigator:	Tytgat, G.A.M. & Dierselhuis, M.P. & Kraal, K.C.J.M.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	HR-NBL2
General	
Sponsor:	Gustave Roussy
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	Fase III

# Solid tumors

# Design

Research areas:

Study design:	Randomized, international and multicentric phase 3 study that evaluates and compares 2 treatment strategies in 3 therapeutic phases (induction, high-dose chemotherapy and radiotherapy) for patients with high-risk neuroblastoma.
Primary objective:	R-I: Comparison of the EFS rate of 2 induction regimens, GPOH and RAPID COJEC, in patients with high-risk neuroblastoma.
	R-HDC: Comparison of the EFS rate of single HDC with busulphan and melphalan (Bu-Mel) versus tandem HDC with Thiotepa followed by Bu-Mel in patients with high-risk neuroblastoma.
	R-RTx: Comparison of the EFS rate of 21.6 Gy radiotherapy to the preoperative tumor bed versus 21.6 Gy radiotherapy and a sequential boost up to 36 Gy to the residual tumor in patients with macroscopic residual disease after HDC and surgery.



Study population:	Patients with High Risk Neuroblastoma
Study participation:	Multicenter
Scope:	International

Start international recruitment:	03-03-2021
Start national recruitment:	03-03-2021
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	800
National recruitment:	
Recruitment target national:	70
Actual number of patients included:	30



ICC APL study 02	
Protocol:	Treatment study for children and adolescents with Acute Promyelocytic Leukemia
Local Investigator:	Kaspers, G.J.L.
National Coordinating Investigator:	Kaspers, G.J.L.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	ICC APL study 02
General	
Sponsor:	Associazione Italiana Ematologia Oncologia Pediatrica
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	Fase I/II
Research areas:	Hemato-oncology

Study design:	International, multi-center study, aimed at recruiting at least 46 SR patients
Primary objective:	To evaluate the efficacy in terms of event-free survival of a treatment combining arsenic trioxide (ATO) and all-trans retinoic acid (ATRA) in newly diagnosed APL standard-risk children and adolescents



Study population:	<ul> <li>Newly diagnosed APL confirmed by the presence of PML/RARa fusion gene</li> <li>Age &lt;18 years</li> <li>Written informed consent by parents or legal guardians</li> <li>If applicable, female participants must have pregnancy test by beta-HCG dosing and be negative.</li> <li>Patients of child-bearing or child-fathering potential must be willing to practice and must contact their physician. With their physician, they must agree on the most appropriate approach for birth control from the time of enrolment in this study and for 3 months after receiving the latest infusion.</li> </ul>
Study participation:	Multicenter
Scope:	International

Start international recruitment:	15-08-2023
Start national recruitment:	07-07-2023
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	90
National recruitment:	
Recruitment target national:	5
Actual number of patients included:	-



#### Inter B NHL Ritux 2010

Protocol:	Intergroup trial for children or adolescents with B-Cell NHL or B-AL: evaluation of Rituximab efficacy and safety in high risk patients
Local Investigator:	Zsiros, J.
National Coordinating Investigator:	Zsiros, J.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	Inter B NHL Ritux 2010

#### **Published articles**

Rituximab for High-Risk, Mature B-Cell Non-Hodgkin's Lymphoma in Children: https://www.nejm.org/doi/full/10.1056/NEJMoa1915315\_x000D\_Cost-effectiveness analysis alongside the inter-B-NHL ritux 2010 trial: rituximab in children and adolescents with B cell non-Hodgkin's lymphoma https://pubmed.ncbi.nlm.nih.gov/37058173/\_x000D\_Effect of rituximab on immune status in children with mature B-cell non-Hodgkin lymphoma: a prespecified secondary analysis of the Inter-B-NHL Ritux 2010 trial https://pubmed.ncbi.nlm.nih.gov/37094596/

#### General

Sponsor:	Stichting Kinderoncologie Nederland
Coordinating Investigator:	-
Study status:	Closed for inclusion
Research phase:	Fase III
Research areas:	Hemato-oncology

Study design:	This protocol combines two studies, a phase III trial for
	untreated children or adolescents with stage III and
	LDH > Nx2 or stage IV B-cell NHL or B-AL (Burkitt AL or L3
	AL) and a phase II trial for untreated children or
	adolescents with PMLBL.



Primary objective:	<ul> <li>Phase III study:</li> <li>For the patients with advanced stage B-cell NHL/B-AL (stage III and LDH &gt; Nx2, any stage IV or B-AL) to test</li> <li>whether adding 6 injections of rituximab to standard LMB chemotherapy regimen improves the EFS compared with LMB chemotherapy alone.</li> <li>November 2015: the first interim analysis allowed to answer positively.</li> <li>Phase II study:</li> <li>To determine the efficacy of DA-EPOCH-R in children and adolescent PMLB in terms of EFS.</li> </ul>
Study population:	Children and adolescents aged until 18 years with untreated advanced stage B-cell NHL or B-AL.
Study participation:	Multicenter
Scope:	International

Start international recruitment:	-
Start national recruitment:	06-10-2015
Expected date end of national recruitment:	13-06-2017
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	4
Actual number of patients included:	4



Interfant-06	
Protocol:	International collaborative treatment protocol for infants under one year with acute lymphoblastic or biphenotypic leukemia
Local Investigator:	Pieters, R.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	Interfant-06

#### **Published articles**

Outcome of Infants Younger Than 1 Year With Acute Lymphoblastic Leukemia Treated With the Interfant-06 Protocol: Results From an International Phase III Randomized Study: https://pubmed.ncbi.nlm.nih.gov/31283407/

#### General

Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	Pieters, R.
Study status:	Study closed
Research phase:	Fase III
Research areas:	Hemato-oncology

Study design:	Multicenter randomized phase III study (randomization closed since 01-AUG-2016)
Primary objective:	To assess the role of an early intensification of two "AML" induction blocks versus protocol lb directly after induction, in a randomized way in MR and HR patients. Randomisation stopped for patients diagnosed after the 1st of August 2016
Study population:	Children aged 365 days or less with newly diagnosed acute lymphoblastic leukemia (ALL) or biphenotypic leukemia according to EGIL criteria.
Study participation:	Multicenter
Scope:	International



Start international recruitment:	01-03-2006
Start national recruitment:	02-05-2006
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	440
National recruitment:	
Recruitment target national:	20
Actual number of patients included:	15



Interfant-21	
Protocol:	Interfant-21: NL-001 International collaborative treatment protocol for infants under one year with KMT2A-rearranged acute lymphoblastic leukemia or mixed phenotype acute leukemia
Local Investigator:	Sluis, van der I.M. & Pieters, R.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	Interfant-21

#### General

Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	Stutterheim, J.
Study status:	Open for inclusion
Research phase:	Fase III
Research areas:	Hemato-oncology

Study design:	International multicenter open-label non-randomized phase 3 clinical trial conducted in the Interfant network. This protocol is a master protocol with sub-studies that may be performed in a limited number of countries or sites. The sub-studies are provided separately and described in section 19.2 of this protocol. During the course of this study new sub-studies may be added or sub-studies may end, which will be handled as amendments to the protocol.
Primary objective:	The primary objective is to improve the outcome (in terms of event-free survival (EFS) as the primary endpoint) of newly diagnosed KMT2A-rearranged (KMT2A-r) infant acute lymphoblastic leukemia (ALL) compared with the historical results of the Interfant06 protocol.



Study population:	The study will enroll 160 newly diagnosed infants (= 365 days of age at the time of diagnosis) with KMT2A-r ALL or B-cell mixed phenotype acute leukemia (MPAL). The planned enrollment period is 3 years.
Study participation:	Multicenter
Scope:	International

Start international recruitment:	13-01-2023
Start national recruitment:	15-12-2022
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	160
National recruitment:	
Recruitment target national:	12
Actual number of patients included:	3



IntReALL HR	
Protocol:	International Study for Treatment of High Risk Childhood Relapsed ALL 2010 - A randomized Phase II Study Conducted by the Resistant Disease Committee of the International BFM Study Group
Local Investigator:	Hoogerbrugge, P.M.
National Coordinating Investigator:	Hoogerbrugge, P.M.
Is Princess Máxima Center the national coordinating center?:	Yes
Link to protocol:	IntReALL HR

## General

Sponsor:	Charité – Universitätsmedizin Berlin
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	Fase II
Research areas:	Hemato-oncology

	Study design:	<ul> <li>The IntReALL HR 2010 trial is an inter-group, international multi-centre, treatment optimization trial. It contains the following treatment arms:</li> <li>- induction: prospective, randomized, adaptive, open label phase II trial comparing arm A (modified ALL R3) versus arm B (modified ALL R3 + bortezomib).</li> <li>- post-induction single arm observational trial with intensive multidrug chemotherapy courses HC1 (modified AIEOP-BFM ALL 2009 HR1), HC2 (modified HR3)</li> <li>- a third post-induction chemotherapy block HC3 (modified AIEOP-BFM ALL 2010 trial or used as standard comparator for an investigational window trial</li> <li>- all patients in morphological CR2 will be subjected to allogeneic HSCT</li> <li>- termination of the trial after completion of the 2nd or 3rd consolidation block before investigational window trial and/or allogeneic HSCT. Follow-up will be done until reaching secondary EFS / OS endpoints.</li> </ul>
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	<ul> <li>patients with insufficient treatment response (MRD = 10-3 after induction) may be allocated to individualized consolidation therapy based on individual biologic features of the leukemia, if such approaches are available</li> </ul>
Primary objective:	Improvement of CR2 rates after induction with ALL R3 with bortezomib versus without bortezomib in HR relapsed ALL patients
Study population:	<ul> <li>Morphologically confirmed diagnosis of 1st relapsed precursor B-cell or T-cell ALL</li> <li>Children less than 18 years of age at date of inclusion into the study</li> <li>Meeting HR criteria (any T BM relapse, early/very early isolated BM relapse, very early isolated/combined extramedullary relapse)</li> <li>Patient enrolled in a participating centre</li> <li>Written informed consent</li> <li>Start of treatment falling into the study period</li> <li>No participation in other clinical trials 30 day prior to study enrolment that interfere with this protocol, except trials for primary ALL</li> </ul>
Study participation:	Multicenter
Scope:	International

Start international recruitment:	18-06-2020
Start national recruitment:	18-06-2020
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	250
National recruitment:	
Recruitment target national:	15
Actual number of patients included:	4



IntReALL SR	
Protocol:	International Study for Treatment of Standard Risk Childhood Relapsed ALL 2010
Local Investigator:	Hoogerbrugge, P.M.
National Coordinating Investigator:	Hoogerbrugge, P.M.
Is Princess Máxima Center the national coordinating center?:	Yes
Link to protocol:	IntReALL SR
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Study closed
Research phase:	Fase III

Research areas:

## Design

Study design:	The IntReALL SR 2010 trial is an inter-group, international multi-centre, treatment optimization trial. It contains the followings branches: - SR induction/consolidation arm A (ALL-REZ BFM 2002, arm protocol II-IDA) versus B (UKALL-R3, arm MITOX): prospective, randomized, open label, phase III trial - SR consolidation +/- epratuzumab: prospective, randomized, open label, phase III trial
Primary objective:	<ul> <li>Overall: Improvement of event-free survival (EFS) probabilities in childhood relapsed ALL</li> <li>Randomization 1: EFS of Arm A (ALL-REZ BFM 2002) versus B (ALLR3) in SR patients</li> <li>Randomization 2: Influence of epratuzumab on EFS in consolidation of SR patients</li> </ul>

Hemato-oncology



Study population:	<ul> <li>Morphologically confirmed diagnosis of 1st relapsed precursor B-cell or T-cell ALL</li> <li>Children less than 18 years of age at inclusion</li> <li>Meeting SR criteria: late isolated or late/early combined BCP BM relapse, any late/early isolated extramedullary relapse</li> <li>Patient enrolled in a participating centre</li> <li>Written informed consent</li> <li>Start of treatment falling into the study period</li> <li>No participation in other clinical trials 30 days prior to study enrolment that interfere with this protocol, except trials for primary ALL</li> <li>Inclusion criteria specific for the epratuzumab randomization:</li> <li>Precursor B-cell immunophenotype. A specific CD22 expression level is not required</li> <li>M1 or M2 status of the bone marrow after induction</li> </ul>
Study participation:	Multicenter
Scope:	International

Start international recruitment:	27-10-2016	
Start national recruitment:	27-10-2016	
Expected date end of national recruitment:	11-01-2023	
International recruitment:		
Recruitment target protocol:	640	
National recruitment:		
Recruitment target national:	15	
Actual number of patients included:	14	



iTHER 2.0	
Protocol:	Clinical implementation of a pediatric cancer precision medicine program, enforced with personalized models
Local Investigator:	Zwaan, C.M.
National Coordinating Investigator:	Zwaan, C.M.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	<u>iTHER 2.0</u>
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Closed for inclusion
Research phase:	-
Research areas:	Hemato-oncology, Neuro-oncology, Solid tumors

Study design:	This is a non-randomized observational study.
Primary objective:	To determine the objective response rates (complete response (CR), very good partial response (VGPR) or partial response (PR)) in pediatric patients with very high risk, relapsed or refractory tumors harboring actionable genomic alterations, treated with pathway-targeting agents based on ITHER profiling, compared to patients from the iTHER and INFORM cohort cohort treated with conventional non-targeted palliative therapy. Note that the treatment intervention itself is not part of this protocol, but data will be captured.



Study population:	Patients with very high risk, relapsed or refractory pediatric tumors under 30 years of age.
Study participation:	Monocenter
Scope:	National

Start international recruitment:	15-04-2020	
Start national recruitment:	15-04-2020	
Expected date end of national recruitment:	11-01-2023	
International recruitment:		
Recruitment target protocol:	380	
National recruitment:		
Recruitment target national:	380	
Actual number of patients included:	153	



KinderOnconet		
Protocol:	Development and Evaluation of a National Network of Allied Health Professionals working with Children with Cancer to improve Participation and Quality of Life (KinderOncoNet)	
Local Investigator:	Tissing, W.J.E.	
National Coordinating Investigator:	Tissing, W.J.E.	
Is Princess Máxima Center the national coordinating center?:	No	
Link to protocol:	<u>KinderOnconet</u>	

## General

Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	-
Research areas:	Quality of Life

Study design:	The project will be a development and research design. The research part will be a mixed methods approach, with quantitative (survey) and qualitative focus groups to collect data on the needs of multiple stakeholders. Through co-creation sessions we will develop knowledge products in partnership with parents/children, define responsibilities and care processes. Subsequently, we evaluate the functioning of this network.
Primary objective:	The development and realization of a National Network of Allied Health Professionals working with children with cancer and their families, KinderOncoNet, informed by the results of identified needs of children, families and healthcare professionals



Study population:	Healthcare professionals from the following selection of allied health professionals' disciplines: pediatric physiotherapy, dietetics, occupational therapy, and speech and language therapy, and with relevant stakeholders, including children and parents as well as service organizations.
Study participation:	Monocenter
Scope:	National

Start international recruitment:	-
Start national recruitment:	15-05-2023
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	45
Actual number of patients included:	-



KLIK LATER studie	
Protocol:	Monitoren van de kwaliteit van leven bij lange- termijn follow-up zorg bij survivors van kinderkanker met behulp van online, patiënt- gerapporteerde uitkomstmaten via het KLIK PROM portaal
Local Investigator:	Grootenhuis, M.A.
National Coordinating Investigator:	Grootenhuis, M.A. & Kremer, L.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	KLIK LATER studie

## General

Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Study closed
Research phase:	-
Research areas:	Quality of Life

Study design:	<ul> <li>The present study is an observational study with a mixed methods design.</li> <li>1) Implementation fidelity will be assessed quantitatively on the basis of registrations and a survey (CCS).</li> <li>2) To assess CCS' user satisfaction, an evaluation survey will be administered (quantitative part), supplemented with semi-structured interviews (qualitative part). To assess HCPs' user satisfaction, semi-structured interviews will be held.</li> </ul>
Primary objective:	The study focusses on evaluating the implementation of monitoring HRQOL using KLIK PROM Portal, and will address 1) implementation fidelity and 2) CCS' and HCPs' user satisfaction. The study will end after 100 CCS are included in the study and their user satisfaction is evaluated.



Study population:	The study population consists for aim 1 and 2 of: a) Adult CCS between 18 and 30 years of age who are invited for a follow-up consultation at the LATER outpatient clinic at the Princess Máxima Center during the implementation period (expected from spring until fall 2021). We expect n = 100 CCS participants participating in Monitoring QoL in Long-Term Follow-Up Care of Childhood Cancer Suvivors: implementation and evaluation.
Study participation:	Monocenter
Scope:	National

Start international recruitment:	-
Start national recruitment:	03-09-2021
Expected date end of national recruitment:	01-02-2022
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	100
Actual number of patients included:	53



LDL2010	
Protocol:	LBL 2018 - International cooperative treatment protocol for children and adolescents with lymphoblastic lymphoma
Local Investigator:	Loeffen, J.L.C.M.
National Coordinating Investigator:	Loeffen, J.L.C.M.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	<u>LBL2018</u>
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigatory	

Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	Fase III
Research areas:	Hemato-oncology

Study design:	International inter-group multi-centre open-label randomized prospective clinical trial
Primary objective:	<ul> <li>Randomization R1 Dexamethason vs Prednisolon in induction: Cumulative incidence of relapse with involvement of the CNS (CNS-relapse, pCICR). The time to relapse is the time from randomization to the first relapse or the date of last follow-up. Other events (non-response, progressive disease, relapse, second malignancy or death before and in CR) will be taken into account as competing events.</li> <li>Randomization R2 in High group (Notch1/FBXW7 wildtype) standard arm vs experimental arm with High risk blocks: Estimated probability of event-free survival (pEFS). The pEFS is the time from randomization to the first event (non-response, progressive disease, relapse, second malignancy or death from any cause) or date of last follow-up.</li> </ul>



Study population:	Children and adolescents up to 18 years of age with untreated lymphoblastic lymphoma are potentially eligible for the study LBL 2018.
Study participation:	Multicenter
Scope:	International

Start international recruitment:	21-06-2021
Start national recruitment:	21-06-2021
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	683
National recruitment:	
Recruitment target national:	42
Actual number of patients included:	28



Protocol:	International Collaborative Treatment Protocol for Children and Adolescents with Langerhans Cell Histiocytosis
Local Investigator:	Bos, van den C.
National Coordinating Investigator:	Bos, van den C.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	<u>LCH-IV</u>
General	
Sponsor:	St. Anna Children's Hospital, Vienna
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	Fase III

# Research areas:

# Design

Study design:	The LCH-IV is an international, multicenter, prospective clinical study for pediatric LCH (age < 18 years).
Primary objective:	<ul> <li>To investigate whether mortality in MS-LCH can be further</li> <li>decreased by an early switch of patients with risk organ involvement who do not respond to front-line therapy to more intensive salvage treatment (Stratum III or Stratum IV).</li> <li>To investigate in a randomized fashion whether further prolongation (12 vs. 24 months) and intensification (± mercaptopurine) of continuation therapy will reduce the reactivation rate and permanent consequences in MS-LCH.</li> <li>To investigate in a randomized fashion whether prolongation of continuation therapy (6 vs. 12 months) will reduce the reactivation rate and permanent consequences in SS-LCH patients with isolated "CNS-Risk" lesion or multifocal bone lesions.</li> </ul>

Hemato-oncology



	<ul> <li>To investigate whether second-line therapy with PRED/ARA-C/VCR for 24 weeks, followed by 24 months of continuation therapy (indometacin vs. 6-MP/MTX) can help achieve disease resolution, prevent further reactivations and permanent consequences in patients with non-risk LCH (MS- LCH without risk organ involvement, isolated "CNS-Risk" lesion, or multifocal bone lesions), who are non-responders to first-line therapy, or experience disease progression/ reactivation in non-risk organs on or off first-line therapy.</li> <li>To study the value of 2-CdA in patients with isolated tumorous CNS-LCH</li> <li>To study whether systemic therapy with intravenous immunoglobulin (IVIG) or low dose cytarabine for patients with clinically manifest neurodegenerative CNS-LCH can achieve improvement of the neuro-psychological symptoms.</li> <li>To study the spectrum and incidence of permanent consequences in systemically treated patients, identify possible risk factors, and assess the role of systemic treatment in their prevention</li> <li>To prospectively study the natural course of SS-LCH in patients who initially are not candidates for systemic therapy, with respect to disease progression, reactivations, need for medical interventions, as well as permanent consequences, at any time after diagnosis.</li> </ul>
Study population:	<ul> <li>Patients &lt; 18 years with definitive diagnosis of Langerhans cell histiocytosis. Stratum I Group 1: Multisystem LCH: Two or more organs/systems involved, with or without involvement of "Risk Organs" (e.g. hematopoietic system, liver, or spleen)</li> <li>Stratum I Group 2: Single-system LCH: <ul> <li>isolated "CNS-risk" lesion</li> <li>multifocal bone lesions (MFB)</li> </ul> </li> <li>Stratum II: Second-line treatment for non-risk LCH: Patients of Stratum I who have: <ul> <li>Progressive disease (AD worse) in non-risk organs after 6 weeks</li> </ul> </li> </ul>



	<ul> <li>Active disease at the end of Stratum I treatment</li> <li>Disease reactivation in non-risk organs at any time after completion of Stratum I treatment</li> <li>Disease reactivation in risk-organs, who do not meet organ dysfunction criteriaat any time or after completion of Stratum I treatment</li> </ul>
	<ul> <li>AD intermediate or worse in non-risk organs or AD better in risk organs after 12 weeks</li> <li>Disease progression (AD worse) in non-risk organs at any time during continuation treatment, AD intermediate or worse in risk-organs, who do not meet organ dysfunction eligibility criteria at any time of Stratum I treatment</li> </ul>
Study participation:	Multicenter
Scope:	International

Start international recruitment:	20-01-2014
Start national recruitment:	15-01-2014
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	1400
National recruitment:	
Recruitment target national:	85
Actual number of patients included:	107



LOGGIC Core	
Protocol:	LOGGIC: Low Grade Glioma in Children
Local Investigator:	Schouten - van Meeteren, A.Y.N.
National Coordinating Investigator:	Schouten - van Meeteren, A.Y.N. & Plasschaert, S.L.A.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	LOGGIC Core
General	
Sponsor:	KiTZ
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	-
Research areas:	Neuro-oncology

Study design:	Non-interventional observational registry including biological and clinical data
Primary objective:	The overall aim of the LOGGIC Core BioClinical Data Bank is to set up a molecular and clinical data bank for pediatric low grade gliomas
Study population:	Children, adolescents and young adults 0 to 21 years old with all subtypes of LGG tumours at primary diagnosis or progression/relapse
Study participation:	Multicenter
Scope:	International



Start international recruitment:	12-05-2022
Start national recruitment:	12-05-2022
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	5000
National recruitment:	
Recruitment target national:	400
Actual number of patients included:	44



# LOGGIC Firefly-2 Europe

Protocol:	Phase III, randomised, international multicentre trial for children and adolescents with low-grade glioma
Local Investigator:	Schouten - van Meeteren, A.Y.N.
National Coordinating Investigator:	Schouten - van Meeteren, A.Y.N. & Plasschaert, S.L.A.
Is Princess Máxima Center the national coordinating center?:	Yes
Link to protocol:	LOGGIC Firefly-2 Europe
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	Fase III
Research areas:	Neuro-oncology

## Design

Study design:	This is a 2-arm, randomized, open-label, multicenter, global, Phase 3 trial to evaluate the efficacy, safety, and tolerability of DAY101 monotherapy versus SoC chemotherapy in patients with pediatric low-grade glioma harboring an activating RAF alteration requiring front-line systemic therapy.
Primary objective:	The primary objective is to compare the objective response rate (ORR) per Response Assessment in Neuro-Oncology for low-grade gliomas (RANO-LGG) criteria assessed by independent review committee (IRC) of DAY101 monotherapy versus standard of care (SoC) chemotherapy in patients with pediatric lowgrade glioma harboring an activating RAF alteration requiring front-line systemic therapy



Study population:	Approximately 400 treatment naïve low-grade glioma patients will be randomized 1:1 to either DAY101 (Arm 1) or an Investigator's choice of SoC chemotherapy (Arm 2). Patient is less than 25 years of age with a low-grade glioma harboring a documented known activating RAF alteration, as identified through molecular assays performed at CLIA or other similarly certified laboratories.
Study participation:	Multicenter
Scope:	International

Start international recruitment:	-
Start national recruitment:	13-09-2023
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	400
National recruitment:	
Recruitment target national:	-
Actual number of patients included:	-



LIF-304	
Protocol:	Longterm Follow-up of Subjects With Cerebral Adrenoleukodystrophy Who Were Treated With Lenti-D Drug Product
Local Investigator:	Lindemans, C.A.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	<u>LTF-304</u>
General	
Sponsor:	BlueBirdBio Inc

Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	Fase III
Research areas:	Stem Cell Transplantation

Study design:	This is a multi-center, long-term safety and efficacy follow-up study for subjects with cerebral adrenoleukodystrophy (CALD) who have received eli-cel in parent clinical studies.
Primary objective:	Monitor for long-term safety of the Lenti-D Drug Product (also known as elivaldogene autotemcel; hereafter referred to as eli-cel) administered in parent clinical studies. Monitor for long-term efficacy of eli-cel administered in parent clinical studies
Study population:	Subjects who have received eli-cel in parent studies and who meet the eligibility criteria for LTF-304.



Study participation:	Multicenter
Scope:	International

Start international recruitment:	-
Start national recruitment:	07-02-2022
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	2
Actual number of patients included:	1



LUDO-N	
Protocol:	A phase II trial of 177Lutetium-DOTATATE in children with primary refractory or relapsed high- risk neuroblastom LuDO-n
Local Investigator:	Noesel, van M.M.
National Coordinating Investigator:	Noesel, van M.M.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	<u>LuDO-N</u>
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-

Study status:	Open for inclusion
Research phase:	Fase II
Research areas:	Solid tumors

Study design:	Phase II, open label, multi-centre, single arm two stage design clinical trial
Primary objective:	To correlate tumour dosimetry with response To correlate somatostatin type 2 receptor (SSTR-2) expression with 68 Ga-DOTATOC PET/CT uptake To correlate the uptake on 68 Ga-DOTATOC PET/CT with response to 177 Lu-DOTATATE therapy
Study population:	Children and young people > 18 months old with high-risk, relapsed or primary refractory neuroblastoma (INSS stage 4 or INRGSS stage M)
Study participation:	Multicenter
Scope:	International



Start international recruitment:	26-01-2023	
Start national recruitment:	27-01-2023	
Expected date end of national recruitment:	-	
International recruitment:		
Recruitment target protocol:	24	
National recruitment:		
Recruitment target national:	10	
Actual number of patients included:	2	



Protocol:	Multicentre prospective trial for extracranial malignant germ cell tumours including a randomized comparion of Carboplatin and Cisplatin
Local Investigator:	Mavinkurve - Groothuis, A.M.C.
National Coordinating Investigator:	Mavinkurve - Groothuis, A.M.C.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	MAKEI-V
General	
Sponsor:	UK Bonn
Coordinating Investigator:	-
Study status:	Open for inclusion

Research areas:

Research phase:

# Design

Study design:	Prospective, multicentre phase III-trial in malignant extracranial germ cell tumours including a randomization between Carboplatin-and Cisplatin-combination standard chemotherapy based on a risk-stratification derived from the preceding MAKEI 96 trial and published data
Primary objective:	The primary objective of MAKEI V is to assess in a randomized comparison whether the efficacy of Carboplatin (600 mg/m <sup>2</sup> percycle) (AUC 7.9 mg/ml/min.) is not inferior to Cisplatin (100 mg/m <sup>2</sup> per cycle) in malignant GCT (MGCT) of intermediate, high andvery high risk with regard to Event-free survival (EFSr).
Study population:	All children and adolescents with MGCT up to 17 11/12 years of age, and patients with ovarian primaries up to 29 11/12 years of age.

Fase III

Solid tumors



Study participation:	Multicenter
Scope:	European

Start international recruitment:	29-08-2023	
Start national recruitment:	29-08-2023	
Expected date end of national recruitment:	-	
International recruitment:		
Recruitment target protocol:	360	
National recruitment:		
Recruitment target national:	360	
Actual number of patients included:	-	



Micado-2	
Protocol:	Managing Insomnia after Childhood Cancer in Adolescents (Micado-2)
Local Investigator:	Litsenburg, van R.R.L.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	Micado-2
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Study closed
Research phase:	-
Research areas:	Quality of Life

Study design:	a single center randomized-controlled clinical trial of 70 patients. At baseline patients will be randomized to either e-CBT-I (n=35) or a waiting-list condition (n=35) stratified on sleep medication use in the past month.
Primary objective:	Our primary objective is to evaluate the effectiveness of the e-CBT-i: "i-Sleep" compared to a waiting list condition on sleep efficiency at 3 months post- randomization. The secondary objectives are: a) to assess the long-term effects of the i-Sleep intervention at 6 and 12 months post-randomization; b) to assess the effects of eCBT-I on secondary outcomes: subjective sleep, sleep onset latency, night wakening's, sleep duration, fatigue, quality of life, chronic stress and psychosocial functioning; c) to assess feasibility and acceptability of i-Sleep in the target population



Study population:	The study population of 70 ACC with insomnia in MICADO-2 is derived from the prior MICADO-1 study: an insomnia screening in circa 500 ACC from pediatric oncology centers the Netherlands, aged 12-30 years, currently within 10 years after diagnosis and at least 6 months since their last treatment. To achieve the necessary power in MICADO-2, taking into account a potential study drop-out of 20%, 70 patients will be included in the RCT. About 300 children and adolescents between the age of 6-18 years are diagnosed with childhood cancer each year and the overall survival rate is 75-80%. Previous research showed response rates of over 65%. Assuming an insomnia prevalence of 20-25% within the circa 500 ACC in the screening, and taking into account that some patients will not be eligible (e.g. ongoing treatment, comorbidities), we expect that enough patients can be recruited in 2.5 years
Study participation:	Monocenter
Scope:	National

Start international recruitment:	-
Start national recruitment:	24-01-2019
Expected date end of national recruitment:	14-12-2021
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	70
Actual number of patients included:	65



ML-DS 2018	
Protocol:	Phase II/III Clinical Trial for the Treatment of Myeloid Leukemia in Children with Down Syndrome 2018
Local Investigator:	Goemans, B.F.
National Coordinating Investigator:	Goemans, B.F.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	<u>ML-DS 2018</u>
General	
Sponsor:	German Paediatric Oncology Group
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	Fase III

Hemato-oncology

# Design

Research areas:

Study design:	ML-DS 2018 is a prospective, non-randomized, open-label, historically-controlled, international and multicenter phase III trial for children with ML-DS. The single-arm non-inferiority trial will be compared against the historical control (ML-DS 2006 trial) with event free survival as the primary endpoint.
Primary objective:	Achieving an event-free survival, which is not inferior to the ML-DS 2006 trial.
Study population:	Children with myeloid leukemia associated with Down syndrome (ML-DS).
Study participation:	Multicenter
Scope:	International



Start international recruitment:	23-02-2022	
Start national recruitment:	23-02-2022	
Expected date end of national recruitment:	-	
International recruitment:		
Recruitment target protocol:	150	
National recruitment:		
Recruitment target national:	10	
Actual number of patients included:	1	



Nausea tool	
Protocol:	Understanding nurses' perspectives (barriers and facilitators) for implementing a nausea measurement tool for oncological pediatric patients in the Princess Máxima Center
Local Investigator:	Tissing, W.J.E.
National Coordinating Investigator:	Tissing, W.J.E.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	Nausea tool
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Closed for inclusion
Research phase:	-
Research areas:	Hemato-oncology, Solid tumors, Neuro- oncology, Quality of Life

Study design:	A descriptive qualitative approach will be performed by conducting semi-structured one-to-one interviews.
Primary objective:	Explore nurses' perspectives regarding the implementation of a nausea measurement tool for children with cancer at the Princess Máxima Center.
Study population:	The population in the study will be nurses working on a clinical ward of the Princess Máxima Center.
Study participation:	Monocenter
Scope:	National



Start international recruitment:	-
Start national recruitment:	23-02-2022
Expected date end of national recruitment:	14-05-2022
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	20
Actual number of patients included:	-



PROSPECTIVE STUDY REGISTRY OF PERIPHERAL NEUROBLASTIC TUMOURS PRESENTING WITH SPINAL CANAL INVOLVEMENT (SCI).

General	
Link to protocol:	NB-SCI
Is Princess Máxima Center the national coordinating center?:	Yes
National Coordinating Investigator:	Kraal, K.C.J.M.
Local Investigator:	Kraal, K.C.J.M.

# Sponsor:Ospedale Pediatrico Istituto Giannina<br/>Gaslini di GenovaCoordinating Investigator:-Study status:Open for inclusionResearch phase:-Research areas:Solid tumors

Study design:	Multi-centre, observational, prospective study registry.
Primary objective:	To describe the natural history of peripheral neuroblastic tumour presenting with SCI and evaluate the combined effects of different risk factors on the eventual neurologic and orthopaedic outcomes.
Study population:	Patients with a peripheral neuroblastic tumour (neuroblastoma, ganglioneuroblastoma, ganglioneuroma) presenting with symptomatic or asymptomatic spinal cord involvement
Study participation:	Multicenter
Scope:	International



Start international recruitment:	01-01-2015	
Start national recruitment:	01-01-2015	
Expected date end of national recruitment:	-	
International recruitment:		
Recruitment target protocol:	200	
National recruitment:		
Recruitment target national:	200	
Actual number of patients included:	29	



Near Infrared		
Protocol:	Near-infrared fluorescence imaging using indocyanine green as an adjucnt to improve standard-of-care lymph node procedure in pediatric patients with melanoma or sarcoma of head/neck/trunk, paratesticular or extremities: a feasibility trial	
Local Investigator:	Wijnen, M.H.W.A.	
National Coordinating Investigator:	Wijnen, M.H.W.A.	
Is Princess Máxima Center the national coordinating center?:	No	
Link to protocol:	Near Infrared	

#### General

Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	Fase III
Research areas:	Solid tumors

Study design:	A feasibility single-institution trial to assess the use of ICG combined with 99mTc-nanocolloid or ICG alone for the SLN procedure of paediatric patients with melanoma or sarcoma of the extremity, head, neck, trunk or paratesticular. Standard-of-care SLN procedure will be performed. When indicated ICG will be premixed with 99mTc-nanocolloid prior to injection. In accordance with the standard-of-care SLN procedure, blue dye will be used in addition if deemed necessary by the surgeon.
Primary objective:	The intraoperative detection of SLNs in paediatric patients who received a pre-operative injection of ICG-99mTc- nanocolloid or ICG alone without blue dye.



Study population:	Patients 0-18 years of age with either a malignant melanoma or a sarcoma of an extremity, head/neck/trunk or paratesticular with the indication to undergo a SLN procedure.
Study participation:	Monocenter
Scope:	National

Start international recruitment:	-	
Start national recruitment:	07-07-2020	
Expected date end of national recruitment:	-	
International recruitment:		
Recruitment target protocol:	22	
National recruitment:		
Recruitment target national:	22	
Actual number of patients included:	15	



Protocol:

Phase II trial of nivolumab for pediatric and adult relapsing/refractory ALK+ anaplastic large cell lymphoma, for evaluation of response in patients with progressive disease (Cohort 1) or as consolidative immunotherapy in patients in complete remission after relapse (Cohort 2) (ITCC-076)

Local Investigator:	Beishuizen, A.
National Coordinating Investigator:	Beishuizen, A.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	NIVO-ALCL

#### General

Sponsor:	Gustave Roussy
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	Fase II
Research areas:	Hemato-oncology

Study design:	A one-stage phase II trial with unacceptable $ORR = 40\%$ and promising $ORR = 70\%$ . 12 eligible and evaluable patients are required.
Primary objective:	Cohort 1: estimate the efficacy of nivolumab treatment in patients with relapsed/refractory ALK+ ALCL in terms of best objective response within the first 24 weeks Cohort 2: estimate the efficacy of nivolumab treatment as consolidative immunotherapy after CR in patients with relapsed/refractory ALK+ ALCL in terms of progression-free survival



Study population:	Cohort 1: relapsed/refractory ALK+ ALCL with progressive disease after treatment (including chemotherapy and ALK inhibitor and/or brentuximab vedotin). Cohort 2: patients with a relapsed/refractory ALCL, having achieved CR with a treatment including ALK-inhibitor or Brentuximab vedotin of at least 2 months and for whom HSCT is considered for their consolidation therapy. In this case, nivolumab for 24 months would be considered as consolidative immunotherapy instead as HSCT.
Study participation:	Multicenter
Scope:	International

Start international recruitment:	22-12-2022
Start national recruitment:	22-12-2022
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	43
National recruitment:	
Recruitment target national:	2
Actual number of patients included:	-



## No place like home

Protocol:	Transferring part of oncology care to the home environment What do children and parents prefer?
Local Investigator:	Wetering, van de M.D.
National Coordinating Investigator:	Wetering, van de M.D.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	No place like home
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Study closed

Research phase:	-
Research areas:	Quality of Life

Study design:	We will retrieve this information using focus groups. Given the interactive character of focus group discussions, we will gain insight into the perspectives of the group rather than the individual, thereby gaining broader and deeper information than is possible in individual interviews or questionnaires
Primary objective:	The project will focus on the point of view of the parents and children, and will give information on what is needed for this care in the home environment, and what the wishes are of parents and children.
Study population:	Three focus groups will be formed, with eight to ten participants each. Focus groups normally contain 6-10 participants.



Study participation:	Monocenter
Scope:	National

Start international recruitment:	-
Start national recruitment:	27-07-2022
Expected date end of national recruitment:	09-11-2022
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	20
Actual number of patients included:	14



NOPHO-DBH AML 2012	
Protocol:	NOPHO-DBH AML 2012 Protocol: Research study for treatment of children and adolescents with acute myeloid leukaemia 0-18 years
Local Investigator:	Kaspers, G.J.L.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	Yes
Link to protocol:	NOPHO-DBH AML 2012
General	
Sponsor:	Vastra Gotelandsregionen
Coordinating Investigator:	-
Study status:	Closed for inclusion
Research phase:	Fase III

## Hemato-oncology

# Design

Research areas:

Study design:	The NOPHO-DBH AML2012 study is a treatment and research protocol which contains two randomised studies. The first compares the efficacy of mitoxantrone vs. liposomal daunorubicin in the first induction course (DNX study) and the second compares the efficacy of ADxE vs. FLADx as the second induction course (FLADx study).
Primary objective:	The AML 2012 study is a treatment and research protocol with the overall aim of improving prognosis for children and adolescents with AML. The specific aims of the randomised studies are:
	<ol> <li>To investigate if either DaunoXome or Mitoxantrone, when given in course 1, is more effective in reducing the MRD level to &lt; 0.1% as measured on day 22.</li> <li>To investigate if either of the courses ADxE or FLADx is more effective in reducing the MRD level to &lt; 0.1% after the second induction course.</li> </ol>



with newly diagnosed Acute Myeloid Leukemia xcluding patients with MDS-AML, myeloid leukemia syndrome and acute promyelocytic leukemia, age rs at time of diagnosis.
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onal
r

Start international recruitment:	-
Start national recruitment:	17-01-2014
Expected date end of national recruitment:	17-07-2023
International recruitment:	
Recruitment target protocol:	500
National recruitment:	
Recruitment target national:	125
Actual number of patients included:	161



AML slaap studie	
Protocol:	AML slaap studie - site: Kwaliteit van leven en slaap tijdens en na behandeling voor acute myeloide leukemie op de kinderleeftijd.
Local Investigator:	Heuvel - Eibrink, van den M.M.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	AML slaap studie
General	
Sponsor:	VU Medisch Centrum
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	-

Hemato-oncology, Quality of Life

Research areas:

Study design:	This study is designed as a prospective, longitudinal, multicenter observational cohort study. Patients will be observed during treatment for AML according to the NOPHO-DBH AML protocol and will be followed up until a year after the end of treatment. The main outcomes of this study will subjectively be assessed with reliable and validated questionnaires and sleep will also be objectively assessed with actigraphy. Parent-proxy questionnaires will be collected for all patients and children over the age of eight will be invited to fill out self-reports.
Primary objective:	The main study questions to be answered are: 1. What is the (development of) quality of life of children with AML, during and after treatment? 1a. Is quality of life associated with specific factors such as demographic variables, treatment variables, sleep, fatigue and financial burden?



	<ul> <li>2. What is the prevalence and development of sleep problems in children during and after treatment for AML?</li> <li>2a. Is child sleep associated with specific factors such as fatigue, demographic or treatment variables?</li> <li>3. What is the financial burden of having a child with AML to the family?</li> <li>4. What is the cost-effectiveness and cost-utility of AML treatment according to the NOPHO-DBH AML 2012 protocol in the Netherlands?</li> </ul>
Study population:	All children and adolescents treated according to the NOPHO-DBH AML 2012 protocol.
Study participation:	Multicenter
Scope:	National

Start international recruitment:	-
Start national recruitment:	28-10-2013
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	50
Actual number of patients included:	42



Nutrition in HIC	
Protocol:	Evaluating Nutrition Practices and Perceptions among Pediatric Oncology Nutrition Practitioners in High Income Countries (HIC)
Local Investigator:	Tissing, W.J.E.
National Coordinating Investigator:	Tissing, W.J.E.
Is Princess Máxima Center the national coordinating center?:	Yes
Link to protocol:	Nutrition in HIC
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Study closed
Research phase:	-

Research areas:

## Hemato-oncology, Solid tumors, Neurooncology, Quality of Life

Study design:	This is a cross-sectional survey study of the nutrition practices and perceptions of best practice amongst pediatric oncology nutrition practitioners (e.g., dietitians, doctors, nurses, nurse practitioners, etc.) working in HICs.
Primary objective:	<ul> <li>Identify current international nutrition practices amongst pediatric oncology nutrition practitioners in high income countries (HICs)</li> </ul>
	- Assess practitioner's perceptions of nutrition best practice in pediatric oncology management.
Study population:	Pediatric oncology nutrition practitioners (e.g., dietitians, doctors, nurses, nurse practitioners, etc.) working in High Income Countries (HIC)
Study participation:	Multicenter
Scope:	International



Start international recruitment:	-
Start national recruitment:	28-02-2022
Expected date end of national recruitment:	30-11-2022
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	100
Actual number of patients included:	-



OpKoersOnline	
Protocol:	Empowering parents in pediatric oncology with an online cognitive-behavioral based group intevention: a randomized controlled trial
Local Investigator:	Grootenhuis, M.A.
National Coordinating Investigator:	Grootenhuis, M.A.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	<u>OpKoersOnline</u>
General	
Sponsor:	Prinses Máxima Centrum

Coordinating Investigator:	-
Study status:	Study closed
Research phase:	-
Research areas:	Quality of Life

Study design:	A Randomized Clinical Trial (RCT) with two conditions (Intervention and Waitlist-control) is proposed to assess the efficacy of the online intervention. Feasibility of the intervention will be assessed cross-sectionally.
Primary objective:	The present study aims to evaluate efficacy and feasibility of a cognitive behavioral-based online group intervention that focuses on the specific issues that play a role in parents coping with a child with cancer. The intervention, led by psychologists, aims to improve psychosocial wellbeing, and to prevent psychosocial problems by improving coping skills.
Study population:	Parents are eligible if their child is diagnosed with any cancer at the age of 0-18 years, is within 5 years from diagnosis, and is still living with their parents at the time of recruitment.
Study participation:	Monocenter
Scope:	National



Start international recruitment:	-
Start national recruitment:	03-09-2020
Expected date end of national recruitment:	01-01-2022
International recruitment:	
Recruitment target protocol:	98
National recruitment:	
Recruitment target national:	98
Actual number of patients included:	-



Parel	
Protocol:	Preserving ovarian function through cryopreservation and informing girls with cancer about infertility due to gonadotoxic treatment
Local Investigator:	Heuvel - Eibrink, van den M.M.
National Coordinating Investigator:	Heuvel - Eibrink, van den M.M.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	Parel
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	-
Research areas:	Quality of Life

# Design

Study design:	Cohort A (laag, gemiddeld en hoog risico op onvruchtbaarheid)> vragenlijst aan het eind van de behandeling
	Cohort B zijn de meisjes uit cohort A die individuele aanvullende counseling krijgen. En kiezen tussen wel (Cohort C) of geen OTC. In cohort B krijgen ze 1-2 maanden na de counseling een vragenlijst en 1 jaar na de behandeling wordt er lab afgenomen.
	Cohort C zijn de meisjes die een OTC ondergaan om de vruchtbaarheid te behouden. ZIj tekenen hiervoor de Parel OTC PIF.
	1 dag na de OTC wordt er lab afgenomen. Er is een optionele optie om 15% van het materiaal beschikbaar te stellen voor onderzoek (dit is anders restmateriaal en wordt weggegooid).



	<ol> <li>week na OTC wordt er gecontroleerd of er zich complicaties hebben voorgedaan.</li> <li>maand na OTC wordt er gecontroleerd of er zich complicaties hebben voorgedaan.</li> </ol>
	Cohort 0 zijn patienten die een counseling hebben gehad tussen 2015-2020; zij krijgen een vragenlijst.
Primary objective:	Met dit project willen we de veiligheid van de OTC (ovarian Tissue Cryopreservation)-procedure in een nationale groep meisjes evalueren. We onderzoeken ook het effect van het invriezen van eierstokweefsel op de eicelvoorraad. Bij sommige meisjes zijn er ook tumorcellen in de eierstokken aanwezig. Door de behandeling met chemotherapie of bestraling gaan die tumorcellen kapot, ook in de eierstok in het lichaam van het meisje. De ingevroren eierstok krijgt deze (hele) behandeling niet en daar zouden dus nog tumorcellen in kunnen zitten. Om het eierstokweefsel in de toekomst veilig terug te kunnen plaatsen, willen we de eierstok controleren op tumorcellen. De beste manier hiervoor willen we verder onderzoeken. We zullen hiervoor bekende en nieuwe technieken gebruiken. Voor een deel van deze technieken kijken we ook naar het erfelijk materiaal van het meisje en de kanker. Als er in de toekomst nieuwe technieken ontwikkeld worden die kunnen helpen tumorcellen op te sporen, dan zullen we daar ook gebruik van maken.
Study population:	Meisjes die in het Prinses Máxima Centrum worden behandeld voor een vorm van kinderkanker (0-18 jaar). Zij hebben door de behandeling een hoog risico op onvruchtbaarheid. De behandeling die een meisje gaat krijgen, geeft schade aan de eicellen in de eierstokken. De kans dat een meisje onvruchtbaar wordt door de behandeling is groot, namelijk meer dan 50%. Het mogelijk om een behandeling te doen om de vruchtbaarheid te behouden.
Study participation:	Monocenter
Scope:	National



-
19-11-2020
-
-
515
87



## PAVO studie - CCTL019A2205B

Protocol:	Long Term Follow-up of Patients Exposed to Lentiviral-Based CD19 directed CAR T-CELL Therapy
Local Investigator:	Zwaan, C.M.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	PAVO studie - CCTL019A2205B
General	
Sponsor:	Novartis Pharma B.V.
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	-
Research areas:	Stem Cell Transplantation
Design	

Study design:	This is a global, prospective, multi-center study that is designed as a basket protocol to follow all enrolled patients for safety and efficacy, who have received a Novartis or Penn CAR-T therapy
Primary objective:	Describe selected, delayed AEs that are suspected to be related to previous CAR T-cell therapy as outlined in current Health Authority guidelines.
Study population:	All patients who have been treated with Novartis or Penn CAR-T for any indication.
Study participation:	Multicenter
Scope:	International



Start international recruitment:	-
Start national recruitment:	08-04-2020
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	650
National recruitment:	
Recruitment target national:	25
Actual number of patients included:	2



#### PHITT

	1		
Proto	ocol:	Pae	diatric Hepatic International Tumour Trial
Loca	I Investigator:	Zsir	os, J.
Natio	nal Coordinating Investigator:	Zsir	os, J.
-	incess Máxima Center the national dinating center?:	No	
Link	to protocol:	<u>PHI</u>	Π
Genei	ral		
Spon	isor:		Cancer Research UK Clinical Trials Unit
Coor	dinating Investigator:		-
Study	y status:		Open for inclusion
Rese	earch phase:		Fase III
Rese	earch areas:		Solid tumors

Study design:	The PHITT trial is an over-arching study including four randomised comparisons addressing therapeutic questions. This trial will use a risk-adapted approach to the treatment of children diagnosed with hepatoblastoma (HB). Children with hepatocellular carcinoma (HCC) will also be included as separate cohort.
Primary objective:	<ul> <li>To evaluate if the treatment of Low Risk HB can be reduced (Group B1).</li> <li>To compare different treatment regimens for Intermediate risk HB (Group C).</li> <li>To compare different post induction treatment regimens for High Risk HB (Group D2).</li> <li>To determine the outcome is improved when GEMOX is added to PLADO in the treatment of unresected HCC (Group F).</li> <li>To collect samples for biological and toxicity studies (all groups).</li> </ul>
Study population:	Patients = 30 years with hepatoblastoma or hepatocellular carcinoma



Study participation:	Multicenter
Scope:	International

Start international recruitment:	19-06-2019
Start national recruitment:	29-07-2019
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	450
National recruitment:	
Recruitment target national:	25
Actual number of patients included:	21



Pinocchie	C
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Protocol:	PINOCCHIO-study: Pharmacokinetics of cytostatic agents in children's oncology
Local Investigator:	Zwaan, C.M.
National Coordinating Investigator:	Zwaan, C.M. & Huitema, A.D.R.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	Pinocchio
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	-
Research areas:	Quality of Life, Hemato-oncology, Neuro- oncology, Solid tumors

Study design:	This study has two strata. Stratum 1 will investigate the PK/PD of the most used chemotherapeutic agents in pediatric oncology. Stratum 2 will investigate the PK/PD of the most used target kinase inhibitors in paediatrics. Prospectief observationeel
Primary objective:	to assess the pharmacokinetics of various cytotoxic agents (carboplatin, cisplatin, cytarabine, dactinomycin, daunorubicin, doxorubicin, etoposide, methotrexate and vincristine) TKIs (ALK inhibitors, MEK inhibitors, BCR-ABL inhibitors, EGF-R Inhibitors, FLT3 inhibitors, NTRK inhibitors, and Multikinase inhibitors) and their known metabolites (if applicable) in children to characterize the age-related changes in pharmacokinetics.
Study population:	Stratum 1: kinderen 0-17 jaar behandeld met chemotherapeutica Straum 2: kinderen 0-21 jaar behandeld met TKIs



Study participation:	Monocenter
Scope:	National

Start international recruitment:	-
Start national recruitment:	26-06-2018
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	810
National recruitment:	
Recruitment target national:	810
Actual number of patients included:	180



A Phase 3, Randomized, Open-label Study to Compare Adjuvant Immunotherapy of Bempegaldesleukin Combined with Nivolumab Versus Nivolumab After Complete Resection of Melanoma in Patients at High Risk for Recurrence (PIVOT- 12)
Dierselhuis, M.P.
-
No
PIVOT Nektar

#### General

Sponsor:	Nektar Therapeutics
Coordinating Investigator:	-
Study status:	Study closed
Research phase:	Fase III
Research areas:	Solid tumors

This is a multicenter, randomized, open-label, Phase 3 study that will evaluate the efficacy and safety of
bempegaldesleukin plus nivolumab compared with nivolumab
after complete resection of melanoma in patients at high risk
for recurrence. Patients will be randomized in a 1:1 ratio to
one of two treatment arms:
. Arm A: bempegaldesleukin plus nivolumab every 3
weeks (q3w)
• Arm B: nivolumab monotherapy every 4 weeks (q4w):



Randomization will be stratified by

	<ul> <li>PD-L1 status by Dako PD-L1 PharmDx 28-8 assay:</li> <li>PD-L1 = 1% vs PD-L1 &lt; 1%vs indeterminate/not evaluable</li> <li>Note: PD-L1 indeterminate/not evaluable will be capped at a maximum of 25% of the total patient population</li> <li>Stage: IIIA(LN metastases &gt; 1 mm)/IIIB vs IIIC vs</li> <li>IIID/IVPatients will be treated for approximately 1 year (maximum of 17 cycles for Arm A and 13 cycles for Arm B) or until disease recurrence, death, unacceptable toxicity, symptomatic deterioration, decision by Investigator to discontinue treatment, decision by patient to discontinue treatment or withdraw consent from the study, patient is lost to follow-up, or decision by Sponsor to terminate the trial, whichever is earlier. Efficacy, safety, pharmacokinetic (PK), immunogenicity, and biomarker assessments will be performed during treatment as presented in the On-Treatment Schedules of Events (Table 2 for Arm A; Table 3 for Arm B).</li> <li>Patients will undergo Safety Follow-up Visits for 100 (± 7) days after the last dose of study treatment and imaging assessments for up to 5 years from randomization (Table 4). Patients will be followed for survival until death, the patient withdraws consent from all further study assessments including survival follow-up, the patient is lost to follow-up, or the study will be considered complete when the last patient's last visit has been conducted and the data is mature for the final OS analysis (see Section 5.6).</li> </ul>
Primary objective:	The primary objective is to compare the efficacy, as measured by recurrence-free survival (RFS) by blinded independent central review (BICR), of bempegaldesleukin plus nivolumab versus nivolumab in patients with completely resected Stage IIIA (lymph node [LN] metastasis > 1 mm), Stage IIIB/C/D, or Stage IV (American Joint Committee on Cancer [AJCC] 8th edition) cutaneous melanoma with no evidence of disease (NED) who are at high risk for recurrence.
Study population:	Patients aged 12 years and older with resected Stage IIIA (LN metastasis > 1 mm), Stage IIIB/C/D, or Stage IV NED melanoma
Study participation:	Multicenter
Scope:	International



# Planning and Recruitment *Planning:*

Start international recruitment:	-
Start national recruitment:	15-03-2022
Expected date end of national recruitment:	16-03-2022
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	6
Actual number of patients included:	-



Protocol:

PNOC022: A Combination Therapy Trial using an Adaptive Platform Design for Children and Young Adults with Diffuse Midline Gliomas (DMGs) including Diffuse Intrinsic Pontine Gliomas (DIPGs) at Initial Diagnosis, Post-Radiation Therapy and at Time of Progression

Local Investigator:	Lugt, van der J.
National Coordinating Investigator:	Lugt, van der J.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	PNOC022 DMG

#### General

Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	Fase II
Research areas:	Neuro-oncology

#### Design

Study design:

This is a multi-arm, multi-cohort trial using a Bayesian drug combination platform design for children and young adults with DMGs. This trial will randomize participants at study entry who are at different stages of disease (newly diagnosed (Cohort 1), post-radiation therapy but with no evidence of progression (Cohort 2), and at time of progression (Cohort 3) to different combination therapies. Given the very favorable safety profile of ONC201 and anticipated known side effects of novel agents to be used in this trial, no specific phase 1 evaluations of the combination therapy will be conducted within the confines of this trial but, toxicity will be carefully monitored throughout the trial and stopping rules will be implemented. ONC201 will be used as a backbone and will be combined with novel agents that have been shown in preclinical studies to be additive or synergistic in combination.



	At this moment, study arms 2, 4 and 6 are open, which include paxalisib as novel agent.
Primary objective:	Cohorts 1 and 2 Maintenance Combinations: - To assess efficacy of combination therapy with ONC201 and novel agent in participants with DMG based on median progression-free survival at 6 months (PFS6) Cohort 3 - To assess efficacy of combination therapy with ONC201 and novel agent in participants with recurrent DMG based on overall survival at 7 months (OS7)
Study population:	<ul> <li>This study will enroll children and young adults (2-39 years of age) with diffuse midline gliomas (DMGs; excluding Grade 2, H3K27M negative tumors) at different stages of their disease.</li> <li>Cohort 1: Will include participants with newly diagnosed DMGs.</li> <li>Cohort 2: Will include participants with DMGs who have completed focal radiation therapy and are within 4-14 weeks from completion of radiation therapy without evidence of progression.</li> <li>Cohort 3: Will include participants with DMGs who have evidence of progression but have not been treated for this progression and have not previously undergone re-irradiation therapy.</li> </ul>
Study participation:	Multicenter
Scope:	International

Start international recruitment:	22-11-2022
Start national recruitment:	21-11-2022
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	120
National recruitment:	
Recruitment target national:	10
Actual number of patients included:	14



PrediCT	
Protocol:	The contribution of genetic predisposition to pediatric cancer: a study integrating extensive phenotyping and state of the art genotyping
Local Investigator:	Jongmans, M.C.J.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	PrediCT
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Closed for inclusion
Research phase:	-
Research areas:	Quality of Life

Study design: Prospective nationwide cohort study. We will use WES-data generated routinely from all children diagnosed with cancer or neoplasms in the Princess Máxima Center. After informed consent, a panel of known pediatric cancer predisposing genes will be analysed in the germline data. In the Hemato add-on study, children with hematological malignancies will be additionally analysed for a panel of potentially relevant PID- and IBMFS-associated genes (separate informed consent requested retrospectively for already included patients, or prospectively for newly recruited patients). In addition, patients and parents will be recruited for a psychosocial add-on study consisting of two questionnaires. The first questionnaire focuses on the counselling and decision-making process; the second on the feedback of sequencing results. Furthermore, a subset of teenage participants will be recruited for qualitative interviews to explore their perspectives in more depth.



Primary objective:	ediatric cancer predisposition syndromes diagnoses (molecular and/or clinical). We will compare the number of cancer predisposition syndromes diagnosed by the genotype first approach (molecular diagnosis based on WES panel analysis) to the phenotype first approach (clinical diagnosis and/or molecular diagnosis based on targeted tests).
Study population:	A prospective cohort of children (age < 19 years) who are newly diagnosed with and/or treated for cancer or neoplasms at the Princess Máxima Center in a period of three years. The Hemato add-on study will only include children with hematological malignancies. The psychosocial add-on study will recruit all parents of these children and children over the age of 12.
Study participation:	Monocenter
Scope:	National

Start international recruitment:	-
Start national recruitment:	29-03-2023
Expected date end of national recruitment:	30-06-2023
International recruitment:	
Recruitment target protocol:	843
National recruitment:	
Recruitment target national:	843
Actual number of patients included:	615



Pro-Teico	
Protocol:	Teicoplanin as Infection Prophylaxis in Pediatric Acute Myeloid Leukemia (Pro-Teico study)
Local Investigator:	Goemans, B.F.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	Pro-Teico
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	Kaspers, G.J.L.
Study status	Open for inclusion

Study status:Open for inclusionResearch phase:Fase IIIResearch areas:Hemato-oncology

Study design:	Prospective, international, multicenter, open-label, randomized clinical trial, preceded by a safety run-in. The design for the safety run-in includes the Rolling 6 design based on dose-limiting toxicity (DLT). The sample size for the randomized phase of the study is 122 evaluable patients.
Primary objective:	To assess the safety of i.v. teicoplanin prophylaxis three times per week with a two to three days interval in children with newly-diagnosed AML. A patient will be considered evaluable for safety if they experience a DLT during a prophylactic cycle with teicoplanin or, in case no DLT occurs, if exposure to teicoplanin is either at least 2 consecutive weeks with at least 5 doses of teicoplanin or at least 3 weeks in total with at least 6 out of 9 doses of teicoplanin, or 8 out of 12 doses in case of 4 weeks, or 10 out of 15 doses in case of 5 weeks.



Study population:	Pediatric patients (aged 0-19 years) with newly-diagnosed AML registered and treated according to the international Nordic Society of Pediatric Hematology and Oncology-Dutch, Belgium, Hong Kong (NOPHO-DBH) AML 2012 study protocol, or a consecutive protocol.
Study participation:	Multicenter
Scope:	International

20-05-2021
20-05-2021
-
130
55
31



QoL Early	
Protocol:	Early detection of acute and early-onset cardiovascular toxicity in children with cancer using a multiparametric approach
Local Investigator:	Kremer, L.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	QoL Early
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Study closed

Research phase:	-
Research areas:	Quality of Life

Study design:	Prospective observational pilot study
Primary objective:	The aim of the study is to assess the extent to which early, subclinical cardiac dysfunction can be identified with advanced echocardiography and magnetic resonance imaging (MRI) techniques at specific time-points prior, during and shortly after initiation of treatment (for acute and early onset cardiotoxicity) in children receiving anthracyclines and/or radiotherapy as part of their cancer treatment.
Study population:	100 childhood cancer patients (0-18 years old) reveiving anthracyclines as part of their cancer treatment. Of which 30 patients with Hodgkin lymphoma or Ewing or osteosarcoma or a soft tissue sarcoma > 8 years old additional cardiac MRI evaluation.
Study participation:	Monocenter
Scope:	National



Start international recruitment:	-	
Start national recruitment:	19-11-2020	
Expected date end of national recruitment:	23-08-2022	
International recruitment:		
Recruitment target protocol:	-	
National recruitment:		
Recruitment target national:	100	
Actual number of patients included:	103	



QoL NEMO	
Protocol:	Longitudinal Monitoring of Neuropsychological Outcomes in Pediatric Oncology
Local Investigator:	Partanen, M.H.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	QoL NEMO
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Closed for inclusion
Research phase:	-
Research areas:	Quality of Life

Study design:	Single-center, prospective observational cohort study
Primary objective:	To examine whether changes in brief monitoring measures of cognition and behavior are associated with functional outcomes in pediatric cancer survivors. Additional objectives are to examine trajectories, risk factors, and frequencies of neuropsychological impairment in early phases of treatment and survivorship as well as to determine the feasibility and acceptability of a neuropsychology monitoring program.
Study population:	Patients (aged 6-18 years) newly diagnosed with a brain tumor, other solid tumor, or hemato-oncological condition, followed at the Princess Máxima Center for Pediatric Oncology.
Study participation:	Monocenter
Scope:	National



Start international recruitment:	-
Start national recruitment:	11-06-2021
Expected date end of national recruitment:	19-05-2023
International recruitment:	
Recruitment target protocol:	168
National recruitment:	
Recruitment target national:	168
Actual number of patients included:	173



QoL Thyrodynamics	
Protocol:	The THYRO-Dynamics study: Is the dynamics of thyroid hormones during cancer treatment in children adaptive or disruptive? - a prospective evaluation
Local Investigator:	Tissing, W.J.E.
National Coordinating Investigator:	Santen, van H.M. & Tissing, W.J.E.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	QoL Thyrodynamics
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator	<u>.</u>

Coordinating investigator.	-
Study status:	Closed for inclusion
Research phase:	-
Research areas:	Quality of Life

Study design:	Prospective observational study
Primary objective:	To obtain insight in the prevalence and severity of aberrant thyroid function determinants and individual changes of thyroid function during cancer treatment in children.
Study population:	All children (<21 years) who are diagnosed with leukemia, lymphoma, sarcoma, brain tumors or treated with stem cell transplantation in the period 2019-2021 in the Princess Máxima Center
Study participation:	Monocenter
Scope:	National



Start international recruitment:	-	
Start national recruitment:	10-01-2020	
Expected date end of national recruitment:	01-02-2022	
International recruitment:		
Recruitment target protocol:	-	
National recruitment:		
Recruitment target national:	400	
Actual number of patients included:	363	



Protocol:	Reducing Pain in Pediatric Oncology Patients at Home Effectiveness of the KLIK Pijnmonitor App.
Local Investigator:	Tissing, W.J.E.
National Coordinating Investigator:	Tissing, W.J.E.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	RELIEF-2
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	<u>-</u>

e oor amating mooligator.	
Study status:	Study closed
Research phase:	-
Research areas:	Quality of Life

Study design:	In this Randomized Controlled Trial (RCT), children will be recruited and randomly assigned to either the intervention or control group. Before group allocation, questionnaires will be completed – among which a baseline pain assessment questionnaire – which will be used to control for possible disparity in pain characteristics per group. During the three week study period, the intervention group will have the KLIK Pijnmonitor app at their disposal, and the control group will continue to receive care as usual. In week 3, another set of RELIEF-2 Version number: 2.0, 15-03-2021 8 of 33 questionnaires will be completed, the results of which will be used to answer the primary (and part of the) secondary research questions. The questionnaires conducted before the start and during the third week of the study focus on pain characteristics, children's health related quality of life, parental emotional well-being, and HCP's attitudes towards the app (i.e. dotorminants of
	health related quality of life, parental emotional well-being, and HCP's attitudes towards the app (i.e. determinants of implementation).



Primary objective:	Primary objective is to investigate the effectiveness of the KLIK Pijnmonitor in reducing clinically significant pain in children at home by comparing the proportion of clinically significant pain between the intervention group and the control group.
Study population:	<ul> <li>168 children under active treatment (neuro-oncology, hemato-oncology, solid tumors) at the Princess Máxima Center will be recruited. As our aim is to assess pain in the home setting, all study actions (i.e. complete pain assessment questionnaires and use the KLIK Pijnmonitor app to report pain scores) must be completed in the home setting (i.e. not at the hospital). In order to be eligible to participate in this study, children must be between the ages of 0 and 18 years; be in active treatment (at least three months after diagnosis and with at least two months of treatment remaining). Furthermore, study participants (child or parent) need to understand and speak the Dutch language, and own a smartphone on which the application can be downloaded (available at Apple Store and Google Play Store).</li> </ul>
Study participation:	Monocenter
Scope:	National

Start international recruitment:	-
Start national recruitment:	08-01-2021
Expected date end of national recruitment:	01-07-2022
International recruitment:	
Recruitment target protocol:	184
National recruitment:	
Recruitment target national:	168
Actual number of patients included:	184



International registry for patients with a relapsed or refractory hepatoblastoma or hepatocellular

carcinoma.

Local Investigator:	Kraal, K.C.J.M.
National Coordinating Investigator:	Zsiros, J. & Kraal, K.C.J.M.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	RELIVE
General	

# Sponsor:University of GenevaCoordinating Investigator:-Study status:Open for inclusionResearch phase:-Research areas:Solid tumors

Study design:	The registry is designed as a REDCapTM database residing on a server hosted by Geneva University Hospital, with a web-based user interface allowing data entry, data cleaning, and data access for the purpose of data aggregation and evaluation according to the principles defined in section 10.
Primary objective:	<ol> <li>To achieve an overview of the past approaches and recent developments in the treatment of refractory or relapsed HB, HCC or HCN NOS in children, and</li> <li>To investigate the short- and longterm outcomes in patients treated with these regimens in order to identify the most promising treatment approaches for this patient cohort.</li> </ol>
Study population:	Patients with documented relapsed or refractory hepatoblastoma (HB), hepatocellular carcinoma (HCC) or hepatocellular neoplasm not otherwise specified (HCN NOS)



Study participation:	Multicenter
Scope:	International

Start international recruitment:	-
Start national recruitment:	10-06-2021
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	100
Actual number of patients included:	-



SDM bottumoren	
Protocol:	Evaluatie van "Shared Decision Making" (SDM) bij primaire maligne bottumoren chirurgie rond de knie bij kinderen en jongvolwassenen
Local Investigator:	Merks, J.H.M.
National Coordinating Investigator:	Bramer, J.A.M. & Merks, J.H.M.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	SDM bottumoren
General	
Sponsor:	Amsterdam UMC
Coordinating Investigator:	-

obordinating invooligator.	
Study status:	Open for inclusion
Research phase:	-
Research areas:	Solid tumors, Quality of Life

Study design:	Het is een longitudinaal prospectieve multicenter cohort studie.
Primary objective:	et doel van deze studie is het evalueren van "Shared Decision Making" bij de besluitvorming van de chirurgische interventie bij kinderen en jongvolwassenen met een primaire maligne bottumor rond de knie. De hypothese is dat door de patiënt goed te informeren en de keuze gezamenlijk te maken we een betere geïndividualiseerde keuze bij elke patiënt bewerkstelligen alsmede een beter verwachtingspatroon betreffende het uiteindelijke resultaat na operatie. De verwachting is dat daarmee op lange termijn de kwaliteit van leven zal verbeteren
Study population:	Alle kinderen en jongvolwassen (0-25 jaar oud) die zich presenteren met een osteosarcoom of Ewing-sarcoom rond de knie in het AmsterdamUMC of het Prinses Máxima Centrum.



Study participation:	Multicenter
Scope:	National

Start international recruitment:	-
Start national recruitment:	19-10-2021
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	50
National recruitment:	
Recruitment target national:	35
Actual number of patients included:	13



Sensory-2	
Protocol:	Smell and Taste changes in Childhood Cancer Patients (SENSORY-2) - a Longitudinal Study
Local Investigator:	Tissing, W.J.E.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	Sensory-2
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Study closed
Research phase:	-
Research areas:	Quality of Life

Study design:	Prospective cohort study
Primary objective:	To study taste and smell function in childhood cancer patients at several time points during– and after chemotherapy.
	Secondary parameters that will be investigated by questionnaires are: eating behavior, dietary intake, health-related quality of life, and sensory processing patterns.
Study population:	Children with cancer between 6 and 17 years old, receiving chemotherapy.
Study participation:	Monocenter
Scope:	National



Start international recruitment:	-
Start national recruitment:	03-12-2020
Expected date end of national recruitment:	08-02-2022
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	100
Actual number of patients included:	96



SINDA	
Protocol:	Seven Tesla Imaging Biomarkers of Cognitive Outcomes after Treatment for Pediatric Brain Tumor.
Local Investigator:	Partanen, M.H.
National Coordinating Investigator:	Partanen, M.H.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	SIMBA
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Open for inclusion

Research phase:	-
Research areas:	Neuro-oncology

Study design:	Single center observational study
Primary objective:	Age-standardized performance on a sustained attention task (K-CPT-2/CPT-3 measure) is the endpoint of the main analysis. The 7T MRI metrics measuring vasculature, metabolism, and white matter diffusion in the brain will be used to predict performance on this task.
Study population:	Participants (n=77) will include children aged 6-23 years old, who are at least 6 months and up to 5 years after diagnosis and who have completed treatment for a posterior fossa brain tumor. There will be 3 groups (with a minimum of 10 patients) who received: ? surgery/chemotherapy only (no RT) ? focal proton RT ? cranial-spinal proton RT
Study participation:	Monocenter
Scope:	National



Start international recruitment:	-
Start national recruitment:	25-05-2022
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	77
Actual number of patients included:	16



#### SIOP Ependymoma II

Protocol: An international Clinical Program for the diagnosis and treatment of children, adolescents and young adults with ependymoma Local Investigator: Lugt, van der J. National Coordinating Investigator: Lugt, van der J. Is Princess Máxima Center the national No coordinating center?: Link to protocol: SIOP Ependymoma II General Sponsor: Centre Leon Berard Coordinating Investigator: Open for inclusion Study status:

Fase III

Neuro-oncology

Research phase:

Research areas:

#### Design

The Ependymoma Program is a comprehensive program to Study design: improve the accuracy of the primary diagnosis of ependymoma and explore different therapeutic strategies in children, adolescents and young adults, accordingly. This program is opened to all patients diagnosed with ependymoma below the age of 22 years. It will include a centralised review of pre and post-operative imaging to assess the completeness of the resection. It will also include a central review of pathology to confirm the histological diagnosis. The biological markers 1q gain, Tenascin C status, RELA-fusion, YAP fusion, H3.3K27me3 and molecular subgroup by methylation array will be prospectively assessed for prospective evaluation of disease subgroups. Further biological evaluations will be coordinated within the integrated BIOMECA study.



After surgery and central review of imaging and pathology, patients will be offered the opportunity to undergo second look surgery, if possible. Patients will be enrolled in one of 3 different strata according to the outcome of the initial surgical resection (residual disease vs no residual disease), their age or eligibility / suitability to receive radiotherapy. These 3 different strata correspond to 3 therapeutic strategies according to the patient status.

Stratum 1: is designed as a randomised phase III study for patients who have had a complete resection, with no measurable residual disease (as confirmed by centrally reviewed MRI) and are = 12 months and < 22 years at diagnosis. Those patients will be randomised to receive conformal radiotherapy followed by either 16 weeks of chemotherapy with VEC+CDDP, or observation

Stratum 2: is designed as a randomized phase II study for patients who have inoperable measurable residual disease and who are = 12 months and < 22 years at diagnosis. Those patients will be randomized to two different treatment schedules of chemotherapy either with VEC or VEC+ high dose methotrexate (VEC +HD-MTX). After completion of the frontline chemotherapy, patients will be assessed for response (MRI) and will receive second look surgery when feasible. For those patients who remain unresectable with residual disease despite frontline chemotherapy and for whom second line surgery is not feasible, there will be a study of the safety of a radiotherapy boost of 8 Gy that will be administered to the residual tumour immediately after the completion of the conformal radiotherapy. Patients without evidence of residual disease after the chemotherapy and/or a second look surgery are not eligible for radiotherapy boost. All patients who have not shown progression under chemotherapy will receive, as maintenance therapy, a 16 week course of VEC+CDDP following completion of radiotherapy

Stratum 3: is designed as a randomised phase II chemotherapy study in children <12 months of age or those not eligible to receive radiotherapy. These patients will be randomised to receive a dose dense chemotherapy alternating myelosuppressive and relatively non-myelosuppressive drugs at 2 weekly intervals, with or without, the addition of the histone deacetylase inhibitor, valproate Observational study: after staging phase, patients that do not fulfil the inclusion criteria of one of the interventional strata



	which will be analysed descriptively
Primary objective:	Overall program: to determine whether the assessment of residual disease can be improved by a centralized review of post-operative MRI and whether such review increases the rate of complete resection compared to historical controls. Does central neurosurgical and radiological review increase resection rates?
	Stratum 1: to test the hypothesis that there will be an improvement in progression-free survival in patients who receive 16 weeks chemotherapy (VEC+CDDP) following surgical resection and conformal radiotherapy when compared to those that undergo surgical resection and radiotherapy alone
	Stratum 2: to compare the activity of 2 post-operative chemotherapy schedules, VEC or VEC+HD-MTX in patients who have incompletely resected tumour
	Stratum 3: to evaluate the progression free survival in children unable to receive radiation therapy and who receive valproate, as a histone deacetylase inhibitor in addition to the primary chemotherapy strategy when compared to those that undergo chemotherapy without valproate
Study population:	Stratum 1: patients with no measurable residual disease and =12 months of age - phase III Stratum 2: patients with inoperable measurable residual disease and =12 months of age - phase II Stratum 3: randomized phase II chemotherapy study in children < 12 months of age or those not eligible to receive radiotherapy
Study participation:	Multicenter
Scope:	International

will be enrolled and followed up via an observational study



# Planning:

Start international recruitment:	30-06-2020
Start national recruitment:	13-07-2020
Expected date end of national recruitment:	-
International recruitment:	

#### International recruitment:

Recruitment target protocol:	30
National recruitment:	
Recruitment target national:	80
Actual number of patients included:	16



SIOP	<b>HRMB</b>
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Protocol:	An Internatinal prospective trial on high-risk medulloblastoma in patients older than 3 years
Local Investigator:	Plasschaert, S.L.A. & Plasschaert, S.L.A.
National Coordinating Investigator:	Gidding, C.E.M. & Gidding, C.E.M.
Is Princess Máxima Center the national coordinating center?:	Yes
Link to protocol:	SIOP HRMB
General	
Sponsor:	Birmingham Children's Hospital
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	Fase III
Research areas:	Neuro-oncology

Study design:	SIOP-HRMB is an international, prospective, phase III randomised trial in patients aged 3 years and older with 'high-risk' medulloblastoma with a high-risk biological profile. Prior to entry into the trial, patients will undergo a screening phase. This will include a clinical and molecular diagnostic assessment. Biological assessments will be carried out centrally in accordance with a national scheme, see section 18. Eligible and consenting patients will be entered into the SIOP-HRMB trial and randomised to R1 after a definitive diagnosis of high risk medulloblastoma, prior to starting induction chemotherapy.
	<ul> <li>Randomisation 1 (R1) will compare three different treatment arms. Patients will be randomised between:</li> <li>Arm A: Conventional radiotherapy (36 Gy CSI) (control arm)</li> <li>Arm B: HART radiotherapy (39.2 Gy CSI)</li> <li>Arm C: High-dose chemotherapy followed by conventional radiotherapy (36 Gy CSI)</li> </ul>



All trial patients will be randomised at trial entry. For the majority of patients taking part in R1, randomisation will take place prior to the commencement of induction chemotherapy. However, in cases of clinical urgency to start induction patients may be treated with one cycle of induction chemotherapy prior to trial entry/randomisation at the discretion of the treating Investigator. Any patients who are found to be ineligible after trial entry e.g. due to SHH P53 germline mutation will be excluded from the analysis of R1 and will be withdrawn from the trial (see section 24). Enough time should be allowed after randomisation for stem cells to be harvested in patients randomised to the high-dose chemotherapy/conventional RT arm. Both experimental arms (Arms B and C) will be evaluated with an interim analysis with an aim to drop one of the experimental arms, so that the final analysis of R1 is a comparison of one experimental arm vs control. The interim analysis will take a 'pick-a-winner' selection design. One of the R1 treatment arms will be removed from R1 via substantial amendment. In the event that one of the experimental arms becomes unavailable for the trial, R1 will randomize between the remaining available treatment arms.

Randomisation 2 (R2) will compare two different maintenance regimens. Patients will be randomised between:

Arm D: Maintenance therapy with vincristine
 (VCR)/CCNU/cisplatin alternating with
 VCR/custon based and (control arm)

VCR/cyclophosphamide (control arm)

• Arm E: Temozolomide maintenance therapy Participation in R2 is not mandatory. Randomisation will take place after completion of radiotherapy and within 7 days prior to the planned start of maintenance therapy. Patients who take part in R1 and are treated in accordance with Arm C (high-dose chemotherapy) will

not be eligible to take part in R2, as it is felt that Arm D maintenance therapy will not be tolerated due to bone marrow suppression. This group of patients will be treated with Arm E temozolomide maintenance therapy; however will not contribute to the analysis of R2. Treatment and adverse event data will be collected for this group of patients. Patients who do not take part in R2 and have received either conventional radiotherapy alone or HART radiotherapy will be treated with standard maintenance therapy, as per arm D



Primary objective:	<ul> <li>Overall program:</li> <li>To evaluate whether the outcome in children, young people and adults with HR-MB is improved over standard therapy for those treated with: (i) conventional (once a day) radiotherapy (RT)</li> <li>(standard therapy), (ii) hyperfractionated-accelerated radiotherapy (HART), or (iii) high-dose therapy (HDT) with thiotepa followed by conventional RT.</li> <li>To evaluate whether the outcome in HR-MB is different for those treated with two different maintenance chemotherapy therapies.</li> </ul>
Study population:	Children, teenagers and adults with newly diagnosed high- risk medulloblastoma.
Study participation:	Multicenter
Scope:	International

Start international recruitment:	17-05-2022
Start national recruitment:	19-05-2022
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	40
National recruitment:	
Recruitment target national:	40
Actual number of patients included:	3



Protocol:	An International Prospective Trial on Medulloblastoma (MB) in Children Older Than 3 to 5 Years With WNT Biological Profile (PNET 5 MB - LR and PNET 5 MB - WNT-HR), Average- risk Biological Profile (PNET 5 MB-SR), Or TP35 Mutation, and Registry For MB Occurring in the Context of Genetic Predisposition
Local Investigator:	Plasschaert, S.L.A. & Plasschaert, S.L.A. & Gidding, C.E.M. & Gidding, C.E.M.
National Coordinating Investigator:	Plasschaert, S.L.A. & Gidding, C.E.M. & Gidding, C.E.M.
Is Princess Máxima Center the national coordinating center?:	Yes
Link to protocol:	SIOP PNET 5 MB
General	
Sponsor:	University Medical Center Hamburg- Eppendorf

Coordinating Investigator:	-
Study status:	Closed for inclusion
Research phase:	Fase III
Research areas:	Neuro-oncology

Study design:

LR-arm: This is an international, prospective, Phase-II, open study in patients between the ages of 3 to 5 years and less than 16 years, with 'standard-risk' medulloblastoma and a low-risk biological profile SR-arm: an international, prospective, Phase-III, randomised study in patients between the ages of 3 to 5 years and less than 22 years, with 'standard-risk' medulloblastoma and an average-risk biological profile



WNT-HR-arm: an international study in patients older than 3 to 5 years, with a medulloblastoma with low-risk biological profile (WNT-activation) and clinically high-risk features SHH-TP53-arm: an international, prospective phase II study for patients with SHH-activated, TP53 somatic or germline including mosaicism mutated medulloblastoma Registry: registry of patients with genetic predisposition and MB

Primary objective: LR-arm: to confirm that the 3-year event-free survival rate in children and adolescents with standard-risk medulloblastoma having a low-risk biological profile remains in excess of 80% when patients are treated with 18.0 Gy neuraxis irradiation plus boost to the primary tumour, and reduced-intensity chemotherapy.

SR-arm: to test whether the event-free survival in children and adolescents with standard-risk medulloblastoma having an average-risk biological profile is different for patients treated with or without carboplatin concomitantly with radiotherapy (23.4 Gy neuraxis irradiation plus boost to the primary tumour) followed by a modified maintenance chemotherapy.

WNT-HR-arm: to confirm the 3-year event-free survival of rate of 80% in children and adolescents with high-risk medulloblastoma having a low-risk biological profile when patients are treated with 23.4 Gy (35.2 Gy) neuraxis irradiation plus boost to the primary tumour (and metastates, if applicable) and reduced-intensity chemotherapy

SHH-TP53-arm: to determine the superiority of event-free survival in MB SHH-TP53-mutant patients receiving treatment adapted to presence of somatic or germline TP53 mutation in comparison to historic MB SHH TP53mut cohort Registry: data on initial presentation, treatment and outcome can be documented for all medulloblastoma patients with diagnosis of a pathogenic germline alteration or cancer predisposition syndrome, who cannot be included in any prospective trial due to unavailability or due to physician or family decision. The acquired data are intended to generate a prospective data base to inform the clinical decisions on treatment for the next patients and possibly the next trials



Study population:	LR-arm: patients between the ages of 3 to 5 years and less than 16 years, with 'standard-risk' medulloblastoma and a low-risk biological profile. SR-arm: patients between the ages of 3 to 5 years and less than 22 years, with 'standard-risk' medulloblastoma and an average-risk biological profile. WNT-HR-arm: patients older than 3 to 5 years, with a medulloblastoma with low-risk biological profile (WNT- activation) and clinically high-risk features SHH-TP53-arm: patients older than 3 to 5 years, with SHH-activated, TP53 somatic or germline including mosaicism mutated medulloblastoma Registry: patients with medulloblastoma not eligible for the other study arms and identified with pathological germline alternation.
Study participation:	Multicenter
Scope:	International

Start international recruitment:	17-02-2020
Start national recruitment:	17-02-2020
Expected date end of national recruitment:	11-01-2023
International recruitment:	
Recruitment target protocol:	410
National recruitment:	
Recruitment target national:	30
Actual number of patients included:	5



Sound	
Protocol:	A prospective study on determinants of ototoxicity during treatment of childhood cancer (the SOUND study)
Local Investigator:	Heuvel - Eibrink, van den M.M.
National Coordinating Investigator:	Heuvel - Eibrink, van den M.M.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	Sound
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Study closed
Research phase:	-

Solid tumors, Neuro-oncology, Quality of Life

# Design

Research areas:

Study design:	<ul> <li>Voor dit onderzoek is het nodig, twee maal (1x voor, en 1x kort na de behandeling), extra vragen te beantwoorden en metingen te verrichten. Dit kan op momenten dat een kind al in het Prinses Máxima Centrum is voor behandeling en/of nacontrole. Bij deelname aan dit onderzoek duurt het bezoek aan het Prinses Máxima Centrum ongeveer één uur langer dan normaal.</li> <li>Afhankelijk van de leeftijd van het kind, zal het volgende gebeuren: <ul> <li>Algemene vragen beantwoorden over het gehoor, en/of oorsuizen en/of duizeligheid</li> <li>In het oor kijken (otoscopie en tympanometrie), dit is niet pijnlijk.</li> </ul> </li> </ul>
	niet pijnlijk. - Een gehoortest, dit is een test waarbij aangegeven moet worden of geluiden gehoord worden.



Primary objective:	In dit onderzoek willen we kijken hoe vaak gehoorschade optreedt tijdens de behandeling van kinderen met een hersentumor of solide tumor in de leeftijd van 0 tot 18 jaar. We weten op dit moment nog onvoldoende wat de rol is van chemotherapie, maar ook bijvoorbeeld van antibiotica en plastabletten, bij het ontstaan van gehoorverlies. Daarom willen we ook onderzoeken welke factoren van de behandeling van deze vormen van kanker gehoorschade veroorzaken.
Study population:	Kinderen met een hersentumor of solide tumor in de leeftijd van 0 tot 18 jaar voor de start van hun behandeling. Kinderen worden verdeeld in 2 strata. Stratum 1 betreft kinderen die behandeld worden met cisplatine, carboplatine, oxaliplatine, CNS-/ENT-chirurgie en/of CNS-/ENT-bestraling, waarbij de haalbaarheid van standaard screening van gehoorschade en factoren verantwoordelijk voor gehoorschade worden geëvalueerd. In Stratum 2 wordt de potentiële rol van gehoorschade ondersteunende zorgmedicatie onderzocht bij patiënten met solide en CNS-tumoren die geen platinaderivaten, CNS-/ENT-bestraling en CNS-/ENT-chirurgie krijgen.
Study participation:	Monocenter

Scope: National

#### **Planning and Recruitment**

Start international recruitment:	-
Start national recruitment:	24-12-2020
Expected date end of national recruitment:	12-07-2022
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	600
Actual number of patients included:	110



SPACE	
Protocol:	Satisfaction with Port-A-Cath (PAC) location in pediatric oncology patients
Local Investigator:	-
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	<u>SPACE</u>
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Study closed
Research phase:	-
Research areas:	Hemato-oncology, Solid tumors, Neuro- oncology, Quality of Life, Stem Cell Transplantation

Study design:	Observational prospective questionnaire study. All participants (N=140) will be included within three months. Patient characteristics will be obtained from the patient files. Every participant will be asked to complete one questionnaire. Additionally, the scar of childhood cancer survivors will be evaluated once by the investigator.
Primary objective:	To compare hindrance and scar-related symptoms between PACs inserted at the anterior thoracic wall versus the lateral thoracic wall as reported by pediatric oncology patients or their parents. To compare hindrance between PACs inserted at the anterior thoracic wall versus the lateral thoracic wall as reported by pediatric oncology nurses.



	To observe scar-related symptoms and scar appearance as reported by survivors of pediatric oncology who previously received a PAC at the anterior thoracic wall during their treatment (PACs were previously not inserted at the lateral thoracid wall).
Study population:	To investigate the objectives, we will evaluate four different groups with different inclusion and exclusion criteria.
	Parents of children with pediatric cancer 0-<8 years old (n=40)
	Children diagnosed with pediatric cancer =8-<19 years old (n=40)
	Pediatric oncology nurses (n=30)
	Pediatric cancer survivors >25 years old (n=30, 15 male, 15 female)
Study participation:	Monocenter
Scope:	National

Start international recruitment:	-
Start national recruitment:	25-04-2022
Expected date end of national recruitment:	20-06-2023
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	110
Actual number of patients included:	116



#### **Testis biopsy/PRINCE**

Protocol: Testicular Biopsies in Young Boys Diagnosed with Cancer To Cryopreserve Future Fertility; Towards a Safe and Feasible Future Autologous **Cell Therapy** Wetering, van de M.D. Local Investigator: National Coordinating Investigator: -Is Princess Máxima Center the national No coordinating center?: Link to protocol: Testis biopsy/PRINCE General Prinses Máxima Centrum Sponsor: Coordinating Investigator: -Study status: Open for inclusion

Research phase:-Research areas:Quality of Life

Study design:	Intervention (prospective cohort) and retrospective follow-up
Primary objective:	1. To preserve testicular tissue of young boys with cancer with high risk of infertility and to develop the optimal tools to identify and propagate SSC (spermatogonial stem cells) in and from this tissue to allow possible autologous transplantation in the future if infertility has become apparent.
	2. To gain insight in the molecular profile of isolated testicular cell fractions, including SSCs and supportive (niche) cells, before and after propagation in vitro to develop the most optimal and safe standard operation protocol for SSC isolation and in vitro propagation, to prepare for optimal circumstances of SSCs to thrive to mature spermatozoa.



	3; To follow up the unique cohort of testicular biopsied prepubertal boys diagnosed with cancer with regards to testicular damage. We will focus on local damage (ultrasound), function of the Leydig cells (androgen production) and function of the Sertoli cells (semen production and/or inhibin B) This cohort will be followed yearly x 5 years during their usual visit to the outpatient clinic. We will perform this for the prospective cohort and the retrospective cohort from the previous study NL27690.000.09
Study population:	All young boys who are diagnosed with cancer and who are scheduled to undergo treatment at high risk of infertility and who are unable to produce semen by masturbation. In addition a retrospective follow up of the previous cohort Amsterdam UMC, location AMC (102 patients).
Study participation:	Monocenter
Scope:	National

Start international recruitment:	-
Start national recruitment:	17-09-2021
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	80
Actual number of patients included:	29



The Drug Access Protocol	
Protocol:	A Dutch National Study Protocol to Facilitate Patient Access to Novel Anti-cancer Drugs Awaiting Regulatory Approval or Reimbursement; The DRUG Access Protocol
Local Investigator:	Dierselhuis, M.P.
National Coordinating Investigator:	-
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	The Drug Access Protocol
General	
Sponsor:	Nederlands Kanker Instituut
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	-
Research areas:	Solid tumors, Neuro-oncology

Study design:	Prospective, open-label, non-randomized data collection trial. Patients will be enrolled in multiple parallel cohorts, each defined by the novel unauthorised drug and its requested label after authorisation or the authorised, not (yet) reimbursed drug with its registered indication.
Primary objective:	? To enable and assist oncologists to prescribe unauthorized anticancer drugs used for treatment of patients with solid tumors, awaiting FDA/EMA approval or authorized anticancer drugs, awaiting reimbursement in the Netherlands



	? To provide real-world safety and efficacy data by describing the anti-tumor activity and toxicity of unauthorized anti-cancer drugs awaiting FDA/EMA approval and of authorized anticancer drugs that are awaiting reimbursement in the Netherlands used for treatment of patients with solid tumors, that fulfill the required FDA/EMA selection criteria (including but not limited to genomic- or protein profiles known to be a drug target or to predict sensitivity to a drug).
	? To provide controlled access to authorised anticancer drugs that are not being reimbursed for an on-label indication because of a gap in data, in order to provide the needed data for Zorginstituut to (re)assess the dossier for (full) reimbursement (e.g. voorwaardelijke toelating). To perform refined biomarker analyses, including (but not limited to) next generation sequencing, on a fresh tumor biopsy specimen.
Study population:	Eligible adult and pediatric patients have solid tumors and acceptable performance status and organ function. For authorised indications or for drugs with a positive CHMP opinion, the eligibility will be based on the EMA label. If required, a molecular profile test must have been performed on a specimen of the tumor and the results must identify the target for the drugs included in this protocol.
Study participation:	Multicenter
Scope:	National

Start international recruitment:	-
Start national recruitment:	14-09-2022
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	4
Actual number of patients included:	1



Umbrella	
Protocol:	UMBRELLA PROTOCOL SIOP-RTSG 2016 Integrated research and guidelines for standardized diagnostics and therapy for paediatric renal tumours
Local Investigator:	Heuvel - Eibrink, van den M.M.
National Coordinating Investigator:	Heuvel - Eibrink, van den M.M.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	<u>Umbrella</u>
General	
Sponsor:	Universität des Saarlandes
Coordinating Investigator:	-
Study status:	Open for inclusion

Research areas:

Research phase:

# Design

Study design:	The study design of the UMBRELLA protocol includes data registration, biological sample collection and biological studies
Primary objective:	<ol> <li>To show the feasibility of storing serial blood, urine samples, tumour and germline material at diagnosis and at specific time points during treatment for international collaborative studies. These will be used to validate and quantify (using multivariate analysis), the relative adverse prognostic significance of specified somatic molecular biomarkers (listed in aim 2) in relation to blastemal volume (aim 3). They will also be used for exploratory analyses of potential novel biomarkers, including circulating nucleic acids detectable in blood and urine, for diagnosis and prognosis.</li> <li>To assess genomic 1q gain and other copy number variants as a prognostic biomarker results to treatment centres within a clinically relevant time frame will be tested.</li> </ol>

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Solid tumors



	<ol> <li>To optimize the definition of high risk WT, 'blastemal type' through accurate measurement of the residual blastemal cells volume including centralized 'real time' pathology and radiology review. The blastemal cell volume will be assessed in relation to other biomarkers and outcome measures including overall and event-free survival.</li> <li>To optimize radiological diagnostics/review by (real time) central review to monitor and give appropriate feedback on diagnostic imaging quality, harmonies diagnostic procedures and standardize reporting of radiology findings. Additionally, diffusion-weighted imaging (DWI) results will be linked to pathological assessment of the tumour.</li> <li>To optimize pathological diagnostics/review by (real time) central review to monitor and give appropriate feedback on local pathological assessment of the tumour.</li> </ol>
Study population:	All children, adolescents or young adults with a primary or relapsed renal tumour diagnosed in a participating SIOP- RTSG center. The inclusion of patients is independent of the histology of the renal tumour, the age of the patiënt (except for RCC patients: <18 years old) or the country of residence.
Study participation:	Multicenter
Scope:	International

Start international recruitment:	18-03-2019
Start national recruitment:	25-02-2019
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	4500
National recruitment:	
Recruitment target national:	350
Actual number of patients included:	128



VACCinATE	
Protocol:	Prospective monitoring of immune response following SARS-CoV-2 vaccination in children with cancer
Local Investigator:	Tissing, W.J.E.
National Coordinating Investigator:	Tissing, W.J.E.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	VACCinATE
General	
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Study closed
Research phase:	Fase IV
Research areas:	Quality of Life, Other indications

Study design:	Prospective, observational parallel cohort study. Children with cancer will be compared to healthy controls (children of the same age range).
Primary objective:	To assess the immunogenicity of SARS-CoV-2 vaccination in children with cancer
Study population:	children with cancer (n=130) and controls (n=34) will be included. Healthy controls (of the same age group) as included in the PRIDE study (on the SARS-CoV-2 vaccination in Down Syndrome patients) will be used as healthy controls for this study.
Study participation:	Monocenter
Scope:	National



Start international recruitment:	17-07-2021
Start national recruitment:	17-07-2021
Expected date end of national recruitment:	21-02-2023
International recruitment:	
Recruitment target protocol:	130
National recruitment:	
Recruitment target national:	130
Actual number of patients included:	90



Protocol:An international multicenter phase II randomised<br/>trial evaluating and comparing two<br/>intensification treatment strategies for metastatic<br/>neuroblastoma patients with a poor response to<br/>induction chemotherapy A SIOPEN StudyLocal Investigator:Kraal, K.C.J.M.National Coordinating Investigator:Kraal, K.C.J.M.Is Princess Máxima Center the national<br/>coordinating center?:NoLink to protocol:VERITAS

#### General

Sponsor:	Gustave Roussy
Coordinating Investigator:	-
Study status:	Study closed
Research phase:	Fase II
Research areas:	Solid tumors

Study design:	Prospective, open-label, randomised, multi-centre phase 2 trial
Primary objective:	The main objective is to evaluate the efficacy of two intensified consolidation strategies in very-high risk neuroblastoma (VHR-NBL) patients in terms of event-free survival from randomisation date. This evaluation will follow a hierarchical testing procedure: each experimental treatment will be first evaluated as a single-arm phase 2 study, and in case of positive conclusion, the relative efficacy of both arms will then be evaluated comparatively.
Study population:	Very High-Risk Neuroblastoma; patients with insufficient response after induction chemotherapy
Study participation:	Multicenter
Scope:	International



Start international recruitment:	20-02-2020
Start national recruitment:	20-02-2020
Expected date end of national recruitment:	01-08-2023
International recruitment:	
Recruitment target protocol:	150
National recruitment:	
Recruitment target national:	16
Actual number of patients included:	10



Watch Us Move	
Protocol:	Watch Us Move: Real-time physical activity tracking in children with cancer: a feasibility and quality improvement study
Local Investigator:	Tissing, W.J.E.
National Coordinating Investigator:	Tissing, W.J.E.
Is Princess Máxima Center the national coordinating center?:	No
Link to protocol:	Watch Us Move
General	
	Dringes Mévime Contrum
Sponsor:	Prinses Máxima Centrum
Coordinating Investigator:	-
Study status:	Open for inclusion
Research phase:	-

## Quality of Life

## Design

Research areas:

Study design:	To improve feasibility of long-term physical activity tracking in children with cancer, this prospective quality-improvement study will encompass several iterative cycles in which parent- and patient-acceptance and wear-ability but also practical and technical barriers and facilitators will be evaluated. Therefore, subjects will be asked to wear a non-invasive wrist-worn consumer-level smartwatch for three months consecutively. Parent- and patient-acceptance, wear-ability and practical and technical barriers and facilitators will be evaluated and improved using Plan-Do-Study-Act cycles at evaluation points. In addition, the smartwatch's step count and heart rate measures will be validated in children with cancer.
Primary objective:	The primary aim of this study is to examine feasibility of long- term physical activity tracking in children during treatment for cancer. Secondly, the step count and heart rate validity of a consumer-level smartwatch in children with cancer will be established.



Study population:	Children aged 8-18 years, who are currently being treated at the Princess Máxima Center for Pediatric Oncology will be included in this study over a timespan of two years.
Study participation:	Monocenter
Scope:	National

Start international recruitment:	-
Start national recruitment:	11-04-2023
Expected date end of national recruitment:	-
International recruitment:	
Recruitment target protocol:	-
National recruitment:	
Recruitment target national:	30
Actual number of patients included:	15



# Sponsoren

Deze SKION & Shared Care dagen worden mede mogelijk gemaakt door:







Jazz Pharmaceuticals

