Testing of a new antibody therapy using blood from children with B-cell Non-Hodgkin lymphoma.

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Ethical review	Approved WMO
Status	Completed
Health condition type	Lymphomas non-Hodgkin's B-cell
Study type	Observational non invasive

Summary

ID

NL-OMON53135

Source
ToetsingOnline

Brief title
Testing anti-CD20 IgA with blood from pediatric lymphoma patients.

Condition

- Lymphomas non-Hodgkin's B-cell

Synonym
Non-Hodgkin B-cell lymphoma

Research involving
Human

Sponsors and support

Primary sponsor: Universitair Medisch Centrum Utrecht
Source(s) of monetary or material Support: KiKa Kinderen Kankervrij

Intervention

Keyword: Antibody, CD20, Lymphoma

Outcome measures

Primary outcome

Our in vitro experiments with patient material will demonstrate whether:

1. Our new anti-CD20 monoclonals are more effective in eliminating malignant

CD20+ B cells.

2. IgA is superior to IgG in eliminating malignant CD20+ B-cells.

Secondary outcome

- Setting up of a qualitative and quantitative assay to measure B-cel depletion

using lymphome and blood material from patients.

- Determine the working mechanisms of anti-CD20 IgA mediated B-cel depletion

(e.g. involvement of which leukocyte type(s) in ADCC).

Study description

Background summary

Rituximab, an anti-CD20 IgG monoclonal, is successfully used for treating Non-Hodgkin B-cell lymphomas in adults. From 2010, reports of rituximab therapy in children appear and in 2013 the Netherlands and the WKZ (Utrecht) joined in a protocol to treat children or adolescents with B-cell lymphomas. Long-term adverse effects of rituximab are, however, noted: permanent depletion of B cells and inability of naïve B cells to switch to memory B cells, resulting in life-long immunoglobulin depletion. The long persistence of IgG in the body and the immature nature of the B-cell compartment in children is probably accountable. Next to IgG, the IgA isotype is more effective as it can mediate stronger and faster antibody dependent cell-mediated cytotoxicity (ADCC) in in vitro/vivo experiments and it has a much shorter half-life, anticipated to cause fewer side effects. In short, IgA would facilitate an effective blow to the lymphoma but is cleared fast enough to allow a good recovery of the B-cell repertoire.

Study objective

Within the immunotherapy group, a new panel of anti-CD20 monoclonals have been generated that are currently produced as chimeric IgG and IgA formats. We intend to demonstrate the efficacy and the anticipated superiority of IgA versus IgG and rituximab in their B cell depletion efficacy using in vitro experiments with patient material.
Ultimately, by using anti-CD20 IgA, we aim to develop a better B-cell depletion therapy for children with Non-Hodgkin B-cell lymphoma that has less or no long term adverse effects.

Study design

1. Rest material from a lymphoma biopsy from a pediatric patient suspected for Non-Hodgkin lymphoma will be preserved in the laboratory.

2. As soon as Non-Hodgkin lymphoma is diagnosed, the patient will be asked to participate in our study and to donate a blood sample (<=30 ml).

3. The blood sample and the biopsy material from the same patient will immediatly be used for experiments in the laboratory. Depending on the results, we will adjust the setup of future experiments or the experiment will be repeated as soon as new material becomes available.

4. All patient material will be destroyed within 24 hours after blood sample aquisition.

Study burden and risks

We consider the burden for participation to be very low for the patient. There is no benefit for the patient when participating in our study.
Our study depends on aquiring material from pediatric patients diagnosed with CD20+ B-cell lymphoma and is therfore strongly related to this group.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adolescents (12-15 years)
Adolescents (16-17 years)
Children (2-11 years)

Inclusion criteria

Diagnosis op B-Non-Hodgkin lymphoma is the inclusion criterium.

Exclusion criteria

No diagnosis of B-Non-Hodgkin lymphoma.

Study design

Design

Study type: Observational non invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Completed
Start date (anticipated):	19-11-2021
Enrollment:	24
Type:	Actual

Ethics review

Approved WMO Date:	25-01-2018
Application type:	First submission
Review commission:	METC NedMec
Approved WMO Date:	26-01-2021
Application type:	Amendment
Review commission:	METC NedMec
Approved WMO Date:	01-11-2021
Application type:	Amendment
Review commission:	METC NedMec
Approved WMO Date:	31-08-2022
Application type:	Amendment
Review commission:	METC NedMec

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL61049.041.17