

# Evaluation of cognitive function of patients treated with sunitinib or sorafenib (UMCONCO200904)

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Tot evaluate the cognitive function of patients treated with sunitinib or sorafenib for metastatic renal cell cancer or a GIST, in order to get more insight in the prevalence, type and etiology of cognitive dysfunctioning during treatment with...

<b>Ethical review</b>	Approved WMO
<b>Status</b>	Recruiting
<b>Health condition type</b>	Other condition
<b>Study type</b>	Observational invasive

## Summary

### ID

NL-OMON33283

### Source

ToetsingOnline

### Brief title

Evaluation of cognitive function of patients with sunitinib or sorafenib

### Condition

- Other condition
- Renal and urinary tract neoplasms malignant and unspecified

### Synonym

gastro intestinal stromacel tumor, GIST, kidney cancer

### Health condition

GIST

### Research involving

Human

## Sponsors and support

**Primary sponsor:** Universitair Medisch Centrum Sint Radboud

**Source(s) of monetary or material Support:** Ministerie van OC&W

## Intervention

**Keyword:** cognitive functioning, sorafenib, sunitinib

## Outcome measures

### Primary outcome

it is a pure descriptive study, the results of the neuropsychological tests and the results of the lab tests of the different study groups will be compared

### Secondary outcome

not applicable

## Study description

### Background summary

Targeted therapy concerns the application of a new class of drugs that are specifically directed against one or more well-defined molecular targets that are relevant for carcinogenesis, cell cycle regulation, tumour progression, metastasis, tumour angiogenesis and/or apoptosis. Today, the most successful drugs in this class are directed against the vascular endothelial growth factor (VEGF) and the epidermal growth factor receptor (EGFR).

The toxicity profile of targeted therapies is still partly unknown, and the aetiology of many known side effects has not been clarified. Given the impact of side effects on the quality of life of a patient, increased knowledge on this topic is urgently required. At the moment, three targeted therapies that are directed against VEGF are registered and used in the Netherlands: Sunitinib (Sutent®) and Sorafenib (Nexavar®)

both oral tyrosine kinase inhibitors (TKIs) drugs and Bevacizumab (Avastin®), an intravenously antibody to the VEGF.

In this study we will focus on subjective and objective cognitive dysfunctioning in patients with metastatic cancer, treated with sunitinib or sorafenib. In our own clinical practice a substantial part of our patients that are treated with targeted therapies directed against VEGF, mention that they have problems with concentrating and that their memory function is decreased. Relatives sometimes point out that the behaviour of the patient is slightly different than before starting the VEGF inhibition. Pre-clinically studies show that VEGF influences growth and recovery of neurons.

## **Study objective**

To evaluate the cognitive function of patients treated with sunitinib or sorafenib for metastatic renal cell cancer or a GIST, in order to get more insight in the prevalence, type and etiology of cognitive dysfunctioning during treatment with sunitinib or sorafenib.

Research questions:

- What is the prevalence of subjective and objective cognitive dysfunctioning during treatment with sunitinib or sorafenib?
- What is the type of cognitive dysfunctioning during treatment with sunitinib or sorafenib?
- What is the possible mechanism of sunitinib or sorafenib related cognitive dysfunctioning, and is it related to special areas in the brains?
- Is cognitive dysfunctioning associated with demographic, psychological and /or physical variables?
- Is cognitive dysfunctioning associated with fatigue or mood disorders?
- Is there a relation between VEGF level in blood and the presence of cognitive dysfunctioning during treatment with sunitinib or sorafenib?
- Is there a relation between cytokine levels and the presence of cognitive dysfunctioning during treatment with sunitinib or sorafenib?

## **Study design**

The study design is an explorative pilot study with a healthy control group and a control group patients with metastatic disease but no treatment yet

## Study burden and risks

For patients it will take 2 hours. In these 2 hours different neuropsychological tests will be done, which require concentration the tests are furthermore not aggravating. Also some blood will be taken one time.

Besides a small change of a haematoma there are no further risks.

## Contacts

### Public

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### Scientific

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## Trial sites

### Listed location countries

Netherlands

## Eligibility criteria

### Age

Adults (18-64 years)

Elderly (65 years and older)

### Inclusion criteria

Patients:

-patients with metastatic renal cell cancer or GIST who are on treatment with Sunitinib or

Sorafenib for  $\geq 8$  weeks

- Karnofsky score  $> 70\%$
- age  $> 18$  year.
- written informed consent for study; Healthy controls selection:
- Healthy individuals:
- Karnofsky score  $> 70\%$
- age  $> 18$  year
- written informed consent for study; Patient controls selection

Inclusion criteria:

- patients with metastatic renal cell cancer or GIST who aren't treated yet (only interferon alfa or interleukine 2 treatment is allowed when  $> 12$  months ago).
- Karnofsky score  $> 70\%$
- age  $> 18$  year.
- written informed consent for study

## Exclusion criteria

Patients:

- contra-indications for treatment with Sunitinib or Sorafenib
- patients who do not speak or write the Dutch language adequately
- known brain metastasis
- use of psychiatric or anti-epileptic medication
- known cognitive disorders unrelated to diagnosis or medication use
- radiotherapy on the brain at any time in the past
- systemic chemotherapy
- in the last 12 months interferon alfa or interleukine-2 treatment
- operation in the last 6 months
- Diabetes Mellitus
- Stroke/TIA; Healthy controls section:
- individuals who do not speak or write the Dutch language adequately
- use of psychiatric or anti-epileptic medication
- known cognitive disorders (Alzheimer e.g.)
- radiotherapy on the brain at any time in the past
- systemic chemotherapy
- operation in the last 6 months
- Diabetes Mellitus
- stroke/TIA; Patient controls section:
- patients who do not speak or write the Dutch language adequately
- known brain metastasis
- use of psychiatric or anti-epileptic medication
- known cognitive disorders unrelated to diagnosis or medication use
- radiotherapy on the brain at any time in the past
- systemic chemotherapy
- in the last 12 months interferon alfa or interleukine-2 treatment
- operation in the last 6 months

- Diabetes Mellitus
- stroke/TIA

## Study design

### Design

Study phase:	4
Study type:	Observational invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Diagnostic

### Recruitment

NL	
Recruitment status:	Recruiting
Start date (anticipated):	24-07-2009
Enrollment:	80
Type:	Actual

### Medical products/devices used

Registration:	No
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## Ethics review

Approved WMO	
Date:	19-06-2009
Application type:	First submission
Review commission:	CMO regio Arnhem-Nijmegen (Nijmegen)

## 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	NL28333.091.09