

Comparing different dosing regimens of Avastin® in the treatment of wet age-related macular degeneration

Submission date 29/06/2009	Recruitment status No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
Registration date 22/09/2009	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
Last Edited 28/05/2020	Condition category Eye Diseases	<input type="checkbox"/> Individual participant data

Plain English summary of protocol

Background and study aims

Wet or neovascular age-related macular degeneration (nAMD) causes severe sight loss in older people. It develops when abnormal blood vessels form in the eye and damage its cells. Treatment with a drug known as Lucentis® (Ranibizumab) is now recommended best practice. This treatment prevents sight loss in over 90% of patients when given as injections into the eye with nAMD for periods of up to two years. Lucentis® is extremely expensive (approximately £750 per injection) and nAMD is common (about 25,000 newly affected people each year in the UK). Another drug called Avastin® (Bevacizumab) is licensed for colorectal cancer treatment and has similar properties. This drug has also been used to treat patients with nAMD and is also thought to confer similar benefits based on multiple studies. Avastin® is extremely cheap relative to Lucentis® because the dose for an eye injection is small, so the amount of drug needed for one colorectal cancer treatment can be made into very many doses for injection into the eye. There is an urgent need for more evidence about cost-effective ways to treat nAMD. Avastin® is widely used and some European countries have opted to provide Avastin® only. It is important to obtain more information to improve treatment with Avastin®, given that Avastin® appears to have similar effects on vision to Lucentis®. Different doses of Avastin® have not been tested and may be important for safety. There is also a pressing need to test different intervals for reviewing eyes that are being considered for re-treatment because monthly review is demanding for elderly patients, resource intensive and expensive. Therefore, the aims of this study are to compare the effectiveness of standard versus low doses of Avastin® and to compare monthly versus two-monthly review intervals. The study also assesses any side effects observed with different Avastin® doses and treatment schedules.

Who can participate?

Patients aged 50 and older starting treatment for nAMD

What does the study involve?

Participants are randomly allocated to be treated with a low dose or a high (conventional) dose of Avastin® and are also randomly allocated to return for reviews either monthly or two-monthly. Participants receive three injections of their allocated treatment on visits A, B and C

with 4-6 weeks between each visit. Following visit C and the third injection, the allocated treatment schedule is revealed, indicating how often patients should return for future review visits. Participants receive further injections (continuing the same dose) as required at review clinics until the affected eye(s) show reduced/reversed symptoms or until the participants withdraw from the study.

What are the possible benefits and risks of participating?

Possible harms to participants include the possibility of being allocated to an inferior treatment (a possible harm of participating in any study) and possible side effects of the treatments.

Possible side effects of treatment include: complications of eye injection such as endophthalmitis (inflammation), traumatic cataract (clouding) and/or retinal detachment. An increased risk of thromboembolic (blood vessel blockage) side effects has been observed after use of doses required for cancer studies. The researchers will be extremely vigilant for such side events.

Where is the study run from?

Nottingham University Hospitals NHS Trust (UK)

When is the study starting and how long is it expected to run for?

January 2010 to March 2017

Who is funding the study?

East Midlands Primary Care Trust Consortium (UK)

Who is the main contact?

Rebecca Haydock

Contact information

Type(s)

Scientific

Contact name

Ms Rebecca Haydock

ORCID ID

<https://orcid.org/0000-0001-6291-8069>

Contact details

Nottingham Clinical Trials Unit
Nottingham Health Science Partners
Queen's Medical Centre
Derby Road
Nottinghamshire
Nottingham
United Kingdom
NG7 2UH

Additional identifiers

Clinical Trials Information System (CTIS)

2009-014280-38

Protocol serial number

09OY006

Study information

Scientific Title

A randomised controlled Trial of high and low dose Avastin® for Neovascular macular Degeneration in the East Midlands (TANDEM)

Acronym

TANDEM

Study objectives

It is hypothesised that Avastin® remains effective in treating neovascular age-related macular degeneration (nAMD) when administered in smaller doses and/or at less-frequent intervals than those typically used in clinical settings.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Leicestershire, Northamptonshire & Rutland Research Ethics Committee 1, 13/11/2009, REC ref: 09/H0406/86

Study design

Multi-centre four group (factorial design) randomised controlled trial

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Neovascular (wet) age-related macular degeneration (nAMD)

Interventions

All patients will receive intraocular injections of Avastin® to treat nAMD. Patients will receive either a conventional dose (1.250 mg) or a low dose (0.625 mg) each month for three consecutive months. Following this, patients will receive further injections (continuing the same dose size) as required at review clinics. Patients will return for reviews either monthly or two-monthly.

As such there will be four different intervention groups:

L1: low dose Avastin®, one-monthly review

L2: low dose Avastin®, two-monthly review

H1: high (conventional) dose Avastin®, one-monthly review

H2: high (conventional) dose Avastin®, two-monthly review

Treatment will continue until the affected eye(s) demonstrate reduced/reversed symptoms or until patients are withdrawn.

Intervention Type

Drug

Phase

Phase IV

Drug/device/biological/vaccine name(s)

Avastin®

Primary outcome(s)

Time to an event, i.e. vision deterioration

Key secondary outcome(s)

1. Frequencies of adverse effects of treatment
2. Corrected distance visual acuity (VAllogMAR), measured as the number of letters read on a standard ETDRS chart at 1 metre

Measured 18 and 30 months after the start of recruitment and then annually

Completion date

31/03/2017

Eligibility

Key inclusion criteria

1. Adults of either sex aged 50 years and older
2. Newly referred for the treatment of nAMD
3. Corrected distance logarithm of the minimum angle of resolution visual acuity (VAllogMAR) greater than or equal to 20 letters and less than 70 letters read on a standard ETDRS chart at 1 metre
4. Any component of the neovascular lesion (choroidal neovascularisation [CNV], blood, serous pigment epithelial detachment, elevated blocked fluorescence) involving the centre of the fovea

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Total final enrolment

812

Key exclusion criteria

1. Aged less than 50 years
2. Corrected VAllogMAR less than 20 letters at 1 metre
3. Long standing CNV evidenced by the presence of fibrosis in excess of 50% of the total lesion
4. Greatest linear diameter greater than 6000 μm (equivalent to about 12 disc diameters)
5. Argon laser treatment to the proposed study eye within the last 6 months
6. Presence of thick blood involving the centre of the fovea
7. Presence of other active ocular disease causing concurrent vision loss, e.g. diabetic retinopathy
8. Previous treatment with photodynamic therapy (PDT) or a vascular endothelial growth factor (VEGF) inhibitor in either eye
9. Patients with 8 or more diopters of myopia
10. Pregnant and or lactating women
11. Women with child bearing potential (i.e. not sterilised or not post-menopausal) who are unwilling to use contraception
12. Men with a spouse or partner with child bearing potential unless the participant has agreed to use condoms
13. Patients with known hypersensitivity to recombinant human or humanised antibodies

Date of first enrolment

01/01/2010

Date of final enrolment

31/03/2017

Locations

Countries of recruitment

United Kingdom

England

Study participating centre

Nottingham University Hospitals NHS Trust

Nottingham

United Kingdom

NG7 2UH

Sponsor information

Organisation

Nottingham University Hospitals NHS Trust (UK)

ROR

<https://ror.org/05y3qh794>

Funder(s)

Funder type

Government

Funder Name

East Midlands Primary Care Trust Consortium (UK)

Results and Publications

Individual participant data (IPD) sharing plan

The data sharing plans for the current study are unknown and will be made available at a later date.

IPD sharing plan summary

Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol article	protocol	10/03/2015		Yes	No
Basic results			28/05/2020	No	No
HRA research summary			28/06/2023	No	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes