

# Progress Review and Trial Management

## Investigator Meetings

1<sup>st</sup> and 2<sup>nd</sup> September 2016 – London and Leeds





# Outline

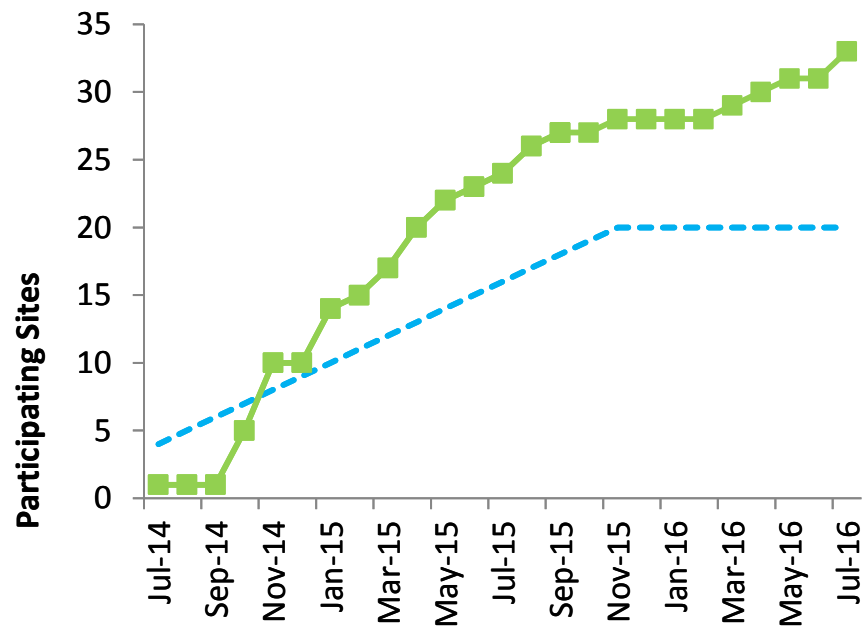
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- Year in review
- Patient identification, recruitment and randomisation
- Trial Procedures
- Proposed protocol changes



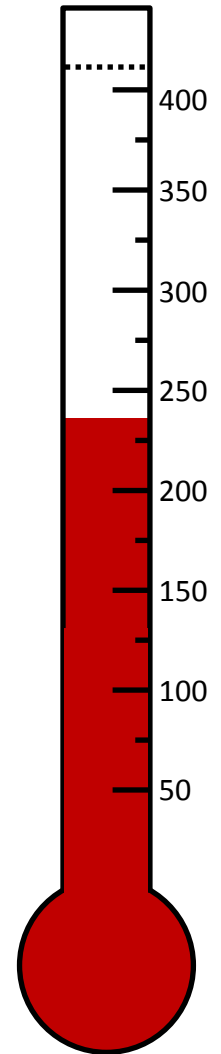
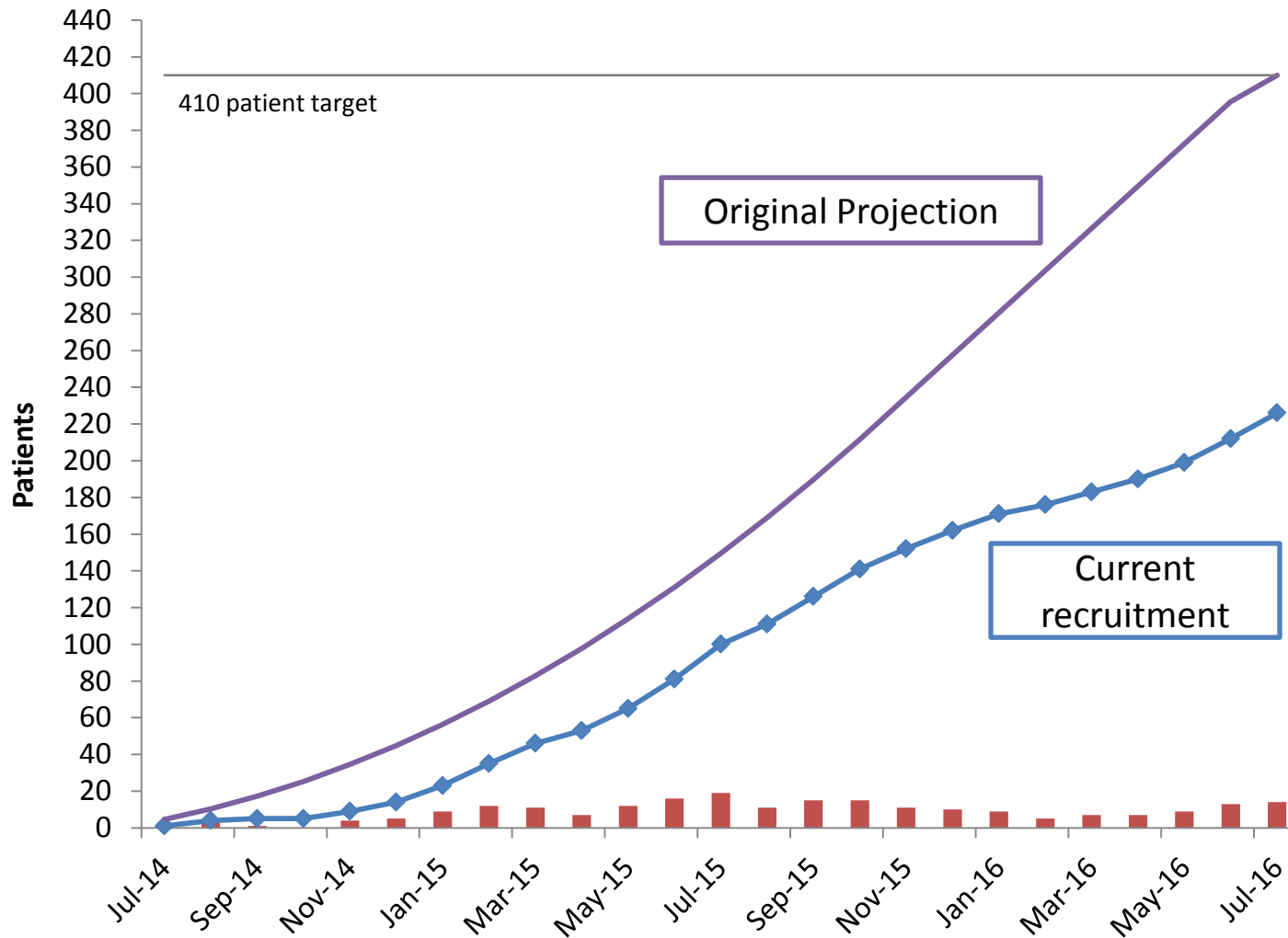
# Sites

- At our last meeting...  
20 sites open
- Now...  
33 sites open



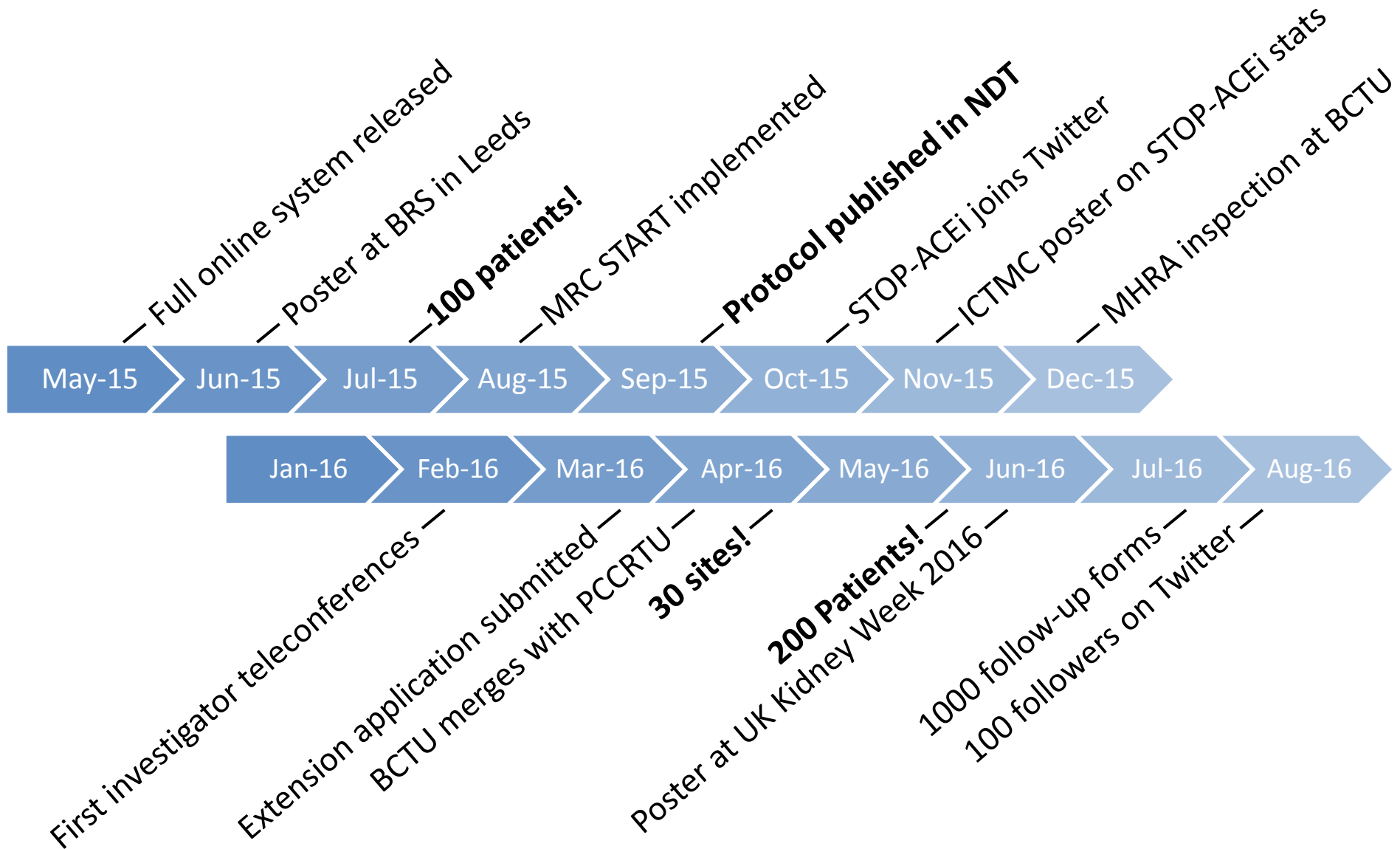


# Recruitment





# Since our last meeting...





# Since our last meeting...

Nephrol Dial Transplant (2016) 31: 255–261  
doi: 10.1093/ndt/gfv346  
Advance Access publication 30 September 2015

## Multicentre randomized controlled trial of angiotensin-converting enzyme inhibitor/angiotensin receptor blocker withdrawal in advanced renal disease: the STOP-ACEi trial

Sunil Bhandari<sup>1,2</sup>, Natalie Ives<sup>3</sup>, Elizabeth A. Brettell<sup>3</sup>, Marie Valente<sup>3</sup>, Paul Cockwell<sup>4</sup>, Peter S. Topham<sup>5</sup>, John G. Cleland<sup>6</sup>, Arif Khwaja<sup>7</sup> and Meguid El Nahas<sup>7</sup>

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Correspondence and offprint requests to: Sunil Bhandari; E-mail: sunil.bhandari@hey.nhs.uk

Nephrol Dial Transplant (2016) 31: 171–173  
doi: 10.1093/ndt/gfv351  
Advance Access publication 6 October 2015



## *In Focus*

## ‘To block or not to block’; whether to continue renin–angiotensin–aldosterone system blockade in advanced chronic kidney disease

Marit D. Solbu<sup>1,2</sup> and Alan G. Jardine<sup>1</sup>

<sup>1</sup>BHF Cardiovascular Research Centre, University of Glasgow, Glasgow, UK and <sup>2</sup>University Hospital of North Norway, Tromsø, Norway

Correspondence and offprint requests to: Alan G. Jardine; E-mail: alan.jardine@glasgow.ac.uk

“there is considerable uncertainty about the use, and effects, of blockade of the RAAS, and specifically the possible benefits or adverse consequences of withdrawal of ACEi and ARBs, in patients with CKD stage 4 and 5”

“It is an important issue with clinically relevant goals, which will have an immediate impact on the way we manage patients with common renal conditions”



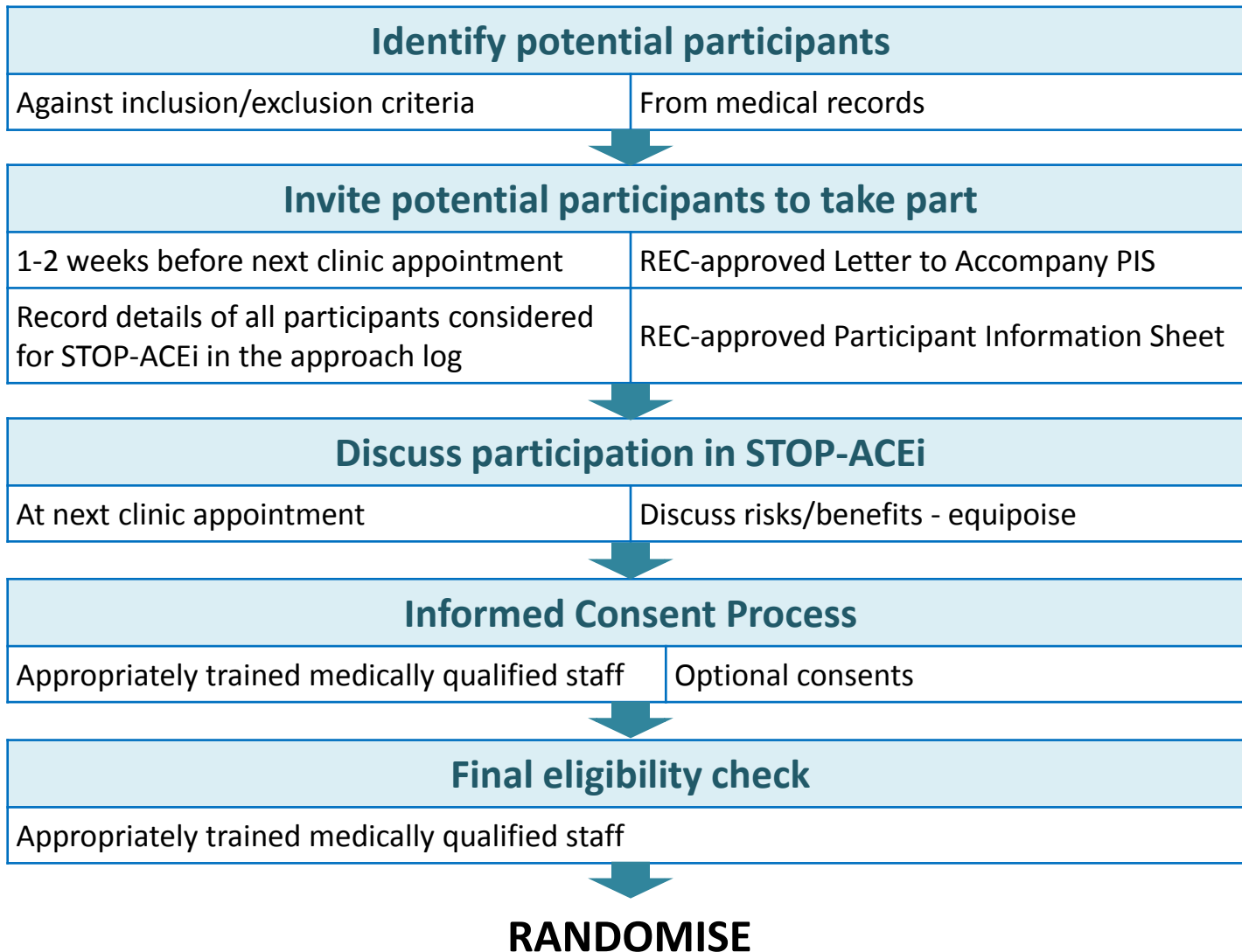
# Outline

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- Year in review
- Patient identification, recruitment and randomisation
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# Patient Recruitment







# Eligibility

Main Inclusion criteria	Main Exclusion criteria
≥18 years	Uncontrolled BP ( $\leq 160/90$ mmHg or more than 5 agents to control BP)
Advanced (stage 4 or 5) CKD	On dialysis or had transplant
Progressive deterioration in renal function (fall in eGFR of $>2$ ml/min/year, confirmed using the eGFR decline calculator provided)	Unsuitable for trial due to prognosis/projected survival of less than 12 months
Pre-dialysis, with no previous transplant	MI or stroke in last 3 months
On ACEi and/or ARB $\geq 6$ months with at least 25% of the maximum recommended daily dose on the day of consent	Immune-mediated renal disease that requires disease-specific treatment
Controlled BP ( $\leq 160/90$ mmHg)	Participation in interventional research in last 6 weeks
3 months' specialist renal follow-up	Unable to comply with trial schedule and follow-up
Written informed consent	Unable to provide informed consent

- More details in the Protocol



- |                      |                   |
|----------------------|-------------------|
| Male/Female          | Female            |
| Is ethnicity black?  | No                |
| Date of Birth:       | 12/05/1945        |
| Screening date:      | 21/08/2016        |
| Rate of decline:     | -4.86 mL/min/year |
| Is patient eligible? | ELIGIBLE          |
- 
- | Date of result | Serum creatinine |
|----------------|------------------|
| 18/09/2015     | 207              |
| 15/10/2015     | 197              |
| 13/11/2015     | 218              |
| 09/01/2016     | 241              |
| 03/03/2016     | 220              |
| 01/05/2016     | 255              |
| 24/07/2016     | 237              |
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- Please see the trial protocol for full details of the eligibility requirement for deteriorating renal function

  - Number of results within the last 3 months = 1
  - Results older than 2 years or future dates will be highlighted in red



# Eligibility - eGFR decline

Welcome, Marie Valente (MV975).  
Last Login date: 17-Aug-2016

You are connected to: Live [Change](#) [Logout](#)

## STOP-ACEi

[HOME](#)[PATIENTS](#)[eGFR CALCULATOR](#)[ADMINISTRATION](#)[HELP](#)[TRIAL WEBSITE](#)

### eGFR Decline Rate Calculator

This tool will calculate the rate of deterioration in renal decline based on a patient's creatinine results. Please use this tool to check if a patient has a fall in eGFR of  $>2\text{ml/min/year}$ , as required for the STOP-ACEi trial.

Remember that the patient also needs to meet all the other eligibility criteria to be eligible for the STOP-ACEi trial. Eligibility will be confirmed at the point of randomisation.

Patient DOB (dd-mmm-yyyy)

15-Jun-1950

Patient sex

Female ▼

Participant Ethnicity

31 - White - English / Welsh / Scottish / Northern Irish / British ▼

How many eGFR readings (taken over the last 24 months) do you wish to enter.

7

Please enter the oldest reading first.

To check eligibility for the STOP-ACEi trial:

You must use at least 3 creatinine readings.

All the readings must be taken within the last 24 months.

You must use at least one reading from within 3 months of randomisation.

Creatinine 1:	207	μmol/L	18-Sep-2015	Date:
Creatinine 2:	197	μmol/L	15-Oct-2015	Date:
Creatinine 3:	218	μmol/L	13-Nov-2015	Date:
Creatinine 4:	241	μmol/L	09-Jan-2016	Date:
Creatinine 5:	220	μmol/L	03-Mar-2016	Date:
Creatinine 6:	255	μmol/L	01-May-2016	Date:
Creatinine 7:	237	μmol/L	24-Jul-2016	Date:

CALCULATE

The rate of change in eGFR is:  $-4.94\text{ (mL/min/year)}$   
Based on these readings, this patient is **ELIGIBLE** for STOP-ACEi  
Negative value indicates decline.



# Eligibility – doing a ‘dry run’

Welcome, Marie Valente (MV975).

Last Login date: 17-Aug-2016

## STOP-ACEi

You are connected to: Live [Cancel](#)

Choose a connection....  
Choose a connection....  
Live  
Training

[Logout](#)



[HOME](#)

[PATIENTS](#)

[EGFR CALCULATOR](#)

[ADMINISTRATION](#)

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Home

### Welcome to the STOP-ACEi Online Randomisation Service

This site provides a secure entry form for baseline patient information. On completion the patient will be randomly allocated treatment. A patient trial number is also allocated which we will use in our correspondence to you. Confirmation of the allocation is automatically sent to the responsible clinician via email.

Click [here](#) to enter a patient into the trial.

If you have any questions about the STOP-ACEi Trial please contact: [STOPACEi@trials.bham.ac.uk](mailto:STOPACEi@trials.bham.ac.uk) or see the [Trial Information Website](#)

If you experience any problems or have questions about this online service please contact: [bctu-webadmin@contacts.bham.ac.uk](mailto:bctu-webadmin@contacts.bham.ac.uk)



# Eligibility – doing a ‘dry run’

Welcome, Marie Valente (MV975).

Last Login date: 17-Aug-2016

You are connected to: Training [Change](#) [Logout](#)

## STOP-ACEi

[HOME](#)[PATIENTS](#)[EGFR CALCULATOR](#)[ADMINISTRATION](#)[HELP](#)[TRIAL WEBSITE](#)

Patients : Enter new patient

### Patient Details

Has the patient given written informed consent

☐

Has the participant given consent for serum and urine samples to be taken, stored and used for future analysis of biomarkers both within this study and in future related studies?

☐

Has the participant consented to allow information held and maintained by The Health and Social Care Information Centre and current and future UK NHS bodies being used in the future to provide information about their long-term health status and health care, and for BCTU to hold their name, gender, date of birth and NHS number for this purpose?

☐

Patient DOB (dd-mmm-yyyy)

Patient sex

Participant Ethnicity

[NEXT](#)[PREVIOUS](#)[EXIT](#)

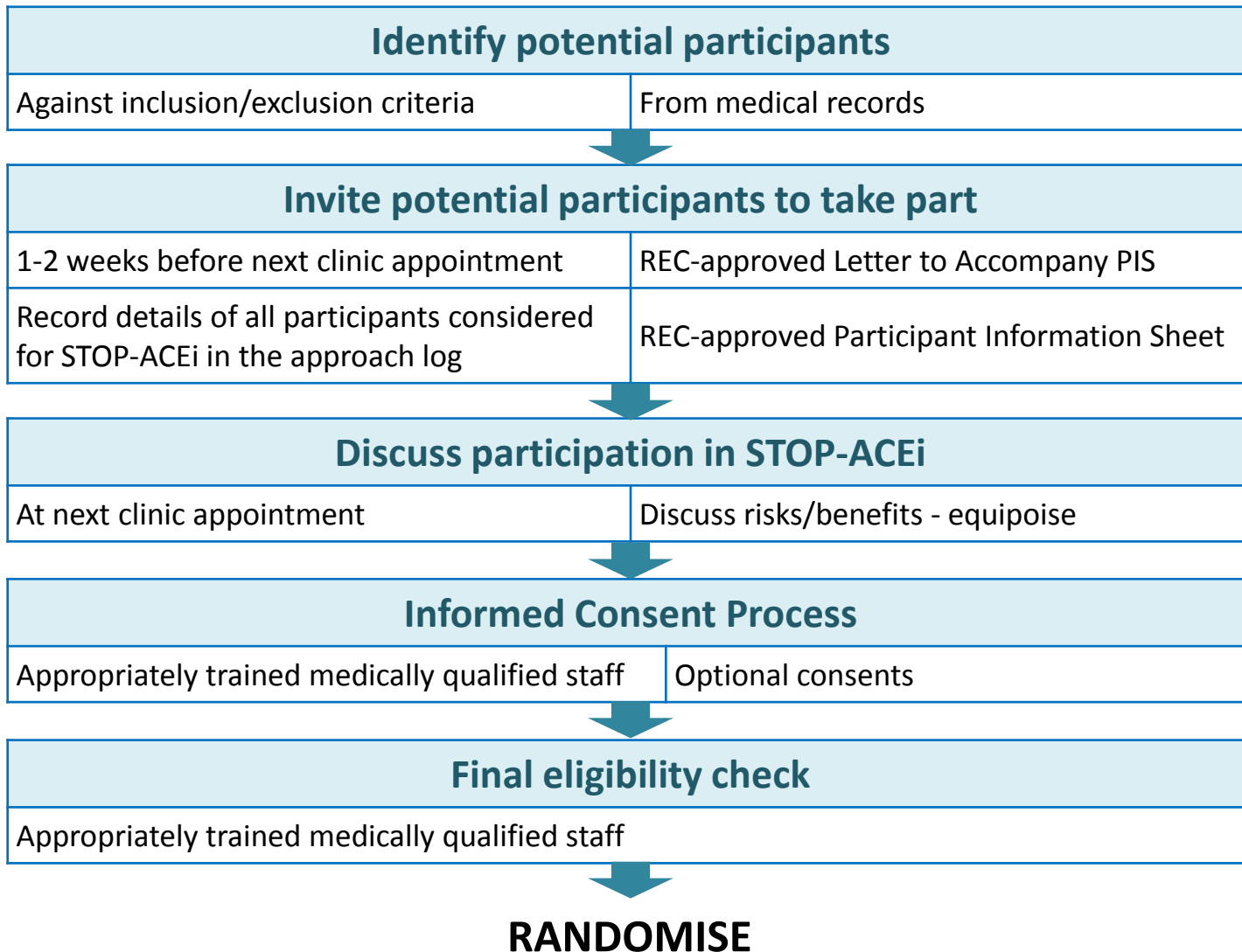


# Eligibility – Proposed changes

- Risk of CKD progression demonstrated by...
  - Fall in eGFR of  $>2\text{ml/min/year}$  measured by linear regression
  - OR presence of proteinuria
- Requirement for at least 3 months of renal follow-up will be removed
- Improvements are planned for the patient information sheets



# Patient Recruitment





# MRC START sub-study



Hull and East Yorkshire Hospitals **NHS**  
NHS Trust

## PARTICIPANT INVITATION AND INFORMATION SHEET

**Trial Title:**  
Multi-centre Randomised Controlled Trial of Angiotensin Converting Enzyme inhibitor (ACEi) / Angiotensin Receptor Blocker (ARB) withdrawal in advanced renal disease;  
The **STOP-ACEi** Trial.

### Invitation to take part in this research study

Thank you for reading this information sheet about the **STOP-ACEi** trial; we would like to invite you to take part. Before you decide whether or not you would like to take part, we would like you to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully and discuss it with others and your doctor if you wish. Do feel free to ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Part 1 tells you the purpose of this trial and what will happen to you if you take part.

Part 2 gives you more detailed information about the conduct of the trial.

**To find out more about the study see:**

[www.stopacei.com](http://www.stopacei.com)



Information to help your decision

Home

Information about this study

More about medical studies

Contact us

The Kidney Disease Study


Why are we doing the study and why do we need your help?

What will happen during the study?

Questions and Answers

Study care and safety

What happens after the study?



Lead researcher, Prof Sunil Bhandari, talks about the importance of the kidney disease study.

### Why is this study important?

Chronic kidney disease (CKD) affects 1 in 10 adults in the UK and can lead to serious outcomes such as the need for dialysis or kidney transplant.

For people with CKD it is important to keep blood pressure under control. This can prevent CKD progressing to kidney failure.

New findings from a small study found that for some patients who have advanced CKD and whose condition is getting worse, changing blood pressure medication led to their CKD stabilising or even getting better.

At the moment, doctors do not know which are the best blood

### Who is eligible?

We need to study people with CKD who may benefit from stopping some of their existing drugs. We are interested in people who:

- Are aged 18 years or over
- Have advanced CKD and are not on dialysis therapy
- Have kidney disease that is getting worse
- Have been taking either ACEi or ARB tablets, or a combination of both, for more than 6 months
- Have controlled blood pressure
- Have been under specialist kidney follow-up for at least 3 months





# Randomisation

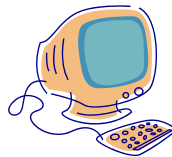


9am – 5pm, Mon-Fri  
0800 953 0274

Randomise



Confirmation  
e-mail



24hrs / 7 days

[www.trials.bham.ac.uk.stopacei](http://www.trials.bham.ac.uk.stopacei)

Collect info on  
Rand. Notepad

Complete trial  
ID on ICF



Fax the completed  
ICF to BCTU

0121 415 9135



BCTU will perform  
checks



# Outline

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# Trial visits and procedures

Trial visit number		1	Phone call	2	3	4	5	6	7	8	9	10	11	12	13
Visit month ( $\pm$ 2 weeks)	Screening	Baseline		3	6	9	12	15	18	21	24	27	30	33	36
Inclusion and exclusion criteria	Y	Y													
Informed consent / randomisation		Y													
Demographics: Date of birth, gender, ethnicity		Y													
Medical history including cardiovascular co-morbidity & CKD aetiology		Y													
Smoking status / alcohol intake		Y													
Height		Y													
Weight / BMI		Y					Y				Y				Y
Blood pressure		Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Record ESA dose		Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Record data from cardiac echo †		Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Changes to anti-hypertensive / con-medication ‡		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Compliance with the trial treatment allocation		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Adverse event documentation		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Routine tests														
eGFR and BCP*		Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
FBC**		Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Urinary PCR by early morning spot urine		Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CRP		Y					Y				Y				Y
	Additional tests														
Six minute walk test		Y					Y				Y				Y
KDQOL-SF™ v1.3 Questionnaire		Y					Y				Y				Y
12 Lead ECG		Y					Y				Y				Y
Cystatin-C / NT proBNP / ACE / Renin		Y					Y				Y				Y
Serum and urine samples for biomarker analysis ***		Y					Y								Y



# Trial procedures – Proposed changes

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- Flexible follow-up in line with routine visits for interim assessments
- A more structured path for partial withdrawal
- Removal of patient diaries



# Trial samples

	What will be tested	Where analysed	When samples taken
<b>Routine tests</b>	Biochemical profile eGFR Full blood count Urinary PCR CRP	Locally, at your site.	Baseline Every 3-monthly trial visit (CRP taken annually)
<b>Standard Trial Samples</b>	Cystatin-C NT-proBNP ACE Renin levels	Centrally, at Hull lab	Baseline, Month 12, Month 24, Month 36
<b>Optional Biomarker Samples</b>	unknown biomarkers in future analysis	Centrally, at Hull lab	Baseline, Month 12, Month 36

- See protocol for details of BCP and FBC
- Centrally analysed samples
  - Prepare according to trial guide in site file
  - Store at -80°C until sent to central lab in Hull
  - BCTU to arrange transport approx. annually



# Trial samples

## Preparing the tubes and labels

Please prepare the tubes and labels before taking any samples to avoid confusion. You will not be able to tell the difference between types of sample once they are separated so the tubes need to be labelled first. We recommend that you do this before the patient arrives.

- Please use the provided screw-cap bottles.
- You will need 4 x bottles for the standard trial samples and 6 x bottles for biomarker serum samples (= 10 bottles in total) for each visit.
- Label all bottles with the participant trial ID number, the trial visit and sample type (i.e. plasma, serum or urine) using the stickers provided.
- Put the label on the tube vertically so that the sample is visible from top to bottom on the other side of the tube.

**Please do not write the hospital number or patient name on the bottles to prevent sharing patient identifiable information**

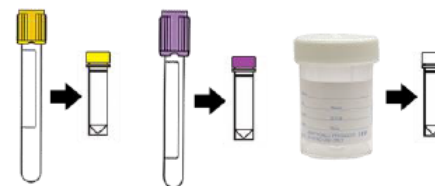
- Use yellow caps for the serum samples and purple caps for the plasma samples to match the blood collection tubes. Use clear caps for urine samples

### PREP TUBES



STOP-ACEi ID: \_ \_ \_ \_ \_

Visit: \_ \_ Type: \_





# Trial samples

## Sample Preparation

NB. Renin samples must be prepared and frozen within 1 hour of venepuncture.

Blood samples only. After taking the samples, leave them to stand upright at room temperature for 10-20 min, but no longer than 2 hours, to allow clotting.



CLOT

Blood samples only. Centrifuge samples at 3000 rpm (~1500g) for 5 mins.

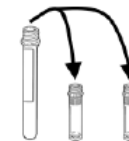


SPIN

Blood and urine samples. Aliquot the samples into the *labelled* tubes.

Tubes should be  $\frac{3}{4}$  full (approx. 1 mL) if possible.

Cap with the appropriate caps (yellow = serum, purple = plasma, clear = urine).



ALIQUOT

Blood and urine samples. Freeze the samples upright at -80°C as soon as possible after aliquoting. **Update the freezer log.**



FREEZE



The log should be completed electronically, but you can print a hard copy to keep by the freezer if this helps.

[illegible]





# KDQoL-SF™ Questionnaire

- Importance for the trial
  - Can't assess effect of trial treatment on patient wellbeing without input from the patient
  - Disease-specific
- Completed by participant
- Ideally alone to prevent influence
- RN can check for completeness or causes for concern
- Consider timing – before uncomfortable assessments or randomisation
- Allow time - While patient is waiting to be seen



# Six-minute walk test

- Importance for the trial
  - Test the effect of the trial intervention on physical function
- Follow the trial guide (based on validated ATS guide)
- Identify a space
  - Measured
  - Consistently available
  - No obstructions
- Standardised script to follow
- Consider safety
- Consider timing – patient at rest for ECG and BP



# Six-minute walk test

- There's a worksheet at the back of the trial guide.

Source Document Worksheet for STOP-ACEi 6MWT			
You can use this worksheet to help record the details of the 6MWT. NB Only the details on the study CRFs are required for the trial, but you can photocopy and use this for your source documents.			
Trial No.: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		Assessment date: <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
Assessment point:			
<input type="checkbox"/> Visit 1 (baseline) <input type="checkbox"/> Visit 5 (month 12) <input type="checkbox"/> Visit 9 (month 24) <input type="checkbox"/> Visit 13 (month 36)			
People administering test: <input type="text"/>			
Is lap length 60 m?		No <input type="checkbox"/> Yes <input type="checkbox"/> If no, lap length: <input type="text"/> m	
Clinical observations before test: e.g. BP, heart rate, participant fit to perform test etc.		<input type="text"/>	
Test performed?		No <input type="checkbox"/> Yes <input type="checkbox"/>	
Reason not performed: where applicable		<input type="text"/>	
Lap counts:		<input type="text"/>	
Distance of final partial lap:		<input type="text"/> m	
Total distance walked: rounded to nearest metre		<input type="text"/> m	
6 minutes completed?		No <input type="checkbox"/> Yes <input type="checkbox"/> If no, stopped after: <input type="text"/> min <input type="text"/> sec	
Reason for stopping prematurely: where applicable		<input type="text"/>	



# Pharmacy considerations

- Choice of drugs used is at clinician's discretion
  - ACEi/ARB
  - Other antihypertensives
- Standard Pharmacy stocks used
- No need for additional pharmacy management
  - Accountability logs
  - Study-specific prescription
  - Normal checks and clinical governance





# Casenote documentation

- See guidelines in ISF
- When patient is approached
  - Name of trial
  - Date approached about study or PIS given
  - Copy of PIS
  - Date of consent + record of discussion to show patient is 'informed'
  - Copy of signed consent form
  - Trial ID number
  - Arm they've been randomised to
  - Name of PI to contact about the study if any issues
- For each visit
  - Date and study visit number e.g. STOP-ACEi baseline visit
  - Any clinically relevant information e.g. medical history, changes to treatment/prescriptions, results of any medically relevant trial assessments
  - For AEs, a brief description of the event inc. start/stop dates and results of any clinically pertinent assessments made relating to the AE



# Proposed changes – summary

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- Changes to eligibility criteria:
  - Risk of progression demonstrated by proteinuria or by the existing standard of declining renal function
  - Removal of the requirement for 3 months renal follow-up
- Flexible follow-up in line with routine visits for interim assessments
- A more structured path for partial withdrawal
- Improvements to patient information sheets