

# Contacting GPs to reduce unnecessary prescriptions of antibiotics

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<b>Registration date</b> 26/09/2014	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 24/02/2016	<b>Condition category</b> Infections and Infestations	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Antibiotics are vitally important medicines. They are used to treat infections caused by bacteria, some of which would kill the person affected. In recent years, however, antibiotic resistance, a situation where an antibiotic no longer works against one or more bacteria, has become a major problem. It has been caused by a number of factors, including general practitioners (GPs) prescribing them for minor illnesses that do not need them or for conditions that antibiotics can't cure (such as the common cold). Here, we are going to test whether sending out letters designed with behavioural science techniques to GPs in practices known to have high antibiotic prescription rates (prescribe a lot of antibiotics) will encourage them to prescribe fewer of them.

### Who can participate?

GPs in practices in England whose antibiotic prescribing rate is in the top 20% for their NHS Local Area

### What does the study involve?

GP practices are randomised into one of two groups. GPs in group 1 are sent a letter designed to reduce prescription rates. It is sent by the government's Chief Medical Officer and contains some key messages about the importance of antibiotic resistance, levels of antibiotic prescribing, and importantly, simple actions that they can take to reduce the risk of resistance. GPs in group 2 are not sent a letter. Antibiotic prescription rates between the two groups are then measured.

### What are the possible benefits and risks of participating?

Benefits of taking part are support and motivation to improve clinical practice by reducing the risk of antibiotic resistance and prolonging the effectiveness of antibiotics in the future. The benefits to GPs are that information about levels of prescribing of antibiotics, resources to facilitate improved prescribing, and simple actions that can be implemented should enable and support them to improve their clinical practice. The risks are minimal because increased awareness and concern about antibiotic resistance is expected and necessary given the serious and growing threat to our health. Careful thought has gone into the content of the letter to make it enabling and supportive rather than negative.

Where is the study run from?  
Public Health England (UK)

When is the study starting and how long is it expected to run for?  
September 2014 to February 2015

Who is funding the study?  
Public Health England (UK)

Who is the main contact?  
Dr Tim Chadborn  
tim.chadborn@phe.gov.uk

## Contact information

**Type(s)**  
Scientific

**Contact name**  
Dr Tim Chadborn

**Contact details**  
Science and Strategic Information  
Health and Wellbeing Directorate  
Public Health England  
Skipton House, 3rd Floor  
London Road  
London  
United Kingdom  
SE1 6LH  
-  
tim.chadborn@phe.gov.uk

## Additional identifiers

**Protocol serial number**  
TP2014015

## Study information

**Scientific Title**  
Contacting GPs to reduce unnecessary prescriptions of antibiotics: a randomised controlled trial

**Study objectives**  
A letter designed with behavioural science techniques and sent to GPs in practices with high antibiotic prescribing rates will reduce the antibiotic prescription rates of those GP practices as a whole. Practices randomised to receive the letter will have lower antibiotic prescription rates than practices that do not receive anything.

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

NRES Committee London Harrow, 19/09/2014, ref. 14/LO/1544

**Primary study design**

Interventional

**Study design**

Randomised controlled trial

**Study type(s)**

Prevention

**Health condition(s) or problem(s) studied**

Antibiotic resistance

**Interventions**

1,500 GP practices with high antibiotic prescribing rates are randomly allocated into one of two treatment arms:

1. Experiment arm: a letter designed with behavioural science techniques and sent to all GPs in the practice
2. Control arm: no letter is sent

**Intervention Type**

Other

**Phase**

Not Applicable

**Primary outcome(s)**

Our primary outcome measure is a comparison of the change in the antibiotic prescribing rate from September to October 2014 between treatment and control groups, controlling for changes between these two months experienced by GP practices in previous years.

**Key secondary outcome(s)**

We will look at prescription rates for specific classes of antibiotics used to treat upper respiratory tract infections: penicillins, macrolides, Coamoxiclav, tetracyclines. This analysis will include looking at changes in the number of doses of specific types antibiotics generally prescribed for upper respiratory tract infections per 1,000 registered patients and whether the intervention has a stronger or weaker effect depending on the location, age, and gender of the recipients. We will compare changes in the antibiotic prescribing rate from September to October 2014 controlling for changes in prescribing between the same two months in 2013 as there is a three-month lag in the publication of the data, we will receive the data to the end of October 2014 in January.

**Completion date**

27/02/2015

**Eligibility**

### **Key inclusion criteria**

1. GP practices in England who issued prescriptions in May 2014, according to HSCIC prescribing data (the latest data available at the time of design)
2. GP practices whose antibiotic prescribing rate is in the top 20% for their NHS Local Area, controlling for relevant patient characteristics. More specifically, we will apply the Health and Social Care Information Centre's STARPU weightings for oral antibiotics (BNF 5.1 subset). These consist of age and gender weightings.

### **Participant type(s)**

Patient

### **Healthy volunteers allowed**

No

### **Age group**

Adult

### **Sex**

All

### **Key exclusion criteria**

1. GP practices are excluded if their current level of prescription (doses per 1000 head of population) is classed as an outlier. The cut-off for outliers is made at the 95th percentile of the distribution, since figures above this level were considered to be the result of measurement error. This judgment was made based on medical advice.
2. We exclude practices that have been in operation for less than a year in September 2014, since we require data for September 2013 in order to apply the difference-in-differences analysis.

### **Date of first enrolment**

29/09/2014

### **Date of final enrolment**

27/02/2015

## **Locations**

### **Countries of recruitment**

United Kingdom

England

### **Study participating centre**

**Public Health England**

London

United Kingdom

SE1 6LH

# Sponsor information

## Organisation

Public Health England (UK)

## Funder(s)

### Funder type

Government

### Funder Name

Public Health England (UK)

### Alternative Name(s)

PHE

### Funding Body Type

Government organisation

### Funding Body Subtype

National government

### Location

United Kingdom

# Results and Publications

## Individual participant data (IPD) sharing plan

### IPD sharing plan summary

Not provided at time of registration

### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	23/04/2016		Yes	No
<a href="#">HRA research summary</a>			28/06/2023	No	No