

# Treatment Options without Antibiotics for Sore Throat (TOAST)

<b>Submission date</b> 26/03/2013	<b>Recruitment status</b> No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
<b>Registration date</b> 26/03/2013	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 08/05/2017	<b>Condition category</b> Respiratory	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Currently nearly half of all patients who come to see their GP with acute (sudden) sore throat are treated with antibiotics. However, national guidelines do not recommend antibiotics for the majority of patients, particularly because inappropriate use of antibiotics contributes to the development of antibiotic resistance. Corticosteroids are drugs which have been shown to work in other infections of the airways such as croup. Evidence suggests that using corticosteroids to treat sore throat improves symptoms when given in addition to antibiotics. This study is investigating whether corticosteroids given without antibiotics can ease the symptoms of a sore throat, and whether they are cost effective.

### Who can participate?

Adults with a sore throat with symptoms starting within the last seven days.

### What does the study involve?

Participants are randomly allocated to one of two groups. Those in group 1 are given 10mg of dexamethasone (in pill form) Those in group 2 are given a placebo (dummy) pill. They take the medication at their initial GP appointment and are asked to complete a symptom diary every day for 7 days. They are also be asked at 24 and 48 hours via text message or telephone if their sore throat gets better. At one month their medical notes are reviewed by their GP to see what further treatment they receive during that time.

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

There are no guaranteed benefits from taking part in this study. However, participants will be helping research to improve the treatment of sore throats in the future. There are a number of risks to taking part. A participants sore throat may not improve after taking the trial medication. Even if they are randomly allocated the corticosteroid medication, it is not yet proven to be an effective treatment for sore throats by itself. There is a small risk of side effects from taking dexamethasone. A short course of corticosteroids usually causes no sideeffects. For example, a 1 2 week course is often prescribed to ease a severe attack of asthma and this is usually taken without any problems. Sideeffects are more likely to occur if it's taken for longer than 23 months or if short courses of treatment are taken repeatedly. Rare side effects include having an allergic reaction to the dexamethasone, becoming confused with hallucinations or delusions,

or very low in mood. Common side effects which are unlikely to have any lasting consequences are dyspepsia or heartburn and difficulty getting to sleep. Finally, participants are being asked to make a commitment to complete a symptom diary which may take up to 5 minutes every day for 7 days; and receive text messages or telephone calls at 24 and 48 hours after treatment from the trial research team.

Where is the study run from?  
Department of Primary Health Care (UK)

When is the study starting and how long is it expected to run for?  
February 2013 to April 2015

Who is funding the study?  
National Institute for Health Research (UK)

Who is the main contact?  
Miss Johanna Maughan  
johanna.maughan@phc.ox.ac.uk

## Contact information

**Type(s)**  
Scientific

**Contact name**  
Miss Johanna Maughan

**ORCID ID**  
<https://orcid.org/0000-0002-8750-8995>

**Contact details**  
Department of Primary Health Care  
23-38 Hythe Bridge Street  
Oxford  
United Kingdom  
OX1 2ET  
-  
johanna.maughan@phc.ox.ac.uk

## Additional identifiers

**Clinical Trials Information System (CTIS)**  
2012-004330-41

**Protocol serial number**  
13667

## Study information

**Scientific Title**

Do oral corticosteroids provide clinical and cost-effective symptom relief for sore throat? A multicentre, double blind, randomized, placebo-controlled trial

## **Acronym**

TOAST

## **Study objectives**

This trial is looking at different options for sore throat treatments. Currently nearly half of all acute sore throats presented in primary care are treated with antibiotics. However, this is an expensive option, is not proven to be effective in all situations and antibiotic resistance is on the rise. We are therefore looking at the use of a corticosteroid to treat acute sore throats. The trial will look at a steroid versus placebo in sore throat treatment and then also at two groups, one being those that are given antibiotics alongside the steroid treatment and the other those that are only given the steroid treatment. We are interested in seeing whether a steroid alone is effective in reducing sore throat symptoms in 24 and 48 hours and whether this approach is more cost effective in the long term. The participants will be randomised to receive either a placebo or steroid and neither they nor the doctor will know what treatment they are being given. The steroid being used is Dexamethasone, one 10mg dose will be given. This is a standard dose and safe for short term use. The trial will be run from three centres; Oxford, Bristol and Southampton and will run in GP surgeries in those regions. Eligible patients are those who are over 18 and whose sore throats meet various sore throat measuring criteria. Those people who are eligible will take one dose of medication, either placebo or steroid, and then will be asked to complete a symptom diary every day for the following 7 days. They will also be asked at 24 and 48 hours if their sore throat has resolved via text or phone. At one month their medical notes will be reviewed by their GP to see what further treatment they have received.

## **Ethics approval required**

Old ethics approval format

## **Ethics approval(s)**

South Central Oxford B, 20/12/2012, ref: 12/SC/0684

## **Study design**

Randomised; Interventional; Design type: Treatment

## **Primary study design**

Interventional

## **Study type(s)**

Treatment

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

Topic: Primary Care Research Network for England; Sore throat

## **Interventions**

Current interventions as of 21/07/2016:

Participants are randomly allocated to one of two groups:

Treatment arm: 10mg dexamethasone, over-encapsulated and given in one oral dose at the time of recruitment

Control arm: Lactose, over-encapsulated with an identical capsule and given in one oral dose at the time of recruitment

Previous interventions:

Dexamethasone/Placebo, one 10mg oral dose of dexamethasone on the day of presentation of their sore throat or a placebo

Follow Up Length: 1 month(s)

### **Intervention Type**

Drug

### **Phase**

Not Applicable

### **Drug/device/biological/vaccine name(s)**

Dexamethasone

### **Primary outcome(s)**

Direct report by the patient of presence or absence of complete resolution of sore throat at 24 hours by either text message or telephone

### **Key secondary outcome(s)**

1. Direct report by those patients who have not been prescribed antibiotics of presence or absence of complete resolution of sore throat at 24 hours by either text message or telephone
2. Report of presence or absence of complete resolution of sore throat at 48 hours by either text message or telephone contact
3. Report of time to onset of pain relief (in hours) within 7 days
4. Report of time to complete symptom resolution (in hours) within 7 days
5. Report of difficulty swallowing and pain on swallowing over the 7 days from treatment onset
6. Duration of moderately bad symptoms recorded by validated symptom diary over the 7 days from treatment onset
7. Severity of symptoms in the 2-4 days after seeing the doctor based on the symptom diary
8. Change in ratings of sore throat pain and pain on swallowing by visual analogue scale
9. Uptake of delayed antibiotic prescription within 7 days
10. Time missed from work or education over subsequent 7 days
11. Attendance at GP practice, A and E or Out of hours (OOH) centres within 28 days with symptoms or complications associated with sore throat e.g. peritonsillar abscess
12. Hospital admission with related complications of sore throat within 28 days
13. Use of over-the counter medications and prescription medications (including whether, if delayed antibiotics are taken, the course is completed, and whether any other antibiotics were taken) in the first 7 days
14. Cost effectiveness measures: Euroqol 5D score change in 7 days and impact on usual activities over 7 days

### **Completion date**

16/04/2015

## **Eligibility**

### **Key inclusion criteria**

1. Male and female aged 18 years or above
2. Presenting to a primary care appointment with acute sore throat and odynophagia (pain on

swallowing) which is judged by the clinician to be infective in origin

3. Onset of symptoms within the last 7 days

4. Patient has capacity and willingness, in the view of the recruiting clinician, to give consent and complete the trial paperwork, including the Symptom Diary

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

Patient

### **Healthy volunteers allowed**

No

### **Age group**

Adult

### **Lower age limit**

18 years

### **Sex**

All

### **Key exclusion criteria**

1. Female participant who is pregnant, lactating or planning pregnancy during the course of the study
2. Recent (<1 month) use of inhaled or oral corticosteroids
3. Recent (<1 month) Adenotonsillectomy
4. Currently or recently (<14 days) taking antibiotics
5. Clear alternative diagnosis e.g. Pneumonia
6. Known immune-deficiency (e.g. HIV, active chemotherapy or advanced cancer)
7. Scheduled elective surgery or other procedures requiring general anaesthesia during next 7 days
8. Participant who is terminally ill
9. Symptoms or signs suggesting that hospital admission is required (e.g. Completely unable to swallow, very systemically unwell, peritonsillar abscess)
10. Participant judged by the GP to require immediate antibiotics
11. History of severe affective disorders including steroid-induced psychiatric illness
12. British National Formulary (BNF) listed contra-indications to oral steroids
13. Existing symptoms that are also side effects of, oral steroids
14. Patients taking other interacting medication (e.g. Phenytoin and anti-coagulants). Clinicians will be asked to use the BNF and their clinical prescribing systems to check for interactions for all patients
15. Known dexamethasone allergy
16. Any other significant disease or disorder which, in the opinion of the Investigator, may either put the participants at risk because of participation in the study, or may influence the result of the study, or the participants ability to participate in the study
17. Involvement in another clinical trial of an investigational medicinal product in the last 90 days or any other research within the last 30 days
18. Recruiting primary care site is not the patients usual practice if the patient is not expecting to still be with the primary care site in one month (i.e. Temporary residents)
19. Previous TOAST participation
20. Patients able to be randomised by the end of the (working) day of presentation
21. Requirement for live vaccine in next 7 days

**Date of first enrolment**

12/04/2013

**Date of final enrolment**

27/02/2015

## Locations

**Countries of recruitment**

United Kingdom

England

**Study participating centre**

Department of Primary Health Care

Oxford

United Kingdom

OX1 2ET

## Sponsor information

**Organisation**

University of Oxford

**ROR**

<https://ror.org/052gg0110>

## Funder(s)

**Funder type**

Government

**Funder Name**

National Institute for Health Research

**Alternative Name(s)**

National Institute for Health Research, NIHR Research, NIHRresearch, NIHR - National Institute for Health Research, NIHR (The National Institute for Health and Care Research), NIHR

**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	18/04/2017		Yes	No
<a href="#">Protocol article</a>	protocol	18/09/2014		Yes	No
<a href="#">HRA research summary</a>			28/06/2023	No	No
<a href="#">Participant information sheet</a>	version V4	21/07/2016	21/07/2016	No	Yes