

# Procalcitonin-guided antibiotic use in Acute Respiratory Tract Infections (ARTIs) in primary care

<b>Submission date</b> 18/01/2005	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
<b>Registration date</b> 15/02/2005	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 20/09/2017	<b>Condition category</b> Respiratory	<input type="checkbox"/> Individual participant data

**Plain English summary of protocol**  
Not provided at time of registration

## Contact information

**Type(s)**  
Scientific

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## Additional identifiers

**ClinicalTrials.gov (NCT)**  
NCT00099840

**Protocol serial number**  
EKBB 254/04

## Study information

**Scientific Title**

Procalcitonin-guided antibiotic use in Acute Respiratory Tract Infections (ARTIs) in primary care

**Acronym**

PARTI-Study

**Study objectives**

Acute respiratory tract infections (ARTI) are among the most frequent reasons for seeking medical attention in primary care. Although from predominantly viral origin, ARTIs are the most important condition for the prescription of antibiotics (AB), mainly due to the difficulty in primary care to differentiate between viral and bacterial etiology. Unnecessary AB use increases drug expenditures, side effects and AB resistance. A novel approach is to guide AB use by procalcitonin (ProCT), since serum levels are elevated in bacterial infections but remain lower in viral infections and inflammatory diseases. We aim to compare a strategy based on evidence-based guidelines with ProCT guided AB therapy in ARTIs with respect to outcome (days with restriction) and AB use.

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

Not provided at time of registration

**Study design**

Randomised controlled trial

**Primary study design**

Interventional

**Study type(s)**

Treatment

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

Acute respiratory tract infections

**Interventions**

All participating physicians will receive evidence-based guidelines for the management of patients with ARTIs. Patients with ARTI and in need of antibiotics by physicians' clinical judgment and with informed consent will be randomized to procalcitonin (ProCT) guided antibiotic prescription ("ProCT group") versus guidelines guided antibiotic prescription ("control group").

**Intervention Type**

Other

**Phase**

Not Specified

**Primary outcome(s)**

Days with restrictions from ARTI

**Key secondary outcome(s)**

1. Rate of AB prescriptions; days with AB use
2. Symptoms from ARTI
3. Relapse rate from ARTI within 28 days
4. Days with side effects from ABs and off work
5. Cost-effectiveness

**Completion date**

31/03/2006

**Eligibility****Key inclusion criteria**

18 years or older, with ARTI of >1 and <28 days duration and in need of antibiotics based on the clinical judgment of the primary care physician

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Lower age limit**

18 years

**Sex**

All

**Key exclusion criteria**

1. Patients without informed consent
2. Not fluent in German
3. Antibiotic pretreatment in previous 28 days
4. Severe immune-suppression

**Date of first enrolment**

01/12/2004

**Date of final enrolment**

31/03/2006

**Locations****Countries of recruitment**

Switzerland

**Study participating centre**  
**University Hospital Basel**  
Basel  
Switzerland  
4031

## Sponsor information

**Organisation**  
University Hospital Basel (Switzerland)

**ROR**  
<https://ror.org/04k51q396>

## Funder(s)

**Funder type**  
University/education

**Funder Name**  
University Hospital Basel - Clinic of Endocrinology, Basel Institute of Clinical Epidemiology (BICE), Dept. of Internal Medicine, Dept. of Central Laboratories (infrastructure)

**Funder Name**  
BRAHMS AG, Hennigsdorf, Germany (assay material)

**Funder Name**  
Schweizerischer Nationalfonds zur Förderung der Wissenschaftlichen Forschung

**Alternative Name(s)**  
Schweizerischer Nationalfonds, Swiss National Science Foundation, Fonds National Suisse de la Recherche Scientifique, Fondo Nazionale Svizzero per la Ricerca Scientifica, Fonds National Suisse, Fondo Nazionale Svizzero, Schweizerische Nationalfonds, The Swiss National Science Foundation (SNSF), SNF, SNSF, FNS

**Funding Body Type**  
Private sector organisation

**Funding Body Subtype**  
Trusts, charities, foundations (both public and private)

Location  
Switzerland

## Results and Publications

### Individual participant data (IPD) sharing plan

#### IPD sharing plan summary

##### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	13/10/2008		Yes	No
<a href="#">Protocol article</a>	protocol	18/08/2005		Yes	No
<a href="#">Other publications</a>	secondary analysis	24/03/2016		Yes	No
<a href="#">Participant information sheet</a>	Participant information sheet	11/11/2025	11/11/2025	No	Yes