

# Laser Doppler imaging as a tool in burn wound treatment

<b>Submission date</b> 06/09/2012	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 07/11/2012	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 07/02/2017	<b>Condition category</b> Surgery	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

Burns result in long stays in hospital and cause psychological problems. The main treatment of burns is early excision (removal) of injured tissue, which reduces inpatient stay and decreases the costs of treatment. There are many methods to assess burn wounds, but clinical examination of burn is still widely use. The aim of this study is to compare two different methods of examination of burned patients, clinical burn depth examination and Laser Doppler imaging, to estimate the impact of the two methods on length of stay in hospital and the costs of burns treatment.

### Who can participate?

Patients age 18 to 75 with burns

### What does the study involve?

Patients are randomly allocated to be undergo either clinical burn depth examination or laser Doppler imaging. Both groups also provide a biopsy (sample) of burned tissue under anaesthetic. The duration of the patients' stay in hospital and the cost of treatment are assessed in both groups.

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

Laser Doppler imaging may decrease the inpatient stay in hospital and cost of treatment. Clinical burn depth examination and Laser Doppler imaging are non-invasive investigations. There is a risk of wound bleeding after biopsy.

### Where is the study run from?

Lithuanian University of Health Sciences (Lithuania)

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

May 2009 to May 2013

### Who is funding the study?

Lithuanian University of Health Sciences (Lithuania)

Who is the main contact?  
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## Contact information

**Type(s)**  
Scientific

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## Additional identifiers

**Protocol serial number**  
Be 2-23

## Study information

**Scientific Title**  
Laser Doppler imaging as a tool in burn wound treatment: a prospective randomised trial

**Acronym**  
LDI

**Study objectives**  
Laser Doppler imaging is the first choice diagnostic approach of burned patients than clinical burn deep examination.

**Ethics approval required**  
Old ethics approval format

**Ethics approval(s)**  
Kaunas Regional Ethics Committee, 11/04/2009, ref: BE 2-23

**Study design**  
Prospective randomized controlled study

**Primary study design**

Interventional

**Study type(s)**

Diagnostic

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

Plastic and reconstructive surgery

**Interventions**

There are two groups of patients:

1. Clinical burn depth examination group
2. Laser Doppler imaging group

Biopsy of burned tissue of both groups is carried out under local or intravenous anesthesia. LDI scan and CBDE are non invasive investigations

**Intervention Type**

Procedure/Surgery

**Phase**

Not Applicable

**Primary outcome(s)**

Duration of patients' stay in hospital

**Key secondary outcome(s)**

1. Cost of treatment
2. Sensitivity and specificity of different burn examination
3. Perfusion parameters of burn tissue during LDI scan

**Completion date**

01/05/2013

**Eligibility**

**Key inclusion criteria**

1. Burned patients during 72 hours
2. Age 18 to 75 years
3. Agreement to participate in study

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Lower age limit**

18 years

**Upper age limit**

75 years

**Sex**

All

**Key exclusion criteria**

1. Age > 75 years
2. Pregnant burned women
3. Mental disease of patients
4. Disagreement to participate in clinical study
5. Burned patients with critical condition of health who were treated in intensive care unite department

**Date of first enrolment**

01/05/2009

**Date of final enrolment**

01/05/2013

**Locations**

**Countries of recruitment**

Lithuania

**Study participating centre**

Lithuanian University of Health Sciences Kaunas Clinics

Kaunas

Lithuania

LT 50009

**Sponsor information**

**Organisation**

Lithuanian University of Health Sciences (Lithuania)

**ROR**

<https://ror.org/0069bkg23>

**Funder(s)**

**Funder type**

University/education

**Funder Name**

Lithuanian University of Health Sciences (Lithuania)

## 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="#">Participant information sheet</a>	Participant information sheet	11/11/2025	11/11/2025	No	Yes