

# Evaluation of Dutch Integrated Stroke Service Experiments

<b>Submission date</b> 26/06/2007	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 26/07/2007	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 30/08/2011	<b>Condition category</b> Circulatory System	<input type="checkbox"/> Individual participant data

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

**Study website**  
<http://www.zonmw.nl>

## Contact information

**Type(s)**  
Scientific

**Contact name**  
Prof Robbert Huijsman

**Contact details**  
Inst Health Policy & Managment  
Erasmus University Rotterdam  
Burgemeester Oudlaan 50  
Rotterdam  
Netherlands  
3000DR  
+31 10 4088555  
[r.huijsman@erasmusmc.nl](mailto:r.huijsman@erasmusmc.nl)

## Additional identifiers

**EudraCT/CTIS number**

**IRAS number**

**ClinicalTrials.gov number**

## Secondary identifying numbers

N/A

# Study information

## Scientific Title

## Acronym

EDISSE

## Study objectives

Stroke services lead to better and more effective, efficient and patient-directed care for stroke patients compared to usual care.

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

Approvals received from Local Medical Ethics Committees for all six regional services at all hospitals involved between May and September 1999.

### Case regions:

1. Heemstede, Spaarne Hospital: Medical Ethics Committee of Spaarne Hospital
2. Delft, Hospital Reinier de Graaf Groep: Medical Ethics Committee for South West Holland
3. Nijmegen, Canisius Wilhelmina Hospital: Ethics Committee of Canisius

### Control regions:

1. Amsterdam, Saint Lucas Andreas Hospital: Medical Ethics Committee of Saint Lucas Andreas Hospital
2. Hilversum, Hilversum Hospital: Medical Ethics Committee of Hilversum Hospital
3. Leiderdorp, Rijnland Hospital: Medical Ethics Committee of Rijnland Hospital

### Central registration:

1. Central Committee for Patient-Related Research: annual reports and overviews of decisions by local MECs
2. The Central Committee on Research Involving Human Subjects (CCMO)

## Study design

Prospective, non-randomized controlled trial.

## Primary study design

Interventional

## Secondary study design

Non randomised controlled trial

## Study setting(s)

Not specified

**Study type(s)**

Treatment

**Participant information sheet****Health condition(s) or problem(s) studied**

Ischemic stroke

**Interventions**

The experimental stroke service settings were those that provided Integrated Stroke unit and Stroke services care as defined by an expert consensus committee. Methodologically, the assessment of integrated stroke services is the evaluation of a complex mixture of interventions at the organizational, professional and patient levels. It needs careful definition, or at least a full description to allow for a transparent (cost-) effectiveness analysis. Formally, Dutch stroke services are defined as a network of service providers working together in an organized way to provide adequate services in all stages of the follow-up of stroke patients. It includes a hospital stroke unit. An expert group made this broad definition more explicit, defining a core set and an optimal set of criteria. It emphasizes a setting integrating all relevant institutions: hospitals, nursing homes, rehabilitation centers, general practitioners and home care providers working together to provide multidisciplinary, coordinated care through organized patient transfers and protocols. This definition is in accordance with international views.

We compared all consecutively hospitalized stroke patients in three experimental stroke service settings (Delft, Haarlem and Nijmegen, 411 patients in total) with concurrent patients receiving conventional stroke care (187 patients) over 6 months follow-up.

**Intervention Type**

Other

**Phase**

Not Specified

**Primary outcome measure**

1. Health-related quality-of-life (QALIES) at two and six months
2. Cumulative total societal costs at three months (direct and indirect costs)
3. "Length-of-stay" as the most important cost driver

**Secondary outcome measures**

1. Other neurological health outcomes (Glasgow Coma Scale, 30 item version of the Sickness Impact Profile [SA-SIP30], Cambridge Cognitive Examination, modified Rankin Scale [mRS], The Barthel Index [BI])
2. Care satisfaction
3. Indirect medical costs
4. Residence
5. Quality of care

A qualitative study also observed the characteristics of the regional services.

**Overall study start date**

01/09/1999

**Completion date**

31/05/2000

## Eligibility

**Key inclusion criteria**

All patients in these experimental settings were compared to similar concurrent patients from general hospitals in three other Dutch regions. The latter were selected from a group of 23 hospitals participating in a previous national study. Based on the data collected in this already completed study, three hospitals were selected as representing the average Dutch patient, receiving the average current level of Dutch stroke care. The criteria for this selection were:

1. The average age of patients
2. Duration of hospital stay
3. Case-fatality
4. Barthel Index at discharge
5. Destination after discharge

All consecutive hospital patients admitted in a region with an acute first or recurrent ischemic stroke or Transient Ischemic Attack (TIA) were included.

**Participant type(s)**

Patient

**Age group**

Not Specified

**Sex**

Both

**Target number of participants**

A minimum of 75 and a maximum of 100 patients per cluster; 411 patients were registered.

**Key exclusion criteria**

Dead on arrival.

**Date of first enrolment**

01/09/1999

**Date of final enrolment**

31/05/2000

## Locations

**Countries of recruitment**

Netherlands

**Study participating centre**

**Inst Health Policy & Managment**  
Rotterdam  
Netherlands  
3000DR

## **Sponsor information**

### **Organisation**

The Netherlands Organisation for Health Research and Development (ZonMw)

### **Sponsor details**

Laan van Nieuw Oost Indië 334  
Postbox 93 245  
The Hague  
Netherlands  
2509 AE

### **Sponsor type**

Research organisation

### **Website**

<http://www.zonmw.nl/en/>

### **ROR**

<https://ror.org/01yaj9a77>

## **Funder(s)**

### **Funder type**

Research organisation

### **Funder Name**

The Netherlands Organisation for Health Research and Development (ZonMw)

## **Results and Publications**

### **Publication and dissemination plan**

Not provided at time of registration

### **Intention to publish date**

### **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:	26/02/2003		Yes	No
<a href="#">Results article</a>	Results:	01/03/2004		Yes	No
<a href="#">Results article</a>	Results:	01/03/2004		Yes	No
<a href="#">Results article</a>	Results:	01/09/2004		Yes	No
<a href="#">Results article</a>	Results:	03/11/2004		Yes	No
<a href="#">Results article</a>	Results:	01/06/2005		Yes	No