EUMED: Cross-Border Emergency Medical Assistance in the Meuse-Rhine Euregio (Belgium, the Netherlands, Germany)

Project term

Project partners
GGD Zuid-Limburg (NL)
Traumacentrum Limburg (NL)
Academisch Ziekenhuis Maastricht (NL)
City of Aachen (DE)
District of Aachen (DE)
District of Heinsberg (DE)
District of Düren (DE)
District of Euskirchen (DE)
University Hospital of Aachen (DE)
Province of Liège (BE)
Centre Hospitalier Universitaire de Liège (BE)
Centre Hospitalier Régional de la Citadelle, Liège (BE)
Ziekenhuis Oost-Limburg Genk (BE)

Summary

The Euregio Meuse-Rhine (EMR) is a densely populated region stretching across the borders of three countries (Belgium, Germany, the Netherlands). The standard of the region in the provision of medical care is high. Due to the industrial activities located in this region, the high amount of traffic as well as frequently held large-scale events, the area has a particularly high risk of being hit by large-scale disasters.

The “EUMED” project (Euregional Medical Assistance / mutual support in the case of large-scale disasters) with a project term of three years is part of the EMRIC project (Euregio Maas-Rijn – Interventie in geval van Crisis, Euregio Meuse-Rhine – disaster management) which was started in January 2005 and is funded from the Interreg Community Initiative. First EUMED project activities already started at the end of the 1990s.

“EUMED” comprises the elements of “routine rescue operations”, “large scale disasters” as well as “further training measures/exercises”. Meanwhile a Euregional emergency medical assistance plan (EUMED Ambu Concept) has been developed to improve cross-border cooperation in the case of large-scale disasters. This is now being tested in alarm exercises. Moreover, a Euregional plan on the distribution of casualties has been developed to ensure the prompt transfer of patients in the case of large-scale disasters. In the purpose-built practical training centre in Heerlen as well as at various decentralized locations in the EMR further training seminars and language courses are being held. An evaluation of the present products is carried out based on trials and/or implementation into practice.

At the moment, the present products are being tested in practice. Further activities such as the drawing up of a Euregional psycho-social assistance plan are in preparation.
Project Background

The Euregio Meuse-Rhine (EMR) is a densely populated region stretching across the borders of three countries (Belgium, Germany, the Netherlands). An area of 10,478 km² is inhabited by about 3.8 million people. The standard of the region in the provision of medical care is high. The EMR has 8 rescue coordination centres, about 57 hospitals and about 70 rescue services. Due to the industrial activities located here, the high volume of traffic as well as due to the frequently held large-scale events, the area has a particularly high risk of being hit by large-scale disasters. Mass casualty incidents can therefore not be excluded.

Particularly with regard to large-scale disasters, cooperation with the neighbouring countries is useful because due to shorter distances the scene of an accident might in some cases be reached within shorter times by the rescue services of the neighbouring country than by the rescue forces from the nearby regions of the affected country itself. The neighbouring border regions are moreover equipped with high-quality medical facilities which might be required in the case of large-scale disasters. In mass casualty incidents it is moreover necessary that rescue forces cooperate in a quick and coordinated way, satisfying the quality standards of everyday health care provision. Cross-border cooperation therefore has to be tested, but these tests must not only be restricted to rather rare disaster operations or exercises but have to start with the provision of routine care services.

In the Meuse-Rhine Euregio (EMR), a number of cooperation projects concerning the provision of emergency medical care are already being carried out (see Ramakers and Bindels 2006). In addition to the described EUMED Project, these projects also include the "Rescue services" project completed at the end of 2005 which was in particular dealing with the insurance-related aspects of cross-border rescue operations.

Three bilateral agreements concluded on cross-border assistance in the case of disasters and accidents are relevant for the EMR. These include (a) the agreement between the Federal Republic of Germany and the Kingdom of the Netherlands, (b) the agreement between the Kingdom of the Netherlands and the Kingdom of Belgium as well as (c) the agreement between the Federal Republic of Germany and the Kingdom of Belgium. They provide the basis for further agreements which were or are to be concluded within the EMR.
on cross-border cooperation in the field of emergency medical care provision. An overview of all agreements existing in the EMR can be taken from the publication by Ramakers and Bindels (2006).

**Activities initiated up to now**

Medical assistance for normal rescue operations on a mutual basis has already been provided for several years within the EMR. Up until some years ago, rescue vehicles from the other side of the border were only rarely deployed and admission to hospital in a neighbouring country in a case of emergency proved to be difficult.

In the year 2001, the ITS in Nijmegen conducted a study entitled “Emergency medical assistance for accidents and disasters”, in which the provision of emergency medical care for disasters in Belgium, Germany and the Netherlands was examined and recommendations were made on the improvement of cross-border cooperation in this field (Post 2003). First practical steps to intensify and improve cross-border cooperation in the field of emergency medical care were taken under the one-year pilot project “Mutual assistance for rescue services” which started on 1 April 2002.

A further relevant study has meanwhile been conducted which describes the impacts of existing general agreements, of the existing statutory regulations and current projects in the EMR and makes recommendations on the improvement of cross-border emergency medical services in the EMR (Ramakers & Bindels 2006). The study states that (Ramakers & Bindels 2006:3): “The operational obstacles which in the first years made cooperation difficult could – apart from some minor “flaws” - be removed. The main problem still is the financing of transport and provision of care. Final agreements are moreover required with regard to narcotics and the use of optical and acoustic signals. Bilateral agreements between the countries seem to be the best solution here. Such agreements can be concluded based on various general agreements at EU, Benelux or the national level.”

**Description of the “EUMED” Project**

The “EUMED” project (Euregional medical assistance / mutual aid in the case of large-scale disasters) with a project term of three years is part of the EMRIC project (Euregio Maas-Rijn – Interventie in geval van Crisis, Euregio Meuse-Rhine – disaster management) which was started in January 2005. EMRIC is financed through funds from the Interreg Community Initiative. The EMRIC project is intended to sustainably improve cross-border cooperation in the field of rescue services as well as fire and disaster control at the level of the rescue forces and rescue services coordination centres. “EMRIC” comprises various elements. These include the fields of routine rescue operations, mutual assistance in the provision of

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1 In three studies the corresponding legislations were finalized and an overview of the problems which still exist and/or have already been abolished was drawn up.
medical care in the case of large-scale disasters as well as further training measures and exercises but also the field of “fire protection” and the drawing up of a risk map (summarized by “EUMED”). These sub-modules shall be brought together and provided on an internet-based platform which will also function as a virtual integrated network of the rescue coordination centres in the EMR and shall provide various elements for better communication (see www.emric.net). The platform will, however, also provide information for the public.

First EUMED project activities already started at the end of the 1990s. To ensure good and uncomplicated rescue cooperation among the three countries, activities are required at various levels:

- with regard to rescue services (routine rescue operations and in the case of large-scale disasters)
- allocating injured persons to hospitals
- in the field of training courses and exercises for the rescue forces.

“EUMED” therefore comprises the elements of “routine rescue services”, “large-scale disasters” as well as “further training measures/exercises” (see illustration 1). It includes a number of activities which are described in greater detail in the following.

**Illustration 1**: Elements of the “Medical EUMED” project; sub-project of the “EMRIC” framework project

**Routine rescue operations**

As early as at the beginning of 2000/2001, a working group was set up with the intention of coordinating cross-border rescue services. Within a short period of time, agreements on mutual support for normal rescue procedures could be made between Zuid-Limburg (B) and Aachen Regio (D) and between Zuid-Limburg (NL) and Riemst (B).
In addition to the usual means of transportation, rescue helicopter Christoph 1 of the German ADAC stationed in Würselen-Merzbrück (near Aachen) can also be deployed. A further helicopter for cross-border deployment is available in the Province of Liège.

The provision of mutual support in normal rescue cases has meanwhile on several occasions been proved to be successful. Table 1 gives an overview of the cross-border rescue operations in the Meuse-Rhine Euregio.

**Table 1**: Overview of cross-border rescue operations in the Meuse-Rhine Euregio in 2005 and 2006.

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rescue operations by the German side</td>
<td>161</td>
<td>79 (January until June inclusive)</td>
</tr>
<tr>
<td>Rescue operations by RAV (NL) in Germany</td>
<td>113</td>
<td>26 (January until April inclusive)</td>
</tr>
<tr>
<td>Rescue operations by RAV (NL) in Belgium</td>
<td>78</td>
<td>18 (January until April inclusive)</td>
</tr>
<tr>
<td>Rescue helicopter operations</td>
<td>22</td>
<td>17 (January until June inclusive)</td>
</tr>
</tbody>
</table>

**Large-scale disasters**

Also in the case of large-scale disasters the neighbouring countries, if required, are to be provided as quickly as possible with appropriate medical support in the form of ambulance units and hospital treatment capacities. This shall be achieved with the help of the project modules “Eumed Ambu” and “EUMED-Hospital”. For both project modules counselling bodies have been set up. These include:

- a steering committee on emergency medical care in the EMR
- meetings of the emergency rescue coordination centres and rescue services in the EMR as well as
- a Euregional Medical Disaster Management Task Force.

**Eumed-Ambu**

Under the leadership of GGD Zuid-Limburg, the steering group on “Medical support for emergencies in the Meuse-Rhine Euregio” which comprises representatives from all regional organisations responsible for rescue services in the EMR (district of Heinsberg, district of Aachen, city of Aachen, district of Düren, district of Euskirchen, Rijksgezondheidsinspectie of the province of Liège and GGD Zuid-Limburg) has drawn up a Euregional emergency support plan, the so-called “Eumed-Ambu Concept”. This concept serves to improve cooperation in the field of emergency rescue operations during large-scale disasters by regulating operational procedures for the provision of mutual support. The concept among other things includes procedures concerning the alarming and provision of emergency rescue units and describes the functions of the rescue operation coordinating centres as well
as the conduct of rescue operations (triaging of patients, directing rescue services to the right location etc.). Additions and explanations are added to the concept in the form of enclosures.

This concept which is available in three languages has to a large extent been implemented. The concept is now being used in alarm exercises to establish whether it is suitable for practical implementation and in order to practice emergency rescue operations.

For the provision of cross-border medical support during large-scale disasters in the EMR, a cooperation agreement has additionally been drawn up (Eumed-Ambu Cooperation agreement – Cross-border medical support for large-scale disasters in the Meuse-Rhine Euregio”). According to this agreement, cross-border medical support in the case of large-scale disasters is to be provided in accordance with the regulations of the “Eumed-Ambu” emergency rescue plan, joint exercises are to be held at least once a year and required information has to be made available to all parties involved. The signing of this agreement is presently still outstanding (as of July 2006).

For the regional implementation of the “Eumed-Ambu Concept” the individual regions (South-Limburg, district of Aachen, city of Aachen, district of Heinsberg, district of Düren, district of Euskirchen, province of Liège and Limburg) have to draw up corresponding operation plans for large-scale disaster management. These plans will also include the provision of mutual support.

“Eumed Hospital”

In the case of large-scale disasters quick decisions have to be made about the hospitals into which the individual patients can be transferred. This requires information about the capacities available in the individual hospitals of the EMR.

Under the leadership of the Gemeentelijke Gezondheids Dienst (GGD) Zuid-Limburg, nine institutions – among them the four big hospitals of the EMR, the Academisch Ziekenhuis Maastricht, Centre Hospitalier Universitaire in Liège, the Ziekenhuis Oost-Limburg in Genk as well the University Hospital of Aachen2 – have worked out a Euregional plan for the distribution of casualties in the EMR. The plan provides for the allocation of casualties of a large-scale disaster to the eight big hospitals in the EMR. To be selected, these hospitals had to be in a position to provide 7x24-hour poly-trauma care. Thus, 101 t1 and t2 patients (t1 = triage 1, acute life threatening danger, t2 = seriously injured) per hour can be treated.

EUCREW Meuse-Rhine

As early as in 2003, the “EUCREW – Meuse-Rhine” commission was set up. This commission developed further training modules and carried out corresponding events and

2 Further partners were the Centre Hospitalier Régional (CHR) in Liège, the Trauma Centre of Limburg, the Atrium Hospital of Heerlen and Orbis Sittard.
exercises to improve cooperation in the field of emergency medical care in the region. This project has meanwhile been put on a broader basis and further organisations have been included. EUCREW Meuse-Rhine understands itself as a working community. It comprises the Gezondheidsinspectie of the Belgian provinces of Limburg and Liège, the German ADAC, Aachen Regio, the German-speaking community of Belgium, GGD Zuid Limburg (department GHOR Zuid-Limburg) and several training institutions in the field of emergency medical care in the Meuse-Rhine Euregio. In addition to language courses and the introduction of different rescue systems, the training programme in 2005/2006 also includes training seminars in the fields of preclinical trauma care or the coordination of medical rescue services during large scale disasters. The training seminars are held in a purpose-built Emergo training centre in Heerlen and at various other locations in the EMR.

Under EUCREW, the following structures were established:

- the EUCREW Meuse-Rhine working group which is responsible for the development of the training modules as well as for the organisation and carrying out of the training courses as well as
- the EUCREW Meuse-Rhine steering committee, which is responsible for setting up the financial and regulatory framework for the training courses.

Evaluation

The present products such as EUMED hospital and EUMED Ambu are being evaluated by means of testing and implementation into practice. In alarm exercises, tests are already being carried out to establish whether the products are suitable for practice.

Prospect

Three languages are spoken in the EMR. This means that corresponding documents and cooperation agreements have to be drawn up in all three languages. To make communication possible and/or easier when it comes to implementing the concepts into practice, special language courses are being offered under the “EUCREW” project. Moreover multilingual anamnesis forms and technical dictionaries have been drawn up. Also in the case of large-scale disasters it is thus without any major problems possible to jointly classify and treat patients.

The present products (Euregional emergency rescue support plan “Eumed-Ambu”, the Euregional plan for the distribution of injured persons “EUMED Hospital”, exercises) facilitate and promote mutual support for normal rescue procedures as well as in the case of mass casualty incidents and disasters. To implement the concepts and instruments developed so far, it is now necessary to test them so that the use of mutual support in emergencies becomes a natural course of action and can be provided without any problems.
In addition to the above-described activities, further activities are in preparation. Under the leadership of GGD Zuid-Limburg (NL), a number of partners have joined their forces to cooperate in the field of psychosocial care during large-scale disasters (Eumed-Psych). The objective is to draw up a psychosocial rescue service plan at the Euregional level. Presently (July 2006), this plan is still under development.

The products generated so far in the EMR can also be used for other projects in other border regions so that other regions as well can profit from these activities.

Website

A website is presently under construction. It can be retrieved at www.emric.net (German, Dutch, French, English).

Literature


Bindels, T. (2005): Nach dem Unfall: die psychosoziale Hilfeleistung bei Unfällen und Katastrophen in Belgien, Deutschland und den Niederlanden. Also available in Dutch (original version) and in French.


Post, B. et al. (2000) Grenzüberschreitende dringende ärztliche Hilfeleistung Belgien, Deutschland-Niederlande. ITS: Nijmegen. Also available in Dutch (original version) and in French.


These partners include the district of Heinsberg, the district of Aachen, the city of Aachen, the district of Düren, the district of Euskirchen, Rijksgezondheidsinspectie Provincie Lui as well as Rijksgezondheidsinspectie Provincie Limburg.
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