

## Study Guide P I G O R 2012

Preparation intervention and health surveillance following incidents and disasters involving hazardous substances



Department of Epidemiology, Biostatistics and HTA



October-November 2012



# 1. General information

## 1.1 Main objectives and aims

This course provides an introduction to the medical response to incidents and more in particular those incidents involving exposure of humans to hazardous materials. Attention is given to the task of the public health advisor hazmat (GAGS) and the staff of the regional health service (GGD).

Main learning objectives

1. The participant is able to apply knowledge and skills relevant to the prevention and mitigation of small and large scale incidents in the work- or general environment.
2. The participant is able to conduct health surveillance studies aimed at assessment of health and disease in victims and first responders.

Main objective

The participant can apply knowledge and skills related to the physical determinants of health and disease to the mitigation of the health effects caused by incidents and disasters and can perform studies to identify the health consequences to victims and responders.

Learning objectives

For each subject the learning objectives are described below:

1. The participant knows the meaning of the Dutch and European regulations to prevention of disasters and is aware of the communication network needed to respond to a crisis.
2. The participant understands the most fundamental principles of emergency toxicology and can interpret intervention values of emergency response in relation to incidents involving hazardous materials.
3. The participant understands the most fundamental principles of epidemiology that are relevant for the performance of health-oriented studies among victims of incidents and disasters involving hazardous materials.
4. The participant can recognize and identify his contribution to prevention, intervention and health research related to incidents and disasters.
5. The participant has the knowledge and basic skills to address health risk communication related to the support after incidents and disasters.
6. The participant has sufficient research skills to perform studies of the health consequences of incidents and disasters to direct victims, first responders and by-standers.

Course materials

- Hand-outs of presentations and supporting documents are supplied on Blackboard (available until December 31st, 2012).
- WHO (2008) Guidelines for the public health management of chemical incidents and emergencies
- VROM/VWS/BZK (1999) Communicatie naar de bevolking bij incidenten met gevaarlijke stoffen (in Dutch)

### 1.3 Coordination and instructors (t.b.c. = to be confirmed)

Module coordinator:

Dr. P.T.J. Scheepers, toxicologist, occupational hygienist, public health advisor hazmat t.(36)16878  
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Course secretary:

S. van Wezel, management assistent t. (36)19630  
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#### Instructors:

**Dick Arentsen (t.b.c.)**, safety engineer and advisor hazmat fire brigade (AGS)  
Nederlands Instituut voor Fysieke Veiligheid (NIFV), Arnhem

**Peter Bos**, toxicologist, National Institute for Public Health and the Environment (RIVM), Bilthoven

**Marc van Bruggen**, physician, Centre for Health and Environment (cGM), National Institute for Public Health and the Environment (RIVM), Bilthoven

**Annelieke Drogendijk (t.b.c.)**, psychologist, Arq Pshychotrauma Expert Group, Diemen

**Martin Eggens**, toxicologist and public health advisor hazmat (GAGS),  
Hulpverleningsdienst Groningen

**Sven Evertz**, public health advisor hazmat (GAGS), GGD Zuid-Limburg

**Werner Hagens**, regional advisor health and environment, National Institute for Public Health and the Environment (RIVM), Bilthoven

**Joris IJzermans**, senior onderzoeker acute zorg en rampen, Nederlands Instituut voor Onderzoek van de Gezondheidszorg (NIVEL), Utrecht

**Rinske Keuken**, physician, public health advisor hazmat (GAGS)  
GGD Kennemerland, Haarlem

**Carolien Mommers**, public health advisor hazmat, and staff member development and risk assessment, Veiligheidsregio Rotterdam-Rijnmond

**Ramon Ramlal**, senior-research assistant, National Institute for Public Health and the Environment (RIVM), Bilthoven

**Nel Roeleveld**, epidemiologist, Department of Epidemiologie, Biostatistiek en HTA, Radboud University Nijmegen Medical Centre

**Paul Scheepers**, toxicologist, occupational hygienist and public health advisor hazmat (GAGS), Dept. Epidemiology, Biostatistics and HTA, Radboud University Nijmegen Medical Centre

**Cisca Stom (t.b.c.)**, physician, Centre for Health and Environment (cGM), National Institute for Public Health and the Environment (RIVM), Bilthoven

**Rick van de Weerd**, physician and public health advisor hazmat (GAGS), Hulpverlening Gelderland Midden, Arnhem

## 1.4 Course program PIGOR [with short titles] t.b.c = to be confirmed

### *PIGOR 1: Wednesday, October 31<sup>st</sup> - Preparation (UMC St Radboud, Nijmegen)*

09:00-09:30	-	Registration
09:30-09:45	Dr. ir. P.T.J. Scheepers	Introduction
09:45-10:15	Dr. ir. P.T.J. Scheepers	Getting acquainted
10:15-11:00	Dr. ir. P.T.J. Scheepers	Role of the regional health services
11:00-12:00	Dr. ir. P.T.J. Scheepers	Principles of Toxicology
12:00-13:00	Restaurant -	Lunch
13:00-14:00	Dr. ir. P.T.J. Scheepers	Principles of Toxicology (continued)
14:00-14:30	Dr. ir. P.T.J. Scheepers	Quick scan toxicity data
14:30-14:45	-	Break
14:45-16:45	Dr. ir. P.T.J. Scheepers	Computer training PATCHWORK
16:45-17:00	Dr. ir. P.T.J. Scheepers	Evaluation computer training

### *PIGOR 2 Thursday, November 1<sup>st</sup> 2012 - Intervention (RIVM, Bilthoven)*

09:30-11:00	G22	Dr. P. Bos	Intervention values of emergency response
11:00-12:00	G22	Dr. W.I. Hagens	Exposure assessment of hazardous chemicals
12:00-13:00	Restaurant	-	Lunch
13:00-14:30	MOD	Dr. W.I. Hagens, R. Ramlal	Demonstration of mobile facilities for air sampling and analysis of the MOD
14:30-15:30	G22	Dr. ir. P.T.J. Scheepers	Recognition and treatment of intoxications
15:30-16:30	G22	<speaker Arq> (t.b.c.)	Psychosocial crisis management
16:30-17:00	G22	Drs. F.S.M. Stom (t.b.c)	Role of the cGM in incidents and disasters

***PIGOR 3: Tuesday, November 6th, 2012 – Biomonitoring (UMC St Radboud, Nijmegen)***

09:30-10:30	Dr. P.T.J. Scheepers	GGD-MMK Guidance biomonitoring
10:30-11:15	Dr. P.T.J. Scheepers	Case 1 Biological Monitoring
11:15-11:30	-	Break
11:30-12:30	Dr. P.T.J. Scheepers	Case 2 Biological Monitoring
12:30-13:30	-	Lunch
13:30-14:00	Dr. P.T.J. Scheepers	Introduction biomonitoring training
14:00-16:00	Dr. P.T.J. Scheepers, Dr. M. Eggens	Biomonitoring training
16:00-17:00	Dr. P.T.J. Scheepers, Dr. M. Eggens	Evaluation biomonitoring training

***PIGOR 4: Wednesday, November 7th, 2012- Risk Communication(UMC St Radboud, Nijmegen)***

09:30-11:00	Dr. P.T.J. Scheepers	Case psychogenic illness
11:00-11:15	-	Break
11:15-12:30	R. van de Weerd	Discussion of RIVM report
12:30-13:30 Restaurant	-	Lunch
13:30-14:00	Drs. R. Keuken	Introduction to communication training
14:00-16:30 ,	Drs. R. Keuken, R. van de Weerd	Communication training
16:30-17:00	dr. P.T.J. Scheepers	Evaluation communication training

***PIGOR 5: Wednesday, November 14<sup>th</sup>, 2012 - Health studies (UMC St Radboud, Nijmegen)***

09:30-11:00	Dr. ir. N. Roeleveld	Epidemiology
11:00-12:00	Dr. J. IJzermans	[Use of health registrations]
12:00-13:00 Restaurant	-	Lunch
13:00-13:30	Dr. ir. N. Roeleveld	Introduction to training
13:30-16:00	Dr. ir. N. Roeleveld, Dr. ir. P.T.J. Scheepers	Setting up a health survey
16:00-17:00	Dr. ir. N. Roeleveld,	Evaluation of training

***PIGOR 6: Wednesday, November 21<sup>st</sup>, 2012: Shelter and evacuation (UMC St Radboud, Nijmegen)***

09:30-11:00	Dr. S. Evertz	Cases of the public health advisor hazmat
11:00-10:15	-	Break
11:15-12:30	Dr. C. Mommers (t.b.c.)	Procedure shelter and evacuation
12:30-13:30 Restaurant	-	Lunch
13:30-15:00	Dr. C. Mommers, Dr. ir. P.T.J.Scheepers, D. Arentsen (t.b.c.)	Training shelter and evacuation
15:00-15:15	Dr. ir. P.T.J. Scheepers	Evaluation of training
15:15-15:30	-	Break
15:30-17:00	Dr. ir. P.T.J. Scheepers	Written exam
17:00-17:30	Dr. ir. P.T.J. Scheepers	Evaluation of the course