

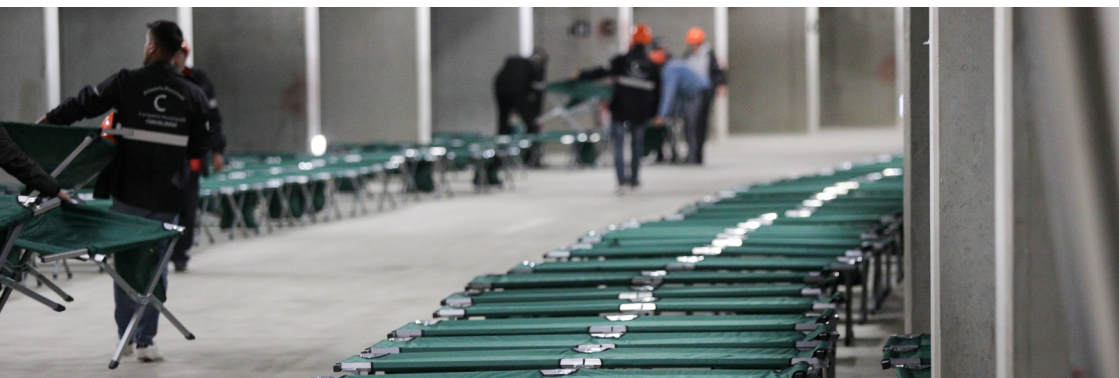
CAS

Certificate of Advanced Studies
Certificat de formation continue

Medicines and Medical Devices in Emergency and Disaster

February 2022 > June 2023

on-the-job modular training



FACULTY OF SCIENCE

Specialised Centre for Emergency and Disaster Pharmacy
Institute of Pharmaceutical Sciences of Western Switzerland



UNIVERSITÉ
DE GENÈVE



Steering Committee

Executive Board

- **Prof. Pascal Bonnabry**, (Director), Director of the Specialised Centre for Emergency and Disaster Pharmacy, University of Geneva; Chief Pharmacist, Geneva University Hospitals
- **Prof. Stefan Mühlebach**, (Co-Director), Department of Pharmaceutical Sciences, University of Basel; Head of the Therapeutic Products Division, Federal Office for National Economic Supply

University of Geneva Members

- **Dr Olivier Hagon**, Deputy Head, Division of Tropical and Humanitarian Medicine, Geneva University Hospitals; Medical Director at the Swiss Humanitarian Aid Unit; lecturer at the University of Geneva
- **PD Dr Nicolas Widmer**, Operational Director of the Specialised Centre for Emergency and Disaster Pharmacy, University of Geneva; Chief Pharmacist, Pharmacy of the Eastern Vaud Hospitals, Rennaz

External Expert

- **Mr Michael Flück, MPH**, Cantonal pharmacist (from December 2021) Bern

Scientific Council

- **Ms Marie-José Barbalat**, Community pharmacist, Unisanté, Lausanne; President of Pharmacists without Borders Switzerland
- **Dr Arnaud Dupuis**, Head of Clinic; Operational Director of the Specialized Centre for War and Disaster Surgery, Geneva University Hospitals
- **Lt Col Stéphane Galy**, Chief Pharmacist, French National Fire Officers Academy, Aix-en-Provence (France)
- **Dr Jean-Marc Krähenbühl**, Community pharmacist, Echallens; member of the pharmaSuisse committee
- **Dr Marc Niquille**, Associate Medical Officer, Pre-hospital Emergencies and Resuscitation Unit, Geneva University Hospitals; Physician in charge of the Organisation in case of Disaster, Geneva
- **Dr Kathrin Summermatter**, Head, Biological Risk Management Network, University Emergency Centre, University Hospital Bern; Institute for infectious diseases, University of Bern
- **Dr Erik Paus**, Pharmacist and Paramedic, Service Protection et Sauvetage Lausanne; lecturer at the University of Geneva
- **PD Dr Mathias Zürcher**, Associate Professor for Rescue and Disaster Medicine, University Hospital Basel; Head of the Swiss Center for Rescue, Emergency and Disaster Medicine, Basel



Acquire professional knowledge on the use of therapeutic products in crisis situations

Our modern societies are particularly vulnerable to natural or man-made disasters due, in particular, to their high dependence on technology and their concentration in urban areas (requiring extensive infrastructure). In addition, globalisation and economic pressure renders availability of essential goods sometimes difficult.

In this context, as well as in daily emergencies in (pre-)hospital and hospital settings and in the humanitarian context, the role of drugs and medical devices is obvious in treating victims and guaranteeing the survival of most individuals. In this respect, specific pharmaceutical and pharmacological knowledge but also sense of priorities and triage are essential for every health professional involved in emergency and disaster situations. This knowledge is often not sufficiently disseminated.

Thus, the overall objective of this CAS is to provide a recognised interprofessional postgraduate university training in emergency and disaster pharmacy. It provides qualified pharmacists, physicians, paramedics and other health professionals with necessary skills and/or updated knowledge, thus strengthening their expertise in this specific field.

Public

Pharmacists working in the field of emergency and disaster management, including humanitarian and military pharmacists, as well as hospital, community, industrial and administrative pharmacists, physicians and nurses working in a hospital and/or pre-hospital emergency department and qualified paramedics wishing all to improve their specific pharmaceutical and pharmacological knowledge.



Objectives

- Integrate the basics of pharmaceutical crisis leadership and management
- Acquire extensive knowledge on the logistics, use and management of medicines and medical devices in emergency and disaster situations
- Apply this knowledge to a professional environment for the benefit of patients
- Exercise interprofessional collaboration in emergency and disaster contexts
- Share experiences with colleagues working in different environments and understand their respective issues related to therapeutic products (ambulatory, hospital, industrial, administrative, humanitarian and military)

Learning Outcomes

- Obtain specialised and multidisciplinary knowledge on drugs and medical devices used in emergency and disaster contexts
- Being able to analyse, judge, document and provide grounded justification to complex pharmaceutical issues within new and unfamiliar contexts of health crisis
- Develop, negotiate and justify alternative solutions regarding the supply of medicines and medical devices during a health crisis (including appropriate pharmaceutical production on site)
- Being able to independently process, evaluate and integrate relevant knowledge on drugs and medical devices



Coordination

Ms Laurence Schumacher, Clinical Pharmacist, Specialised Centre for Emergency and Disaster Pharmacy, Institute of Pharmaceutical Sciences of Western Switzerland, University of Geneva; Pharmacy of the Eastern Vaud Hospitals, Rennaz

Programme

- 6 thematic modules of 3 days each equating to 120 hours of teaching over 2 semesters (February-November)
- Personal study – during the training, students are asked to perform about 200 hours of self-learning work (documents study, preparation for evaluations)
- End-of-study thesis required, including about 100 hours of personal work, spread over 1 semester
- Training equates to a total of 15 ECTS credits, offered every 2 years
- Interactive classroom courses (including small group workshops) or at a distance for some (e-learning)
- Support of courses in English and presentation mainly in English

Learning Methods

- Interprofessional interactive teaching promoting reflection between participants and with lecturers based on concrete cases appropriate to the theme taught
- Courses encouraging interdisciplinary work in order to provide enriching and complementary knowledge for each profession
- Interactive sessions strengthening also social competencies and interpersonal exchange



Detailed Programme

Module 1 |

Context, Conduct and Health Organisation in Crisis

University Medical Centre (CMU), Geneva |

February 1, 2, 3, 2022

Prof. Pascal Bonnabry (Programme Director) and **PD Dr Nicolas Widmer**, Heads of the Specialised Centre for Emergency and Disaster Pharmacy, Institute of Pharmaceutical Sciences of Western Switzerland, University of Geneva

- Establish a link between risks, threats and appropriate responses to crisis situations
- Define and understand emergency and disaster medicine and pharmacy
- Explain the principles of health crisis management
- Describe the need for therapeutic products in a health crisis situation and their amount as defined daily doses per patient
- Differentiate the roles of health professionals and their complementarity in the context of disaster medicine



Module 2 |

Use of Drugs and Medical devices in Emergency Situations, Part I: Theoretical Background

Online | April 2022

Ms Laurence Schumacher, Specialised Centre for Emergency and Disaster Pharmacy, Institute of Pharmaceutical Sciences of Western Switzerland, University of Geneva

- Describe clinical situations and therapeutic needs in crisis situations
- Illustrate the specificities of therapeutic products used during crisis situations and of their logistic management
- Develop minimum standards to be applied in crisis situations (protocols, kits, etc.)
- Construct interdisciplinary collaboration based on strengths and expertise of each professional in crisis situations

Module 3 |

Use of Medicines and Medical Devices in Emergency Situations, Part II: Practical Applications

Lausanne University Hospital, Lausanne | May 2, 3, 4, 2022

Dr Erik Paus, Lecturer, University of Geneva

- Determine therapeutic needs in practice according to different clinical situations
- Experience specificities of therapeutic products used during crisis situations
- Apply the minimum standards to be respected in crisis situations (protocols, kits, etc.)
- Exercise practically multidisciplinary collaboration in crisis



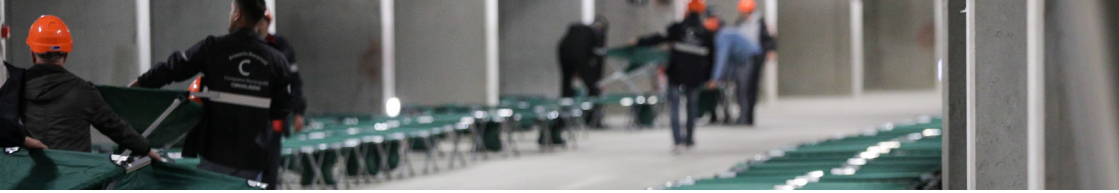
Module 4 |

CBRN Danger: Toxicology, Medical Management and Use of Antidotes

Federal Training Centre Schwarzenburg (Bern region) |
June 9, 10, 2022 (AHLS-Provider course, certificate is internationally approved)

PD Dr Mathias Zürcher, Associate Professor for Rescue and Disaster Medicine, University Hospital Basel; Head of the Swiss Center for Rescue, Emergency and Disaster Medicine, Basel; Advanced Hazmat Life Support (AHLS) Provider course director

- Identify Chemical, Biological, Radiological and Nuclear (CBRN) risks
- Know the principles of self-protection and protection of the patient and the basics of decontamination of people and material
- Systematically approach people exposed to hazardous materials
- Recognise the specific toxidromes (poisoning syndromes) and learn the particularities associated with them.
- Apply the systematic so-called poisoning treatment paradigm, including the knowledge of the use of specific antidotes



Module 5 |

Biological Risk Management in Health Care

University of Bern | September 7, 8, 9, 2022

Dr Kathrin Summermatter, Head, Biosafety Center, Institute for Infectious Diseases, University of Bern

- Assess natural and manmade biological risks
- Elaborate the necessary preventive, protective and hygienic measures during outbreak
- Assess the role of vaccination in crisis and post-crisis situations (interdisciplinary role)
- Identify essential antibiotics for emergency or crisis situations and their specificities

Module 6 |

Logistics and Pharmaceutical Production in Disaster and Extraordinary Situation

University of Bern | November 16, 17, 18, 2022

PD Dr Nicolas Widmer, Operational Director of the Specialised Centre for Emergency and Disaster Pharmacy, Institute of Pharmaceutical Sciences of Western Switzerland, University of Geneva

- Become familiar with the principle of emergency production and stockpiling of drugs
- Perform a risk analysis in the supply chain field and handle shortages
- Describe the principles of continuity planning of distributors and international mission support
- Recognise falsified drugs and know simple methods to analyse drinking water
- Know the possibilities of emergency production within the pharmacy of the Swiss Armed Forces and the essential elements of a drug production facility



Assessments

Active participation in classroom teaching activities is required (at least 80% of classroom courses), as well as participation in collaborative activities. Each module is evaluated in the form of a Multiple Choice Questions (MCQ) test.

Portfolio Thesis

A final thesis on a topic related to the training and/or professional reality of the participants is required to obtain the certificate. This work is done individually or in pairs.

Diploma Awarded

The Certificate of Advanced Studies in Medicines and Medical Devices in Emergency and Disaster / *Certificat de formation continue en médicaments et dispositifs médicaux en situation d'urgence et de catastrophe* is issued by the Faculty of Sciences of the University of Geneva in partnership with the Universities of Basel and Bern to participants who have met the conditions for testing the knowledge of the modules and the final thesis work.



Practical Information

Admission Criteria

Persons who may be admitted as candidates for the Certificate are:

- Holding a bachelor's degree, a master's degree or a university degree in pharmacy or medicine from a Swiss or foreign university, a master's degree or a bachelor's degree from a university of applied sciences (UAS) in nursing care or a diploma from an ambulance school or a title deemed equivalent and
- Able to demonstrate a minimum of 2 years of relevant professional experience related to the Certificate programme.

The Steering Committee reserves the right to accept applications from persons who do not meet the requirements upon examination of their application file and/or to propose an individual interview for a decision.

Online Registration before 2 January 2022 (1 month before the start of the module chosen for a modular registration)

www.unige.ch/formcont/cours/medicines-emergency-disaster

The number of participants will be limited in order to preserve the interactivity of the teaching (max. 16).

Fees

- CHF 4,000.- for the complete programme
- CHF 850.- per module

Lunch, travel and accommodation expenses to the various course locations are the responsibility of the participant.

Location and Schedule

- Geneva, Lausanne and Bern region
- 8:30 am - 5:00 pm (with a one-hour lunch-break)

Contact

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Centre of Competence for Military and Disaster Medicine CC MDM
Swiss Humanitarian Aid Unit SHA
Armed Forces Pharmacy
Federal Office for National Economic Supply FONES



Hôpitaux
Universitaires
Genève



Swiss Center for Rescue, Emergency and
Disaster Medicine (SCRED)
Schweizerisches Zentrum für Rettungs-,
Notfall- und Katastrophenmedizin (SZRNK)



Pharmacie des Hôpitaux
de l'Est Lémanique

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