

CAS

Certificat de formation continue
Certificate of Advanced Studies

Care and Operational Management in Hyperbaric Conditions, Hyperbaric Fitness

October > September

Modular on-the-job training



FACULTY OF MEDECINE



UNIVERSITÉ
DE GENÈVE



Steering Committee

Director

Prof. Thibaut Desmettre, Emergency Department of Geneva University Hospitals (HUG), Department of Acute Medicine, Faculty of Medicine, University of Geneva

Experts

- **Nicolas Fourquet**, Orthopedic Unit, Surgery Department, HUG
- **Dr Rodrigue Pignel**, Physician in charge of the Hyperbaric Medicine Program, Emergency Department, Department of Acute Medicine, HUG

Members

- **Prof. Sylvain Boet**, Deputy Physician, Hyperbaric Medicine, Emergency Department, Department of Acute Medicine, HUG
- **Prof. Laszlo Vutskits**, Department of Anaesthesiology, Pharmacy and Intensive Care, Faculty of Medicine, University of Geneva
- **Dr Jérôme Stirnemann**, Privat-Docent, Department of Medicine, Faculty of Medicine, University of Geneva, HUG

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- **Dr Jean-Yves Berney**, Hyperbaric Medicine, Emergency Department, Department of Acute Medicine, HUG
- **Dr Pierre Louge**, Hyperbaric Medicine, Emergency Department, Department of Acute Medicine, HUG
- **Dr Rodrigue Pignel**, Physician in charge of the Hyperbaric Medicine Program, Emergency Department, Department of Acute Medicine, HUG



An advanced training unique in Switzerland

Diving medicine and hyperbaric medicine are largely unknown disciplines in Switzerland, whereas they are quite developed in other countries. While underwater medicine is mainly aimed at the care of divers, hyperbaric medicine interacts with many medical and surgical specialties.

Since 2014, the CAS in underwater and hyperbaric medicine of the UNIGE Faculty of Medicine has been offered to doctors wishing to acquire skills and knowledge in the medical assessment of divers (aptitude, advice), the management of diving accidents (therapeutic, follow-up, requalification, prevention), hyperbaric oxygen therapy and its multiple indications, and mastery of a high-level hyperbaric installation.

It is important that nurses and technicians also acquire skills in this area, which is why the faculty decided to create a specific CAS for nurses as well as a session for hyperbaric operators, both integrating common teachings. In order to expand training for hyperbaric nurses and hyperbaric operators, two continuing education programmes have been offered since September 2019:

- A **"hyperbaric operator" continuing education session** intended for technicians and/or divers leading to obtaining a "hyperbaric programme follow-up certificate with 4 ECTS credits"
- A CAS **"Care and operational conduct in a hyperbaric environment, aptitude for hyperbaria"** intended for nurses leading to the obtaining of 15 ECTS credits.

A supplement to the diploma or certificate will mention the content of the course.

These trainings are centered on the acquisition of fundamental and practical knowledge in the field. Part of the teaching is common with the existing CAS of underwater and hyperbaric medicine intended for doctors.

The aptitude for hyperbaria (evolving safely in a hyperbaric environment) is the common point of the three professions (doctor, nurse and operator).



Programme

- The CAS consists of two thematic theoretical modules and 100 hours of professional practice in the form of an internship in the field of underwater and hyperbaric medicine. In addition, a graduation work is required.
- The CAS conforms to the European standards of EBAss (European Baromedical Association, <https://ebass.org/>)

Module

Hyperbaric Operator

Dates: on request

Module manager: **Dr Rodrigue Pignel**

Topics

Physical and physiological bases
 Pressure / O₂ effect
 Principle of HBO
 Emergency operations
 Therapeutic and decompression tables
 Safety and hygiene in a hyperbaric environment
 Regulations
 Practical training (6 days)

Competences

Operate the hyperbaric chamber and all its annexes (compressor, oxygen reserve, etc.) in complete safety
 Calculate, apply and check the decompression tables for the occupants in the room and if necessary, apply the decompression stops
 Manage, control and document hyperbaric oxygen therapy (HBO) treatments in accordance with the imposed procedures

This module is included in the Hyperbaric Nurse module.



Module |

Hyperbaric Nurse

14 theoretical courses

13 practical courses

HUG | 8:30-18:00

Module manager: **Nicolas Fourquet**

Topics

Physiological aspects of HBOT

Indications of HBOT

Incidents and contraindications of HBOT

Organization and operation of a hyperbaric system

Practical courses (13 days)

Competences

Apply the care measures belonging to the common pathologies of hyperbaric therapy that are applied to patients in a hyperbaric chamber

Assist patients inside the hyperbaric chamber, give special care to the specific conditions of the hyperbaric environment

Exam

Two days in September: Final exam and oral presentations

The “Hyperbaric Operator” module is included in this module.

Speakers

Researchers and professors of the Universities, experts of the field at the Swiss and international level: **Pr C. Balestra**, Brussels, Belgium • **Pr J.E. Blateau**, Toulon, France • **Dr M. Gelsomino**, Basel, Switzerland • **Dr P. Germonpré**, Brussels, Belgium



Public

The Hyperbaric Operator module is open to anyone, whereas the CAS Care and Operational Management in Hyperbaric Conditions, Hyperbaric Fitness is for nurses exclusively.

Objectives

- Train qualified nurses and technicians in the field of underwater and hyperbaric medicine
- Acquire the theoretical and practical fundamentals of underwater and hyperbaric medicine

Teaching methods

The complete programme of studies (2 thematic modules) takes place over 2 semesters, articulating theoretical teaching and practical cases, hours of professional practice in the form of traineeship, a final exam and a final work.

Evaluation methods

The operator module is subject to a written evaluation. This assessment must be validated by the nurses to continue the CAS. The CAS is assessed by a final exam which is organized at the end of the training. The hours of professional practice are the subject of certificates of participation which must be sent by the student to the person in charge of the module concerned. The end-of-studies work is compulsory for obtaining the CAS.



Graduation work

The final work completes the module "hyperbaric medicine". In written form, it aims to deepen and / or concretize the lessons learned. It is presented publicly. The subject to be discussed is defined with a member of the Steering Committee or the Scientific Council.

Diploma awarded

The Certificate of Advanced Studies (CAS) Care and Operational Management in Hyperbaric Conditions, Hyperbaric Fitness / *Certificat de formation continue (CAS) en Soins et conduite opérationnelle en milieu hyperbare, aptitude à l'hyperbarie* is awarded by the Faculty of Medicine of the University of Geneva. It corresponds to the acquisition of 15 ECTS credits (European Credit Transfer and Accumulation System), i. e. 375 hours of work including 280 hours of teaching (100 hours of internship and 180 hours of theoretical instruction). It is obtained when all of the training has been completed and the student has met the requirements of the knowledge test.

Certificate

A certificate of attendance is issued to participants who have followed only the "hyperbaric operator" module and who have successfully passed the corresponding assessment.

Recognition

The CAS complies with the European standards of the EBAss (European Baromedical Association).

These 2 levels are recognised by the European College of Baromedicine (ECB / EBAss).

The steps to obtain the various equivalences of certificates or diplomas (French DGT or EBAss) are the responsibility of the candidate.

Practical information

Admission criteria

For the CAS

- Bachelor of science from a HES in nursing or deemed equivalent
- Valid BLS
- Medical examination of no contraindication to diving or Medical examination of Aptitude for diving

For the operator module

- Valid BLS
- Medical examination of no contraindication to diving or Medical examination of Aptitude for diving
- Scuba diving experience is preferred

Applications must include: the signed registration form, a cover letter, a photograph, a CV with copies of the diplomas obtained as well as information concerning professional experience (proof of duration, part-time percentage or full-time and type of professional activity).

Registration before the end of June

The registration form can be downloaded from

www.unige.ch/formcont/en/courses/hyper-nurse

Registration fee

- CAS Care and Operational Management in Hyperbaric Conditions, Hyperbaric Fitness: CHF 3'800.-
- "Hyperbaric Operator" module: CHF 2'600.-

Priority is given to candidates registered for the full CAS.

Schedule

8:30 - 18:00

Information

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