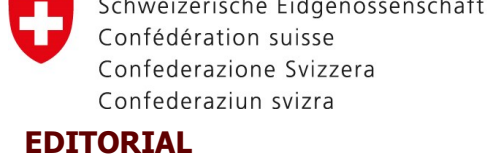


Network radiation accident Switzerland



EDITORIAL

The Federal Office of Public Health is responsible for the maintenance of knowledge on the treatment of radiation accident victims. As a result of the war in Ukraine and the military operations in the Middle East, the relevance of this topic has increased significantly.



Within the framework of the existing collaboration between the University Hospital Zurich (USZ) and the Federal Office of Public Health (FOPH), the Federal Nuclear Safety Inspectorate (ENSI) and the Swiss National Accident Insurance Fund (Suva), work in

this area has therefore been continuing apace.

An important part of our activities has involved carrying out visits to major centres across Switzerland, raising their awareness of the topic of radiation accidents and encouraging them to participate in a national network. In this issue of the Newsletter, we wish to give an overview of the **development of a Swiss network for the treatment of radiation accident victims** and to provide information on the next steps.

In addition, a **national radiation accident treatment concept** is being developed, which is also presented in this issue of the Newsletter. However, more details of the content will be provided at the upcoming **network event on 25 October 2024**. A preview of the provisional programme can be found below.

Also in this issue, we present some interesting **new literature**, as well as an article by Urs Schanz on **“Medical treatment in the event of radiation accidents and nuclear disasters”**, recently published in the *Swiss Medical Bulletin*.

I hope you enjoy reading this issue of our Newsletter!

Nina Mosimann

DEVELOPING A SWISS NETWORK FOR TREATMENT OF RADIATION ACCIDENT VICTIMS: FIRST STEPS

Visits to major hemato-oncology centres and institutions in Switzerland

In November 2022, after a pandemic-induced delay – the last restrictions in Switzerland were lifted on 1 April 2022 – we were able to start our long-planned visits to major hemato-oncology clinics and other relevant institutions in Switzerland.

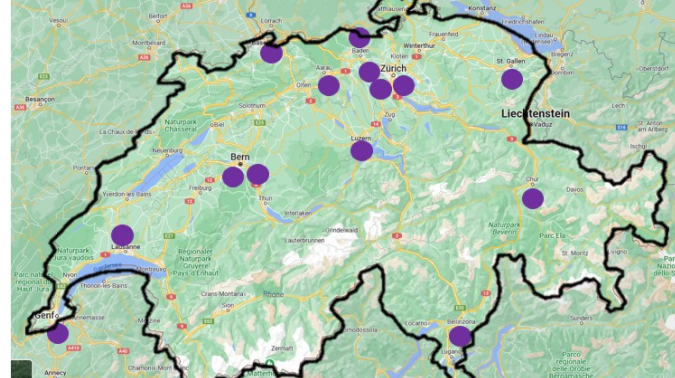
The aim was to establish initial personal contacts with the management and senior staff at Swiss clinics which, from our perspective, could potentially participate in a Swiss network for the treatment of radiation accident victims. These are clinics which in most cases appear to be suitable for participation in the planned network as a result of their experience in stem cell transplantation or the treatment of acute leukemia. The first centre which we visited, on 30 November 2022, was the Department of Medical Oncology and Hematology at the Cantonal Hospital of St Gallen. From this first to our last visits in Geneva and Lausanne, in May 2024, we were always received very warmly and with great interest. In each case, following a continuing education presentation by Urs Schanz on “Radiation accidents and nuclear disasters: fundamentals and medical treatment”, talks were held with senior staff on their attitude to possible participation in a treatment network of this kind. In most cases, the idea was considered as essentially worthwhile. Often, however, reference was made to the extremely limited resources (both personnel and financial) available. This certainly represents a significant obstacle which needs to be overcome. We, for our part (FOPH and USZ), given our likewise limited personnel and financial resources, cannot offer any additional support. We can, however, offer the various centres training and continuing education events, as well as making available a treatment concept planned to be applicable at the national level. We intend to involve the centres in the development of the treatment concept, and we would be pleased to see the widest possible participation. We also hope to see broad participation and exchanges between the various centres at our network events, where concrete treatment options are also to be discussed.

On 15 May 2024, we completed our “Tour de Suisse” (Figure 1) with a visit to the clinics in Geneva and Lausanne, somewhat weary from our travels, but satisfied with what has been achieved so far.

Conclusions:

Over a period of 18 months (November 2022 to May 2024), we visited

- ◊ 16 of the largest clinics (including all 5 university hospitals) and institutions
- ◊ in 10 cantons, with a total population of 6.39 m (71% of Switzerland)
- ◊ in German-, Italian- and French-speaking Switzerland.



The 16 clinics and institutions visited

Looking ahead – what comes next?

We now need to proceed with the next steps.

Firstly, we plan to write to all the centres again, enquiring about their willingness to participate in the network. Any wishes, reservations or concerns expressed by individual centres are to be addressed at this stage.

What we can offer the network is a regular newsletter, an informative website, network events for sharing information and views, a Swiss treatment concept and continuing education events.

In return, we hope to see active participation by the centres at our network events, in the development of the treatment concept, and in discussions about concrete treatment options.

Awareness of the topic of radiation accidents needs to be raised among other stakeholders, such as accident insurers, cantonal public health departments, civil protection and other authorities and institutions.

Further visits to particular centres are planned from 2025, as part of efforts to provide information and training on the treatment concept developed in 2024.

We will update you in one of the next issues of the Newsletter and at the next network event on 25 October 2024.

SWISS RADIATION ACCIDENT TREATMENT CONCEPT

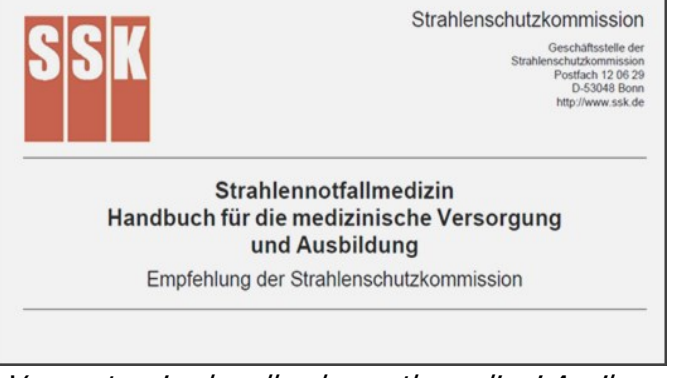
We have major plans: a Swiss treatment concept for radiation accidents is to be produced in the course of 2024.



The Swiss guide: concise, but comprehensive. Not reinventing the wheel, but describing “the Swiss way”. In English, French, German and Italian.

While a whole series of handbooks, guidelines and guides are already available on this topic, most of them come from the United States.

In addition, two years ago, the excellent “Radiation emergency medicine handbook for medical care and education” was published by the German Commission on Radiological Protection (SSK).



Very extensive handbook, worth reading! Available in German and English

The following structure is planned:

- Introduction
- Radiation physics
- Medical foundations: radiation biology
- Types of radiation exposure
- Radiation accident scenarios
 - Occupational accident
 - Nuclear plant accident
 - Nuclear weapon deployment
 - Radiological exposure device
 - Radiological dispersal device (dirty bomb)
 - Transport accident
- Personal protective measures for treatment personnel
- Initial rescue measures
- Medical treatment
- Bodies involved
- Key addresses and telephone numbers
- Literature
- Glossary

The core element is to be the chapter on “Medical treatment”, of which an initial draft has already been prepared.

We plan to circulate the draft treatment concept for comment to the centres visited, interested network partners, hospitals or institutes. If you would like to submit suggestions concerning content at this stage, please feel free to do so (urs.schanz@usz.ch).

We look forward to presenting the current status of our treatment concept at the upcoming network event on 25 October 2024.

ARTICLE ON “MEDICAL TREATMENT IN THE EVENT OF RADIATION ACCIDENTS AND NUCLEAR DISASTERS” PUBLISHED IN THE SWISS MEDICAL BULLETIN IN JUNE 2024

The Managing Editor of the Swiss Medical Bulletin (Schweizerische Ärztezeitung, SÄZ), Dominique Fischer, became aware of the importance of the treatment of radiation accident victims thanks to a presentation by Urs Schanz. This topic has received increased attention as a result of repeated threats by the Russian President, Vladimir Putin, to consider using nuclear weapons in the Ukraine war. In March 2024, Dominique Fischer therefore asked Urs Schanz whether he could write a short article on this subject for the SÄZ. With active encouragement from Nina Mosimann, Daniel Storch and Cordula Walt, he soon agreed to do so, even though he was well aware that even short articles can take a considerable time to write.

We are delighted that his brief guest contribution appeared in the SÄZ on 12 June 2024, and we look forward to seeing any possible responses. We hope that this article will help to raise awareness of the topic of treatment of radiation accident victims, and we would be happy to provide support for interested medical professionals, if possible through continuing education events!

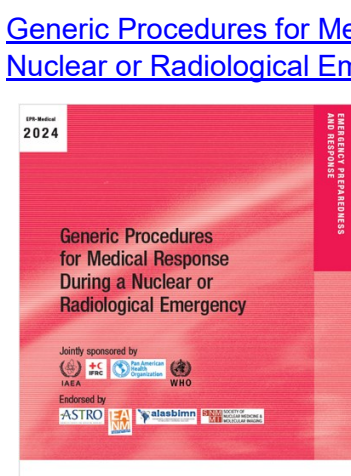


DE: [Nuklearen Katastrophen und Strahlenunfälle \(swisshealthweb.ch\)](https://www.swisshealthweb.ch)

FR: [Traitement médical en cas d'irradiations accidentelles \(swisshealthweb.ch\)](https://www.swisshealthweb.ch)

PRESENTATION OF NEW LITERATURE

Generic Procedures for Medical Response During a Nuclear or Radiological Emergency | IAEA

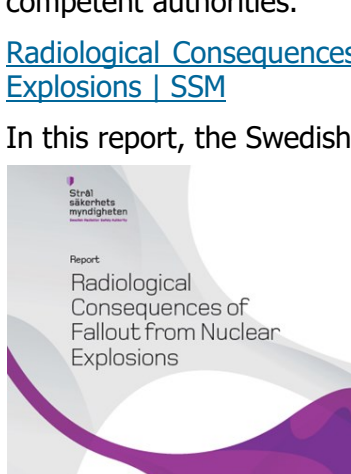


The aim of this manual is to provide practical guidance for medical preparedness and response to nuclear or radiological emergencies. It describes the tasks and actions of different members of an emergency medical response organization and the various teams within the national, regional or local medical infrastructure.

The medical response to a nuclear or radiological emergency needs to be understood as part of a multidisciplinary approach. Therefore, this publication is intended as a tool for different organizations and professionals that could be involved in the medical response to nuclear or radiological emergencies, including (but not limited to) first responders, healthcare providers, health authorities, policy makers for emergency management and national competent authorities.

Radiological Consequences of Fallout from Nuclear Explosions | SSM

In this report, the Swedish Radiation Safety Authority (Strålsäkerhetsmyndigheten, SSM)



presents an overview of the potential radiological consequences of fallout from nuclear explosions at distances between about 10 kilometres and about 300 kilometres from the explosion, and the effect of various protective actions. The contents of the report constitute a knowledge base and not a ready-made planning basis. However, certain conclusions can be drawn and already taken into account in emergency preparedness planning.

Acute Radiation Syndrome Treatment Guidelines | RITN



RITN Acute Radiation Syndrome Treatment Guidelines

October 2020

This publication describes the principles of acute radiation syndrome (ARS) management at RITN centres:

1. After a nuclear detonation, RITN and other cancer/blood and marrow transplant (BMT) centres may receive large numbers of irradiated casualties, especially those with little or no trauma or burns.
2. The goal of pre-incident planning and post-incident management is to maintain a “functional equivalent” of routine care for both casualties and existing patients at RITN centres.
3. Biodosimetry can predict prognosis and guide treatment.
4. Prioritization for myeloid cytokines (e.g. G-CSF) and other key resources may be necessary due to limited supply of drug, staff and space.
5. Patient tracking, psychosocial care and family re-unification will be key objectives.
6. Many evacuated patients will not require hospitalization, and thus outpatient facilities for housing and care will be required.
7. Current planning includes patient decontamination prior to transfer to RITN centres via the National Disaster Medical System or other entity. Most initial decontamination will have been self-decon due to large numbers of potential casualties so confirmation may be necessary. However, RITN centres should have plans to confirm adequate decontamination upon arrival.

Two other highlights will be, firstly, a presentation of the initial results of an Inselspital research project on the analysis of metabolites in the human body following radiation exposure and, secondly, the presentation of the WHO publication [„National stockpiles for radiological and nuclear emergencies: policy advice”](https://www.who.int/publications/m/item/national-stockpiles-for-radiological-and-nuclear-emergencies-policy-advice).

Contributions from the network can also be included in the programme: please contact us if you have any suggestions.

On this occasion, as participants will be joining us from across Switzerland, the event will be conducted in English.

We look forward to welcoming you on site or online for an exciting event with interesting discussions and contributions!

SAVE THE DATE!

Network event 7: 25 October 2024 in Bern

CONTACT

Federal Office of Public Health
Schwarzenburgstrasse 157
3003 Bern
STR@bag.admin.ch

[Strahlenunfall – USZ](https://www.usz.ch/strahlenunfall)
[Radiation, radioactivity & sound \(admin.ch\)](https://www.usz.ch/radiation-radioactivity-sound)