

New standard in the Swiss health system: Hyperthermia as radiosensitizer in reirradiation protocols

- The 'Swiss Hyperthermia Network' -
an excellent example for other countries

The problem

In most countries, lack of regular reimbursement prevents the standard use of combined hyperthermia/radiotherapy (HT/RT) treatment protocols even in indications with high level of evidence and without any other satisfying therapeutic option.

Thus, many patients do not receive the best possible medical care, even in life-threatening indications with a high level of suffering and need for intervention.

This is especially true for irresectable tumor lesions in preirradiated areas which could effectively be treated by reduced re-RT doses combined with HT.

The same was in Switzerland before 2017:

Hyperthermia was only offered in two centers of radiooncology (Kantonsspital Aarau and Lindenhofspital Bern). Reimbursement was just a goodwill service. Reacting on increasing numbers of hyperthermia treatments and reimbursement requests, this goodwill service was even at risk: The authorities considered to exclude the option of goodwill reimbursement for hyperthermia.

The Swiss solution

Instead of confrontation or resignation, radiooncologists from Aarau and Bern initiated a round table with the health authorities and insurances to find a good solution for all three parties:

- patients
- physicians
- insurances

As a result, the "Swiss Hyperthermia Network" (SHN) was founded as an association in order to bring together and guarantee

- best patient care
- scientifically based clinical research
- quality assurance
- economics

Due to guaranteed reimbursement in specific indications, the number of radiotherapy centers in public hospitals offering hyperthermia has rapidly increased from 2 in 2017 to 8 in 2022, 5 of them using thermography-controlled wIRA superficial hyperthermia with hydrosun®TWH1500.

Superficial hyperthermia in Switzerland:

Indications of temporary unlimited reimbursement (as to 07/2023)

- irresectable local breast / chest wall recurrences of breast cancer in a previously irradiated area
- irresectable lymph node metastases from ENT tumors in previously irradiated area
- superficial lymph node metastases and local recurrences of malignant melanoma
- local tumor recurrences with compression symptoms in a palliative situation

For deep hyperthermia the evaluation of combined HT/RT resulted in a general, unlimited reimbursement for specific subgroups of cervical ca., painful bone metastases, soft-tissue sarcoma and local tumor recurrences with cortipression symptoms in a palliative situation.

Thermography-controlled wIRA superficial HT in Switzerland (as to 04/2024)

- Lindenhofspital Bern, (Dr. M. Notter)
- Kantonsspital Winterthur (Prof. Dr. D. Zwahlen, Dr. S. Brodmann)
- Kantonsspital Luzern (Prof. Dr. G. Studer, Dr. W. Arnold)
- Kantonsspital Aarau (Prof. Dr. O. Riesterer, Dr. E. Puric)
- ZIO in der Radiotherapie Hirslanden Männedorf bei Zürich (Dr. B. Hübenthal, PD Dr. G. Gruber)



How does the Swiss Hyperthermia Network work?

In a regularly (remote) meeting hyperthermia tumorboard the members of the network must present each patient to make a common decision if he/she is indicated for combined HT/RT or not. A positive decision is the condition for reimbursement.

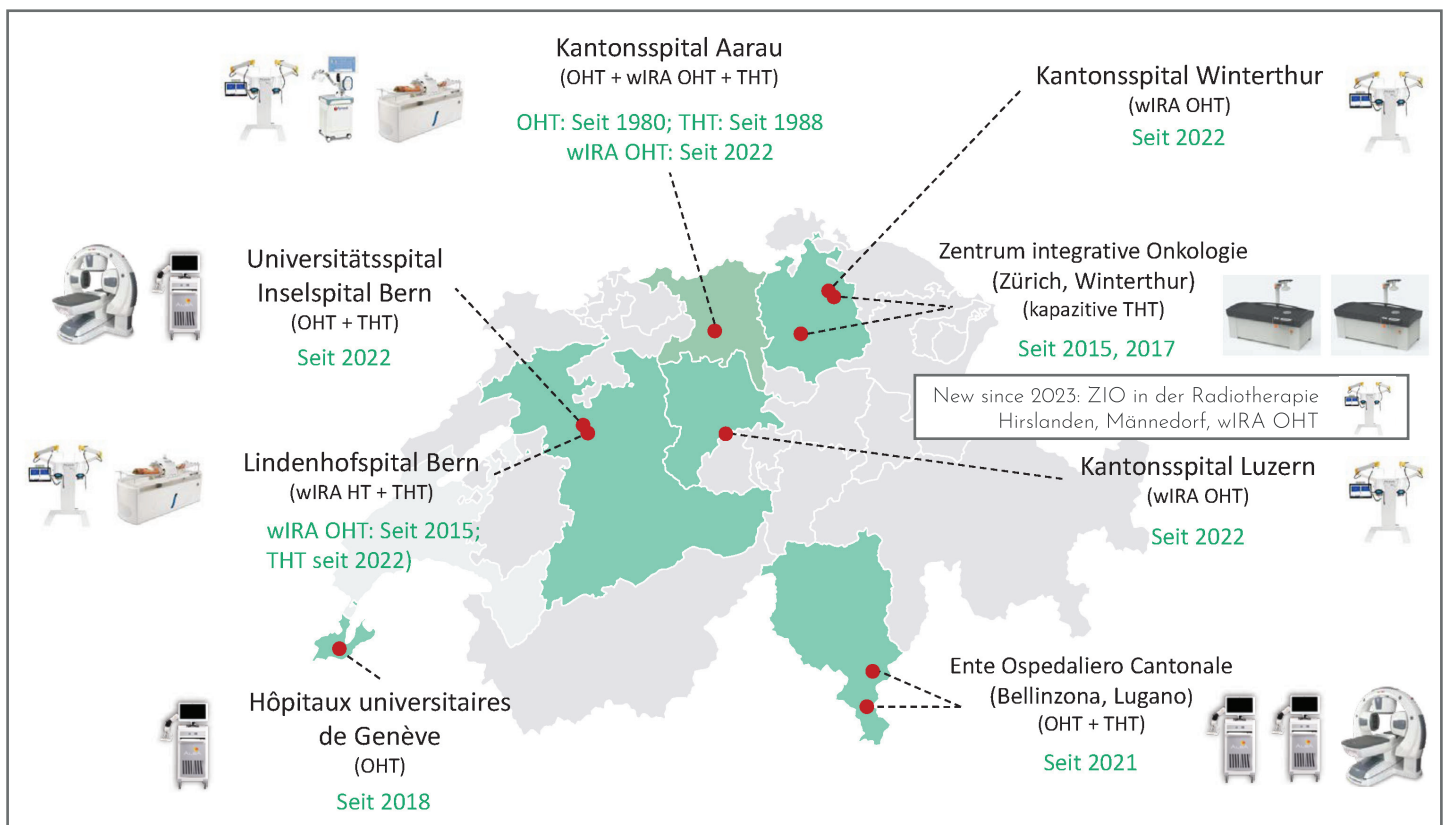
Depending on the level of evidence of combined RT/HT for specific tumor entities resp. clinical situations, the Swiss health authority BAG determines the status of reimbursement:

- temporary unlimited
- temporary limited (under evaluation)
- rejected

Temporarily approved indications are under evaluation for a specified period of time, clinical data collected during this period should form the base for a final decision.

Of course, even rejected indications can be re-evaluated by a change of the level of evidence.

Moreover, the SHN works on standardisation of treatment schedules, QA standards based on ESHO (European Society for Hyperthermic Oncology) guidelines, certification of hyperthermia centers, a national hyperthermia database, support of newcomers and has proven to be an ideal platform for sharing experiences.



Ref.: Emanuel Stutz, Oliver Riesterer: Status der regionalen Hyperthermie in der Schweiz. 08_2022_info@ONCO-SUISSE

Conclusion

The Swiss Hyperthermia Network has proven to be an excellent tool to make high-quality, scientifically based hyperthermia available for all indicated patients.

Based on the excellent reputation of the Swiss health system, this can serve as an example for other countries in Europe and worldwide.