

GUIDANCE DOCUMENT FOR RISK ASSESSMENT AND MANAGEMENT OF PATIENTS AND HEALTHCARE PROFESSIONALS IN RADIATION ONCOLOGY DEPARTMENTS DURING ONGOING COVID-19 SPREAD

With reference to the "Ministerial Recommendations drawn up by initiative of the Scientific Technical Committee of the Civil Protection, in the context of the emergency situation due to the spread of SARS-CoV-2⁽¹⁾ it is requested, in Annex 1 at point 3 for patients b.1 (Patients under cytostatic and radiant treatment, at greater risk of infectious complications), to the Local Health Authorities to identify and apply as quickly as possible the necessary procedures to ensure the necessary oncological treatments for cancer patients, in order to ensure the principle of dose intensity, so that the prognosis of the pathology being treated is not adversely affected.

The Italian Association of Radiotherapy and Clinical Oncology (AIRO) has therefore prepared a guidance document for its members and all the Radiation Oncologists operating in the Italian Radiotherapy Facilities in order to try to homogenize the operational procedures of activities during the ongoing COVID-19 pandemic emergency. This guidance document, which includes the list of "Priorities in Radiotherapy, the analysis of the respective problem and shared procedural proposals", makes use of ministerial references and experiences already gained in the national territory (note 1), already included in the society website www.radioterapiaitalia.it.

This guidance document has been prepared during the ongoing COVID-19 emergency. Since it is an evolving situation, the information may not be aligned with the latest available data and communications. The indications of this guidance document has been also accepted for publication in the International Journal of Radiation Oncology Biology and Physics⁽²⁾.

Priority no. 1. Ensuring radiotherapy in oncological patients

Analysis of the problem:

- Radiotherapy is a "life-saving" treatment and should be guaranteed in all Italian hospitals. Delays in treatment can cause a reduction in the likelihood of cure⁽³⁾

Procedural proposals:

- In accordance with the "Recommendations for the management of oncological and haematological patients during the ongoing COVID-19 emergency, drawn up on the initiative of the Technical-Scientific Committee of the Civil Protection-Ministry of Health of 10th March 2020"⁽¹⁾, the Regional and Corporate Directions must ensure the full functioning of the Italian Radiotherapy facilities even in COVID-19 emergency conditions.

Priority no. 2. Ensuring the safety of healthcare professionals and patients

Analysis of the problem:

- A widespread infection of the healthcare staff working in a Radiotherapy facility would in fact result in the closure of part of the procedural activities with the consequent failure to start or continue the radiant treatments.
- The non-identification of patients with suspected or confirmed infection would pose a risk of diffusion in the department to operators and patients undergoing treatment

Procedural proposals:

- If there is no triage at the hospital entrance, it is recommended to carry out a triage at the entrance of the Radiotherapy Facilities to verify possible contacts with COVID-19 positive patients and evaluate suspect symptoms in all persons (patients, companions only if necessary, medical car drivers, cleaning staff, other staff) accessing the radiotherapy areas
- It is important for patients to wash their hands before accessing the Radiotherapy Centre; it is also advisable to have hydroalcoholic solution devices for hand disinfection inside the Department. Frequent disinfection of the surfaces with which operators are in contact is also recommended. Some Some Authors recommend as sufficient the cleaning with solutions of ethanol (at least 60%), hydrogen peroxide (0.5%) or sodium hypochlorite (0.1%)⁽⁴⁾.
- According to the recommendations of the Ministry of Health and Civil Protection for cancer patients⁽¹⁾ and on the basis of WHO recommendations⁽⁵⁾, all cancer patients and operators of the Radiotherapy Facility should wear the surgical mask even in the absence of verified or suspected symptoms; particular attention should be paid to the following cases: a) if the operator has respiratory symptoms, in order to protect other people; b) if the operator is in close contact with a person who has respiratory symptoms, in order to protect himself/herself
- The use of sterile disposable gowns, surgical and FFP2 masks (according to WHO⁽⁵⁾), goggles, double gloves, clogs and over-shoes is recommended for operators in contact with COVID-19 positive patients, if they need to continue radiotherapy
- Operators with symptoms compatible with COVID-19 infection must follow the instructions given by their Company
- Operators at rest with previous COVID-19 infection will be reintegrated into work according to the instructions given by their own Company

Priority no. 3. Management of COVID-19 suspected or positive patient in the Department of Radiotherapy

Analysis of the problem:

- It is necessary to have indications on the behaviour that the Radiation Oncologists must follow in the presence of symptomatic patients, with suspected or verified COVID19 infection, accessing the radiotherapy facilities

Procedural proposals:

- The triage evaluation of the "suspect" patient for the onset of new typical symptoms (not correlated to the oncological disease) must implicate the immediate reporting to the designated company body and in any case in accordance with the existing regional regulations
- If patient is not suspicious at triage but with a single symptom (cough or fever or dyspnea, not recently onset due to pathology): surgical mask obligation for the patient there are no contraindications to continue treatment but the patient must be monitored daily.
- If new patient results Covid 19+: do not start treatment
- If patient already undergoing treatment, is suspect due to onset of typical new symptoms (cough and/or fever and/or dyspnea) and is waiting for a swab: suspend treatment^
- If patient already undergoing treatment results Covid-19+ symptomatic: suspend treatment^
- If patient already undergoing treatment results Covid19+ but asymptomatic: suspend treatment^
- ^ the evaluation must be customized (see also note 2): The suspension or continuation of treatment is dependent on the individual clinical case. Continuation must be permitted by the local health authorities and carried out under conditions of maximum safety for healthcare professionals. As with common procedures for high risk infectious patients, appropriate pathways must be delineated, and the equipment and bunker must be sanitized at the end of treatment.
- If patient suspended for Covid19+ and declared cured by the Infectious Disease Department: carefully evaluate the recovery time of the treatment on the basis of the clinical-instrumental picture of the disease.

Priority no. 4. Rationalisation of the healthcare professionals working at the Department of Radiotherapy

Analysis of the problem:

- It is necessary to organise measures to encourage professional behaviour that avoids as much as possible the aggregation of professional figures working in the radiotherapy facility.

Procedural proposals:

- Medical, technical, nursing, carers and administrative staff must operate in separate areas avoiding working activities or meetings without the safety distances required for prevention
- In case of infection of medical staff and technical staff and therefore in case of serious shortage of staff:
- it is compulsory to inform the company direction about the situation so that the work can continue in accordance with the regulations.
- and it is possible to decide:

- the possible activation of SMART WORKING in particular for the staff of the Medical Physics Unit in agreement with the respective Directors, with the Company Directions and the Information Technology Company Services;
- a link between Radiotherapy Centres for the use of external staff from other institutions in order to avoid the interruption of ongoing radiant therapies;
- the redistribution of patients on available machines, variation of fractionation schemes of treatments in progress.

Priority no. 5. Reduction of patients' access to Radiotherapy facilities

Analysis of the problem:

- It is recommended to limit the access of patients to the Radiotherapy Facilities in terms of visits and number of treatment sessions in accordance with International and National Guidelines and corporate oncological therapeutic diagnostic pathways

Procedural proposals:

- To promote dose hypofractionation, where indicated
- To procrastinate follow-up visits where possible
- To use medical symptomatic treatments, if possible at home, if they are considered to be of similar efficacy
- To delay treatments for some pathologies (e.g. breast and prostate cancers), evaluating the risk/benefit ratio in each individual case
- To postpone radiant therapies for benign and functional diseases

NOTE 1: Roberto Tortini (Lodi), Sandro Tonoli (Cremona), Andrea R. Filippi (Pavia), Michela Buglione di Monale e Bastia (Brescia), Anna Merlotti (Cuneo), Giampaolo Montesi (Rovigo), Stefano Pergolizzi (Messina), Giovanni Mandoliti (Rovigo), Stefano M.Magrini (Brescia), Renzo Corvò (Genova), Elvio Russi (Cuneo) Procedures of some Radiotherapy Centres on the basis of their experiences "Priorità e raccomandazioni per la valutazione e la gestione del rischio dei pazienti in corso di diffusione del COVID-19 nei reparti di Radioterapia Oncologica". Available at

https://www.radioterapiaitalia.it/wp-content/uploads/2020/03/v-1-12-03-2020-RADIOTERAPIA-ONCOLOGICA-PRIORITA-e-RACCOMANDAZIONI-PER-LA-VALUTAZIONE-E-LA-GESTIONE-DEL-RISCHIO-DEI-PAZIENTI-IN-CORSO-DI-DIFFUSIONE-COVID-19-Copia.pdf NOte 2: Recent data referring to the Chinese experience (ref 6) bring solid evidence in favour of the fact that chest CT can have a higher sensitivity than RT-PCR swab test and is very useful for the evaluation of the evolution of symptomatology. It can be considered a useful tool, in selected cases, together with the clinical data and the swab, to ensure the radiotherapy treatment of patients for whom the risk of COVID19

selected cases, together with the clinical data and the swab, to ensure the radiotherapy treatment of patients for whom the risk of COVID19 infection is lower than that of failure to complete the radiotherapy treatment within a certain time. The pathways for access to CT scan and treatment of selected COVID 19 positive patients' cases should be customized in each Centre according to their characteristics and company rules.

This guidance document was drawn up by AIRO and is addressed to the Italian Radiotherapy Centres with the aim of indicating the behaviour to be followed during the ongoing COVID-19 emergency.

The present document cannot and must not replace the recommendations given by the National and Regional Institutions or by the Directorates of the individual Healthcare Structures.

References:

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