NCCP advice on radiation therapy capacity escalation plan in response to the current COVID 19 pandemic

This document relates to patients who do not have COVID-19 or are not suspected of having COVID-19.

Current events surrounding the COVID 19 pandemic are challenging and all public health bodies are placing the safety of patients, staff and communities first in all decisions.

This is an evolving situation. This advice is based on current information, it is additional to the advice of the NPHET, the HSE and the DoH, and will be updated as necessary.

The NCCP acknowledges that each hospital is working under individual constraints, including staff and infrastructure, and as a result will implement this advice based on their own unique circumstances.

The purpose of this advice is to maximise the safety of patients and make the best use of HSE resources, while protecting staff from infection. It will also enable services to match the capacity for cancer care to patient needs if services become limited due to the COVID-19 pandemic.

Any clinician seeking to apply or consult these documents is expected to use independent medical judgement in the context of individual clinical circumstances to determine any patient's care or treatment.

1 NPHET, HSE and DoH advice

Hospitals will operate under the overarching advice of the National Public Health Emergency Team (NPHET), the HSE and the DoH. Information is available at:

- HSE HPSC - https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/
- HSE Coronavirus (COVID-19) - https://www2.hse.ie/conditions/coronavirus/coronavirus.html
- DoH Coronavirus (COVID-19) - https://www.gov.ie/en/campaigns/c36c85-covid-19-coronavirus/
- Ireland's National Action Plan in response to COVID-19 (Coronavirus) - https://www.gov.ie/en/campaigns/c36c85-covid-19-coronavirus/

2 Purpose

This radiation therapy capacity escalation plan seeks to stratify appropriate adjustment of the clinical service dependent on the staffing level. This plan was developed based on the following principles:

- Where possible those treatments that provide a chance of long-term cancer control or 'cure' will be provided and prioritised.
- Treatments aimed at palliation alone or a minimal extension of life will have to be temporarily suspended during the peak of a COVID outbreak.

- Those treatments which in which deferral for a 1-3 month period will have a minimum clinical impact (e.g. treatment of a basal cell carcinoma), should be deferred.
- Patients who have commenced a course of radiotherapy or chemotherapy should be prioritised and supported in completing their treatments.

3 General recommendations

To reduce transmission between staff or between staff and patients consult the most up to date information for health care professionals on the HPSC website and link with your local infection prevention and control team.

For radiation oncology guidance on PPE please refer to 'NCCP guidance on the use of PPE by medical professionals when managing patients requiring radiotherapy in response to the current novel coronavirus (COVID-19) outbreak'.

4 Projected impact levels

For each of the clinical departments, the following are suggested impact levels as measured against normal roster staffing levels (1):

Level 1	80% capacity or above
Level 2	Less than 80% capacity
Level 3	Less than 50% capacity
Level 4	Less than 25% capacity
Level 5	Less than 10 % capacity

5 Radiation Oncology Clinical response plan

Radiation therapists (RTs) are the largest single group within radiation oncology and are responsible for treatment planning and treatment delivery. However, the numbers of all staff involved in radiotherapy planning, delivery and maintenance should be considered when determining what radiotherapy level the service is functioning at.

Redeployment of staff may be necessary to maintain the service. During the COVID-19 response, it may be necessary to redeploy staff currently based within pre-treatment and treatment planning onto the treatment machines to complete treatments of patients already commenced.

During the COVID-19 pandemic, priority will be given to complete those treatment courses already commenced.

The response plan below describes the proposed plan for patients who have not yet started treatment.

Capacity level	Proposed plan
Level 1 – – 80% capacity or above	• Current services will continue as planned.

Level 2 – Less than 80% capacity	• Postpone all benign treatments.
	• Use of single fraction regimens for palliative treatment to reduce treatment slots required
	• Where possible use hypofractionation for adjuvant and radical treatments to reduce the number of treatment slots required
	• Please refer to the following cancer specific guidance for more detail:
	  ○ Breast: NCCP advice for medical professionals on the management of patients undergoing Breast Cancer Radiotherapy in response to the current novel coronavirus (COVID-19) outbreak
	  ○ Prostate: NCCP advice for medical professionals on the management of patients undergoing Prostate Cancer Radiotherapy in response to the current novel coronavirus (COVID-19) pandemic
	  ○ Thyroid: NCCP advice on radiation therapy capacity escalation plan in response to the current COVID 19 pandemic
	  ○ Lung cancer: NCCP advice for medical professionals on the management of patients undergoing Lung Cancer Radiotherapy in response to the current novel coronavirus (COVID-19) pandemic
	  ○ CNS cancer: NCCP advice for medical professionals on the treatment of patients with CNS tumours with radiotherapy in response to the COVID-19 pandemic
	  ○ Head and Neck cancers: NCCP guidance for Medical Professionals on the management of patients with head and neck cancer undergoing radiotherapy in response to the current COVID-19 pandemic
	• Patients post chemotherapy should be prioritised.
	• Consider postponing prostate and vaginal vault brachytherapy.
	• Defer Radio-Iodine and Radium 223 treatments.
	• Minimise fractionation for SABR treatment where possible especially for Brain SRS. Postpone lung SABR treatments in low risk tumours (small, slow growing, lepidic) or in at-risk individuals (e.g. poor performance status, significant comorbidities). Defer non-urgent SABR including bone metastases.
	• Continue with SABR for large tumours approaching 5 cm and single intact brain metastases.

Level 3 – Less than 50% capacity	In addition to Level 2: • Postpone all palliative treatments <u>except</u> where these are for life threatening conditions such as haemorrhage, spinal cord compression, superior vena cava obstruction, diffuse midline glioma (DIPG) in children and spinal cord compression. • Postpone all SABR treatments for oligometastatic disease. • Postpone SRS for brain metastases, except for intact brain metastases. • Postpone de novo, uncomplicated squamous cell carcinoma of the skin.

Capacity level	Proposed plan
Level 4 – Less than 25% capacity	In addition to level 2 and 3: • Defer all adjuvant treatments
Level 5 – Less than 10% capacity	In addition to levels 2, 3 and 4: • Cancel all routine radical/curative intent treatments. • Only consider immediately life-threatening treatments such as bleeding tumours, spinal cord compression and diffuse midline glioma (DIPG) in children.

6 Prioritisation of patients during COVID-19 pandemic

Cancer patients are considered a high risk group with a poorer outcome if they develop COVID-19 infection (2,3,4).

For this reason we need to strive to keep our radiotherapy departments COVID-19 free.

During the COVID-19 pandemic, the capacity of public centres is expected to remain at or below 80% because of the need for social distancing and rigorous infection control procedures.

Careful scheduling of patients is necessary.

As surgical activity increases, referrals for radiotherapy are expected to rise so clinical prioritisation will be extremely important to enable us to safely deliver radiotherapy.

The following table can be used as a guide for Radiation Oncologists in order to prioritise patients for outpatient, new patient assessment clinics and radiation treatment.

Priority Level	Treatment Group	**Level 1** – 80% capacity or above	**Level 2** – Less than 80% capacity	**Level 3** – Less than 50% capacity	**Level 4** – Less than 25% capacity	**Level 5** – Less than 10% capacity
1	Patients with spinal cord compression with salvageable neurological function.					
	Radical radiotherapy with curative intent for patients with more rapidly growing tumours i.e. head and neck or radical cervix patients.					
	Patients already on treatment.					

2	Radical radiotherapy for all other patients (5).					
	Adjuvant post-operative treatment for aggressive tumours (e.g. head and neck) or patients with known residual disease post-operative SABR					
3	All other adjuvant treatments (e.g. breast) and radical radiotherapy for prostate cancer					
4	Palliative radiotherapy and SABR for oligometastases					
5	Radioactive iodine (RAI) for thyroid cancer patients and Radium 223 treatment					
6	Low grade malignant e.g. BCC or benign disease e.g. thyroid disease					

7 Guidance Development Group

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8 References

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4) Jordan RE, Adab P, and Cheng KK. Covid-19: risk factors for severe disease and death. BMJ 2020. 368.
5) NICE guideline. COVID 19 rapid guideline: delivery of radiotherapy March 2020