

We suggest that the following guidelines are **considered** and the **risks and benefits are discussed with patients** to facilitate shared decision-making. Centres may need/choose to delay RT depending on local circumstances with reference to expert consensus following previous natural disasters¹ and also amend current systemic therapy pathways, but this is outside the remit of these guidelines.

1. **Omit RT for patients 65 years and over (or younger with relevant co-morbidities) with invasive breast cancer that are up to 30mm with clear margins, grade 1-2, oestrogen receptor (ER) positive, human epidermal growth factor receptor 2 (HER2) negative and node negative who are planned for treatment with endocrine therapy².**

Trials investigating safe omission of RT can be considered if they do not impact on patients visits and resources are available. Centres may also consider omitting RT for ductal carcinoma in-situ (DCIS) depending on individual risk and benefit.

2. **Deliver RT in 5 fractions only for all patients requiring RT with node negative tumours that do not require a boost. Options include 28-30Gy in once weekly fractions over 5 weeks or 26Gy in 5 daily fractions over 1 week as per the FAST and FAST Forward trials respectively³⁻⁵.**

N.B. 5-year local relapse data are not yet available for FAST Forward but imminent publication is anticipated. In the meantime, 26Gy in 5 fractions has already been demonstrated to be equivalent with 40 Gy in 15 fractions with respect to 3-year normal tissue outcome. Furthermore, local control is likely to be within acceptable limits given the low local relapse rates in this patient group generally⁶. The FAST Forward protocol and RT planning pack are available at:

https://www.icr.ac.uk/our-research/centres-and-collaborations/centres-at-the-icr/clinical-trials-and-statistics-unit/clinical-trials/fast_forward_page/

Partial breast RT using 28.5-6Gy in 5 fractions over 1-2 weeks⁷⁻⁸ can also be considered for selected patients if resources are available for increased complexity and/or to avoid deep inspiration breath hold (DIBH) for left-sided tumours in the upper half of the breast (if DIBH impacts on treatment time). N.B. IMPORT Low⁶ has the same fractionation schedule in the control group as FAST Forward so 26Gy in 5 fractions over 1 week could also be proposed in the partial breast irradiation setting.

3. **Boost RT should be omitted to reduce fractions and/or complexity in the vast majority of patients unless they 40 years old and under, or over 40 years with significant risk factors for local relapse⁹.**

Boost RT has no proven survival advantage so risks and benefits during the COVID-19 pandemic need to be re-evaluated. An example of a significant risk factor is the presence of involved resection margins where further surgery is not possible. Any boost should be either simultaneous and integrated to minimise fractions if resource permits or hypofractionated sequential, e.g. 12Gy in 4 fraction over 4 days.

4. **Nodal RT can be omitted in post-menopausal women requiring whole breast RT following sentinel lymph node biopsy and primary surgery for T1, ER positive, HER2 negative G1-2 tumours with 1-2 macrometastases¹⁰.**

This approach gives this group of patients the option of 5 fractions of RT, and may reduce complexity of planning/treatment.

5. **Moderate hypofractionation should be used for all breast/chest wall and nodal RT, e.g. 40Gy in 15 fractions over 3 weeks¹¹⁻¹⁴.**

The use of moderate hypofractionation is already the standard of care in many countries and in the altered risk-benefit context of a pandemic should be strongly considered in patients with breast reconstruction. However, many centres will halt immediate reconstruction during the pandemic as this is not essential cancer surgery.

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