Hypo fractionated irradiation regimes as an alternative to conventional irradiation for use during times of reduced radio oncological capacities

Warning: The use of regimes, which teams are experienced with is preferential, as the introduction of new schemes normally requires good toxicity controls. Should the pandemic intensify it could become reasonable to try evidence-based hypo fractioning instead of not treating the patient via irradiation.

Indication	Hypo fractionated Regimes	Literature
Breast cancer, adjuvant irradiation	42,5Gy/16x2,66 Gy or 40 Gy/15x2,66Gy	W. Budach et al.; Hypofractionated Radiotherapy as Adjuvant Treatment in Early Breast Cancer. A Review and Meta-Analysis of Randomized Controlled Trials; Breast Care (Basel) , 10 (4), 240-5; Aug 2015
Breast cancer, adjuvant irradiation with Boost:	40 Gy/16x2,5 Gy Remaining breast with simultaneous, integrated Boost 48 Gy/ 16x3 Gy	Study protocol Hyposib-Study
Low risk breast cancer.	Partial breast irradiation 5x6 Gy for 2 weeks (daily)	L. Livi; Accelerated partial breast irradiation using intensitymodulated radiotherapy versus whole breast irradiation: 5-year survival analysis of a phase 3 randomised controlled trial; European Journal of Cancer (2015) 51, 451– 463
Prostate cancer. Primary, definite RT	60 Gy/20x3 Gy	MG Sanda et al. Clinically Localized Prostate Cancer: AUA/ASTRO/SUO Guideline. Part II: Recommended Approaches and Details of Specific Care Options. J Urol. 2018 Apr;199(4):990-997.
Lung cancer localised stage	SBRT 3x18 Gy (peripherally); 8x7,5 Gy (centrally)	M. Guckenberger, et al. Deutsche Gesellschaft für Radioonkologie (DEGRO). Definition of stereotactic body radiotherapy: principles and practice for the treatment of stage I non-small cell lung cancer. Strahlenther Onkol. 2014 Jan;190(1):26-33
Lung cancer locally advanced stage, radiochemotherapy	60,5 Gy /22,5x2,75 Gy	J. Walraven I, et al., Long-term follow-up of patients with locally advanced non-small cell lung cancer receiving concurrent hypofractionated chemoradiotherapy with or without cetuximab. Radiother Oncol. 2016 Mar;118(3):442-6.
Glioblastoma, Radiochemotherapy	40,05 / 15x2,67 Gy	JR Perry et al. , Short-Course Radiation plus Temozolomide in Elderly Patients with Glioblastoma. N Engl J Med. 2017 Mar 16;376(11):1027-1037.
Glioblastoma Only radiotherapy	34 Gy/10x3,4 Gy	A Malmström et al. Temozolomide versus standard 6-week radiotherapy versus hypofractionated radiotherapy in patients older than 60 years with glioblastoma: the Nordic randomised, phase 3 trial. Lancet Oncol. 2012 Sep;13(9):916-26.
Bone metastases palliative irradiation	20 Gy/4x5 Gy 1x8 Gy	D. Rades, Dose-Fractionation Schedules for Radiotherapy of Bone Metastases , Breast Care (Basel) , 5 (5), 339-344 ; 2010

Further material on hypofractionation and an ESTRO statement on the overall problem can also be found here: https://docs.google.com/spreadsheets/d/1KicEMU_ZZ5rcpCEmNDelQcDOdYqZ4iMzh64bx36ac58 and https://www.estro.org/About/Newsroom/News/Radiotherapy-in-a-time-of-crisis