Radiotherapy Guideline for Hepatic Cell Craicnoma

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RT indication

RT is a treatment option for patients with unresectable disease, or for those who are medically inoperable due to comorbidity.

Simulation and immobilization

CT-based treatment planning with conformal blocking and dosimetry is considered standard care for EBRT.

Field design and treatment volume

Target volumes for 3D-RT and IMRT should be delineated based on GTV, CTV, and PTV concepts.

Dose prescriptions

Depending on tumor size and location, SBRT and hypofractionation are recommended when normal organ constraints can be met.

Regimen	Dose	Notes
SBRT	40–60 Gy in 3–5 fractions	Preferred if dose constraints met
Hypofractionation	37.5–72 Gy in 10–15 fractions	Acceptable alternative
Conventional fractionation	50–66 Gy in 25–33 fractions	For patients unsuitable for SBRT

Constraints for organ at risk

Normal organ dose responses from the QUANTEC project.

Reference

NCCN Clinical Practice Guidelines in Oncology, 2024

Perez and Brady's Principles and Practice of Radiation Oncology, 7th ed, 2018

Eric K. Hansen, Handbook of Evidence-Based Radiation Oncology