13.
Renal cancer

There are limited indications for radiotherapy in renal cancer, apart from the treatment of bone and brain metastases, which are covered in the relevant sections of this document (sections 18 and 19).

It has no role in neoadjuvant or primary treatment.

Adjuvant radiotherapy

Adjuvant radiotherapy is not currently recommended.

There is evidence (Grade C) of improvement in local control when radiotherapy is given adjuvantly postoperatively in high-risk patients with T3 localised tumours using doses of 41.4–63 Gray (Gy) in 1.8–2 Gy fractions.[1–6]

Stereotactic body radiotherapy (SBRT) has been used for highly selected patients with localised primary tumours (>T1a) who are not able to have surgery. Doses of 40–45 Gy in five fractions have been used (Grade C).[1] This is not recommended outside clinical trials at present.[7]

Palliative radiotherapy

Palliative radiotherapy may be considered for persistent haematuria or pain from large soft tissue masses. Single doses of 8–10 Gy in poor performance status patients (Grade D) for haematuria and 30 Gy in ten fractions for soft tissue masses and pain (Grade D) may be used.[1]

References

1. www.cebm.net/oxford-centre-evidence-based-medicine-levels-evidence-march-2009 (last accessed 30/9/16)
2. Ulutin HC, Aksu G, Fayda M, Kuzhan O, Tahmaz L, Beyzadeoglu M. The value of postoperative radiotherapy in renal cell carcinoma: a single-institution experience. *Tumori* 2006; **92**(3): 202–206.
3. Stein M, Kuten A, Halpern J, Coachman NM, Cohen Y, Robinson E. The value of postoperative irradiation in renal cell cancer. *Radiother Oncol* 1992; **24**(1): 41–44.
4. Scherer E, Wirtz C. The role of postoperative radiotherapy in the treatment of hypernephroid carcinoma. *Strahlenther Onkol* 1988; **164**(7): 371–385.
5. Kao GD, Malkowicz SB, Whittington R, D'Amico AV, Wein AJ. Locally advanced renal carcinoma: low complication rate and efficacy of postnephrectomy radiation therapy planned with CT. *Radiology* 1994; **193**(3): 725–730.
6. Makarewicz R, Zarzycka M, Kulińska G, Windorbska W. The value of postoperative radiotherapy in advanced renal cell cancer. *Neoplasma* 1998; **45**(6): 380–383.
7. Kirkbride T, Cooper T. Stereotactic body radiotherapy. Guidelines for commissioners, providers and clinicians: a national report. *Clin Oncol (R Coll Radiol)* 2011; **23**(3): 163–164