Incidental Solid Renal Mass
Detected on CT

<1 cm
- General population
  - Follow-up until 1 cm: CT or MRI at 3-6 mo and 12 mo, then yearly
- Limited life expectancy and co-morbidities
  - Follow-up until 1.5 cm: CT or MRI at 3-6 mo and 12 mo, then yearly

1-3 cm
- General population
- Limited life expectancy or co-morbidities
  - Surgery
  - Follow-up

>3 cm
- General population
- Limited life expectancy and co-morbidities
  - Surgery
  - Follow-up

Hyperattenuating, homogeneously enhancing: consider MRI, biopsy

LEGEND
1. These recommendations are to be followed only if non-neoplastic causes of a renal mass (e.g., infections and fat-containing angiomyolipomas) have been excluded; see Ref. 48 for details. The recommendations are offered as general guidance and do not necessarily apply to all patients.
2. Differential diagnosis includes renal cell carcinoma, oncocytoma, angiomyolipoma. Benign entities are more likely in small renal masses than large ones.
3. Limited life expectancy and co-morbidities that increase the risk of treatment.
4. Interval and duration of observation may be varied (e.g., shorter interval if the mass is enlarging).
5. Probable diagnosis renal cell carcinoma, provided there is no detectable fat at CT or MRI using protocols designed to evaluate renal masses.
6. If hyperattenuating and homogeneously enhancing, consider MRI and percutaneous biopsy to diagnose angiomyolipoma with minimal fat.
7. Surgical options include open or laparoscopic nephrectomy and partial nephrectomy; both provide a tissue diagnosis. Open, laparoscopic, and percutaneous ablation may be considered where available, but biopsy would be needed to achieve a tissue diagnosis. Long-term (5- or 10-year) results of ablation are not yet known.
8. Observation may be considered for a solid renal mass of any size in a patient with limited life expectancy or co-morbidities that increase the risk of treatment, particularly when the mass is small. It may be safe to observe a solid renal mass beyond 1.5 cm; however, there are insufficient data to provide definitive recommendations on the risks and benefits of observation. Thin (<3 mm) sections help confirm enhancement.
9. Probable diagnosis renal cell carcinoma. Angiomyolipoma with minimal fat, oncocytoma, and other benign neoplasms may be found at surgery.
10. Percutaneous biopsy can be utilized preoperatively to confirm renal cell carcinoma.