



Kidney Cancer

is among the most common cancers and varies widely in tumor size and aggressiveness. Though finding out that you have cancer can be frightening, small kidney masses (stage T1) can remain stable for long periods of time and cause no symptoms. As a result, there is an opportunity for some patients to delay or even avoid active treatment (e.g., surgery or other procedures) and its possible side effects. This approach is called **Surveillance**.

The initial evaluation consists of a high-quality CT or MRI and baseline lab work (CBC, CMP, urinalysis). A renal mass biopsy may be recommended, as findings may affect the management decision. Estimation of life expectancy based on age, comorbidities, and tumor size impacts the appropriateness of treatment vs. surveillance.

For a calculator to determine life expectancy, scan this QR code:



To explore the decision making process and active surveillance in more detail, please scan this QR code:



For additional information regarding this brochure or the Michigan Urological Surgery Improvement Collaborative, please contact us at:

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Small Renal Masses



Treatment Options:

(listed in no particular order)

Surveillance: Least invasive strategy.

Monitors the tumor through imaging at regular intervals.

Ablation or Radiation Therapy: Destroys cancerous tissue in the kidney. Avoids surgery.

Partial Nephrectomy: Most common procedure for small tumors (<4cm) and select larger tumors. Removes tumor and a small rim of normal kidney; preserves renal function.

Radical Nephrectomy: Removes entire kidney. Usually performed for complex or large tumors. Age, life expectancy, tumor size, and complexity are important factors when deciding between options for management.

The table below provides an estimate for the likelihood that a renal mass is cancer and for cancer spread to other parts of the body (metastasis) based on the tumor size.

Renal Mass Size (cm)	Likelihood of Cancer	Likelihood of Metastasis
0.1 - 1.0	50 - 68%	0%
1.1 - 2.0	75 - 81%	0%
2.1 - 3.0	79 - 89%	3%
3.1 - 4.0	81 - 89%	3%
4.1 - 5.0	88%	13%
5.1 - 6.0	87 - 91%	18%
6.1 - 7.0	92 - 93%	24%

Surveillance: About half of the patients with localized kidney tumors in Michigan choose surveillance.

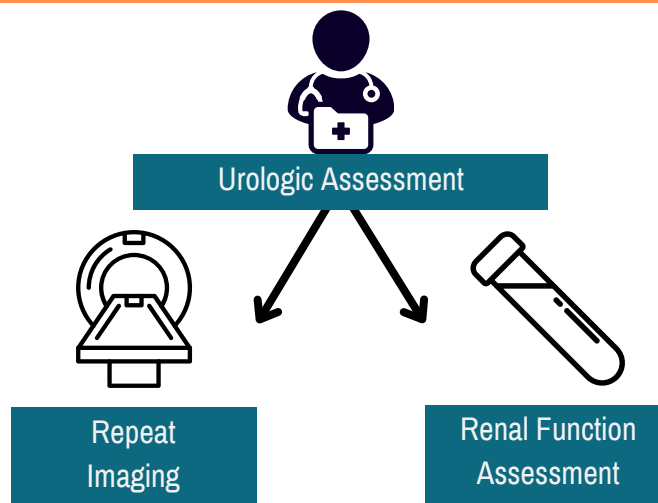
Most small kidney tumors have limited chance to spread to other parts of the body (metastasize) and can be managed safely by keeping a close eye on them to ensure no rapid growth. This approach has been shown to have excellent cancer-specific survival while also maximizing kidney function.

We have developed guidelines around surveillance, indicating a “high” and “low” intensity surveillance plan.

Together with your provider, you will decide on a plan that may consist of:

- Abdominal imaging (ultrasound, CT, or MRI)
- Repeat lab work (CMP, urinalysis)
- Chest imaging
- Renal mass biopsy

Surveillance Components



High Intensity Plan

Tumor Size	1st Surveillance Imaging	2nd Surveillance Imaging	3rd Surveillance Imaging
0-4 cm	3 months after diagnosis	9 months after diagnosis	21 months after diagnosis
4-6 cm			15 months after diagnosis
> 6 cm		6 months after diagnosis	12 months after diagnosis

Low Intensity Plan

Tumor Size	1st Surveillance Imaging	2nd Surveillance Imaging	3rd Surveillance Imaging
0-4 cm	6 months after diagnosis	18 months after diagnosis	30 months after diagnosis
4-6 cm			24 months after diagnosis
> 6 cm		12 months after diagnosis	24 months after diagnosis

Transition to Treatment

Based on the results of your surveillance imaging, your physician may recommend a different treatment option (see treatment options). Repeat imaging, as outlined by the surveillance plans, can help the patient and physician stay on top of growth or any other changes in the tumor.

This document is designed for adult patient education.