

Appendix A: Follow-Up Protocol Summary

Follow-Up Measure	Active Surveillance
<b>Physical Exam and History</b>	<ul style="list-style-type: none"> <li>History and physical examination directed at detecting signs and symptoms of metastatic spread or local progression</li> </ul>
<b>Laboratory Testing</b>	<ul style="list-style-type: none"> <li>Basic laboratory testing to include BUN/creatinine, UA and eGFR;</li> <li>CBC, LDH, LFTs, ALP and calcium level tests may be used at the discretion of the physician;</li> <li>Progressive renal insufficiency should prompt a nephrology referral</li> </ul>
<b>CNS Scan</b>	<ul style="list-style-type: none"> <li>Acute neurological signs should undergo prompt neurologic cross sectional (CT or MRI) scan<sup>1</sup> of the head or spine based on localized symptomatology</li> </ul>
<b>Bone Scan</b>	<ul style="list-style-type: none"> <li>Elevated ALP, clinical symptoms such as bone pain, and/or radiographic findings suggestive of a bony neoplasm should prompt a bone scan;</li> <li>A bone scan should not be performed in the absence of these symptoms</li> </ul>
<b>Percutaneous Biopsy</b>	<ul style="list-style-type: none"> <li>Percutaneous biopsy may be considered prior to active surveillance</li> </ul>
<b>Abdominal Scan<sup>1</sup>/Imaging<sup>2</sup></b>	<ul style="list-style-type: none"> <li>Cross-sectional abdominal scanning<sup>1</sup> (CT or MRI) within six months of active surveillance initiation to establish a growth rate with continued imaging<sup>2</sup> (US, CT or MRI) at least annually thereafter</li> </ul>
<b>Chest X-ray</b>	<ul style="list-style-type: none"> <li>Patients with biopsy proven RCC or a tumor with oncocytic features on active surveillance should undergo an annual chest x-ray to assess for pulmonary metastases</li> </ul>

<sup>1</sup>In the context of this document, “scan” dictates the use of CT or MRI.

<sup>2</sup>In the context of this document “imaging” dictates the use of abdominal or renal US, CT or MRI.

Follow-Up Measure	Renal Ablation
<b>Physical Exam and History</b>	<ul style="list-style-type: none"> <li>History and physical exam directed at detecting signs and symptoms of metastatic spread or local recurrence</li> </ul>
<b>Laboratory Testing</b>	<ul style="list-style-type: none"> <li>Basic laboratory testing to include BUN/creatinine, UA and eGFR;</li> <li>CBC, LDH, LFTs, ALP and calcium level tests may be used at the discretion of the physician;</li> <li>Progressive renal insufficiency should prompt a nephrology referral</li> </ul>
<b>CNS Scan</b>	<ul style="list-style-type: none"> <li>Acute neurological signs should prompt neurologic cross sectional (CT or MRI) scan<sup>1</sup> of the head or spine based on localized symptomatology</li> </ul>
<b>Bone Scan</b>	<ul style="list-style-type: none"> <li>Elevated ALP, clinical symptoms such as bone pain, and/or radiographic findings suggestive of a bony neoplasm should prompt a bone scan;</li> <li>A bone scan should not be performed in the absence of these symptoms</li> </ul>
<b>Diagnostic Biopsy</b>	<ul style="list-style-type: none"> <li>Patients should undergo a pretreatment diagnostic biopsy</li> </ul>
<b>Abdominal Scan</b>	<ul style="list-style-type: none"> <li>Cross-sectional scanning<sup>1</sup> (CT or MRI) with and without IV contrast unless otherwise contraindicated at three and six months following ablative therapy with continued scanning annually thereafter for five years;</li> <li>Scanning<sup>1</sup> beyond five years is optional based on individual risk factors</li> </ul>
<b>Chest Imaging</b>	<ul style="list-style-type: none"> <li>Patients who have either biopsy proven low risk RCC, oncocytoma, a tumor with oncocytic features, nondiagnostic biopsies or no prior biopsy should undergo annual chest x-ray to assess for pulmonary metastases for five years;</li> <li>Imaging<sup>2</sup> (CXR or CT) beyond five years is optional based on individual patient risk factors and the determination of treatment success.</li> <li>Radiologic scanning is not recommended with pathological confirmation of benign disease at or before treatment and post treatment radiographic confirmation of treatment success and no evidence of treatment-related complications.</li> </ul>
<b>Repeat Biopsy</b>	<ul style="list-style-type: none"> <li>New enhancement, a progressive increase in size of an ablated neoplasm with or without contrast enhancement, new nodularity in or around the treated zone, failure of the treated lesion to regress over time, satellite or port side lesions, should prompt a repeat lesion biopsy.</li> <li>Observation, repeat treatment and surgical intervention should be discussed</li> </ul>

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<sup>2</sup>In the context of this document, “chest imaging” indicates the use of CXR or chest CT.

Follow-Up Measure		Radical or Partial Nephrectomy	
Physical Exam and History	<ul style="list-style-type: none"> <li>History &amp; physical exam directed at detecting signs/symptoms of metastatic spread or local recurrence</li> </ul>		
Laboratory Testing	<ul style="list-style-type: none"> <li>Basic laboratory testing to include BUN/creatinine, UA and eGFR;</li> <li>CBC, LDH, LFTs, ALP and calcium level tests may be used at the discretion of the physician;</li> <li>Progressive renal insufficiency should prompt a nephrology referral</li> </ul>		
CNS Scan	<ul style="list-style-type: none"> <li>Acute neurological signs should prompt neurologic cross sectional (CT or MRI) scan<sup>1</sup> of the head or spine based on localized symptomatology</li> </ul>		
Bone Scan	<ul style="list-style-type: none"> <li>Elevated ALP, clinical symptoms such as bone pain, and/or radiographic findings suggestive of a bony neoplasm should prompt a bone scan;</li> <li>A bone scan should not be performed in the absence of these symptoms</li> </ul>		
Follow-Up Measure	Low Risk	Moderate to High Risk	
Abdominal Scan <sup>1</sup> /Imaging <sup>2</sup>	<b>Partial Nephrectomy</b> —Obtain a baseline abdominal scan <sup>1</sup> (CT or MRI) within three to twelve months following surgery; <ul style="list-style-type: none"> <li>If the initial postoperative scan is negative, abdominal imaging<sup>2</sup> (US, CT OR MRI) may be performed yearly for three years based on individual risk factors</li> </ul>	<ul style="list-style-type: none"> <li>A baseline abdominal scan<sup>1</sup> (CT or MRI) within three to six months following surgery with continued imaging<sup>2</sup> (US, CT or MRI) every six months for at least three years and annually thereafter to year five.</li> <li>Imaging<sup>2</sup> beyond five years may be performed at the discretion of the clinician.</li> <li>Perform site specific imaging as symptoms warrant.</li> </ul>	
	<b>Radical Nephrectomy</b> —Patients should undergo abdominal imaging <sup>2</sup> (US, CT or MRI) within three to twelve months following renal surgery; <ul style="list-style-type: none"> <li>If the initial postoperative imaging is negative, abdominal imaging<sup>2</sup> beyond twelve months may be performed at the discretion of the clinician</li> </ul>		
Chest Imaging/scan	<ul style="list-style-type: none"> <li>Obtain a yearly chest x-ray for three years and only as clinically indicated beyond that time period</li> </ul>	<ul style="list-style-type: none"> <li>Obtain a baseline chest scan (CT) within three to six months following surgery with continued imaging<sup>3</sup> (CXR or CT) every six months for at least three years and annually thereafter to year five.</li> <li>Imaging<sup>3</sup> beyond five years is optional and should be based on individual patient characteristics and tumor risk factors</li> </ul>	

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<sup>2</sup>In the context of this document “imaging” dictates the use of abdominal or renal US, CT or MRI.

<sup>3</sup>In the context of this document, “chest imaging” indicates the use of CXR or chest CT.