ASCENSION ST VINCENTS
MASS ABLATION PATIENT HANDOUT

Radiologist who performed your procedure: _____

Procedure Description:

- Image-guided mass thermal ablation is a minimally invasive procedure used to destroy tumors or abnormal tissue using heat or cold. It is most commonly performed for small tumors in organs such as the liver, kidney, lung, bone or breast and is often used as an alternative to surgery in select patients.
- During the procedure, a radiologist uses imaging (such as CT or ultrasound) to precisely target the mass. The skin is cleaned with antiseptic, and local anesthetic is used to numb the area. One or more needles (ablation probes) are placed into the mass. Depending on the type of ablation, heat (radiofrequency or microwave ablation) or extreme cold (cryoablation) is delivered through the probe(s) to destroy the abnormal tissue while preserving as much surrounding normal tissue as possible. The probe(s) are then removed, and small bandages are applied.
- The procedure usually takes 1–2 hours (sometimes longer). You will then be observed for several hours to monitor for any complications.
- Most patients go home the same day; however, some patients may be kept in the hospital overnight or, rarely, longer.
- Over weeks to months, the body gradually absorbs the treated tissue, typically leaving only a small scar where the mass was located.
- CT or MR imaging is performed several months after ablation to confirm successful treatment. Longer-term CT or MR imaging may also be needed.

Benefits:

- Minimally invasive treatment option for certain tumors or abnormal tissue.
- Imaging allows the radiologist to precisely target the mass.
- Preserves as much surrounding normal tissue as possible.
- Often avoids or delays the need for surgery in select patients.
- Typically associated with shorter recovery time compared with surgery.
- Can be repeated if needed.
- Most patients tolerate the procedure well.

Risks & Potential Complications:

- The following list includes some, but not all, possible complications.
- Pain is common but usually mild, typically resolves within a few days, and can be managed with over-the-counter pain medication. Severe pain can occur but is uncommon.
- Minor bleeding is common and usually does not require medical treatment. Any resulting bruising typically resolves on its own over several days. Serious bleeding that requires medical treatment (such as hospital admission, blood transfusion, or an additional procedure or surgery) can occur but is uncommon.

- Infection can occur but is uncommon. Most infections are mild and can be treated with antibiotics.
- Injury to nearby organs, bowel, blood vessels, or nerves can occur but is uncommon.
- Incomplete treatment or regrowth of the mass can occur and may require repeat treatment or surgery.
- For liver ablation, injury to the bile ducts in or near the liver can occur. In some cases, this may require additional procedures or surgery, temporary drain placement, and/or hospital admission for treatment.
- For renal ablation, blood in the urine or injury to the urinary system can occur. In some cases, this may require additional procedures or surgery, temporary drain placement, and/or hospital admission for treatment.
- For lung ablation, lung collapse (pneumothorax) is relatively common. Many mild cases are managed with observation and chest radiographs, while some require temporary placement of a small tube to remove the air and may require hospitalization.
- Feeling faint or lightheaded (a vasovagal reaction) can occur during or after the procedure. This is usually mild and resolves quickly.
- Allergic reactions to the local anesthetic, topical antiseptic or other medications are uncommon.
- Death can occur but is rare.

Alternatives:

- Surgical removal of the mass in appropriate patients, which is more invasive and involves a longer recovery.
- Other ablation techniques or radiation therapy in select cases.
- Systemic therapies such as chemotherapy, immunotherapy, or targeted therapy, depending on tumor type.
- Active surveillance with follow-up imaging in select patients with small or slow-growing masses.
- Medical management or supportive care alone, depending on overall goals of care.
- Some patients choose no further treatment; however, this may allow the mass to grow or spread and is generally not recommended.

Post-Ablation Syndrome:

- After thermal ablation, approximately 25–50% of patients experience a group of symptoms called post-ablation syndrome. This syndrome is a temporary inflammatory response that can occur as the body reacts to destruction of the mass.
- Common symptoms include low-grade fever, fatigue or malaise, nausea, body aches, and other flu-like symptoms.
- Symptoms usually begin within 1–3 days after ablation and typically resolve within 7 days.
- Symptoms can usually be managed with rest, drinking plenty of fluids, acetaminophen (Tylenol) and anti-nausea medications.
- Contact your provider if symptoms are severe, last longer than one week, or if you develop a high fever (greater than 102°F).

Mass Biopsy:

- Some masses are malignant (cancer), while others are benign (not cancer).
- Biopsy can be performed to determine if the mass is malignant or benign.
- Some patients choose to have a mass biopsied before ablation, while others do not.
- Benefits of biopsy include:

  - Knowing whether the mass is malignant or benign.
  - If malignant, identifying the exact type of cancer, which may help guide future treatment.
  - Benign masses often don't require ablation.
  - Long-term CT or MRI follow-up is often not needed for benign masses.
- Risks of biopsy include:
  - Most biopsy risks are similar to the risks of the ablation procedure itself.
  - One risk specific to mass biopsy is tumor seeding. Tumor seeding occurs when cancer cells deposit along the path of the biopsy needle. The risk of tumor seeding with malignant masses is less than 0.5% (approximately 1 in 200 biopsies). Tumor seeding is not known to occur with benign masses. When tumor seeding does occur, it is usually detected on follow-up imaging and can often be treated with repeat ablation.
  - Approximately 5–20% of biopsies do not provide a definitive result (inconclusive or nondiagnostic). This is more common with smaller masses, cystic masses (masses mainly made up of fluid), or masses that are difficult to distinguish from nearby normal tissue.
- Options if you choose to have a mass biopsy include:
  - Performing the biopsy on a separate day before ablation, waiting for results (usually several days), and proceeding with ablation only if malignancy is found or if results are inconclusive.
  - Performing the biopsy and ablation on the same day, understanding that biopsy results will not be available until several days after ablation. This option is often chosen when imaging strongly suggests cancer or for the convenience of completing both procedures in one visit.
- Mass biopsy is rarely successful when performed after ablation.

Aftercare Instructions:

- One or more bandages will be applied over the procedure site. You may remove the bandage 24 hours after your procedure. Skin glue may also be applied. Do not pick off the glue—allow it to flake off on its own over several days.
- You may shower and allow water to flow over the site 24 hours after your procedure; however, do not submerge the site in water (bath, pool, hot tub, or ocean) until it has healed.
- If you were provided with an ice pack, apply it to the procedure site periodically for 15-30 minutes after your procedure.
- Do not apply lotion or ointment to the site until it has healed unless instructed to do so.
- Avoid strenuous physical activity for at least 1 week after your procedure. Then gradually increase your activity level as tolerated.
- It is normal to experience pain and bruising after your procedure. You may take acetaminophen (Tylenol) for the first 24 hours. After 24 hours, you may switch to aspirin, ibuprofen (Motrin), or naproxen (Aleve) if acetaminophen does not adequately control your pain.
- For renal mass ablation, you may notice a small amount of blood in your urine after the procedure. This is normal if it is mild and decreases over time.
- For lung mass ablation, you may cough up a small amount of blood after the procedure. This is normal if it is mild and decreases over time.
- Contact Radiology or your ordering provider if you have any concerns or experience any of the following: severe pain not responding to medications; significant pain or swelling at the procedure site; significant or increasing blood in your urine; coughing up an increasing amount of blood; signs of possible infection (significant redness or purulent drainage from the procedure site, severe pain, high fever, or foul-smelling urine); shortness of breath and/or chest pain worse than normal for you; dizziness or lightheadedness when standing; or a faster-than-normal heart rate. Call 911 in the event of an emergency.

- Weekdays 8 am to 5 pm call 308-8401 (Riverside), 296-3886 (Southside), 602-1360 (Clay) or 691-1297 (St Johns). Weekdays 5 pm to 10 pm or weekends 6 am to 10 pm call 308-8401. If outside of these hours, call the hospital operator at 308-7300 and ask to speak to the Interventional Radiologist on call.

How Do I Receive Biopsy Results?

- Biopsy results are typically available within 5 business days (sometimes longer).
- Either the radiologist who performed the procedure or your ordering provider will contact you with the results.