

INTERVENTIONAL RADIOLOGY:

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LAST REVIEWED: ASHLEY GARRISON 3/12/2026

Interventional radiology (IR) is a medical specialty that performs minimally invasive treatments using radiologic imaging for procedure guidance. Interventional radiology treatments have become the primary method of care for a variety of conditions, offering less risk, less pain, and less recovery time compared to open surgery.

PROCEDURES PERFORMED AT MARES CAMPUS

Ultrasound and fluoroscopy-guided procedures are **performed by both interventional radiology and diagnostic radiology**. Most of the diagnostic radiology procedures and exams are performed at Mares

campus; all IR procedures are performed at Central campus. The radiology APPs work with both the diagnostic and interventional radiologists at both campuses.

DIAGNOSTIC RADIOLOGY PROCEDURES PERFORMED AT MARES

ULTRASOUND	<ul style="list-style-type: none"> • US thyroid FNA/core biopsy • US lymph node biopsies (if challenging, will be protocolled and sent to Central Campus to be performed by IR) • US ortho (iliopsoas, biceps tendon, etc.)
FLOUROSCOPY	<ul style="list-style-type: none"> • FL lumbar punctures • GI studies (esophagram, upper GI, etc.) • FL ortho (arthrograms for MRI, steroid injections, tendon injections) • FL neuro • FL port dye studies

Please note, **sedation is not available** at Mares campus, local anesthesia only. If you think your patient will require sedation, please order the procedure to be done at Central.

Procedures performed at Mares are **outpatient only**, with the exception of inpatient swallow studies.

DOES MY PATIENT NEED A REFERRAL?

Many procedures do not require a *referral* to IR. If you are requesting a biopsy, drainage, or line removal, please **place the order** in Epic, see below. Orders will be protocolled by the IR team, and the IR scheduler will contact to schedule.

PLACING AN ORDER

Placing an order skips the clinic visit beforehand to expedite scheduling. These are primarily biopsy orders.

All paras/thoras and biopsies (except thyroid FNAs), appropriate to select “CWH” as location and we will protocol. All orders sent to Central campus will be protocolled by the IR team. We will then modify the order to the correct modality as deemed appropriate.

You may be contacted by the IR team to order additional imaging prior to biopsy approval.

Selecting “Mares” as a location for IR procedures may delay care.

SEDATION

We will protocol and schedule w/ appropriate sedation. The patient can expect to be sedated for most CT procedures and any deep procedure.

Procedures using sedation require H&P with the ordering provider within 30 days of procedure.

EXAMPLES OF ORDERS-ONLY PROCEDURES:

<p>US</p>	<ul style="list-style-type: none"> • Most liver biopsies <ul style="list-style-type: none"> ○ US liver non-targeted/random --> liver biopsy for cirrhosis work up, etc. ○ US biopsy liver targeted --> biopsy of specific liver lesion • Most kidney biopsies • Superficial lymph node biopsies <ul style="list-style-type: none"> ○ US biopsy of lymph node, cervical, inguinal, or axillary • Palpable mass biopsies • Para/thoracentesis <ul style="list-style-type: none"> ○ For paracenteses ordered with albumin, ordering of albumin medication will be done by IR APP and administered in ACU. ○ It is the responsibility of the ordering provider to order labs on pleural fluid and ascites. Standing orders for paras/thoras should also have standing lab orders if needed.
<p>CT</p>	<ul style="list-style-type: none"> • Biopsies deeper than superficial tissues <ul style="list-style-type: none"> ○ CT biopsy liver ○ CT biopsy bone deep ○ CT biopsy bone marrow ○ CT biopsy abdominal or retroperitoneal mass ○ CT biopsy lung or mediastinum • Bone biopsies
<p>FL</p>	<ul style="list-style-type: none"> • High-volume LP <ul style="list-style-type: none"> ○ FL high volume lumbar puncture/therapeutic drain • Intrathecal chemo
<p>IR</p>	<ul style="list-style-type: none"> • G tube placement/exchanges <ul style="list-style-type: none"> ○ IR g-tube placement ○ IR replace or exchange gastrostomy tube • Nephrostomy placement/exchanges <ul style="list-style-type: none"> ○ IR nephrostomy tube placement ○ IR nephrostomy tube change or exchange • Port placement <ul style="list-style-type: none"> ○ IR tunneled central line (port-a-cath) • Tunneled line placement • Fistulagram <ul style="list-style-type: none"> ○ IR tunneled dialysis or central line • Pleurx/Aspira <ul style="list-style-type: none"> ○ IR tunneled pleural or peritoneal catheter placement

PLACING A REFERRAL

The patient will have an Interventional Radiologist consult prior to their procedure.

To place a referral, use **REF41 Referral to Interventional Radiology** *after your patient has completed the required imaging listed below.*

All referrals are reviewed by our team. You may be asked to order additional imaging prior to approval or denial. If referral is denied, the IR team will notify the referring provider and referring provider will update their patient. Once a referral is approved, the IR MA will contact the patient to schedule the consult with an IR provider to discuss the upcoming procedure. The procedure will then be arranged on a later date as appropriate.

INTERVENTIONAL RADIOLOGY CLINIC REFERRALS & REQUIREMENTS

CANCER TREATMENTS

<i>IMAGING/STUDIES</i>	<ul style="list-style-type: none"> • Liver (TACE, ablation) <ul style="list-style-type: none"> ○ Liver MRI or CT and/or US ○ Patient may be discussed at Liver Tumor Conference prior to clinic consult • Kidney mass (ablation) <ul style="list-style-type: none"> ○ Urology referral (if not being referred from urology) ○ CT renal mass or MRI kidney • Spinal lesions, (kyphoplasty with ablation) with concern for malignancy <ul style="list-style-type: none"> ○ MRI thoracic spine with +w/out contrast and/or ○ MRI lumbar spine with + w/out contrast
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DVT/MAY THURNER'S

<i>IMAGING/STUDIES</i>	<ul style="list-style-type: none"> • Pelvic venous US (IVC and Iliac) • CT pelvis with contrast
<i>OTHER</i>	Only treat if symptomatic/acute DVT

GENICULATE ARTERY EMBOLIZATION

<i>IMAGING/STUDIES</i>	None
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LIVER/KIDNEY CYST ASPIRATION/SCLEROSIS

<i>IMAGING/STUDIES</i>	<ul style="list-style-type: none"> • CT abdomen pelvis with contrast • Liver US (if liver)
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NERVE BLOCK

<i>IMAGING/STUDIES</i>	No imaging, request will be reviewed by IR team
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PELVIC VENOUS INSUFFICIENCY

<i>IMAGING/STUDIES</i>	CT abdomen pelvis with contrast
<i>OTHER</i>	OBGYN consult prior

PERIPHERAL ARTERY DISEASE, CLAUDICATION

<i>IMAGING/STUDIES</i>	<ul style="list-style-type: none"> • Venous or arterial ultrasound of affected limb with ABIs • CT angio abdominal aorta with bilateral iliofemoral runoff (if eGFR allows)
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PULMONARY AVM

<i>IMAGING/STUDIES</i>	CT chest pulmonary AVM protocol
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RENAL ARTERY STENOSIS

<i>IMAGING/STUDIES</i>	<ul style="list-style-type: none"> • Renal artery duplex • CT angio abdomen if eGFR allows
<i>OTHER</i>	Nephrology consult prior to IR consult

SUBCLAVIAN ARTERY STENOSIS

<i>IMAGING/STUDIES</i>	CT angio chest
<i>OTHER</i>	Only treat if symptomatic/acute

THORACIC/LUMBAR COMPRESSION FRACTURES

Vertebral augmentation (kyphoplasty, vertebroplasty)

<i>IMAGING/STUDIES</i>	<p>MRI:</p> <ul style="list-style-type: none"> • MRI thoracic spine without contrast • MRI lumbar spine without contrast <p>If unable to complete MRI:</p> <ul style="list-style-type: none"> • CT thoracic and/or lumbar spine AND • Nuclear medicine bone scan
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TRANSJUGULAR INTRAHEPATIC PORTOSYSTEMIC SHUNT (TIPS)/BALLOON-OCCLUDED RETROGRADE TRANSVENOUS OBLITERATION (BRTO)

<i>IMAGING/STUDIES</i>	<ul style="list-style-type: none"> • CT liver with contrast • Echocardiogram (TIPS only), if unable to be completed prior to consult, will need to be performed prior to procedure • Updated MELD labs
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UTERINE FIBROID EMBOLIZATION

<i>IMAGING/STUDIES</i>	MRI pelvis with and without contrast
<i>OTHER</i>	OBGYN consult prior

VARICOCELE

<i>IMAGING/STUDIES</i>	Scrotal US
	CT abdomen pelvis with contrast

DEPARTMENT CONTACTS:

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