

EMERGENCY PHONE NUMBERS	
Circumstance	Location/Phone #
<i>Patient responsive (breathing, pulse)</i>	<ul style="list-style-type: none"> ● Call MET (Med. Emerg. Team) at UH or TKC <ul style="list-style-type: none"> ● UH: 4-6387 (4-METS) ● TKC: 1-1010 and ask for MET ● Call CODE at VA: Dial operator
<i>Patient unresponsive (not breathing, no pulse)</i>	<ul style="list-style-type: none"> ● Call CODE at any location <ul style="list-style-type: none"> ● UH: 4-1010 ● TKC: 1-1010 ● VA: Dial operator

ADULT CONTRAST REACTIONS & EXTRAVASATION	
Reaction	Treatment
<i>Nausea/Vomiting</i>	<ul style="list-style-type: none"> ● Self-limited ● Ondansetron (Zofran) 4-8 mg IV if protracted ● If no IV access, Prochlorperazine (Compazine) 5-10 mg IM—may cause restlessness, therefore Bendaryl may be needed (dose below)
<i>Hives</i>	<ul style="list-style-type: none"> ● H₁ blocker: Diphenhydramine (Benadryl) 25-50 mg IM/IV ● H₂ blocker: Ranitidine (Zantac) 50mg IM/IV
<i>Vasovagal Reaction (hypotension with bradycardia)</i>	<ul style="list-style-type: none"> ● Elevate legs ● IV fluid (normal saline)—likely ≤ 1 L ● O₂: up to 5 L/min cannula, mask if > 5 L/min ● Atropine 0.6 mg IV push, up 3 mg total
<i>Anaphylaxis (hypotension with tachycardia)</i>	<ul style="list-style-type: none"> ● First 2 steps above, likely >1 L IV fluid ● O₂: use mask and start at ≥5 L/min ● Bronchospasm: Albuterol nebulizer <u>OR</u> β₂ agonist 2-3 puffs albuterol, terbutaline, etc.
<u>OR</u>	
<i>Bronchospasm</i>	<ul style="list-style-type: none"> ● Monitor pulse oximeter, may need airway ● Epinephrine: <ul style="list-style-type: none"> ● <u>Mild/Mod Symptoms</u>: 1:1,000; 0.3-0.5 mg IM q5-10 min ● <u>Severe</u>: 1:100,000 infusion; 0.1 mL 1:1,000 epi in 10 mL saline & infuse over 5-10 min <u>OR</u> 1:10,000; 1 mL IV over 3 min ● IV EPI ONLY FOR CV COLLAPSE—MONITOR FOR TACHYARRHYTHMIAS & CHEST PAIN ● H₁ blocker: Diphenhydramine (Benadryl) 25-50 mg IM/IV ● H₂ blocker: Ranitidine (Zantac) 50mg IM/IV ● Methylprednisilone (Solu-Medrol) 1 gm IV ● If patient using β-blocker, add: <ul style="list-style-type: none"> ● Glucagon 1-5 mg IV bolus, then 5-15 µg/min IV <u>OR</u> ● Isoproterenol (Isuprel) 1:5,000 (0.2 mg/mL), give 1.0 mL diluted in 10 mL (1 mg doses)
<u>OR</u>	
<i>Laryngeal Edema</i>	
<i>Seizure</i>	<ul style="list-style-type: none"> ● Protect airway, provide safe surroundings ● Diazepam (Valium) 5 mg IV/PR <u>OR</u> Ativan 2 mg IV
<i>Suspected Pheochromocytoma (i.e. HTN crisis)</i>	<ul style="list-style-type: none"> ● Phentolamine (Regitine) 5.0 ml (5 mg) IV bolus, repeat as needed but effect is instant and lasts ~15 mins. ● Infuse at 5-10 µg/kg/min if needed
<i>Extravasation (minor)</i>	<ul style="list-style-type: none"> ● Evaluate neurovascular status (sensation, pulse, capillary refill time) ● Elevate extremity if possible ● Cool compress TID for 1-2 days ● Order 2-4 hrs of observation if volume >5 mL
<i>Extravasation (surgical consultation may be needed if any of the following)</i>	<ul style="list-style-type: none"> ● Neurovascular compromise ● Ionic >30 mL, nonionic >100 mL ● Increasing pain after 2-4 hrs observation ● Skin blistering

MRI COMPATABILITY	
<i>MRIsafety.com</i>	•>2,000 devices categorized by safety levels & magnetic field strength

PREMEDICATION FOR CONTRAST REACTIONS	
Circumstance	Protocol
<i>Routine Option A (PO OR IM route)</i>	<ul style="list-style-type: none"> ●Prednisone (Deltasone) 50 mg PO—13 , 7, & 1 hr before exam ●Diphenhydramine (Bendaryl) 50 mg PO/IM night before & 1 hr before ●Use low osmolar nonionic contrast medium
<i>Routine Option B (PO route)</i>	<ul style="list-style-type: none"> ●Methylprednisilone (Medrol) 32 mg PO—12 & 2 hrs before exam ●Use low osmolar nonionic contrast medium
<i>NPO Patients (IV OR IM routes)</i>	<ul style="list-style-type: none"> ●H₁ blocker: Diphenhydramine (Benadryl) 25-50 mg IM/IV night before & on call ●H₂ blocker: Ranitidine (Zantac) 50mg IM/IV night before & on call ●Methylprednisilone (Solu-Medrol) 100 mg IV—night before & on call
<i>Emergency (IV OR IM routes)</i>	<ul style="list-style-type: none"> ●H₁ blocker: Diphenhydramine (Benadryl) 50 mg IM/IV STAT ●H₂ blocker: Ranitidine (Zantac) 50mg IM/IV STAT ●Methylprednisilone (Solu-Medrol) 100 mg IV STAT ●Ordering clinician/team responsible for patient outcome

RENAL PATIENTS & BREASTFEEDING MOTHERS	
<i>eGFR (estimated GFR)</i>	<ul style="list-style-type: none"> ●$[(140-\text{age})(\text{weight in lbs}/2.2)]/[(\text{SCr in mg/dL})(72 \text{ ♂}, 85 \text{ ♀})]$ ●eGRF < 60 mL/min = ↑ risk contrast nephropathy
<i>IV fluid</i>	●100 mL/hr 0.9 or 0.45 % NS 4 hrs before & 24 hrs after
<i>PO fluid</i>	●500 mL before & 2500 mL over 24 hrs after
<i>Glucophage</i>	<ul style="list-style-type: none"> ●Risk of lactic acidosis ●Stop after IV contrast, resume after 48 hrs after if at baseline Cr
<i>Breast milk</i>	●Discard milk for 24 hrs after procedure if received IV contrast

GADOLINIUM & NEPHROGENIC SYSTEMIC FIBROSIS	
See http://www.rad.uab.edu >Policies & Procedures>Contrast guidelines	
<i>High risk patients</i>	<ul style="list-style-type: none"> ●Assess risk of NSF vs. benefit, consider other test ●Obtain informed written consent in high risk MRI patients ●Acute or chronic severe renal insufficiency (eGFR <30 mL/min) <ul style="list-style-type: none"> •Need informed consent if eGFR <30 outpatient, <40 inpatient •NSF risk estimates for CHRONIC renal failure pts: <ul style="list-style-type: none"> •eGFR <15 = 2.4%, 15-29 = 0.24%, 30-60 = 0.006% •Insufficient data for risk estimates in ACUTE failure ●Contraindication: Acute renal insufficiency of ANY severity from hepato-renal syndrome <u>OR</u> in perioperative liver transplant ●Absolute contraindication: Patient with known NSF

CONTRAST INFO & INJECTION ISSUES	
<i>Reactions</i>	<ul style="list-style-type: none"> ●NOT caused by iodine (mechanism unknown) ●Shellfish allergy NOT contraindication to IV contrast ●Patients with asthma and prior reaction history are ↑ risk
<i>Acceptable Lines for POWER INJECTOR</i>	<ul style="list-style-type: none"> ●20 gauge or larger, EJ angiocath with max rate 2 mL/sec and 150 PSI, PowerPICC, PowerPort, TraumaCath ●VasCath & PermCath only after consulting w/ Nephrology
<i>Lines to HAND inject ONLY</i>	●<20 gauge lines, Hickman, IJ angiocath, central venous lines
<i>Lines NOT to inject AT ALL</i>	●Swan-Ganz, Mediport, Groshon, & PICC lines
<i>3-Phase CT's</i>	●Unacceptable to inject any lower extremity access

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- 19) UAB Formulary Information:
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