MDR Gadolinium Contrast Screening Protocol

1) Screening for eGFR will be done for patients with any of the following risk factors:

- Age greater than 60
- History of renal disease, including
    - Dialysis
    - Kidney transplant
    - Single kidney
    - Kidney surgery
    - History of known cancer involving the kidney(s)
    - History of acute renal failure
- History of diabetes mellitus
- History of vascular disease
- History of hypertension requiring medication
- Recent vascular surgery, arteriovenous graft or revision and acute venous thrombosis

eGFR greater than 60

- Lab data is valid for **60 days for outpatients and for 14 days for inpatients with stable medical status**, i.e, no known condition that might result in acute deterioration of renal function.
- Lab data is valid for **3 days If unstable medical status**, i.e., patient has a known condition that might result in acute deterioration of renal function, such as severe dehydration, febrile illness, sepsis, heart failure, recent hospitalization, advanced liver disease and abdominal surgery.

eGFR 41-59

- Lab data is valid for **14 days**.

eGFR 30 to 40

- Lab data is valid for **1 day.**

***If lab information is not available and the patient is greater than age 60 with no other risk factor(s) as above, default to the CKD 3b protocol, 1/2 dose for MRI and 1/2 dose up to full dose for MRA.**

2) Regarding our current Gadolinium agents: Prohance, Multihance, Dotarem, Ablavar and Omniscan

- ProHance will be the primary gadolinium agent.
- MultiHance will be the backup agent but still the primary gadolinium agent for MR Breast, MRA studies and in patients with a eGFR of 40 or less.
- If a patient has had a particular gadolinium agent in the past without reported complication, this gadolinium agent should be considered the primary agent in this particular situation.
- If a patient is allergic to gadolinium, MultiHance is contraindicated, and if a patient is allergic to ProHance, Dotarem will be used as the backup agent.
- Radiologists should refer to MDR's Contrast Recommendations from the MDR Safety Committee.
- Patients with a history of a severe reaction to anything will be presented to the radiologist for review.
- Ablavar has restricted use due to cost and may be helpful for renal, IVC and RA masses and thrombus, venous malformations and in selected MRA cases on the open magnets.
- Omniscan will still be available for pediatric patients less than 2 years of age (only agent FDA approved).
- Of the nine gadolinium agents, Multihance and Prohance have the best safety profile at the present time.

    Group I: Agents associated with the greatest number of NSF cases:
    Omniscan, Magnets, OptiMARK

    Group II: Agents associated with few, if any, unconfounded cased of NSF:
    MultiHance, ProHance, Dotarem, Gadovist

    Group III: Agents which have only recently appeared on the US market:
    Ablavar, Eovist