

**INFORMATION SHEET REGARDING
THE USE OF GADOLINIUM-BASED MR CONTRAST AGENTS AND
NEPHROGENIC SYSTEMIC FIBROSIS (NFS)**

- 1. Summary of currently known facts regarding the use of a Gadolinium-based MR contrast agent and Nephrogenic systemic fibrosis (NFS)**
 - a.** NFS is a condition that results in fibrosis of the skin and connective tissues throughout the body. NFS results in skin thickening and may result in loss of normal ability to flex and extend the joints resulting in contractures. In addition, some patients develop widespread fibrosis (scarring) of the skin, muscles and other organs. This condition may be debilitating or result in death. Its cause is unknown and there is no consistently successful treatment.
 - b.** NFS has been reported following the use of all five FDA approved gadolinium-based contrast agents (Magnevist, MultiHance, Omniscan, OptiMARK, Prohance), but most predominately following the use of Omniscan, Magnevist, and OptiMARK.
 - c.** Among patients with known renal function, all patients with reported NSF after exposure to gadolinium-based contrast agents have had acute or chronic severe renal insufficiency, renal dysfunction due to the hepato-renal syndrome or renal dysfunction in the setting of perioperative liver transplant period. The vast majority of patients were receiving dialysis.
 - d.** To date, there is no report of a patient developing NFS, with normal or mild to moderate renal dysfunction.

- 2. Recommendations regarding the use of Gadolinium-based MR contrast agents**
 - a.** Avoid the use of Gadolinium-based contrast agents unless the diagnostic information is deemed essential and is unavailable with non-contrast enhanced magnetic resonance imaging (MRI).
 - b.** It is not currently required to screen all patients with laboratory tests prior to administering a gadolinium-based contrast agent.
 - c.** However, it is recommended that prior to the administration of a gadolinium-based contrast agent all patients should be screened by history. The following is a list of sample questions that should be asked:
 - i.** Do you have a history of renal (kidney) disease?
 - ii.** Do you have a history of diabetes?
 - iii.** Do you have a history of liver disease?
 - iv.** Have you ever had a kidney or liver transplant?
 - v.** Have you ever had a serious injury or trauma to the kidneys?
 - vi.** Have you ever been on dialysis?

