

Guideline for Prevention of Contrast- Induced Nephropathy

Contrast induced nephropathy (CIN) is a common cause of acute renal failure occurring within 48-72 hrs of exposure to intravascular radiographic contrast material. The purpose of this guideline is to provide information on predisposing risk factors and pre-procedural prophylactic treatments that have been shown to decrease the incidence of this disorder in hospitalized patients.

General Recommendations:

Contrast media should be low or hypo-osmolar at a weight adjusted dose as follows: 5 ml X body weight (kg) / serum creatinine (mg/dl).

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| <ul style="list-style-type: none">• Assess patient for risk factors for CIN |
| <ul style="list-style-type: none">• Risk Factors for CIN:<ol style="list-style-type: none">1. Pre-existing renal dysfunction2. Age > 60 years3. Diabetes mellitus4. Renal Transplant5. Reduced effective circulating arterial volume (hypovolemia, Ejection fraction < 30%, cirrhosis)6. Concurrent use of nephrotoxic medications (Aminoglycosides, Amphotericin B, NSAIDS, ACEIs, Tacrolimus, Cyclosporine)7. High contrast volume / osmolality |
| <ul style="list-style-type: none">• Consider prophylaxis for any patient with at least one risk factor |
| <ul style="list-style-type: none">• For urgent procedures (< 12 hrs): Sodium bicarbonate hydration or N-acetylcysteine IV PLUS NS hydration |
| <ul style="list-style-type: none">• For planned or routine procedures (> 12 hrs): Oral N-acetylcysteine PLUS NS hydration |

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