Strokes make an important contribution to early and late morbidity in this population. This has implications for the design and interpretation of trials in similar populations. Therapeutic targets may change over time.

**1217-57** Rapid Cycle Interventions by Integrated Teams Can Effectively Improve Anticoagulation Clinical Care in a Safety Net Hospital
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**Background:** Our institution's medication safety reporting program identified warfarin therapy and referral to the Division of Cardiology's Long-Term Anticoagulation Clinic (Clinic) as an opportunity to improve care. Because patient referrals increased and stressed limited resources, a Clinical Process Improvement program was implemented to reduce the percentage of new patients referred to the Clinic who presented with dangerously elevated INRs (International Normalized Ratio).

**Methods:** An integrated Pharmacy, Nursing, Administrator and Physician team performed a Failure Mode and Effect analysis. Rapid cycle (1-2 months) interventions were implemented over a 15-month period to improve specific microsystems of care (inpatient referral services, outpatient clinic services, off-site referrals). A uniform data-collection tool and control charts tracked the effectiveness of each intervention. Specific interventions included adopting simplified outcome metrics, redesigning Clinic patient throughput, QA for INR point-of-care testing, limiting dispensed quantities of warfarin, and educating each referring physician. Standard policies were developed for referral to the Clinic and for oral vitamin K to treat elevated INRs in the Clinic.

**Results:** Total Clinic visits increased by 20% during the monitoring period (average of 35 new patients per month). Average turn-around time from referral to initial visit was reduced from 4.9 to 2.2 business days. Percent of new Clinic referrals presenting with elevated INRs (>4.0) decreased from 25% (running median 18%) in January 2001 and trended down to less than 5% by June 2002.

**Conclusions:** Multiple rapid cycle interventions using an integrated team approach improved outpatient anticoagulation services and safety.

**1217-205** Contrast-associated nephropathy and clinical outcome of patients with chronic renal insufficiency undergoing cardiac catheterization: Lack of additive benefit of acetylcysteine to saline hydration
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**Background:** Recently the antioxidant acetylcysteine was shown to attenuate contrast-induced nephropathy in patients with chronic renal insufficiency during computed tomography. However, it has not yet been determined whether this drug confers a similar benefit as an adjunct to saline hydration in patients undergoing coronary angiography. **Methods:** The study was designed as a double-blind, randomized, placebo-controlled trial. Eighty patients with chronic renal insufficiency (serum creatinine >1.5 mg per deciliter) with impending coronary angiography with or without intervention were randomized in a 4:1 ratio to receive either acetylcysteine or placebo. Acetylcysteine (40 mg per kg) was administered orally for a total of 48 hours, starting 24 hours before the administration of the contrast agent. All patients were treated with intravenous saline (0.45%) at a rate of 1 mL per kilogram of body weight per hour for 12 hours before and 12 hours after administration of the contrast agent. Iopamidol, a nonionic, low-osmolality contrast agent was uniformly administered during the procedure. **Results:** The mean (±SD) serum creatinine concentration of study participants was 8.0±3.9 mg per deciliter (177±24 μmol per liter). There was an increase of at least 0.5 mg per deciliter (44 pmol per liter) in the serum creatinine concentration 4 hours after cardiac catheterization in 7 of the 80 patients (9%): in 4 of the 35 patients (11.4%) in the acetylcysteine group and in 3 of the 20 patients (15%) in the placebo group (p=0.52). Mean serum creatinine was non-significantly reduced 48 hours after the procedure in the two groups (a decrease of 0.01±0.96 mg per deciliter [3±28 μmol per liter] in the acetylcysteine and placebo groups respectively, p=0.77). The incidence of in-hospital adverse clinical events and the length of hospital stay did not differ significantly between the two treatment groups. **Conclusions:** Our findings do not support routine prophylactic oral administration of acetylcysteine as an adjunct to saline hydration for the prevention of contrast-induced nephropathy, in patients with chronic renal insufficiency undergoing cardiac catheterization.