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NYS Near Miss Registry Newsletter

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NYS Near Miss Registry Update

By Ethan Fried, MD

Overview
The New York State Near Miss Registry is an online voluntary, confidential, anonymous reporting system that collects near miss reports. A near miss or a close call is an act of omission or commission that could have harmed the patient but did not reach the patient as a result of chance, prevention or mitigation. The project's objective, patient safety training of interns, residents, hospitalists and attending physicians and other allied health professionals, can assist hospitals by helping to develop a "just" culture of safety that results in increased reporting, identification of system issues detrimental to patient safety, and of existing barriers that prevent errors from occurring.

Background
In 1999-2000, the IOM in "To Err Is Human" recommended that the development of voluntary reporting efforts should be encouraged (Recommendation 5.2). The IOM believed there was a role for mandatory, public reporting systems **and** voluntary, confidential reporting systems. However, because of their distinct purposes, such systems should be operated and maintained separately. "Voluntary reporting systems, which generally focus on a much broader set of errors and strive to detect system weaknesses before the occurrence of serious harm, can provide rich information to health care organizations in support of their quality improvement efforts. Near miss systems aim to remedy vulnerabilities in systems before the occurrence of harm.

2010-2011 Update
From 2007 - 2009, reporting was initially limited to residents trained in internal medicine (IM) in NYS hospitals. In 2010, the near miss survey was modified and the **program was expanded** to include reports from **all physicians in all specialties and all health related professionals**. In 2010 alone, over 1500 physicians in New York State received patient safety training. The 2007-2009 and 2010 data findings are included in Table I. A listing of the free text 2010 near miss medical events responses can be found in Table II. We are currently reviewing and analyzing the 2010 raw data.

Near Miss Registry Data Findings and Medication Related Near Miss Events Included on Pages 2-4

In This Issue:

Important Facts

The Near Miss Registry is an anonymous, risk free reporting system for near miss medical errors. The data it is designed to collect would have never otherwise been collected. The New York State Department of Health has issued a research waiver that protects anyone that submits de-identified data to the near miss registry.

The Near Miss Registry has received IRB approvals from the New York State Department of Health and St. Luke's Roosevelt Hospital.

The Near Miss tool is located on a secure Web site, under the auspices of the New York Chapter of the American College of Physicians @ www.nearmiss.org

The Near Miss Project was open for reports on 8/1/07. Effective 11/7/10, the registry is open to all NYS Interns, Residents, Hospitalists and Attending Physicians.

Upon survey completion, the submitter can receive a certificate that may qualify as documentation for "Systems Based Practice" training requirements. The certificates do not identify the nature of the submission, but merely documents that a report was filed and that by identifying and reporting a near miss, the reporter is recognizing the "systems based" aspects of patient care.

NYS Near Miss Registry YTD Data Findings

Question	2007-2009 Findings	2010 Findings
N =	287	63 **Total = 350**
Size of Facility	> 300 beds (79%)	> 300 beds (73%)
Hospitals w/ a CPOE	54%	73%
Hospitals w/ EMR	41%	43%
Hospitals w/ Bar Coding	Not Asked	45%
Hand off Protocols	56% Paper 26% Supervised Verbal 0% Unsupervised Verbal 12% Electronic	41% Paper 24% Supervised Verbal 13% Unsupervised Verbal 8% Electronic
When Discovered	Immediately or within 1-3 hours	Immediately or within 1-3 hours
Near Miss not reported to anyone	10%	30%
Near Miss Report Types	39% Slip 27% Lapse 10% Wrong Plan 5% Breach of Protocol	57% Slip 24% Lapse 6% Wrong Plan 6% Breach of Protocol
Most Common Event Reported	42% **Medication** 26% Wrong Dose 18.8% Anticoagulation 17% Allergies 14% **Communication** 12% **Wrong Patient**	35% **Medication** 13% **Communication** 11% **Wrong Patient**
Protective Barriers	Primary Team Nurse Pharmacist Coverage Team	Pharmacy Primary Team Nurse
Recommendations for Preventing Near Misses	27% Availability of electronic data 27% Education Intervention	30% Availability of electronic data 19% Education Intervention
Medical Staff on Duty > 16 Hours	6.3%	3.17%
Important Survey is Anonymous	97.5% Agree	98% Agree
Format of Survey was Easy to Follow	97% Agree	97% Agree

2010 NYS Near Miss Registry Medication Related Near Miss Events – Table II.

Category	Drug	Event
Antibiotics		
	PCN	PCN ordered for Patient who was allergic to the med
	Ceftriaxone	Prescribed for enterococcal infection (UTI/Bacteremia)
	Unknown	Two admissions at same time, one with CHF & another with cellulitis; antibiotics ordered for wrong patient
	Kefzol	Pt forgot that he was allergic to Kefzol
	Vancomycin	Ordered 500 GM instead of 800 mg.
Narcotics		
	Oxycodone	Written when pt. has allergy to med
	Oxycodone	Pt. discharged with prescription written for 10 x amount intended to receive. Intern did not double check or have supervising resident review prescriptions.
	Fentanyl drip	Ordered on wrong patient due to wrong patient record being opened on computer screen.
Misc.		
	Unknown	Medication ordered for wrong patient on electronic order entry
	Unknown	Documentation of a drug order on wrong patient
	Medication	Allergic Reaction in ER noted in ED note but not recorded in computer system. Patient placed on drug upon discharge by attending MD
	Potassium	Fatigued resident on long call & very tired. Mistaken thought K level was too low and ordered K replacement. Pt actually had flagged high K level
	Potassium	Order written on wrong patient - Pt had same name as another patient in ICU
	D/C Meds	Discharge medication prescriptions had wrong name of patient
	Unknown	Order written & explained to nurse regarding meds- followed in reverse order.
	Unknown	Allergy for a patient was not identified by admitting intern, and subsequently ordered for patient.
	D/C Meds	Patient was discharged on prehospitalization medication dose, should have been increased as what he was receiving currently in hospital.
	Unknown	Wrong Dose written by medical intern
	Unknown	Medications had expired
	Lamivudine	Was about to order Lamivudine but I really wanted Lamictal
	Glypside	Ordered for tid when the patient was taking it bid
	Hydroxyurea	Given w/o consented for tumor lysis syndrome
	Haldol	Picked up on EKG; if pharmacy alert required for additional haldol it would have helped early identification.
	Haldol	Patient had history of dystonic reaction

FDA News Update – Medication ALERT

Propoxyphene (Darvon and Darvocet) has been withdrawn from the U.S. market at the request of the U.S. FDA after a new study showed that the medication puts patients at risk for potentially serious or fatal heart rhythm abnormalities. The FDA determined that the medications' risks outweighed their benefits to patients. Physicians have been advised to stop prescribing and dispensing propoxyphene products. Physicians are being asked to contact patients who are currently taking the medications to discontinue use and discuss other pain management alternatives.

Quality Awards

The following hospitals recently received the **NYACP Quality Award** "in recognition of the completion of Near Miss Patient Safety Training thus Creating Culture of Patient Safety and Demonstrated Commitment to Excellence in Systems Based Practice that Supports, Nurtures, and Enhances Patient Care."

- Beth Israel Medical Center
- Creedmoor Psychiatric Center
- Ellis Hospital
- Interfaith Medical Center
- Lincoln Medical & Mental Health Center
- Lourdes Hospital
- Mount Vernon Hospital
- Nassau University Medical Center
- New York Downtown Hospital
- St. Barnabas Hospital
- South Nassau Community Hospital
- United Health Services Hospital
- Unity Hospital

2010 NYS Near Miss Registry Medication Related Near Miss Events
Table II...*Continued*

Category	Drug	Event
Anticoagulation		
	Lovenox	Lovenox dose ordered bid - received first dose @ 7pm; cancelled 2nd dose due @ 10pm.
	tPA	TX. for DVT Thrombosis, almost received three times the adequate dose.
	Heparin	Non English speaking pt. admitted with weakness & HPT; attending told intern to discharged pt.; CT scan ordered due to c/o headache; diagnosis =Internal Cranial Bleed
	Heparin	Failure to order anticoagulation therapy in patient admitted for DVT
	Heparin(LMW)	Patient had platelet abnormality
	Coumadin	Not restarting Coumadin for a patient with St. Jude Mitral Valve Replacement
	Coumadin	Pt. discharged on 15mg of Coumadin as opposed to 5mg.
	Warfarin	Pt. ordered a dose of warfarin based on INR > 24 hours old due to delay in drawing new INR.

NYACP Quality Improvement Action Plan

According to the 2007-2009 New York State Near Miss Registry data, drug administration (48.3%) is the most common near miss event reported by Internal Medicine Interns and Residents. Out of these near misses, 26% of the reported incidents relate to wrong dose and 18.8% involve anticoagulation therapy.

STEP 1. A call for **"best practices" for anticoagulation acute treatment therapy and dosing**. We will highlight "unique practices", currently employing methods to address this area of systemic need.

STEP 2. NYACP is seeking those **IM training programs who may be interested** in participating in a **pilot project** that involves administering a brief pre-test and post- test to verify that the anticoagulation educational learning objectives have been met. Contact Mary Donnelly at ***mdonnelly@nyacp.org*** if you are interested.

STEP 3. NYACP will offer a 1 hour **Anticoagulation Administration Training Webinar** on Friday, April 29, 2011 for interested training programs. Register online at ***www.nyacp.org/meetings.*** Following the webinar, a presentation with lecture notes will be made available on the NYACP web site.

Anticoagulation Dosing Training

As part of a system wide approach to education and action, NYACP is implementing a series of steps to address this area of patient safety vulnerability.

RESULTS: Call for Anticoagulation "Best Practices" and Lessons Learned

Kings County Hospital

"It has been suggested that **CPOE with decision support** improves patient safety and reduces medication errors. CPOE order sets and collections of pre-formed quick orders streamline the ordering process, improve CPOE efficiency, and improve adherence to proper dosing guidelines. While evidence-based guidelines are useful for initial development of order sets, a multi-facility interdisciplinary team was crucial to resolve many practical issues that arose during the design and implementation of the system." **Abha Agrawal MD, FACP, at Kings County Hospital Center, NY**, in her paper titled, "*Design, Development and Implementation of a Computer-Based Anticoagulation Order Set with Embedded Decision Support*" describes the steps that were taken @ Kings County Hospital to optimize ordering and anticoagulation management. The paper includes dosing guidelines for Heparin, Dalteparin, Enoxaparin and Warfarin administration with source references that were incorporated into the computerized physician order entry system.

Lincoln Medical & Mental Health Center

Initially a **baseline evaluation** of anticoagulation practices **was conducted** by the **Pharmacy & Therapeutics and Drug Utilization committees**. Additional opportunities identified using FMEA and GAP analysis process. Interventions were designed by an interdisciplinary committee and included: incorporation of a clinical decision tool with dosing guidelines **and electronic order sets within the CPOE**, automated **referrals to dietitian**; C**ompiled a comprehensive anticoagulation manual and clinical staff was educated on best practices with yearly competency assessment, pharmacy reviews** 100% of anticoagulant **orders concurrently to monitor and advise on best practices, developed patient education materials and translated them** into Spanish and top 12 languages of patient population, created a **patient registry** to ensure f/u in ambulatory care with **process redesign** for tracking, recall and clinic visit structure, adopted point of care testing for INR. **Multiple performance improvement projects were designed to measure and share success and opportunities.** Lessons learned- Implementing a comprehensive anticoagulation program requires interdisciplinary commitment, collaboration, and ongoing education. Developing process and outcome measures is important to address successes and opportunities for improvement.

Maimonides Medical Center

Anticoagulation Best Practices included **standardization of a risk assessment** and utilization of a **mandatory** risk assessment in an existing **CPOE system** to ensure appropriate prophylaxis therapy compliance. Lessons learned were: Implementing standardized protocols is an effective means to reduce the incidence of DVT and PE; early end user feedback prior to and following implementation of a new process is necessary and physician consensus when utilizing evidenced based practice guidelines is essential for success.

South Nassau Communities Hospital

Anticoagulation Best Practices – **systems redesign – physician consensus on standard of care, standardized chemoprophylaxis orders and pharmaceutical patient education discharge kits**. Lessons learned – The simpler the better; for program to be effective , hospital administration, clinical leadership and medical staff initiative (differing opinions regarding the standard of care)must be aligned and committed to the improvement initiative, and physician compliance increases with ongoing mandatory education and awareness programs for medical staff.

Stony Brook University Medical Center

Anticoagulation Best Practices – **standardize assessment** tool, an **electronic patient record solution** that deploy improved processes which **utilized** NQF recommendations, Joint Commission Standards and American College of Chest Physicians **established guidelines and hard stop forced function technology**. Lessons learned - Utilizing electronic solutions allows for the ability to hardwire systematic processes , such as "real time" specific lab alerts and an automatic lab monitor ordering to drive compliance, utilizing a "hard stop" locked function which provides a solution to control the process to ensure systematic deployment, a house wide initiative requires consensus process to ensure "buy-in with process changes, and more importantly to address key patient requirement and practitioner needs to maximize patient care and outcomes.

*For more **detailed information** on these anticoagulation best practices and lessons learned, please visit: **www.nyacp.org/nmbestpractices***

We would like to thank Nancy Landor for submitting information on the hospitals who recently received the HANYS Quality Institute 2010 Pinnacle Award for Quality & Patient Safety. Congratulations to all!

Show Your Support for Patient Safety and Submit a Near Miss Report to the Registry Today!

How to Submit?
Submit a Near Miss Event to the Near Miss Registry online @ ***www.nearmiss.org*** by entering the word near miss in the login box.

What is a Near Miss?
It is a "close call" patient safety event that DID NOT REACH THE PATIENT due to chance, mitigation or prevention.

Why is it Important?
Near Misses may have the same root cause as actual adverse events. An adverse event is an injury that did reach the patient as a result of medical care. Identification of Near Misses can help correct problems before they become adverse events.

Who can Report?
All physicians, including Interns and Residents, from all medical specialties in New York State

Is it SAFE?
Your Report is Protected. All de-identified reports to the Near Miss Registry are protected from disclosure by NYS Public Health Law 206 (1) (j).

Anticoagulation Online Resources

National Guidelines Clearinghouse
http://www.guideline.gov/search/search.aspx?term=anticoagulation+therapy+guidelines

IHI High Alert Drugs *(includes information on an anticoagulation toolkit and resource center)*
http://www.ihi.org/IHI/Programs/Campaign/HighAlertMedications.htm

Institute of Safe Medicines Practices High Alert Drugs *(Antithrombotic agents)*
http://www.ismp.org/Tools/highalertmedications.pdf

Joint Commission: Anticoagulant Sentinel Events
http://www.jointcommission.org/assets/1/18/SEA_41.PDF

Did You Know?

Near Miss Registry Impacting Graduate Medical Education in New York State

The NYACP Near Miss Patient Safety Training is now part of the mandatory training and core competency lecture for house staff at Winthrop University Hospital.

NYACP New York Chapter American College of Physicians
Advancing Internal Medicine; Improving Patient Care

IM I.M. Research & Service Corp.

New York State Department of Health