

# NYPORTS Medication Errors: the System, Events, and Recommended Improvements

Prepared for Health Research Inc. in collaboration with  
New York State Department of Health Patient Safety  
Center by

Kathy Terry, Ph.D., Senior Director, State & Federal  
HCA, IPRO and Matt Grissinger, RPh, Director Error  
Reporting, ISMP

*Funding for this project is from the NY State Attorney General's  
settlement with Cardinal Health, Inc.*

June 9, 2010

# NYPORTS PG1 Project Overview:

## Contracted Tasks

- **Analysis of Medication Data (January 2005-April 2009)**
- **System Evaluation**
- **Survey of Facilities**
- **Focus Group**
- **Final Report**

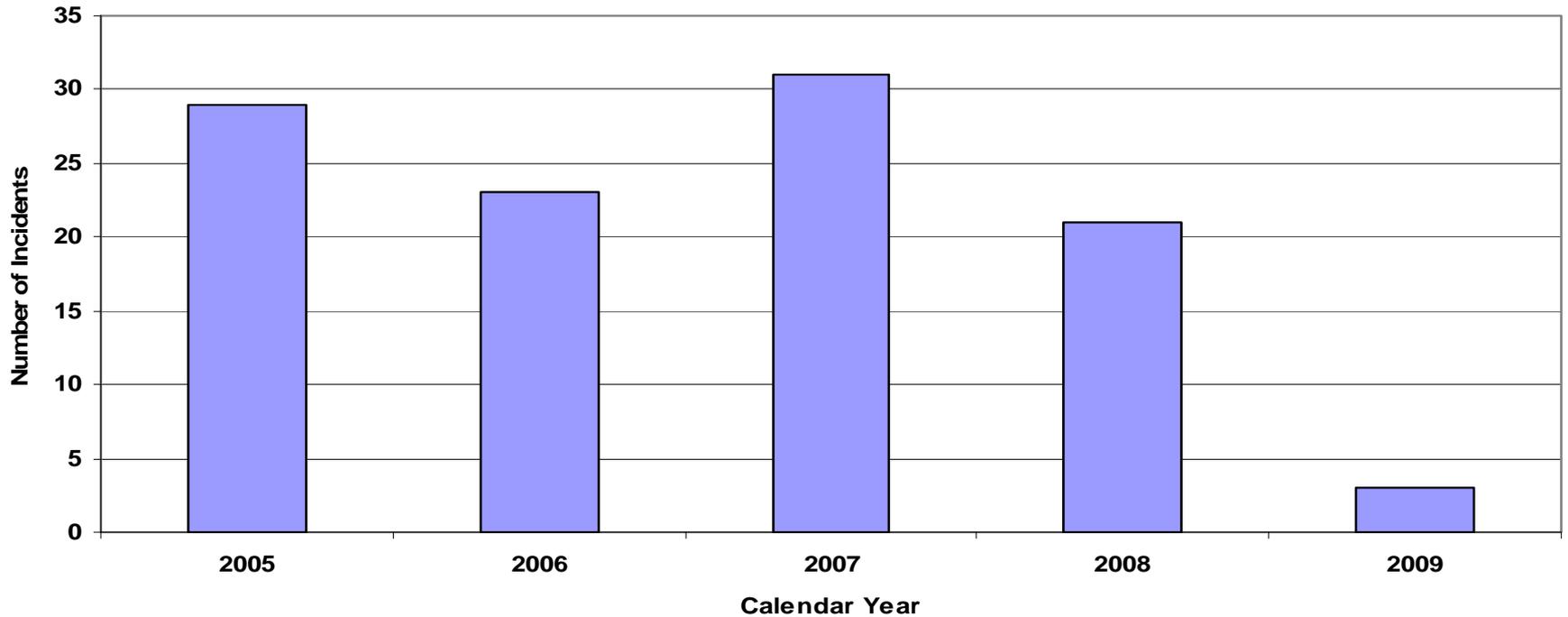


# NYPORIS Category of Reported Event

Short Form Code	Total	Percent
108: Permanent Harm	19	18%
109: Near-death	47	44%
110: Death	41	38%
	107	100%

Long Form Code	Total	Percent
915: Unexpected death	45	42%
916: Cardiac/respiratory arrest requiring ACLS	40	37%
918: Impairment of limb/organ/body function	20	19%
919: Loss/impairment of bodily function	1	1%
920: Omission errors resulting in death or serious injury	1	1%
	107	100%

# 107 NYPORTS Reported Medication Errors. Categories 108, 109, 110.



CY 2009 only goes through April 2009.

Nationally, 87 for 2006 in MedMarx Data (including G,H, I MERP Categories). Nine in PA for 2008.

# NCC MERP Index for Categorizing Medication Errors



- No Error
- Error, No Harm
- Error, Harm
- Error, Death

## Definitions

### Harm

Temporary or permanent impairment of the physical, emotional, or psychological function or structure of the body and/or pain resulting therefrom requiring intervention.

### Monitoring

To observe or record relevant physiological or psychological signs.

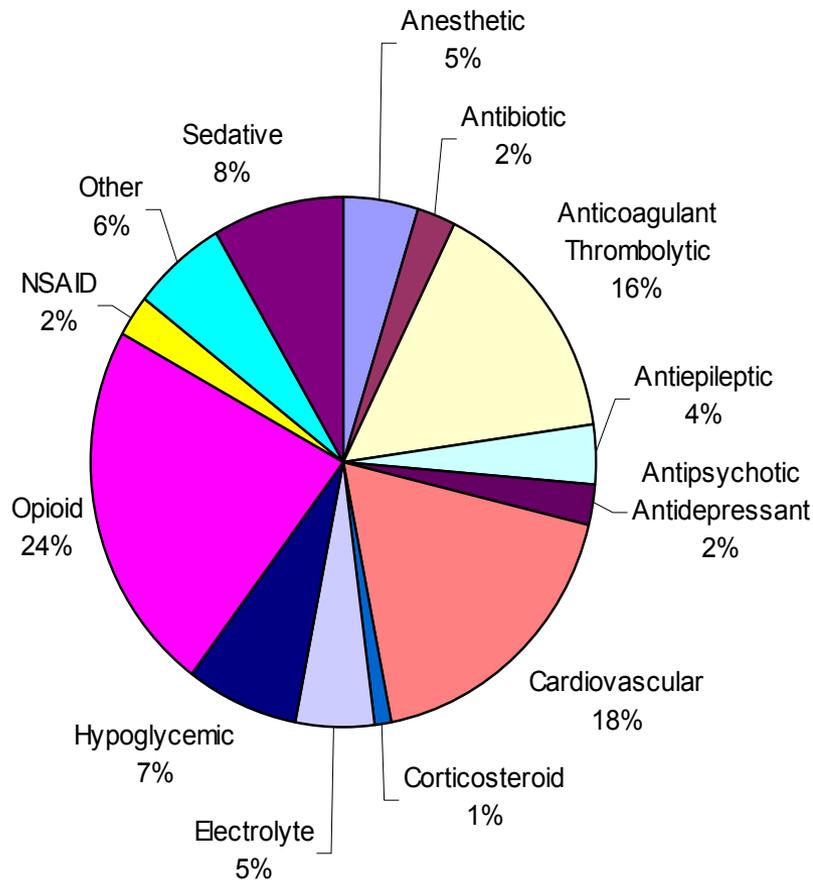
### Intervention

May include change in therapy or active medical/surgical treatment.

### Intervention Necessary to Sustain Life

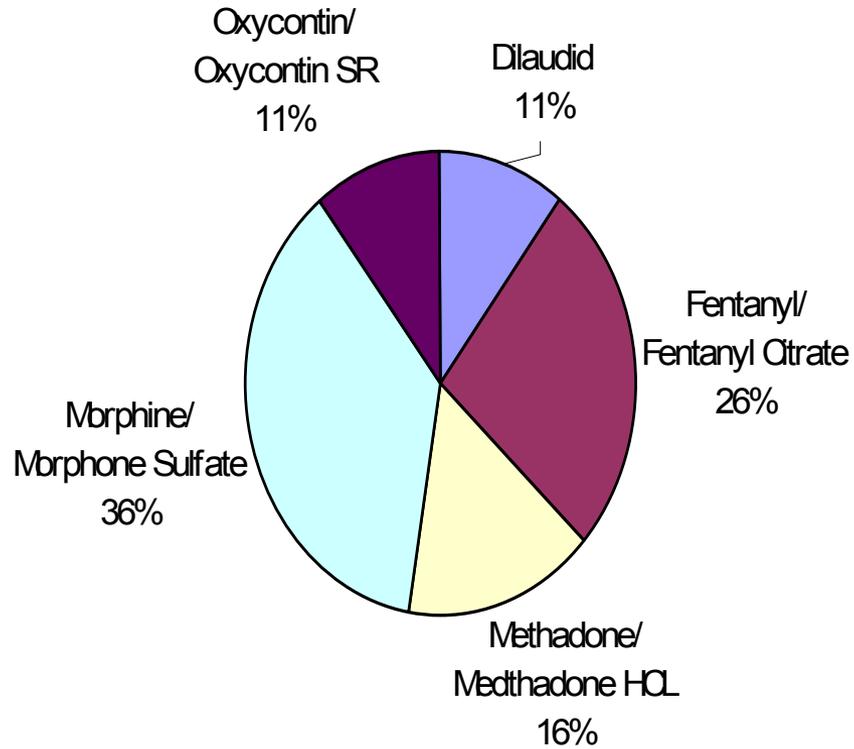
Includes cardiovascular and respiratory support (e.g., CPR, defibrillation, intubation, etc.)

# Medications Associated with Serious Events --Medications Given to Patient .

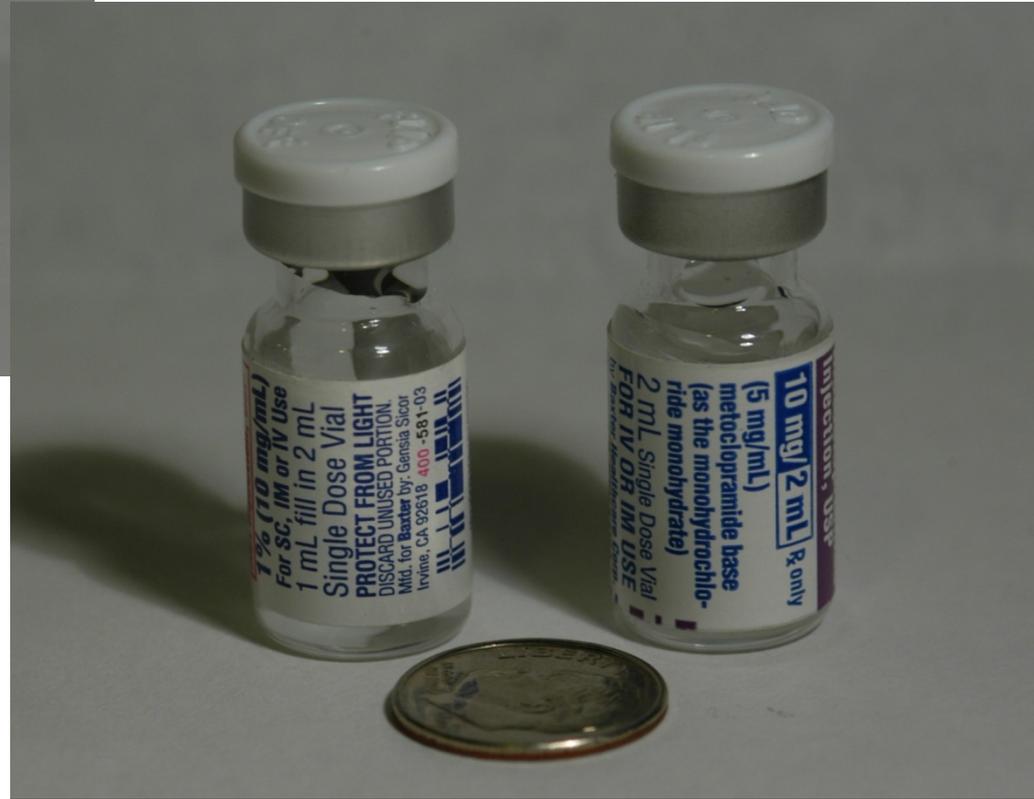


22% of the time medication *given* field was blank.

# Given Opioid Medication Percent by Name.



N=19



# System Evaluation:

## Sample Findings

- Screen edits incomplete
- Data dictionary incomplete
- Key fields not mandatory (e.g., Medications missing)



# System Recommendations:



- Create a comprehensive data dictionary
- Use common national nomenclature
- Require mandatory data entry for medications *given* and *intended* where appropriate
- Include medication categorization
- Add more screen edits to fields such as the *summary* field

# NYPORTS Statewide Survey:

- Purpose
  - Assess program use at provider level
- Audience
  - NYS hospitals via Pharmacy Director
- Response Number
  - Approximately 75%



# Survey Questions

## NYPORIS Reporting System Knowledge, Knowledge Transfer, Roles/Responsibilities.

- **How was/is knowledge acquired**
  - Technical knowledge (system knowledge)
  - Reporting requirement knowledge
  - Facility knowledge
- **Survey Results**
  - **Employment duration**
    - 60% in hospital for more than 10 years
    - Only 3% for less than a year (7% up to two years)
  - **NYPORIS duration**
    - 5% for less than a year
    - 25% for more than 10 years

# Survey and Focus Group Findings:

- Survey response level was high (78%).
- Most NYPORTS reporters were in the reporting position for at least two years (over 90%).
  - Roles were acquired during hospital tenure with little to no formal training.
  - Recent reporters were unaware of training availability other than the manual.
  - Long-term reporters were vaguely aware of some recorded trainings and a hospital association training from years ago.

# Survey Questions

## NYPORTS and Hospitals Department/System Integration

- **Survey Data**

- **8% stated that pharmacy NOT involved in case findings.**
- **9% do not include the patient safety committee.**
- **19% do not include Board.**
- **11% do not include the executive committee.**

- **Some Issues Identified for Focus Group Meeting**

- **What are the hospital steps for NYPORTS medication events?**
- **What integration exists among departments and/or systems?**
- **How is information shared, educational opportunities created?**

# Survey and Focus Group Findings:

- Internal hospital sharing of information was not always complete.
  - E.g., sharing with morbidity and mortality committees didn't occur 11% of the time while patient safety committee was not given information in 9% of instances.
  - Many staff may be involved in the investigation, however camaraderie may prevent escalation of events to all committees.

# Survey Questions

## Understanding NYPORTS Reporting

- **Survey Data**

- **25% reported unclear requirements of what to report.**
- **18% feel that NYPORTS duplicates reporting elsewhere.**
- **Reporting frequency: 45% report if they are uncertain of requirement to report (55% do not).**

- **Some Issues Identified for Focus Group Meeting**

- **DOH requirements unclear, hospital requirements unclear?**
- **Solutions to duplicate reporting?**
- **Protocol for uncertainty?**
- **Hospital decision making?**

# Survey Questions

## NYPORTS Reconciliation

- **Survey Data**

- **22% stated they do not report late findings.**
  - 21% don't include late findings in internal system either.
  - 32% don't include late findings in hospital improvement efforts.
- **25% do not reconcile NYPORTS with internal event systems.**

- **Some Issues Identified for Focus Group Meeting**

- **Internal systems:**
  - Does your facility have one?
  - How is it used and/or reconciled with individual data, departments, and the hospital system?

# Overall Suggestions and Resolutions:

- Centralization:
  - Centralized DOH contact to eliminate regional variation, provide guidance and more.
- Education/Sharing:
  - Sharing of blinded Case Studies, RCAs, and national and local trends.
  - Use reports from external reporting program publications to relate and share what is happening in New York.

# Overall Suggestions and Resolutions:

- Training:
  - Provide additional training opportunities in a variety of formats (online, annual conferences, regional classes, updates at other professional and trade association meetings, etc).
- Software:
  - Redesign the software to permit easier data entry (e.g., word document acceptance of a complete document rather than sectionalized).

# Survey and Focus Group Findings:

- Grey areas in reporting.
  - Unclear reporting requirements for an event has led to some inconsistencies across regional offices.
  - Centralization of grey interpretation is desirable.
- Statements of deficiencies were not always understood in regards to when they are issued (sometimes for a self-report, late report).
- Perhaps clear central guidance on the intent of the SOD would help ensure greater consistency. Are there other options for SOD situations? Higher level RCA, case write-up for statewide sharing, etc?

# Highlights

- Approximately, 30 cases per year.
  - Data showed NYS was on par with rest of nation.
  - Main issues were narcotics, look-alike meds, etc.
- The real value is in sharing the information.
  - Using each case example as an educational opportunity.
  - Alerts focusing on case details shared to enable hospitals to be more proactive in avoiding future similar errors.

# Highlights

- Share your events throughout your hospital and/or health system.
- Report your events to enable all colleagues across the state to learn.