

# Use of Trigger Tool Methodology to Quantify Opioid Adverse Events

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NYS Partnership for Patients

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# Objectives

1. Understand how trigger medication monitoring can improve quantification of adverse drug events
2. Identify resources and references for learning more about implementing trigger medication monitoring

# What is a “Trigger Tool”

- Purpose: Identify and quantify adverse patient outcomes
- Definition: “unintended physical injury resulting from or contributed to by medical care that requires additional monitoring, treatment or hospitalization, or that results in death.”

Harm ≠ Error

Griffin FA, Resar RK. *IHI Global Trigger Tool for Measuring Adverse Events (Second Edition)*. IHI Innovation Series white paper. Cambridge, Massachusetts: Institute for Healthcare Improvement; 2009

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# Medication Trigger Examples

Trigger Medication	Potential Adverse Drug Event
Naloxone	Opioid-related respiratory depression and oversedation
Flumazenil	Benzodiazepine-related adverse effects. Sedation deeper than anticipated
Diphenhydramine	Hypersensitivity reactions
Dextrose 50% IV	Hypoglycemia

# Adverse Drug Event Yield for Trigger Medications

NCC MERP Categories of Harm	Number of ADE (%) n=1040
E: Temporary harm to the patient that required intervention	219 (21%)
F: Temporary harm to the patient that required higher level of care/prolonged hospitalization	34 (3%)
G: Permanent patient harm	3 (0.3%)
H: Harm that required intervention to sustain life	13 (1%)
I: Death	5 (0.5%)

Rozich JD, et al. Adverse drug event trigger tool: a practical methodology for measuring medication related harm. *Qual Saf Health Care*. 2003; 12:194-200.

# What is Measured?

- Opioid-related harm requiring intervention (naloxone)
  - Respiratory depression
  - Excessive sedation
- Preventability is **not** an important criterion
  - “Today’s ‘unpreventable’ events are only an innovation away from being preventable”

## Harm ≠ Error

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# Implementation

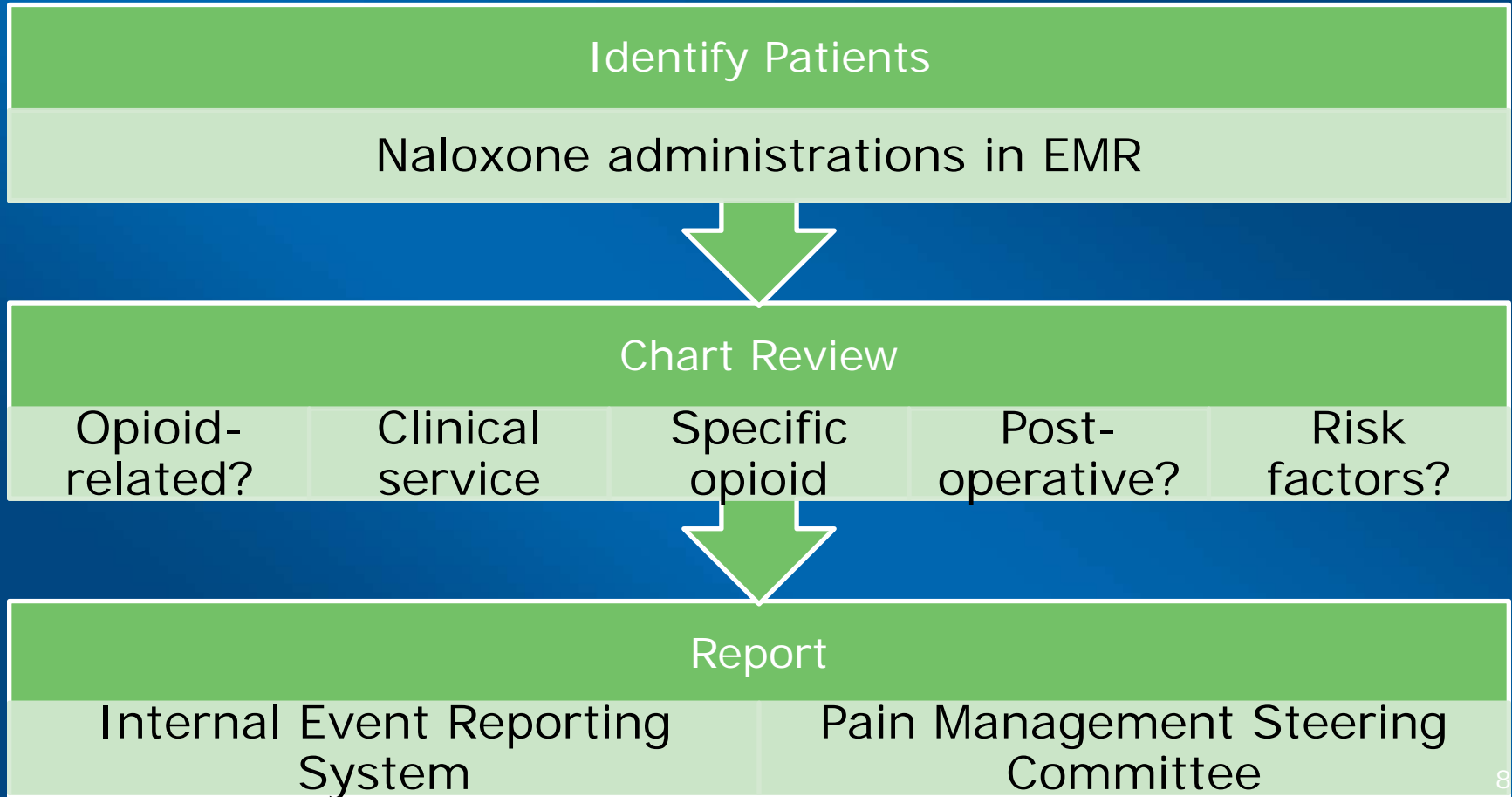
Identify the adverse drug events and corresponding trigger medication of interest

Identify the patients

Determine criteria for identifying whether an adverse drug event occurred

How and to whom will these adverse drug events be reported?

# Strong Memorial Hospital Experience





# Strong Memorial Hospital Experience

Quantify Opioid-Related Adverse Events

- Build leadership support for system-wide changes to improve opioid safety

Identify institution-specific risk factors

- Tracking and trending of opioid-related adverse events by unit, service, age, etc

Monitor Effectiveness of Interventions

- Next step

# Resources for Trigger Medication Monitoring

1) Institute for Healthcare Improvement (IHI) Global Trigger Tool

<http://www.ihl.org/resources/Pages/Tools/IHIGlobalTriggerToolforMeasuringAEs.aspx>

2) Institute for Safe Medication Practices

[https://www.ismp.org/newsletters/acutecare/articles/20050310\\_2.asp](https://www.ismp.org/newsletters/acutecare/articles/20050310_2.asp)



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