

Use of the IHI Global Trigger Tool for Detection of Adverse Events

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Objectives

- Discuss how the use of the GTT can inform the Senior Leadership Team
- Define ‘Harm’
- Describe the history of the IHI Trigger Tool methodology
- Learn how adverse event data can be used to support Patient Safety

An effective way to identify events causing harm

- Traditional efforts to detect Adverse Events have focused on voluntary reporting and tracking of errors
- Public health researchers have established that only 10 to 20 percent of errors are ever reported, and of these 90 to 95 percent cause no harm to patients

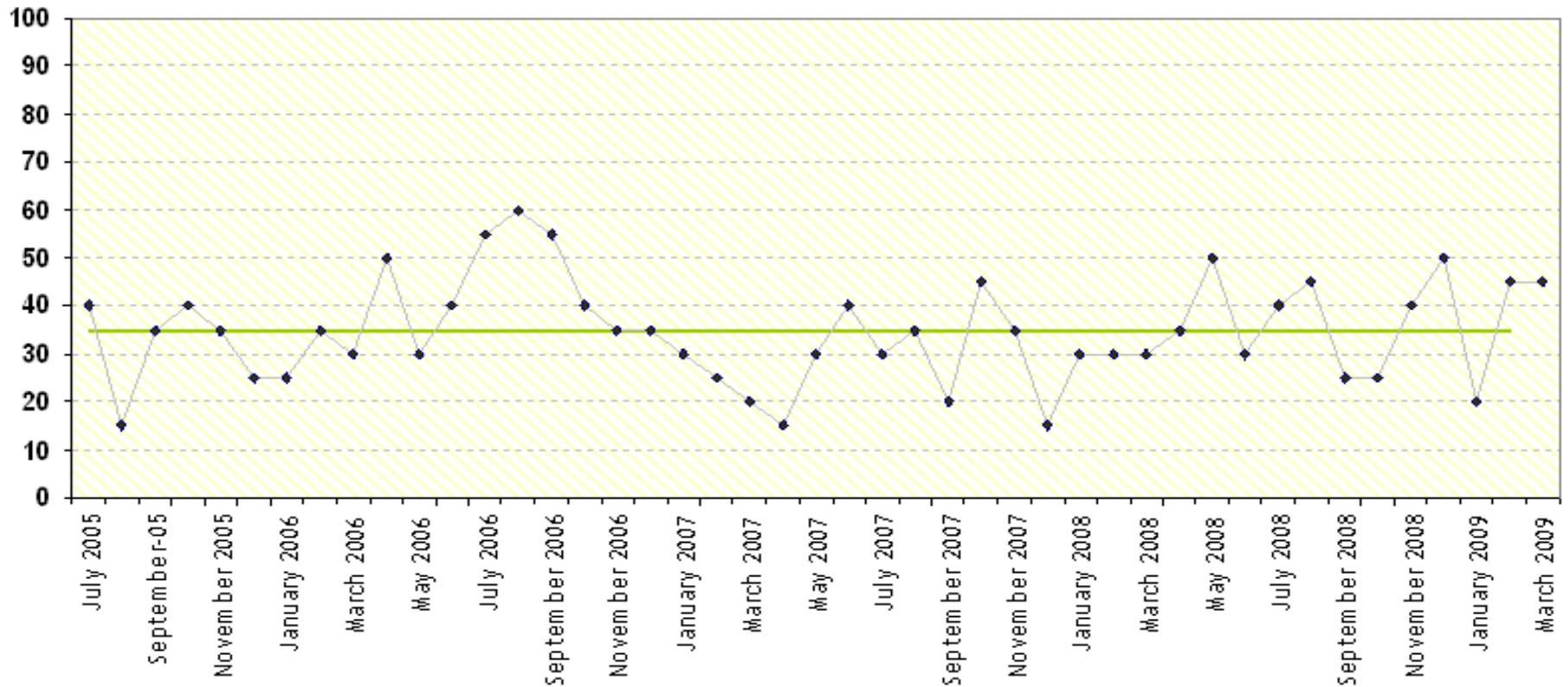
Justification for Trigger Tools

- Trigger Tool easily identifies events without complex technology.
- Cost effective method of providing high level information about harm

Resar RK, Rozich JD, Classen D. Methodology and rationale for the measurement of harm with trigger tools. *Quality and Safety in Healthcare*. 2003;12 Suppl 2:39-45.

VGH: % of Admission with at least 1 Adverse Event

M = 35



Review Period

VCH/PHC Quality and Patient Safety Indicators

1. Hospital Standardized Mortality Ratio (HSMR)
2. Adverse Event Rates (using the GTT)
3. Safety Culture Survey (staff and patient)
4. Reported Events/Critical Incidents (SLS/Paper)
5. In-hospital fractures
6. Deaths in Low Mortality CMGs
7. Reported Falls
8. Pharmacy Indicators
9. Infection Control Surveillance Data

Harm Defined

IHI Trigger Tools detect;:

HARM = an adverse event where there is an injury or harm (any unintended consequence) related to the delivery of care

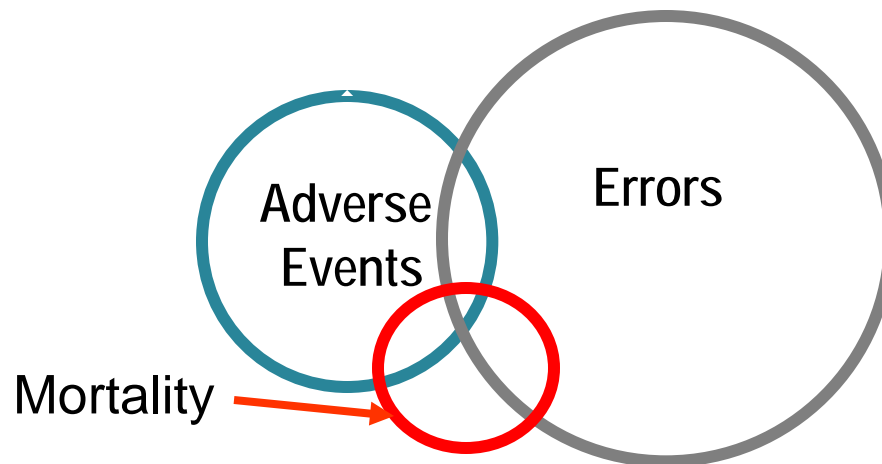
Includes events of commission, not omission

Griffin FA, Resar RK. IHI Global Trigger Tool for Measuring Adverse Events. IHI Innovation Series white paper. Cambridge, Massachusetts: Institute for Healthcare Improvement; 2007. (Available on www.IHI.org)

Terminology

Adverse Event vs. Error (Roger Resar)

- “Error” implies preventability, and is therefore process-focused
- “Adverse event” describes harm experienced by the patient, and is thus outcome focused



Adverse Events versus Errors

Adverse Events (Harm)

- Concentrates less on people more on systems
- Looks at all unintended results
- Makes measurement easier
- Concentrates on harm and those errors that cause harm IHI.org

Errors

- Errors are the focus of discussion and solutions
- Tends to focus only on those results felt to be related to error, ignores other events
- Requires judgment
- Human found responsible for most of the errors

Trigger Tool Practical Use

- Establishes within an institution a baseline of adverse events
- Types of adverse events can be cataloged and prioritized
- Resources can be focused on those events causing the greatest harm
- Affect of interventions can be followed when adverse event rate is measured over time

Background

- Computerized triggers for ADE identification and concurrent intervention (Classen 1990)
- Adverse Drug event trigger tool IHI (1999)
- ICU Adverse event trigger tool plus other subsets (neonatal, perioperative and perinatal) (2002-2005)
- Global trigger tool (2004)
- Outpatient trigger tool (2006)

Considered reliable and valid tool for the measurement of adverse events

Event detection in validation site

	n	%
Confirmed events detected	171	100
IHI Global Trigger Tool	160	93.6
Utah-Missouri abstract code tool	72	42.1
AHRQ PSI tool	10	5.8
Voluntary incident reporting	0	0

Indicators from GTT

1. # Adverse events/ 1,000 patient days
2. # Adverse events/100 patient admissions
3. % Admissions with at least one Adverse event

Methodology

Step 1: Random selection of records.

Step 2: Chart review using a list of “triggers” that have been tested over time e.g. Sudden drop in Hgb, use of Narcan.

Step 3: Determine if the positive trigger is an indicator of an adverse event.

Step 4: Categorize the adverse events into categories of harm.

Considerations

- 75% of all events will be picked up by both reviewers (the G, H and I events)
- 25% of events will be picked up by one reviewer or the other (E and F)
- Definitions of harm become more standard with two reviewers

Recommended Sequence

Set your timer for 20 minutes and review:

1. Coding summary
2. Discharge summary
3. Laboratory results
4. Medication Administration Record
5. Orders
6. X-ray reports
7. Procedure notes
8. Nurses notes (if time left over)

Modules

- Care
- Surgical
- Medication
- Intensive Care
- Perinatal
- Emergency

Cares Module Triggers

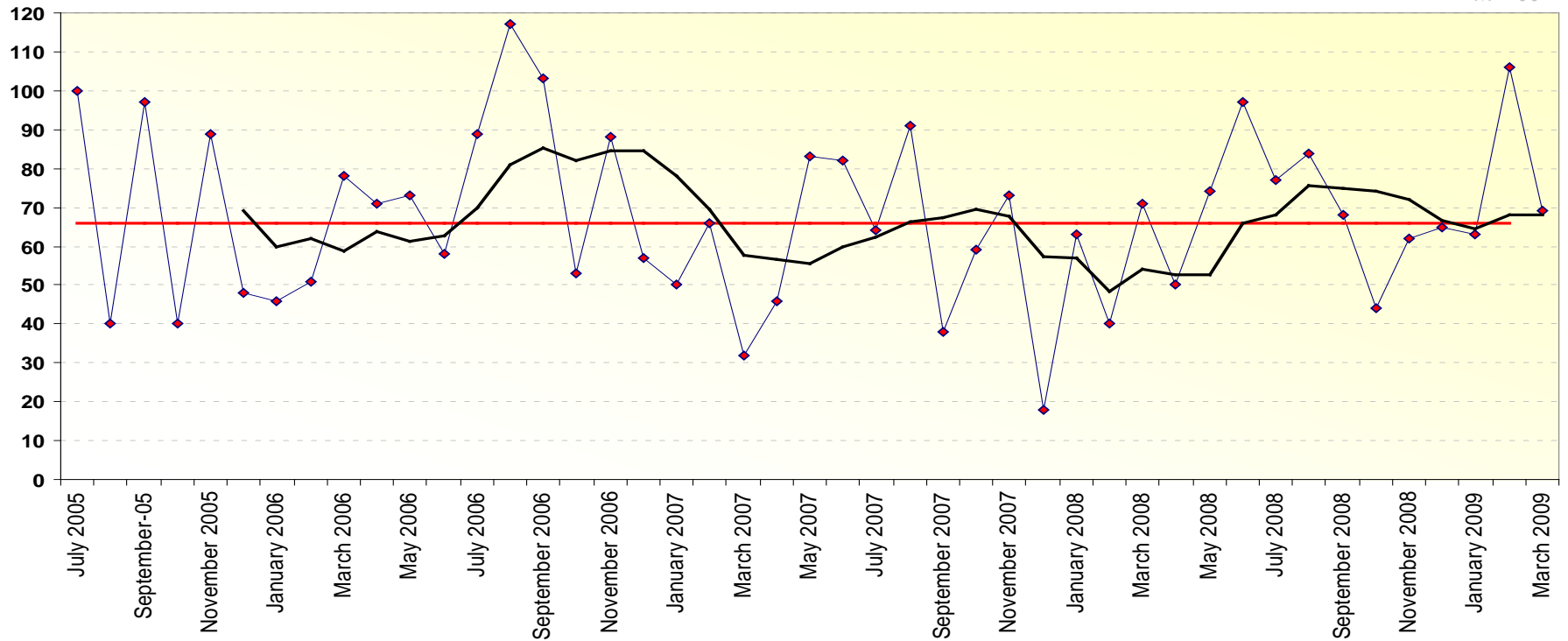
C1	Transfusion or use of blood products
C2	Any Code or arrest
C3	Dialysis
C4	Positive blood culture
C5	X-Ray or Doppler studies for emboli
C6	Abrupt drop of greater than 25% in Hg or Hematocrit
C7	Patient fall
C8	Decubiti
C9	Readmission within 30 days
C10	Restraint use
C11	Infection of any kind
C12	In hospital Stroke
C13	Transfer to higher level of care
C14	Any procedure complication
C15	Other

Category of Harm (from NCC MERP Index)

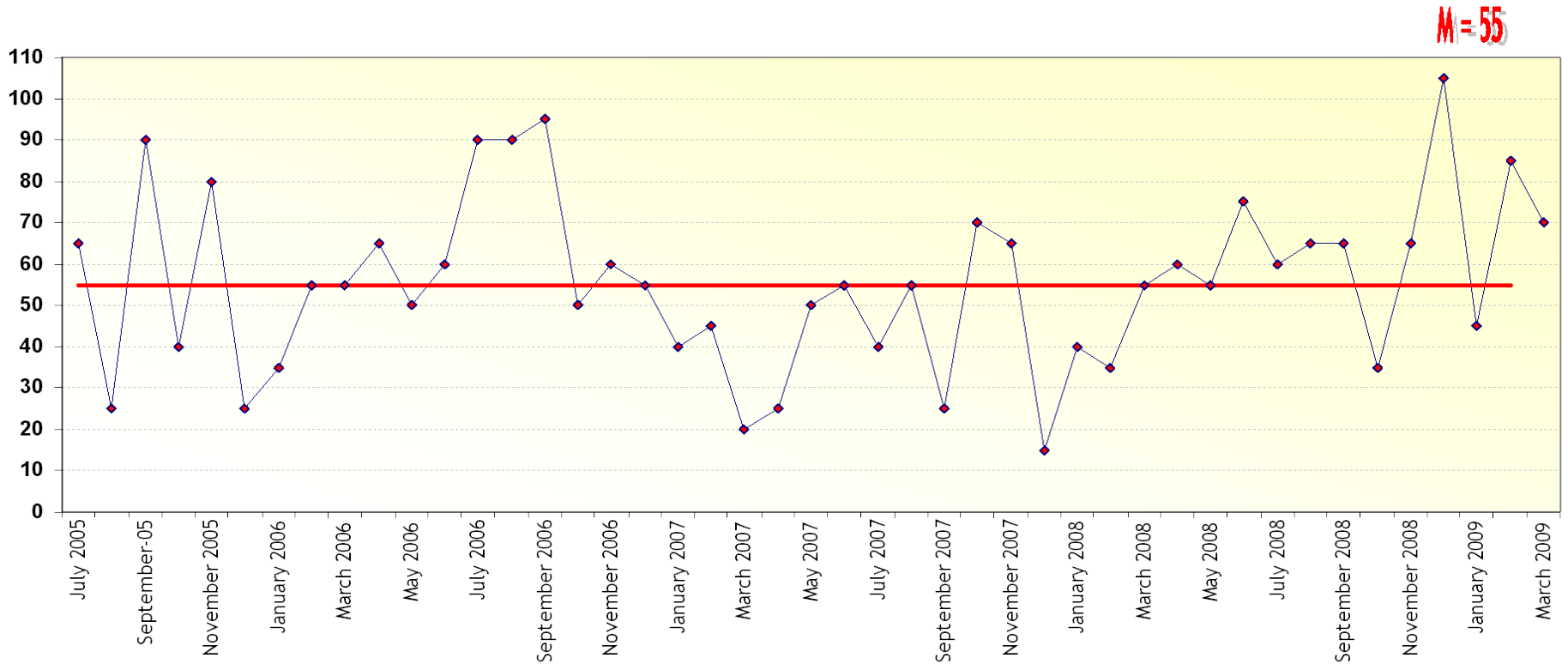
- E Temporary harm, intervention required
- F Temporary harm, initial or prolonged hospitalization
- G Permanent patient harm
- H Life sustaining intervention required
- I Contributing to death

VGH: Adverse Events/ 1000 Patient Days

M = 66



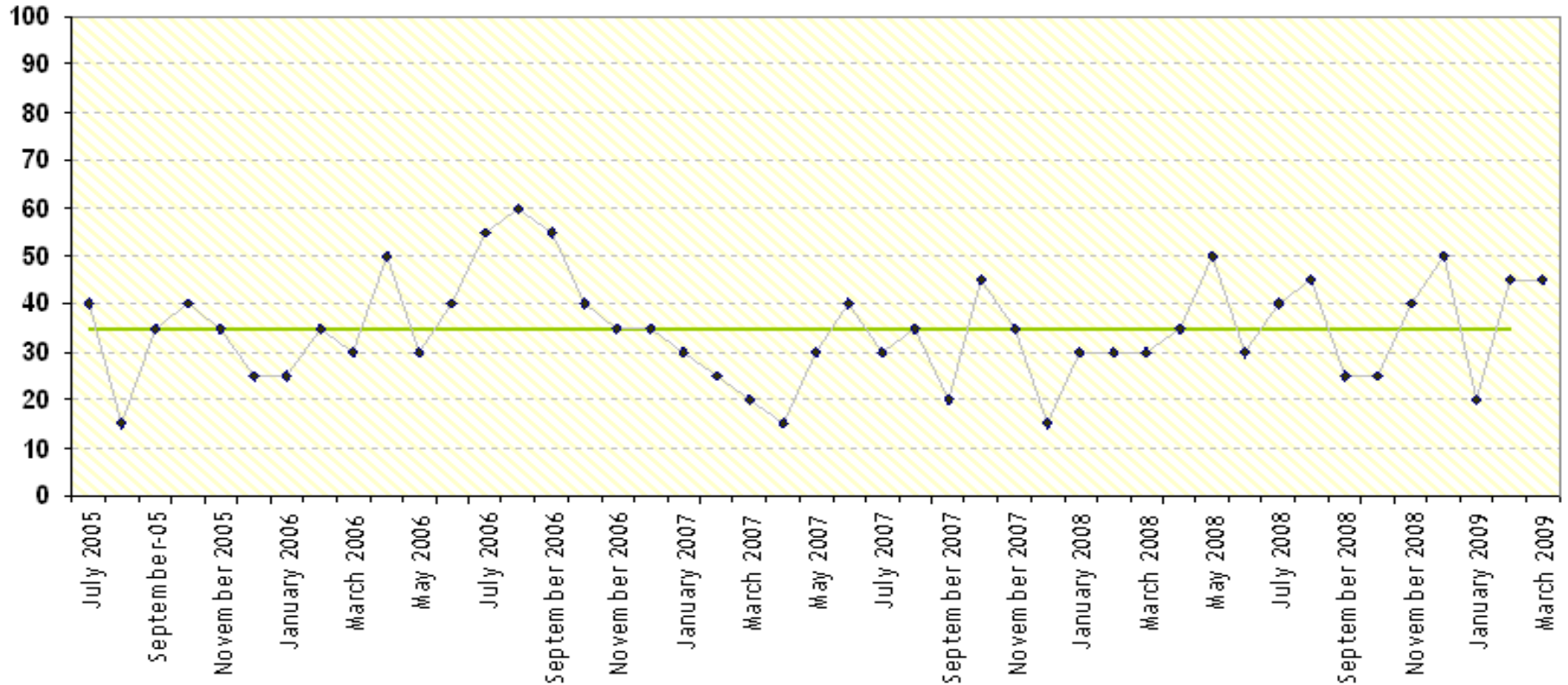
VGH: Adverse Events/ 100 Admissions



Review Period

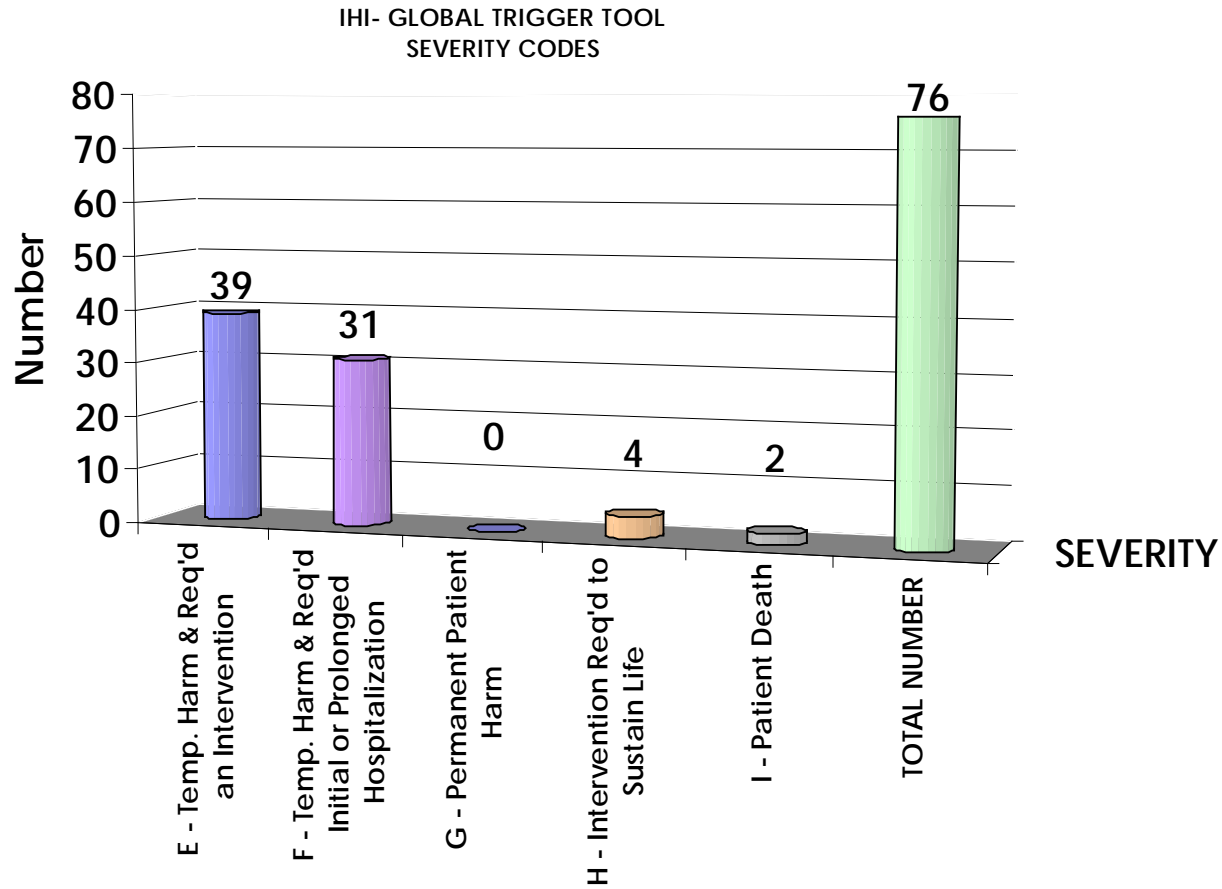
VGH: % of Admission with at least 1 Adverse Event

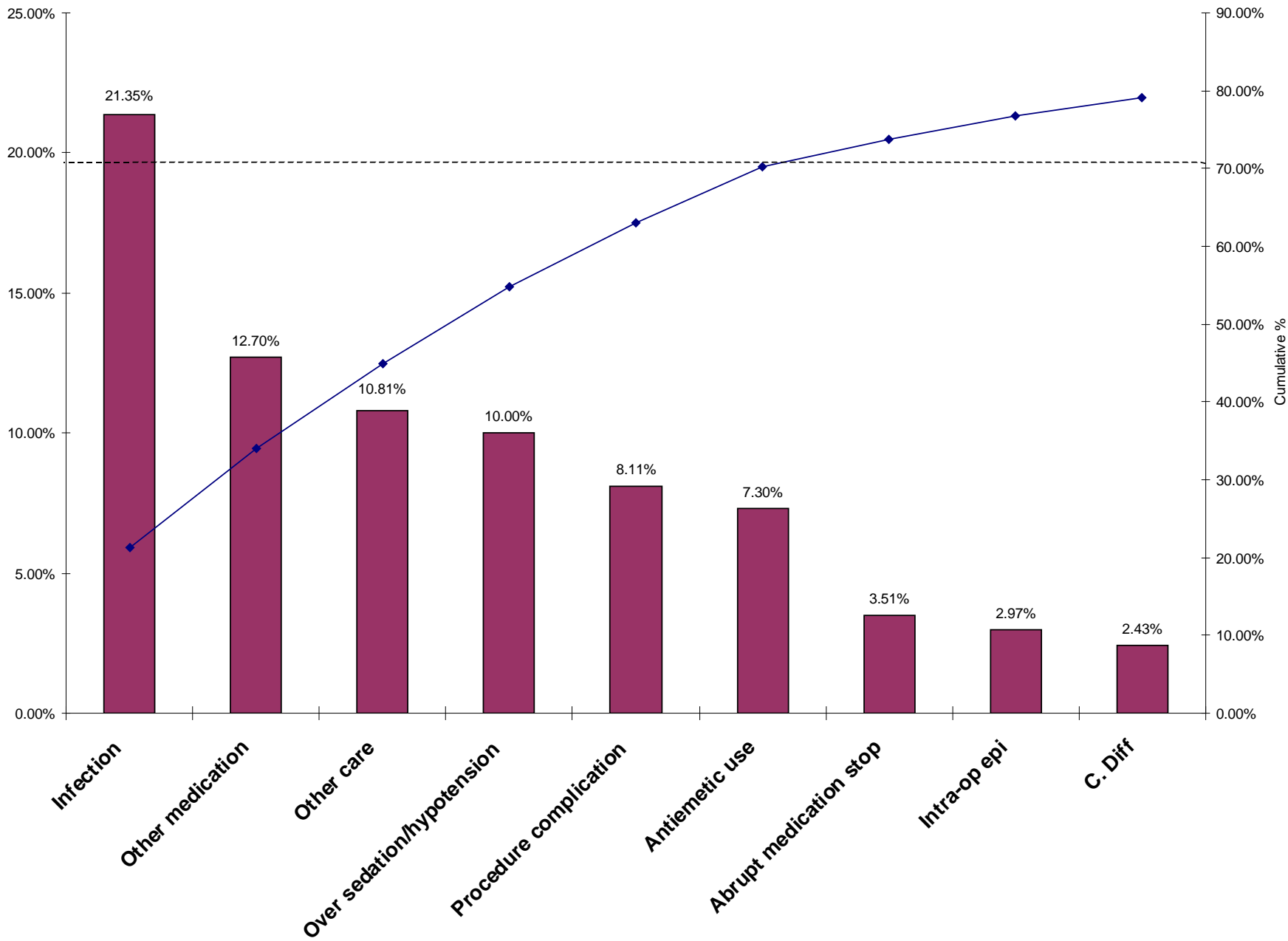
M = 35



Review Period

Distribution of Harm





■ % ◆ Cumul %

Targeted Interventions

Targeted interventions based on results:

eg. UTI/Urosepsis;

- Standards of practice identified
- Protocols developed/implemented



Reduction of sepsis rates also confirmed using Bacteremia database.

Reporting

- Regular reporting to HSDAs
- Regular reporting to SQPM (subcommittee of the Board)
- Next step: Balanced Scorecard for VCH

Comments / Questions