

# Evaluation of Fever Guidelines in Managing Patient Fever in Adult Medical Surgical

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## Introduction

**Background:** The Fever Management Guidelines Policy was implemented in 2008 spearheaded by a group of RNs on the Respiratory Unit (Old 35/25). The policy establishes evidence-based management of fever and use of external cooling measures.

**Purpose:** The purpose of this study was to evaluate if the nursing staff on medical surgical units adopted the evidence-based practice change when managing fevers per the fever guidelines.

- Temperatures of 39°C (102.2°F) or below is not treated unless patient has underlying conditions that affect patient's ability to tolerate a rise in metabolic rate and CV demand
- Evaluate need for blood cultures when body temperature reaches 38.3°C (101°F) or greater
- Antipyretics for temperature greater then 39°C (102.2°F)
- Consider external cooling measures utilizing cooling blankets for temperatures greater than 39.5°C (103°F)
- Avoid using cooling fans, sponge baths, ice compresses or alcohol sponges

**Study Framework:** Adoption of evidence-based practice by the users based on:

*Diffusion Theory: Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system.*

*Characteristics of those who adopt change: Innovators-inventors, early adopters, early majority, late majority, laggards/traditionalists.*

Rogers, EM (2003). Diffusion of Innovations (5th Ed.). New York, NY: The Free Press.

## Methods

**Method/approach:** A retrospective review of 367 medical records. The following elements were evaluated:

- Temperature
- Site where temperature measured
- Temperature at which interventions initiated
- Interventions utilized
- Patient's documented response if interventions utilized

**Who was involved:** Primary Investigator: Susan D'Antuono, MS, RN; Clinical Nurse Specialist. Naira Kapoyan, RN, MA, 5West.

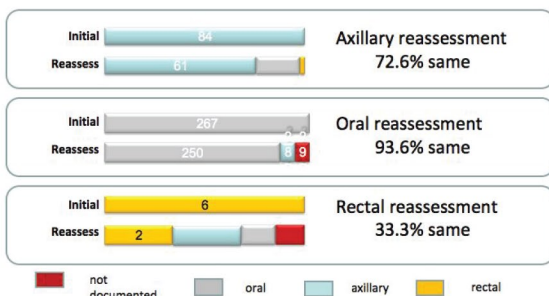
**Measurement used:** Clinical Informatics provided a report of adult patients on the medical surgical units during the months of January through March of 2009 with documented fevers greater than 100.5 degrees Fahrenheit. Study elements were entered in an Excel spreadsheet.

**Data Analysis:** MiniTab 15 program.

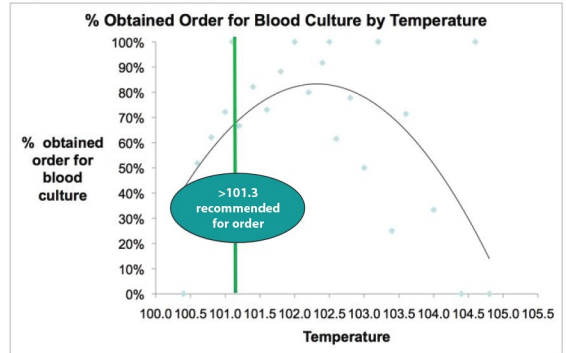
**Statistical Tests:** scatter plot

## Results

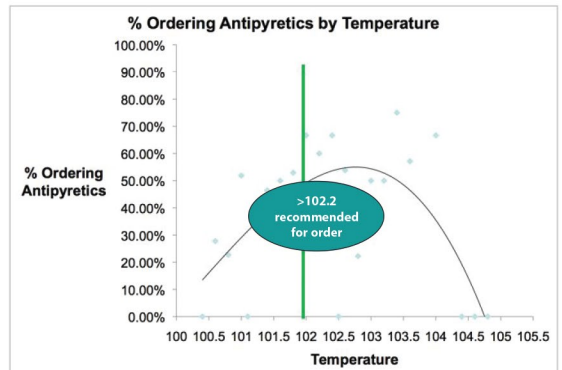
% Same Route of Measurement used for Initial and Reassessment of Temperature



Scatter chart indicates that blood cultures are ordered 80% of the time closer to 102.5 degrees.



Scatter chart indicates that antipyretics are administered 50% of the time between 101 degrees to 103 degrees.



## Conclusions

Blood cultures were considered for temperatures >101.3

72% received antipyretic which was initiated below recommended temperature.

Twenty three patients qualified for the cooling blanket. One patient received the cooling blanket for temperature 100.8. No documentation of removal.

21% of temperatures measured were by auxiliary route and reassessment was not by same method 31%.

### Discussion:

The innovation for fever management has not diffused into practice.

- Reasons to consider: 1) Fever management delegated to PCA; 2) Lack of knowledge of policy and evidence; 3) Current equipment used to measure temperature; 4) No post-implementation monitoring of practice; 5) No incentive to change practice.

### Characteristics of Users that Influence Adoption of EBP:

Educational preparation; Practice specialty; Knowledge about the EBP; Perceived importance to patient care; Attitudes towards used of EBP guidelines; Views on innovativeness and change.

### Suggestion for Future:

Evaluation of equipment used to measure temperature such as temporal thermometers. Questionnaire regarding use of innovations in practice Sustain Practice: Reinfusion by including in annual competency

Loss of 253 data due to computer error