

Monday, February 8, 2016

11:00 a.m. Eastern

Dial In: 888.863.0985

Conference ID: 19181618

# Safety Action Series

Prevention of Surgical Site Infections Following  
Major Gynecologic Surgery Patient Safety Bundle



# Speakers



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Vice President, Health Policy  
American College of Obstetricians and Gynecologists



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University of Maryland School of Nursing

# Disclosures

- **Barbara Levy, MD, FACOG, FACS has no real or perceived conflicts of interest.**
- **Joseph Pellegrini, PhD, CRNA has no real or perceived conflicts of interest.**

# Objectives

- Provide an in-depth overview of the Prevention of Surgical Site Infections Following Major Gynecologic Surgery Patient Safety Bundle.
- Take a look at the processes, methods, and tools that were used to develop the bundle.
- Give suggestions for how to effectively implement and utilize the bundle within your organization.
- Identify resources to customize the bundle for use within your organization.

# Surgical Site Infections

- Most common nosocomial infections
  - 500,000 infections annually
- Account for nearly 4 million excess hospital days
- Account for greater than 2 billion dollars in increased health costs

# Risk Factors

- Preoperative risk factors
  - **Diabetes**
  - **Nutritional Status**
  - Obesity
  - Prolonged use of systemic steroids
  - Preexisting infection
  - Colonization with microorganisms
    - MRSA of skin, Bacterial Vaginosis

# Risk Factors

- Postoperative risk factors
  - Surgical length > 180 minutes
  - Duration of surgical scrub
  - **Preoperative shaving**
  - **Antibiotic prophylaxis**
  - Operating room ventilation
  - Poor hemostasis
  - **Hypothermia**

# Surgical Care Improvement Project

- Developed six infection prevention measures

- 1) Antibiotic Timing
- 2) Antibiotic Selection
- 3) Discontinuation of prophylactic antibiotics w/in 24 hours postop
- 4) Use of clippers for hair removal
- 5) Maintenance of normothermia
- 6) Normoglycemia
  - Cardiac patients





# Surgical Site Infection

- Antibiotic Timing
  - Prophylactic antibiotic administration within one hour before surgical incision (or within 2 hours if administering vancomycin or fluroquinolones)
  - Multiple studies show that risk of SSI lowest if antibiotics administered w/in 1 hour
    - Recent study indicates further reduction if administered w/in 30 minutes of incision

# Addressing the Problem

## *Development of a Patient Safety Bundle*

# Prevention of Surgical Site Infections Following Major Gynecologic Surgery Patient Safety Bundle Development

## Multidisciplinary Team

- Barbara Levy, MD, FACOG, FACS
- Joseph Pellegrini, PhD, CRNA
- Bill Bradford, DO, FACOOG
- Erin DuPree, MD, FACOG
- Renee Edwards, MD, FACOG, FACS
- Ira Horowitz, MD, SM, FACOG, FACS
- Donna Ruth, MSN, RN
- David Soper, MD, FACOG
- Paloma Toledo, MD, MPH

# 4 Domains of Patient Safety Bundles

- **Readiness**
- **Recognition**
- **Response**
- **Reporting/Systems Learning**



## READINESS

### *Every Facility*

- Establish standard preoperative care instructions and education for women undergoing hysterectomy (major gynecologic surgery), including postoperative wound care instructions (written and verbal)
- Establish a system that delineates responsibility for every member of the surgical team
- Establish standards for temperature regulation with regards to:
  - Ambient operating room temperature
  - Patient normothermia
- Standardize the selection and timing of administration of prophylactic antibiotics, ideally using order sets and/or checklists
- Standardize the timing of discontinuation of prophylactic antibiotics, ideally using order sets and/or checklists
- Establish standard on appropriate skin preparation, both preoperatively and postoperatively

# Readiness: Every Facility

- ***Standard preoperative care instructions and education for women undergoing major gynecologic surgery***
  - Providing postoperative wound care instructions (written and verbal) during preoperative visit
  - Critical need to engage and educate patients on the reasons for the instructions

# Readiness: Every Facility

- ***System that delineates responsibility for every member of the surgical team***
  - Roles for anesthesia team, nursing team, and office-based team

# Readiness: Every Facility

- ***Establish standards for temperature regulation with regard to:***
  - *Ambient operating room temperature*
  - *Patient normothermia*



# Readiness: Every Facility

- ***Standardization of selection and timing of administration of prophylactic antibiotics***
  - *Use of order sets and/or checklists*

# Readiness: Every Facility

- ***Standardization of timing of discontinuation of prophylactic antibiotics***
  - *Use of order sets and/or checklists*

# Readiness: Every Facility

- ***Establish standard on appropriate skin preparation, both preoperatively and postoperatively***
  - Engage patients as part of the team
    - Preoperative
      - Hair removal
      - Skin washing
    - Postoperative
      - Wound care
      - Recognizing signs of infection



## RECOGNITION

### *Every Patient*

- Assess patient risk preoperatively for surgical site infection using the following criterion:
  - Blood glucose level
  - Body mass index (BMI)
  - Immunodeficiency
  - MRSA status
  - Nutritional status
  - Smoking status

# Recognition: Every Patient

- **Assess patient risk preoperatively for surgical site infection related to: blood glucose level**
  - Rapid change in A1c level not supported in literature

# Recognition: Every Patient

- **Assess patient risk preoperatively for surgical site infection related to: body mass index (BMI)**
  - Risk assessment based on body fat distribution
  - Incision planning based on body fat distribution

# Recognition: Every Patient

- **Assess patient risk preoperatively for surgical site infection related to: immunodeficiency**

# Recognition: Every Patient

- **Assess patient risk preoperatively for surgical site infection related to: MRSA Status**



# Recognition: Every Patient

- **Assess patient risk preoperatively for surgical site infection related to: nutritional status**

# Recognition: Every Patient

- **Assess patient risk preoperatively for surgical site infection related to: smoking status**



## RESPONSE

### *Every Case*

- Develop intraoperative “Time Outs” to address antibiotic dosage, timing, prophylaxis issues, and patient-specific issues
- Establish standard on intraoperative skin preparation by surgical team
- Reassess patient risk for surgical site infection based on length of surgery, potential bowel incision, vaginal contamination, and amount of blood loss
- Provide postoperative care instructions and education to women undergoing hysterectomy (major gynecologic surgery) and family members or other support persons

# Response: Every Case

- ***Develop intraoperative “Time Outs” to address antibiotic dosage, timing, prophylaxis issues, patient specific issues***
  - Effective tracking of length of surgery and blood loss is critical

# Response: Every Case

- ***Establish standard on intraoperative skin preparation by surgical team***

# Response: Every Case

- ***Reassess patient risk for surgical site infection based on length of surgery, potential bowel incision, vaginal contamination, and amount of blood loss***
  - Anesthesia reminders to surgeon regarding potential contamination
  - Development of standard questions to remind surgeon

# Response: Every Case

- ***EMPOWER THE PATIENT - Provide postoperative care instructions and education to women undergoing hysterectomy (major gynecologic surgery) and family members or other support persons***
  - Effective discharge management
    - Provide postoperative care instructions prior to discharge
    - Consider giving prescriptions in advance of surgery
    - Clear up any discrepancies between hospital and surgeon instructions
    - Provide contact instructions to help patients overcome barriers when following up with surgical team



## REPORTING/SYSTEMS LEARNING

### *Every Facility*

- Establish a culture of huddles for high risk patients
- Create system to analyze and report surgical site infection data
- Monitor outcomes and process metrics
- Actively collect and share physician specific surgical site infection data with all surgeons as part of their ongoing professional practice evaluation
- Standardize a process to actively monitor and collect surgical site infection data with post-discharge follow-up



# Reporting/Systems Learning: Every Facility

- ***Establish a culture of huddles for high risk patients***

# Reporting/Systems Learning: Every Facility

- ***Create system to analyze and report surgical infection data***
  - Need to query providers to understand infection rates in patients who are not readmitted

# Reporting/Systems Learning: Every Facility

- ***Monitor outcomes and process metrics***

# Reporting/Systems Learning: Every Facility

- ***Actively collect and share physician specific surgical site infection data with all surgeons as part of their ongoing professional practice evaluation***

# Reporting/Systems Learning: Every Facility

- ***Standardize a process to actively monitor and collect surgical site infection data with post-discharge follow-up***

# Key Points

- **Anticipatory management is critical**
  - Identifying adverse events that might occur is necessary when planning
  - Once adverse events can be identified, what can we do to prevent poor outcomes?

# Q&A Session

Press \*1 to ask a question



You will enter the question queue  
Your line will be unmuted by the operator for your turn

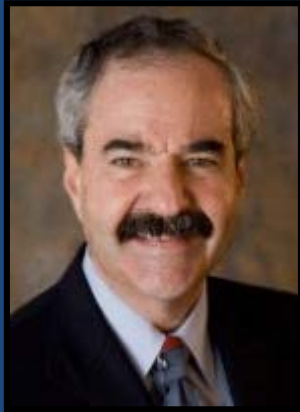
*A recording of this presentation will be made available on our website:*  
[www.safehealthcareforeverywoman.org](http://www.safehealthcareforeverywoman.org)

# Next Safety Action Series

## Maternal Mental Health: Perinatal Depression and Anxiety Patient Safety Bundle

February 23, 2016

1:00 p.m. Eastern



**John Keats, MD, CPE, FACOG**

Market Medical Executive, Cigna Health  
Care of Arizona



**Susan Kendig, JD, WHNP-BC, FAANP**

Director of Policy, National Association of Nurse  
Practitioners in Women's Health

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