

What Is Wound Classification?

Jennifer Zinn, RN, MSN, CNS-BC, CNOR

Vangela Swofford, RN, BSN

Why Is Wound Class Important?

om line – the OR documentation needs to be accurate.

•COMMUNICATION is ESSENTIAL

•Potential future issues: never events, pay-for-performance tied to reimbursement

Objectives

- Discuss the purpose of documenting wound classification
- Define the classes of Wound Classification
- Discuss the impact of inaccurate documentation of wound classification
- Discuss nursing interventions that effect wound classification
- Discuss QI project development

History

- **National Research Council Study 1964 – ultraviolet light in the OR**
- **Designed to describe the degree of bacterial load/infection present at the initiation of surgery**
- **Incorporated into the CDC NNIS (National Nosocomial Infection Study) 1985**

Wound Class Basics

- **Classification of wounds involves “point of care” documentation**
- **Snapshot of surgical field at that time**
- **Perioperative decisions are based on the clinical/qualitative data at the time of the assessment in the OR**

WC Basics

- **“prediction rule”**
- **Identify the probability of infection at time of surgery so one can identify who is at increased risk for postoperative occurrences**
- **Identifies ‘outliers’ as well as documentation issues**

Infection Risk per Classification

- **Class 1 / Clean: <2%**
- **Class 2 / Clean-Contaminated: 4-12%**
- **Class 3 / Contaminated: 10-15%**
- **Class 4 / Dirty: 25-40%**

Per NSQIP presentation by Lynn Devaney Massachusetts General Hospital

Class 1: CLEAN

- **Uninfected surgical wounds in which no inflammation is encountered and the respiratory, alimentary, genital, or urinary/vaginal tracts are not entered.**
- **Clean wounds are closed primarily and do not involve normally colonized areas.**

Class 1: CLEAN

- **Hernia**
- **Exploratory Laparotomy**
- **Mastectomy**
- **Vascular Bypass**
- **Abdominal Aortic Aneurysm**
- **Non-penetrating blunt trauma**
- **Thyroidectomy**

Class 1: CLEAN

- SSI risk is deemed minimal (<2%)
- Usually originates from skin contamination such as staph epidermis or possibly staph aureus

Class 2: CLEAN/CONTAMINATED

- Operative wounds in which the respiratory, alimentary, genital, biliary or urinary tract is entered under controlled conditions and no unusual contamination (a colonized viscous)
- No major break in technique is encountered
- “separate class for the Respiratory/GI tract”

Class 2: CLEAN/CONTAMINATED

- Colectomy
- TURP
- Nephrectomy
- Lung lobectomy
- Hysterectomy
- Cholecystectomy for stones or chronic inflammation only

Class 2: CLEAN/CONTAMINATED

- SSI risk ~ 4 - 12%
- Most common contaminants are endogenous bacteria from within the patient
- Separate class for the Respiratory/GI tract alone and not considered a 'step down' from wound class 1 (clean)

Class 3: CONTAMINATED

- Open, accidental wounds
- Operations with major breaks in technique
- Gross spillage from the GI tract
- Incisions that encounter nonpurulent, acute inflammation
- Absence of obvious infection

Class 3: CONTAMINATED

- Appendectomy for acute appendicitis
- Dropped instrument into field/broken glove
- Necrosis without infection
- Infarcted bowel
- Cholecystectomy with acute inflammation
- Bile spillage

Class 3: CONTAMINATED

- SSI risk ~ 10 - 15%
- Absence of obvious infection
- Contaminants are introduced by soilage of the surgical field

Class 4: DIRTY/INFECTED

- Wounds with retained, devitalized tissue
- Perforated viscera
- Existing clinical infection in field (pus/purulence)
- Penetrating wounds of > 4 hours duration before treatment

Class 4: DIRTY/INFECTED

- Ruptured appendectomy
- Appendectomy with pus /abscess
- I&D of perirectal abscess
- Compound, open fracture
- Perforated bowel
- Perforated gastric ulcer

Class 4: DIRTY/INFECTED

- SSI rate ~ 25-40%
- Pathogens are usually of the existing infection
- Unusual or non flora pathogens

American College of Surgeons
National Surgical Quality
Improvement Project (ACS
NSQIP)

Vangela Swofford, RN

20

NSQIP Overview

- The first nationally validated, risk-adjusted, outcomes-based program to measure and improve the quality of surgical care.
- Monitors 30-day risk-adjusted outcomes.
- Currently 243 participating sites

MCHS joined the project Spring 2006

21

Data Collection Process

- Case selection:
 - 40 cases selected each 8-day cycle
 - General and vascular surgeries only
 - Potential for expansion to multi-specialty model

22

Drilling down on results

No Links:
campus
OR
surgeon

Wound Classification breakdown
Existing issue with incorrect wound class

QI Project Development

- **Background**
- **Flatten Knowledge**
- **Policy: Verification of wound class with surgeon at end of case**
- **PICIS**
- **Goal: at end of Q4 <5% discrepancy**

Staff Education

- Inservice to all OR nursing staff (with continuing education credit) system-wide

Timeline: 1 month

- Pocket guides
- Laminated WC chart posted in all ORs

Audit Tool

- Quality Data Analyst meeting
- Access Database Program
 - Imports all cases from the operative journal from all sites

Randomly selects 10% of charts for audit per specialty per facility

Allows for entry of audit findings and provides summary of results

Results

- Audit Summary Report
- Continuation of audit next year with 5% audit rate

||| Nursing Interventions
 Sterile Technique
 Documentation
 Communication

||| Key Words in
 Wound Classification

 Inflammation
 Necrosis
 Pus
 Perforation
 Break in sterile technique

 *All increase WC to a Class 3 or 4

||| REFERENCES

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