Ritualistic Practices Do Not Prevent Surgical Site Infections

Sarah Judkins, MD
University of Colorado
Surgical Grand Rounds
OBJECTIVES

- Historical Perspective
- Scrubbing
- Masks
- Skin Prep
- Conclusions
SURGICAL SITE INFECTIONS

- Obesity
- Age
- Diabetes
- Nicotine
- Steroids
- Malnutrition
- Blood Tx
- OR time
Why do we care?

- major cause of morbidity and mortality
  → 2-5% of clean surgeries
  → up to 20% of intra-abdominal surgeries
- increase length of stay 7 days
- results in > $3000 additional charges
- Five times more likely to be readmitted
- Two times more likely to die
5 mins $\rightarrow$ 3 mins

5 mins $\rightarrow$ 1 min + foam

3 mins $\rightarrow$ 2 mins

10 mins $\rightarrow$ 5 mins
SCRUBBING

- hand scrubbing VS. hand rubbing
- 4387 consecutive patients

SSI rates

2.48% (scrubbing) VS. 2.44% (rubbing)

compliance and tolerance improved in hand rubbing protocol

Pariente, JJ. JAMA 2002
Masks

Dr. Johannes von Mikulicz-Radecki

‘mundbinde’ (1897)
Dr. Arthur E. Hertzler

*The Horse and Buggy Doctor* (1938)


- 1049 elective general surgery cases
- 6 months with, then without masks

\[\Rightarrow 50\%\] reduction in wound infections in UNMASKED group
MASKS

3088 consecutive surgeries

1537 operations with masks

SSI  4.7%

1551 operations without masks

SSI  3.5%

SKIN PREP

scrub+paint (115) vs. paint alone (119)

groups well-matched (p>0.09)

→ SSI rate

10% scrub+paint vs. 10% paint alone

THE FUTURE

- Minimize risk factors
- Redose antibiotics
- More laparoscopy
- Improved OR air flow systems
- Improved infection control in hospitals
REFERENCES


