

SAMBA: What Medical Directors should know about Infection Prevention in ASCs

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Outpatient • Office Based • Non-Operating Room

Learning Objectives

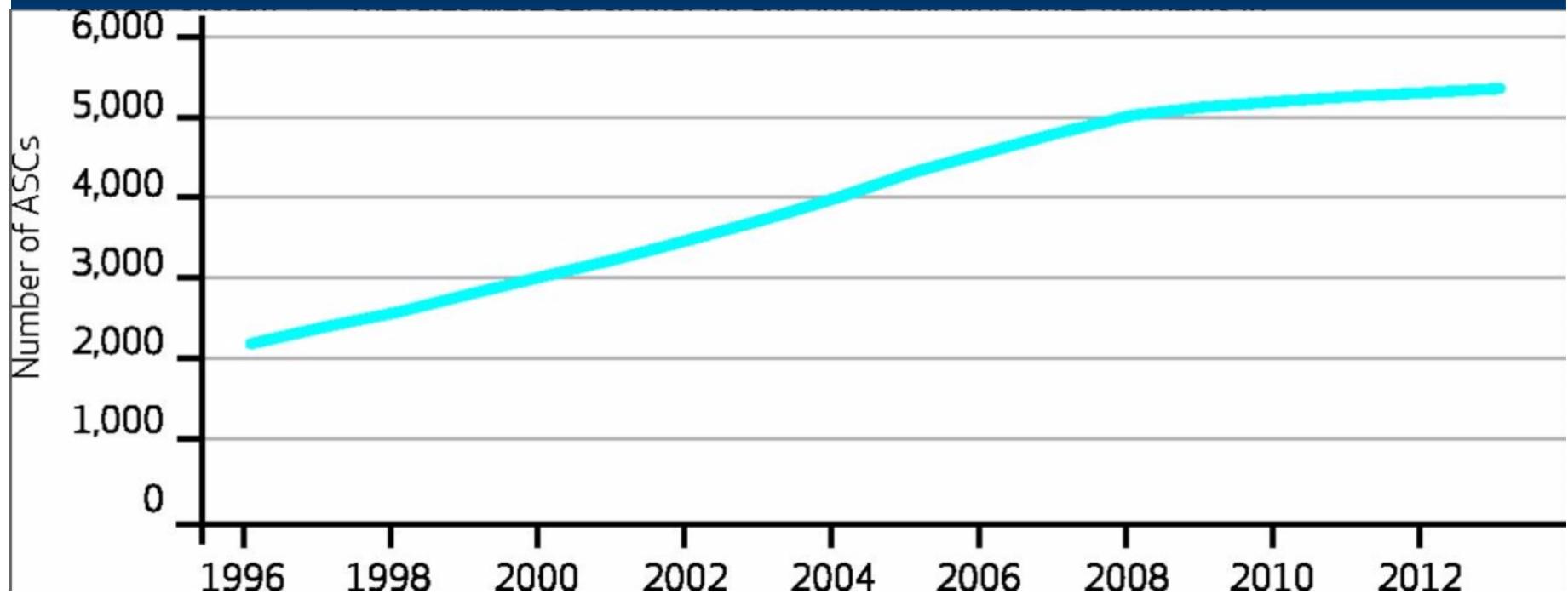
At the end of the presentation participants should be able to:

- ■ What are Healthcare Associated Infections and why should we care?
- ■ Systematic review of Healthcare Associated Infections in ASCs. Where are the gaps?
- ■ How can we address the gaps to prevent Healthcare Associated Infections.

Disclosures

- ■ AcetRx Pharmaceuticals
- ■ Surgery Center of Aventura LLP, shareholder

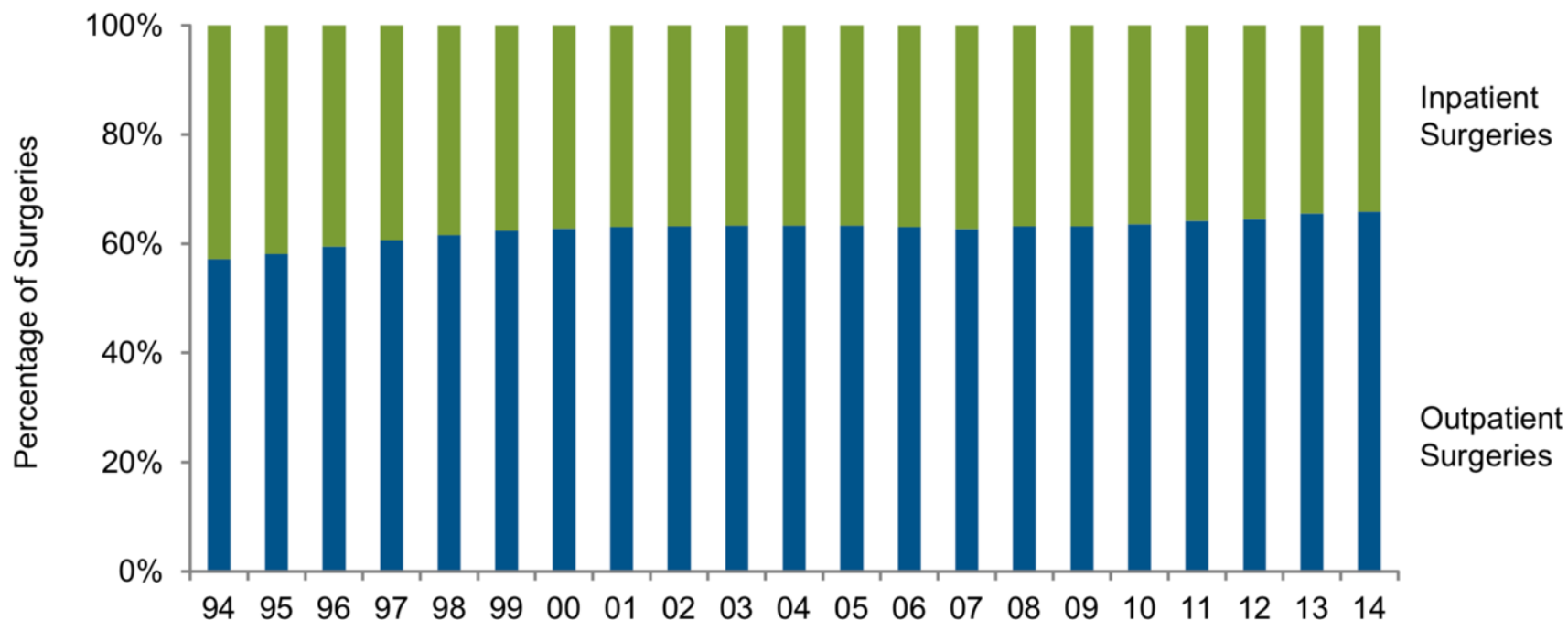
No portion of my presentation is influenced by my disclosures



5,465 Medicare Certified ASCs provide outpatient procedures to patients who do not require an overnight stay after the procedure. In 2015, nearly 5,500 ASCs treated 3.4 million fee-for-service (FFS) Medicare beneficiaries. Medicare program and beneficiary spending on ASC services was about \$4.1 billion.

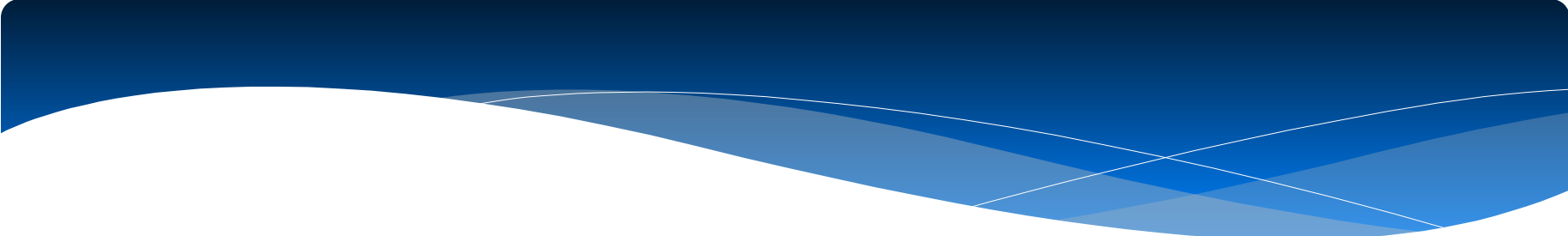
Based on data provided by the Centers for Medicare & Medicaid Services (CMS), June 2018

Chart 3.11: Percentage Share of Inpatient vs. Outpatient Surgeries, 1994 – 2014



Source: Analysis of American Hospital Association Annual Survey data, 2014, for community hospitals.
Chart 3.14 in 2013 and earlier years' Chartbooks.

American Hospital Association. Utilization and Volume. Trends Affecting Hospitals and Health Systems.
Updated for 2016; <https://www.aha.org/system/files/research/reports/tw/chartbook/2016/chapter3.pdf>



What are Healthcare Associated Infections?

- ■ HAls are infections acquired while receiving health care for another condition.
- ■ Though infrequent, in Ambulatory Surgery settings, HAls have a significant financial impact on the Healthcare system ~ U\$30 Billion annually in additional costs.
- ■ Frequency has risen due to multi-drug-resistant microorganisms.
- ■ For example, VRE is thought to spread primarily through Cross-Contamination via the hands of a Health care Worker.

Hayden MK. Insights into the epidemiology and control of infection with vancomycin-resistant enterococci. Clin Infect Dis 2000;31:1058–65

Surgical Site Infections Following Ambulatory Surgery Procedures

Pamela L. Owens, PhD; Marguerite L. Barrett, MS; Susan Raetzman, MSPH;
Melinda Maggard-Gibbons, MD, MSHS; Claudia A. Steiner, MD, MPH

Incidence of SSI after Ambulatory Surgery:

- 3.09 per 1,000 per 1000 ambulatory surgical procedures at 14 days.
- 4.84 per 1000 at 30 days.
- ~ 63.7% of all visits for SSI occurred within 14 days of the surgery; of those visits, 93.2% involved treatment in the inpatient setting.
- Given how common ambulatory surgery is, the absolute number of patients with these complications is substantial.
- Prior studies showing significant lapses in infection control practices at ambulatory surgery centers suggest that quality improvement efforts may facilitate reducing CS-SSIs following ambulatory surgery.

The Growth of Microorganisms in Propofol and Mixtures of Propofol and Lidocaine

Anesth Analg 1999;88:209 –12

Ireneusz Wachowski, MD*, Donald T. Jolly, MD, FRCPC†, Jiri Hrazdil, MD, FRCPC*, John C. Galbraith, MD, FRCPC†, Maria Greacen, MLT†, and Alexander S. Clanachan, PhD§

Departments of *Anesthesia and †Laboratory Medicine, Royal Alexandra Hospital; and Departments of ‡Anaesthesia and §Pharmacology, University of Alberta Hospitals, Edmonton, Alberta, Canada

- Adding Lidocaine to Propofol, does not suppress the growth of *S. aureus*, *C. albicans*, and *E. coli*.
- When adding Lidocaine to Propofol it becomes a compound and must be wasted within 1-hr if unused. USP797.
- Veber et al., demonstrated cases of clean procedures (including ECT) performed within an 8 hr. period, with a single “500-mg-vial of Propofol” that had been spiked 12 hrs. before on multiple patients. Two of four patients developed *Klebsiella pneumoniae* refractory septicemia, ARDS, multi-organ failure.

Veber B, Gachot B, Bedos JP, Wolff M. Severe sepsis after intravenous injection of contaminated propofol. Anesthesiology. 1994 Mar;80(3):712-3.

N Engl J Med 1995;333:147-54

POSTOPERATIVE INFECTIONS TRACED TO CONTAMINATION OF AN INTRAVENOUS ANESTHETIC, PROPOFOL

SIIRI N. BENNETT, M.D., MICHAEL M. MCNEIL, M.B., B.S., M.P.H., LEE A. BLAND, M.A., M.P.H.,
MATTHEW J. ARDUINO, M.S., DR.P.H., M. ELSA VILLARINO, M.D., M.P.H., DENNIS M. PERROTTA, PH.D.,
DALE R. BURWEN, M.D., SHARON F. WELBEL, M.D., DAVID A. PEGUES, M.D.,
LEONARDO STROUD, M.D., M.P.H., PAUL S. ZEITZ, D.O., M.P.H., AND WILLIAM R. JARVIS, M.D.

- ■ Surgical site infections or bloodstream infections are usually thought to be related to the surgical procedure.
- ■ 1989 - 1990, sudden onset of postoperative infections of the bloodstream, SSI, or other sites involving a variety of organisms at hospitals in four states: *Staphylococcus sp.*, *C. albicans*, *Enterococcus sp.*
- ■ 1989 – 1994, 155 patients in 20 states were reported with sporadic episodes of fever, infection, or sepsis. At least four patients who received propofol died.
- ■ CDC investigated and traced infections to extrinsically contaminated Propofol.

Patient-to-Patient Transmission of Hepatitis C Virus during Colonoscopy

N Engl J Med 1997; 337:237-240

DOI: 10.1056/NEJM199707243370404

Jean-Pierre Bronowicki, M.D., Véronique Venard, Pharm.D., Christine Botté, M.D., Nathalie Monhoven, Ph.D., Isabelle Gastin, M.D., Laurence Choné, M.D., Hervé Hudziak, M.D., Bertrand Rhin, M.D., Christophe Delanoë, M.D., Alain LeFaou, M.D., Marc-André Bigard, M.D., and Pierre Gaucher, M.D.

- ■ The Anesthesiologist stated that he discarded syringes only after they were used in a patient known to be infected with Hepatitis C.
- ■ He said that he systematically used a check valve to avoid the backflow of blood into the syringe.
- ■ Blood contamination of I.V. tubing used during anesthesia is substantial (0.3 to 3.3 percent of cases).
- ■ The presence of a check valve and the changing of the needle do not affect the rate at which intravenous lines and syringes become contaminated.
- ■ Multidose vials are very commonly used in anesthesia.
- ■ Preop assessment of risk factors is not a reliable predictor of which patients have chronic viral infection.

[CDC Home](#)[Search](#)[Health Topics A-Z](#)**MMWR**TM*Weekly*

May 16, 2008 / 57(19);513-517

Persons using assistive technology might not be able to fully access information in this file. For assistance, please send e-mail to: mmwrq@cdc.gov. Type 508 Accommodation and the title of the report in the subject line of e-mail.

Acute Hepatitis C Virus Infections Attributed to Unsafe Injection Practices at an Endoscopy Clinic - -- Nevada, 2007

Patient-to-Patient Transmission of Hepatitis C Virus Through the Use of Multidose Vials During General Anesthesia

Jeanne-Marie Germain, MD; Anne Carbonne, MD; Valérie Thiers, PhD; Hélène Gros, MD; Sylvie Chastan, MD; Elisabeth Bouvet, MD; Pascal Astagneau, MD, PhD

ABSTRACT

A cluster of four patients with hepatitis C virus (HCV) infection was identified in a surgery clinic. Molecular characterization revealed close homology between viruses. This cluster was related to unsafe injection practices through multidose vials and reused materials. Among 796 patients potentially exposed to and screened for HCV, no other cluster was identified (*Infect Control Hosp Epidemiol* 2005;26:789-792).

ANESTHESIOLOGY

Hepatitis C Contamination of Medication Vials Accessed with Sterile Needles and Syringes

Janet M. van Vlymen, M.D., F.R.C.P.C.,
Julie Magnus, M.Sc., Melanie Jaeger, M.D., F.R.C.P.C.,
Sophie Breton, M.D., Nathan G. Taylor, M.Sc.,
Rachel Phelan, M.Sc., Selena M. Sagan, Ph.D.

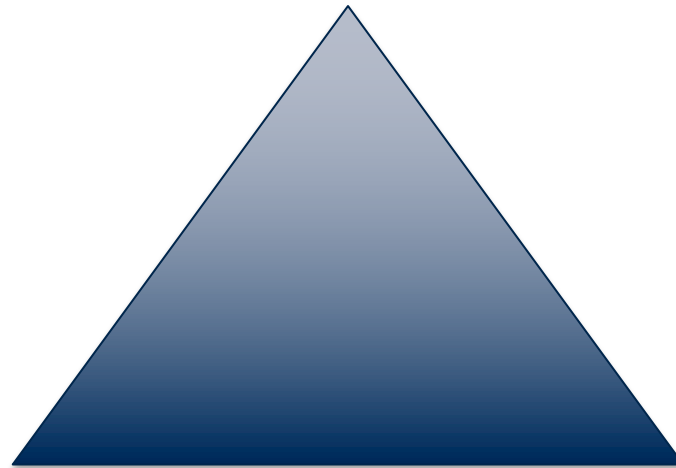
ANESTHESIOLOGY 2019; 131:305–14

Van Vlymen et al Anesthesiology 2019: Hepatitis C virus can be transferred into commonly used medications when using sterile single-use needles and syringes where it remains viable for several days.

Cleaning the vial diaphragm with 70% isopropyl alcohol is not sufficient to eliminate the risk of hepatitis C virus infectivity. This highlights the potential risks associated with sharing medications between patients.

Epidemiology

Patient



Infectious
Agents

O.R. &
Procedure
Room
Environment

■ NARRATIVE REVIEW ARTICLE

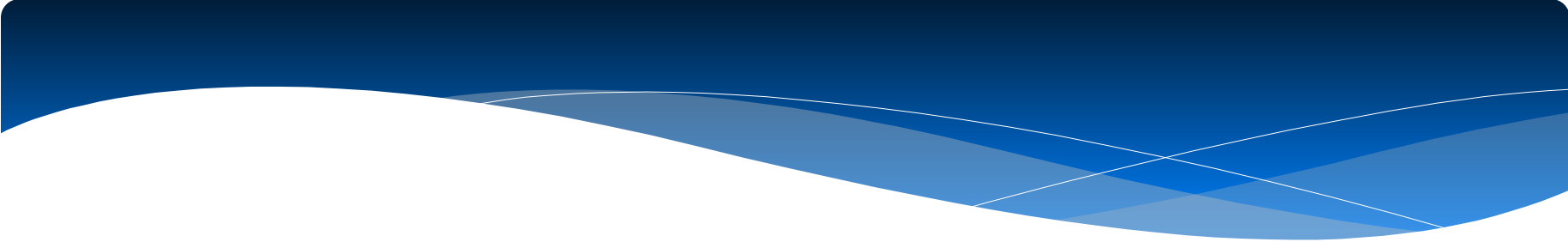
Mechanisms of the Immunological Effects of Volatile Anesthetics: A Review

Anesth Analg 2016;123:326–35

Koichi Yuki, MD,*† and Roderic G. Eckenhoff, MD‡

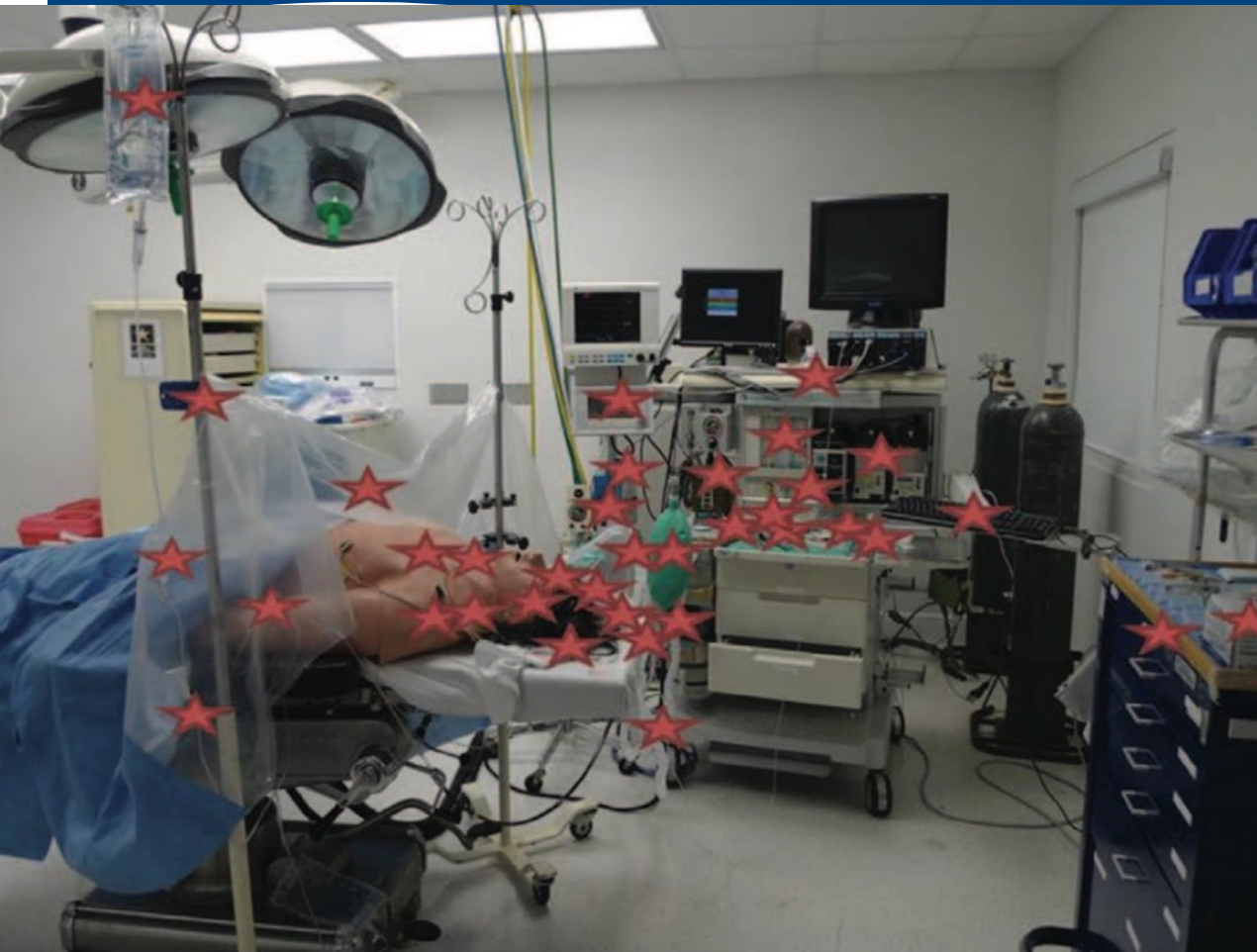
- Chang et al: Post-Orthopedic Procedures, incidence of SSI under spinal or epidural anesthesia, 1.2% vs. general anesthesia (2.8%).
- Animal studies have demonstrated that VAs modify leukocyte adhesion, recruitment, and transmigration.
- Patients (ASA PS I–III):
 - Abdominal surgery showed a reduction of granulocyte phagocytosis and oxidative burst after 1 hour of sevoflurane.
 - Orthopedic, also showed time-dependent reduction of phagocytic function and bacterial killing under isoflurane anesthesia.

Chang CC, Lin HC, Lin HW, Lin HC. Anesthetic management and surgical site infections in total hip or knee replacement: a population-based study. Anesthesiology 2010;113:279–84



The Anesthesia Work Environment (AWE)

- ■ Anesthesia Machine
- ■ Anesthesia tools: Laryngoscope, ETT, KY, Lacrilube...
- ■ Syringes, Vials & IV Catheters may become contaminated
 - Directly: Bacterial Contamination of Provider hands
 - Indirectly: Connection to IV Tubing



Birnbach et al, The Use of a Novel Technology to Study Dynamics of Pathogen Transmission in the Operating Room Anesth Analg 2015;120:844–7



Figure 1. Contamination of IV hub.

Call, Tyler R., MD; Auerbach, Frederic J., MD; Riddell, Scott W., PhD; Kiska, Deanna L., PhD; Thongrod, Sumena C., DO; Tham, See Wan, MD; Nussmeier, Nancy A., MD

Nosocomial Contamination of Laryngoscope Handles: Challenging Current Guidelines

Anesth Analg 2009;109:479–83

- ■ High incidence of bacterial contamination of laryngoscope handles despite low-level disinfection.
- ■ However, no vancomycin-resistant entero- cocci, methicillin-resistant *S. aureus*, Gram-negative rods, or respiratory viruses were detected.
- ■ Our results support adoption of guidelines that include, at a minimum, mandatory low-level disinfection of laryngoscope handles after each patient use.

Five-Year Experience With the Development of an Individually Clean Anesthesia System

ANESTHESIA AND ANALGESIA. Current Researches, VOL 53, No.1, JAN.- FEB 1974

An Alternative Strategy for Infection Control of Anesthesia Breathing Circuits: A Laboratory Assessment of the Pall HME Filter

Anesthesia and Analgesia 1991;72:651-5

Arnold J. Berry, MD, and Frederick S. Nolte, PhD

- ■ Albrecht et al: Contaminated anesthesia machines and circuits can indeed transmit bacteria to patients.
- ■ Without an in-line circuit filter in place, bacterial organisms were universally transmitted to the patient circuit, with the greatest density of organisms lodged closest to the patient.
- ■ Soda lime were ineffective at preventing bacterial transfer.
- ■ Multiple studies have subsequently demonstrated the efficacy of in-line circuit filters in prevention of bacterial transfer to the patient circuit.

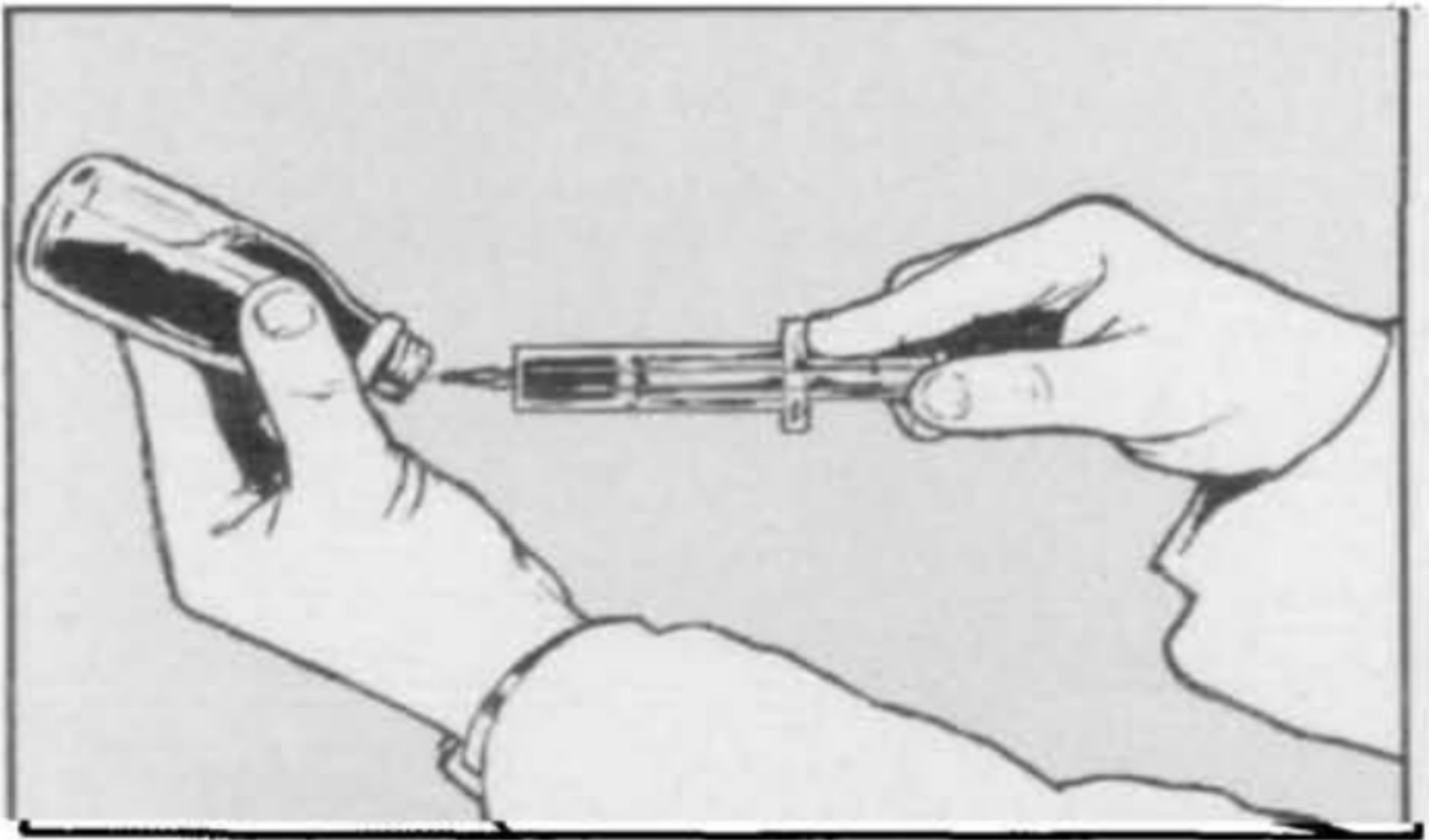


FIG. 1. Common method of drawing up with a syringe showing mishandling of the plunger shaft, that leads to bacterial contamination of the contents.

Blogg CE, Ramsay MA, Jarvis JD. Infection hazard from syringes.
Br J Anaesth 1974;46:260–2

Leaving More Than Your Fingerprint on the Intravenous Line: A Prospective Study on Propofol Anesthesia and Implications of Stopcock Contamination

Devon C. Cole, MD,* Tezcan Ozrazgat Baslanti, PhD,* Nikolaus L. Gravenstein, BS,† and Nikolaus Gravenstein, MD*
Anesth Analg 2015;120:861–7

The fact that adherence to Surgical Care Improvement Project measures alone is not obviously associated with a significantly lower probability of postoperative infection suggests there are other perioperative sources yet to be addressed.

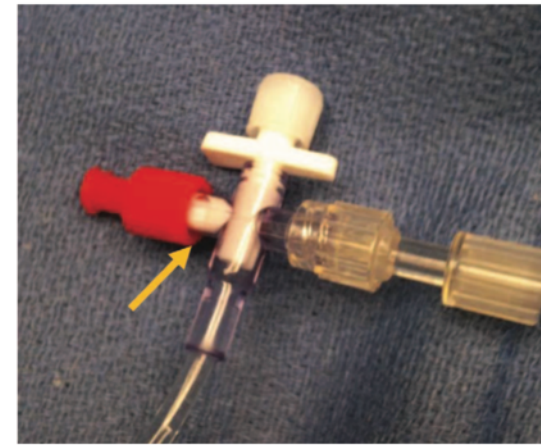
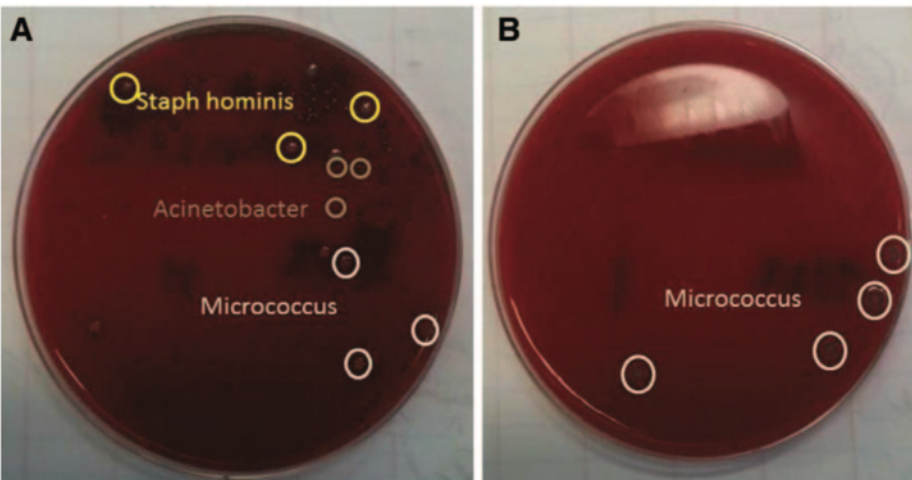


Figure 1. Visible white propofol (arrow) in IV extension set stopcock dead space after routine anesthesia care.

Figure 2. Cultures of IV extension set stopcock aspirates at 24 hours post-operatively. Plate (A) is from stopcock with visible residual propofol totaling 188 colonies (7230 CFU/mL). Plate (B) is from nonpropofol anesthesia stopcock totaling 4 colonies (60 CFU/mL). CFU = colony forming units. Staph = *Staphylococcus*.



Removal (or exchanging) of IV extension sets after Propofol anesthesia may warrant a new standard of care.

Hand Hygiene

- ■ Fukada et al (1996): hands of anesthesiologists during general anesthesia were heavily contaminated with bacterial pathogens throughout all phases of anesthesia care.
- ■ Many anesthesia providers non-compliant with hand hygiene.
- ■ Tait and Tuttle reported in 1995 that 95% of Anesthesia Providers reported washing their hands after caring for “high-risk” patients, but only 58% washed their hands in “low-risk” situations.

Fukada et al, Bacterial contamination of anesthesiologists' hands and the efficacy of handwashing. Masui 1996;45:1026–30

Walter CW, Kundsinn RB, Harding AL, Page LK. The infector on the surgical team. Clin Neurosurg 1966;14:361–79

HAIs: When in Doubt, Blame Anesthesia. Could They Be Right?

by Ian Yuan, MD, and Jeffrey M. Feldman, MD, MSE
APSF NEWSLETTER June 2016

- Lapses in handwashing & antibiotic dosing.
- Anesthesia professionals to have the lowest compliance with hand hygiene recommendations.
- Hand contamination serves as a significant source of anesthesia work environment (AWE) and stopcock contamination.
- A typical general anesthesia has ~ up to 60 opportunities for hand hygiene, but providers perform hand hygiene less than once per hour during a procedure.

Anesthesiology 2009; 110:978-85

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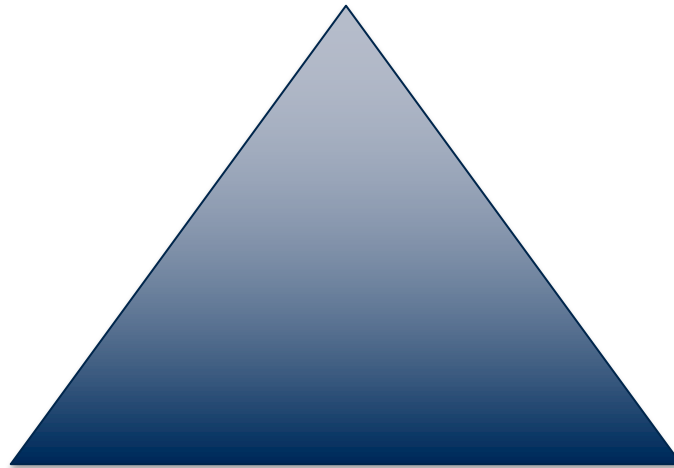
Reduction in Intraoperative Bacterial Contamination of Peripheral Intravenous Tubing Through the Use of a Novel Device

Matthew D. Koff, M.D.,* Randy W. Loftus, M.D.,† Corey C. Burchman, M.D.,‡ Joseph D. Schwartzman, M.D.,§
Megan E. Read, M.T. (A.S.C.P.),|| Elliot S. Henry, B.S.,# Michael L. Beach, M.D., Ph.D.**

Epidemiology

Patient =
Immunocompromised?
Perfusion?

Infectious
Agents in
the AWE,
Antibiotics



O.R.
Environment
(Temperature,
Disinfection)

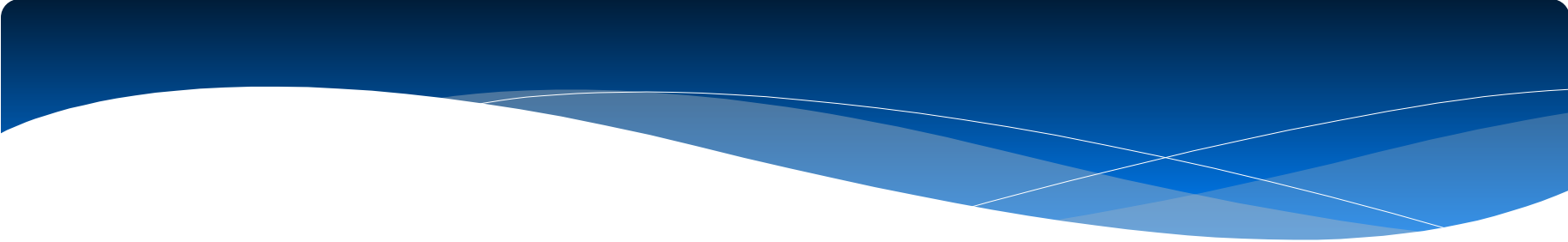
So, what can we do?

Schaefer MK, Jhung M, Dahl M, Schillie S, Simpson C, Llata E, Link-Gelles R, Sinkowitz-Cochran R, Patel P, Bolyard E, Schulster L, Srinivasan A, Perz JF.

Infection Control Assessment of Ambulatory Surgical Centers

JAMA. 2010;303(22):2273-2279

- ■ There's an obvious shift in the marketplace from Hospitals to ASCs, but there are lapses in infection control in outpatient settings that have resulted in HAIs.
- ■ Surveyors from CMS, trained in use of the audit tool, assessed compliance with specific infection control practices:
 - Hand hygiene,
 - Safe injection & medication management practices,
 - Equipment reprocessing,
 - Environmental cleaning, and
 - Handling of blood glucose monitoring equipment.
- ■ 46 of 68 ASCs (67.6%) had at least 1 lapse in infection control.
- ■ 12 of 68 ASCs (15.5%) had at least 3 lapses in infection control.



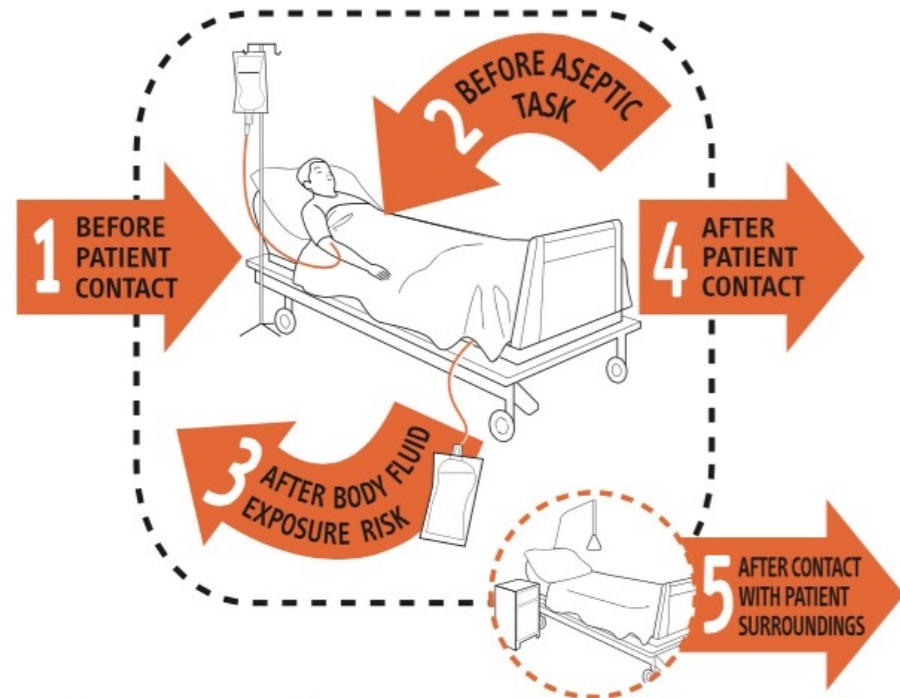
NATIONAL ACTION PLAN TO PREVENT HEALTH CARE-ASSOCIATED INFECTIONS: ROAD MAP TO ELIMINATION

CHAPTER 5: AMBULATORY SURGICAL CENTERS

Unmet needs pertaining to HAI prevention in ASCs fall into three main categories:

- ■ The need for **proactive** HAI prevention at the clinic level.
- ■ The need to sustain and **expand** improvements in **oversight** and monitoring.
- ■ The need to **develop meaningful HAI surveillance** and **reporting** procedures.

Your 5 moments for HAND HYGIENE



1 BEFORE PATIENT CONTACT	WHEN? Clean your hands before touching a patient when approaching him or her WHY? To protect the patient against harmful germs carried on your hands
2 BEFORE AN ASEPTIC TASK	WHEN? Clean your hands immediately before any aseptic task WHY? To protect the patient against harmful germs, including the patient's own germs, entering his or her body
3 AFTER BODY FLUID EXPOSURE RISK	WHEN? Clean your hands immediately after an exposure risk to body fluids (and after glove removal) WHY? To protect yourself and the health-care environment from harmful patient germs
4 AFTER PATIENT CONTACT	WHEN? Clean your hands after touching a patient and his or her immediate surroundings when leaving WHY? To protect yourself and the health-care environment from harmful patient germs
5 AFTER CONTACT WITH PATIENT SURROUNDINGS	WHEN? Clean your hands after touching any object or furniture in the patient's immediate surroundings, when leaving - even without touching the patient WHY? To protect yourself and the health-care environment from harmful patient germs

**1 ONE NEEDLE,
ONE SYRINGE,
ONLY ONE TIME.**



Safe Injection Practices Coalition
www.ONEandONLYcampaign.org



WHO acknowledges the Hôpitaux Universitaires de Genève (HUG), in particular the members of the Infection Control Programme, for their active participation in developing this material.

Double Gloves: A Randomized Trial to Evaluate a Simple Strategy to Reduce Contamination in the Operating Room

Anesth Analg 2015;120:848–52

David J. Birnbach, MD, MPH,*† Lisa F. Rosen, MA,* Maureen Fitzpatrick, MSN, ARNP-BC,* Philip Carling, MD, MPH,‡ Kristopher L. Arheart, EdD,† and L. Silvia Munoz-Price, MD, PhD*†

When an anesthesiologist wears two-sets of gloves during laryngoscopy and intubation and then removes the outer set immediately after intubation, the contamination of the intraoperative environment is dramatically reduced.



Figure 3. Fluorescence on oxygen flow control knob showing partial fingerprint.



ASC Quality Collaboration

- ■ Patient Fall in the ASC
- ■ Patient Burn
- ■ All-Cause Hospital Transfer/Admission
- ■ Wrong Site, Side, Patient, Procedure, Implant
- ■ Prophylactic IV Antibiotic Timing
- ■ Appropriate Surgical Site Hair Removal
- ■ Normothermia Outcome
- ■ Unplanned Anterior Vitrectomy
- ■ Toxic Anterior Segment Syndrome
- ■ All-Cause Emergency Department Visit Within One Day of Discharge
- ■ All-Cause Unplanned Hospital Admission Within One Day of Discharge

Centers for Disease Control and Prevention Guideline for the Prevention of Surgical Site Infection, 2017

JAMA Surg. 2017;152(8):784-791.

doi:10.1001/jamasurg.2017.0904

- ■ Antibiotic prophylaxis when indicated by guidelines and in a timely fashion to achieve serum and tissue levels at incision time. Re-dose when indicated.
- ■ Perioperative glycemic control to achieve levels less than 200 mg/dL in patients with and without diabetes.
- ■ Maintain normothermia.
- ■ Oxygenation optimized.
- ■ Prosthetic total joints.
- ■ Total joints: projected to increase to 3.8 million procedures per year. Infections projected to increase from 2.18% to 6.5% per year.

Clinical Practice Guidelines for Antimicrobial Prophylaxis in Surgery

2013 ASHP /IDSA/SIS/SHEA Clinical Practice Guidelines for Antimicrobial Prophylaxis in Surgery

Recommended Doses and Redosing Intervals for Commonly Used Antimicrobials for Surgical Prophylaxis

Antimicrobial	Recommended Dose		Half-life in Adults With Normal Renal Function, hr ¹⁹	Recommended Redosing Interval (From Initiation of Preoperative Dose), hr ^c
	Adults ^a	Pediatrics ^b		
Ampicillin–sulbactam	3 g (ampicillin 2 g/ sulbactam 1 g)	50 mg/kg of the ampicillin component	0.8–1.3	2
Ampicillin	2 g	50 mg/kg	1–1.9	2
Aztreonam	2 g	30 mg/kg	1.3–2.4	4
Cefazolin	2 g, 3 g for pts weighing ≥120 kg	30 mg/kg	1.2–2.2	4
Cefuroxime	1.5 g	50 mg/kg	1–2	4
Cefotaxime	1 g ^d	50 mg/kg	0.9–1.7	3
Cefoxitin	2 g	40 mg/kg	0.7–1.1	2
Cefotetan	2 g	40 mg/kg	2.8–4.6	6
Ceftriaxone	2 g ^e	50–75 mg/kg	5.4–10.9	NA
Ciprofloxacin ^f	400 mg	10 mg/kg	3–7	NA
Clindamycin	900 mg	10 mg/kg	2–4	6
Ertapenem	1 g	15 mg/kg	3–5	NA
Fluconazole	400 mg	6 mg/kg	30	NA
Gentamicin ^g	5 mg/kg based on dosing weight (single dose)	2.5 mg/kg based on dosing weight	2–3	NA
Levofloxacin ^f	500 mg	10 mg/kg	6–8	NA
Metronidazole	500 mg	15 mg/kg	6–8	NA

SHEA Expert Guidance

Infection prevention in the operating room anesthesia work area

L. Silvia Munoz-Price MD, PhD¹, Andrew Bowdle MD, PhD², B. Lynn Johnston MD³, Gonzalo Bearman MD, MPH⁴, Bernard C. Camins MD, MSc⁵, E. Patchen Dellinger MD², Marjorie A. Geisz-Everson PhD, CRNA⁶, Galit Holzman-Pazgal MD⁷, Rekha Murthy MD⁸, David Pegues MD⁹, Richard C. Prielipp MD, MBA, FCCM¹⁰, Zachary A. Rubin MD¹¹, Joshua Schaffzin MD, PhD¹², Deborah Yokoe MD, MPH¹³ and David J. Birnbach MD, MPH¹⁴

¹Froedtert & the Medical College of Wisconsin, Milwaukee, Wisconsin, ²University of Washington, Seattle, Washington, ³Dalhousie University, Halifax, Nova Scotia, ⁴Virginia Commonwealth University School of Medicine, Richmond, Virginia, ⁵University of Alabama at Birmingham, Birmingham, Alabama, ⁶University of Southern Mississippi, Hattiesburg, Mississippi, ⁷Baylor College of Medicine, Houston, Texas, ⁸Cedars-Sinai Medical Center, Los Angeles, California, ⁹University of Pennsylvania, Philadelphia, Pennsylvania, ¹⁰University of Minnesota, Minneapolis, Minnesota, ¹¹David Geffen School of Medicine at UCLA, Los Angeles, California, ¹²Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio, ¹³University of California San Francisco School of Medicine, San Francisco, California and ¹⁴University of Miami Miller School of Medicine, Miami, Florida

(Received 15 October 2018; accepted 19 October 2018)

Anesthesia Infection Prevention Checklist

Room: _____ Observer: _____

Provider Name: _____ Date: _____ Time: _____

Met	Not Met	MEASURE
		HAND WASHING PERFORMED:
		1. Prior to accessing/preparing clean supplies/medications
		2. Prior to gloving and when removing gloves
		3. Between dirty and clean steps of a procedure
		SAFE INJECTION PRACTICES
		1. Gloves are worn when inserting IVs, Preparing Meds & Injecting
		2. Alcohol used to clean vial top and injection port
		3. One Vial, One Syringe, One Needle, One Patient followed
		4. Use of clean area to prepare Medications
		5. Medications are drawn up and labeled at time of procedure
		6. Used medication vials are stored on top of medication cart during procedure and discarded prior to next case
		7. Medications labeled and stored in a clean / secure location
		8. Unused medications (drawn up syringes) are not transferred for use on next case
		9. Infection precautions taken during performance of nerve block
		CLEAN ANESTHESIA WORK ENVIRONMENT
		1. Medication/anesthesia cart surfaces and drawer handles are disinfected between patients. New towel on top of Anesthesia Machine.
		2. New circuit or New FDA Approved Filter & Cleaned Circuit
		3. Keyboard and mouse are disinfected between patients
		AIRWAY MANAGEMENT
		1. LMA / Laryngoscopes are handled with gloves (hands sanitized first)
		2. Gloves are removed after inserting or removing LMA/laryngoscope
		3. Opened airway supplies not used (contaminated) wasted
		SCRUB ATTIRE:
		1. Scrub attire worn in the facility (not from outside in Operating Room)
		2. Hair and head jewelry are covered by cap; no rings present, mask tied

Findings have been discussed with provider _____

BY: _____ Date: _____ Time: _____

Quantification of the Hawthorne effect in hand hygiene compliance monitoring using an electronic monitoring system: a retrospective cohort study

Srigley JA, Furness CD, Baker GR, et al. BMJ Qual Saf 2014;23: 974–980.

The Hawthorne effect, or behavior change due to awareness of being observed.

Hand hygiene event rates were approximately threefold higher in hallways within eyesight of an auditor compared with when no auditor was visible and the increase occurred after the auditors' arrival.

- ■ SAMBA & ASCA are jointly working on addressing the gap between the Business of Medicine and the Art of Medicine.
- ■ We will have a Medical Directors track at the next SAMBA Annual Meeting
- ■ Development of a Medical Education Curriculum to be a Fellow of the Society for Ambulatory Anesthesiology.
- ■ Development of a Business Education Curriculum to be a **SAMBA** & **ASCA** Certified Medical Director with a Certification exam.



Ambulatory Surgery
Center Association



Outpatient • Office Based • Non-Operating Room
Advancing the practice of ambulatory anesthesia since 1985



SAMBA 2020 – A Collaborative Meeting with **ASCA**
Interactive Sessions between Ambulatory Anesthesiology and Administrators
May 13, 2020 - May 16, 2020
Orlando World Center Marriott
Orlando, FL United States

Example chart. Do not use this background.



Outpatient • Office Based • Non-Operating Room

Advancing the practice of ambulatory anesthesiology since 1985