Infection Prevention in Ambulatory Care

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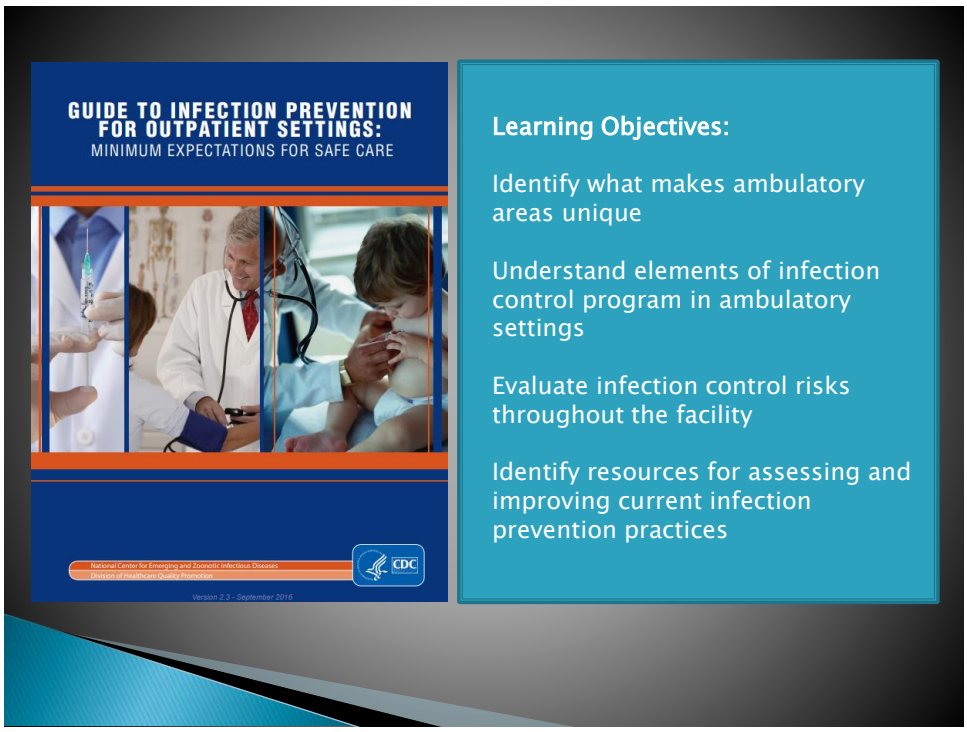

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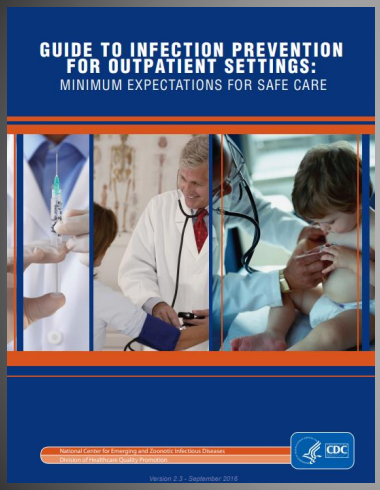
Ambulatory Settings



- General medical practice
- Specialty clinics
- Dental
- Dialysis
- Ambulatory surgery centers
- Urgent care clinics
- Immunization clinics

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Ambulatory Settings are Unique

Limited Access to:

- Dedicated IP and EH
- Training Programs
- Quality Measures
- Regulations / Standards

Risks include:

- Patients remain in common lobby area for prolonged periods
- Exam and treatment rooms are turned over quickly with limited disinfection
- Infectious patients may not be recognized quickly

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Regulations Vary Per Setting

Regulations				Nationally Recognized Recommendations	
CMS	Accreditation Standards	Other Federal Regulations	State Regulations	CDC / HICPAC	Professional Organization Resources
Examples: Appendix E • State Operations Manual(SOM) Outpatient PT, SP Appendix G • SOM Rural Health Clinic Appendix H • SOM End-Stage Renal Disease Facilities Appendix L • SOM Ambulatory Surgical Centers	Examples: • The Joint Commission • HFAP • AAAHC	Examples: OSHA	Examples: Health Facility Licensure, Statutes Relating to Healthcare Facilities Title 175 Ch 7 • Health Clinics Title 173 Ch 1 • Reporting communicable disease	Examples: CDC Core Infection Prevention and Control Practices for Safe Delivery in All Settings CDC Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force, Guideline for Hand Hygiene in Health-care Settings	Examples: AORN Standards AAMI Standards

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Policies and Procedures

- Identify at least one individual with training in infection prevention to manage the infection prevention program
- Surveillance systems in place for identifying, reporting and controlling infections
- Include ambulatory setting in annual risk assessment to prioritize resources and focus extra attention to areas that are determined to pose greater risk.
- Establish education and training plan for topics of infection prevention
  - Standard and Transmission-Based Precautions
  - Hand Hygiene
  - Personal Protective Equipment (PPE)
  - Respiratory Hygiene/ Cough Etiquette
  - Safe Injection Practices
  - Environmental Cleaning and Disinfection
  - Sterilization and HLD
  - Employee Health/Exposure Control

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Training and Education

Do ALL staff receive infection prevention training?

- Education should include topics beyond bloodborne pathogen training.
- General infection control topics
- Task specific examples: injection safety, accessing ports, sterile processing, high level disinfection

Is training provided upon hire? Annually? Periodically, when processes and supplies change?

- Training ideally incorporates both knowledge-based testing and direct observation of practice technique and application.
- Maintain documentation of training

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Surveillance

Tracking of outcome measures (e.g., HAIs)

- Procedure related
- Provide patient education

Adhere to local, state and federal requirement regarding reportable disease and outbreak reporting[4]

Tracking of adherence to specific process measures (e.g., hand hygiene, environmental cleaning)

- Identifies knowledge gaps and provides opportunities for practice improvement
- Reinforces importance of IPC activities
- Maintains staff awareness of policies and procedures.

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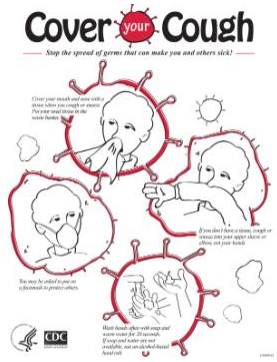
What opportunities for improvement do you see?



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Respiratory Hygiene / Cough Etiquette

Implement measures at the point of entry to the facility.

- Educate ALL HCP on preventing the spread of respiratory and other pathogens
- Pre-visit screening (pre-op instructions, symptoms notification, travel history)

Have highly visible signs posted with instructions.

- Signs should instruct the patient or others to inform HCP of symptoms when they first register for care
- Signs should specify the need for mask use, cover their cough, use and dispose of tissues, and when/how to perform hand hygiene

Provide masks, tissues, no-touch receptacles for disposal of tissues, and hand hygiene resources

Provide space for physically distancing, or if available, separate patients with s/s of infectious illness from others while waiting for care.

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Hand Hygiene

Staff should be trained on when and how to perform hand hygiene and don gloves.

All hand hygiene products should be approved and supplied by the clinic (including lotion).

- Does policy list ABHR as the preferred method for most healthcare situations?

Hand hygiene sinks and alcohol-based hand rub (ABHR) are conveniently available.

Use posters and signs to serve as reminders and “cues to action.”

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Personal Protective Equipment (PPE)

PPE is available and readily accessible to the HCP.

- Gloves, gowns, face masks, respirators, goggles and face shields

HCP receive education and training related to proper selection and use of PPE.

Use posters and signs to serve as reminders and “cues to action.”

The clinic has a Respiratory Protection Plan, compliant with OSHA standards.

- Plan must include medical evaluation, annual fit testing, training on when and how to use a respirator

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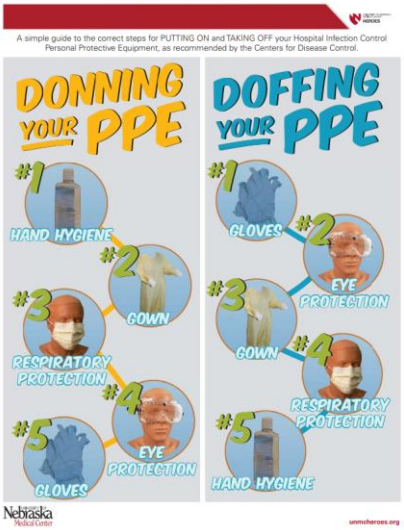
Use posters and signs to serve as reminders and "cues to action."

UNMC HEROES COVID-19 PPE Donning and Doffing



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Safe Injection Practices

One needle, one patient, one time!

- Single-dose (single-use) medication vials are used for only one patient.
- Bags of IV solution are used for only one patient.
- Medication administration tubing and connectors are used for only one patient.

If multi-dose vials are used:

- They are dated when they are first opened and discarded within 28 days, unless the manufacturer specifies a different duration.
- They are stored and accessed away from the immediate areas where direct patient contact occurs.

All medication should be prepared in a designated area, away from contamination including the splash zone of a sink.

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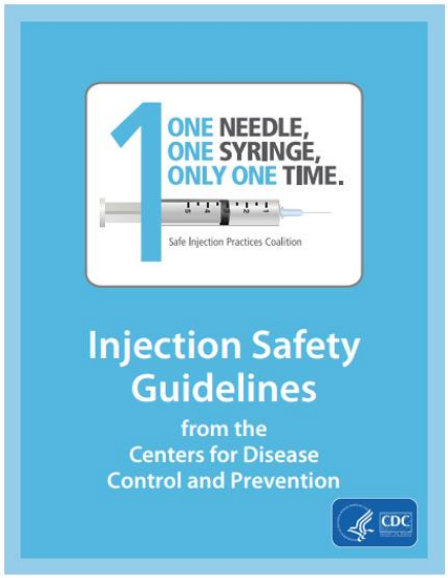

Injection Safety Guidelines From CDC

- Follow proper infection control practices and maintain aseptic technique during the preparation and administration of injected medications (e.g., perform hand hygiene).
- Never administer medications from the same syringe to more than one patient, even if the needle is changed.
- Never enter a vial with a used syringe or needle.
- Do not use medications packaged as single-dose or single-use for more than one patient.
- Do not use bags of intravenous solution as a common source of supply for more than one patient.
- Limit the use of multi-dose vials and dedicate them to a single patient whenever possible.
- Always use facemasks when injecting material or inserting a catheter into the epidural or subdural space.

Adapted from: Guideline for isolation precautions: preventing transmission of infectious agents in health care settings 2007. Atlanta, GA: US Department of Health and Human Services, CDC; 2007. Available at: http://www.cdc.gov/hicpac/pdf/isolation/isolation2007.pdf

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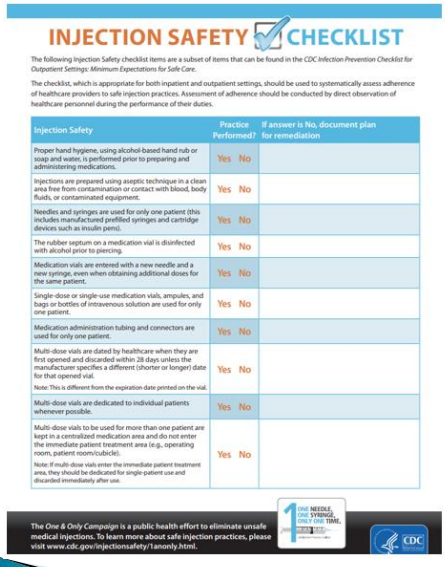


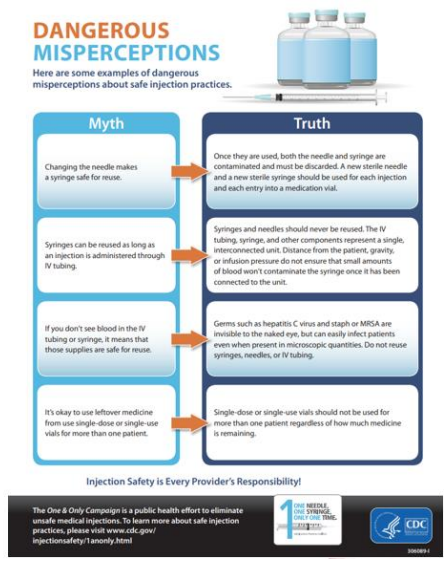
INJECTION SAFETY CHECKLIST

The following Injection Safety checklist items are a subset of items that can be found in the *CDC Infection Prevention Checklist for Outpatient Settings: Minimum Expectations for Safe Care*.

The checklist, which is appropriate for both inpatient and outpatient settings, should be used to systematically assess adherence of healthcare providers to safe injection practices. Assessment of adherence should be conducted by direct observation of healthcare personnel during the performance of their duties.

Injection Safety	Practice Performed?	If answer is No, document plan for remediation
Proper hand hygiene, using alcohol-based hand rub or soap and water, is performed prior to preparing and administering medications.	Yes No	
Injections are prepared using aseptic technique in a clean area free from contamination or contact with blood, body fluids, or contaminated equipment.	Yes No	
Needles and syringes are used for only one patient (this includes manufactured prefilled syringes and cartridge devices such as insulin pens).	Yes No	
The rubber septum on a medication vial is disinfected with alcohol prior to piercing.	Yes No	
Medication vials are entered with a new needle and a new syringe, even when obtaining additional doses for the same patient.	Yes No	
Single-dose or single-use medication vials, ampules, and bags or bottles of intravenous solution are used for only one patient.	Yes No	
Medication administration tubing and connectors are used for only one patient.	Yes No	
Multi-dose vials are dated by healthcare when they are first opened and discarded within 28 days unless the manufacturer specifies a different (shorter or longer) date for that opened vial. Note: This is different from the expiration date printed on the vial.	Yes No	
Multi-dose vials are dedicated to individual patients whenever possible.	Yes No	
Multi-dose vials to be used for more than one patient are kept in a centralized medication area and do not enter the immediate patient treatment area (e.g., operating room, patient room/cubicle). Note: If multi-dose vials enter the immediate patient treatment area, they should be dedicated for single-patient use and discarded immediately after use.	Yes No	

The *One & Only Campaign* is a public health effort to eliminate unsafe medical injections. To learn more about safe injection practices, please visit www.cdc.gov/injectionsafety/1anonly.html.



DANGEROUS MISPERCEPTIONS

Here are some examples of dangerous misperceptions about safe injection practices.

Myth	Truth
Changing the needle makes a syringe safe for reuse.	Once they are used, both the needle and syringe are contaminated and must be discarded. A new sterile needle and a new sterile syringe should be used for each injection and each entry into a medication vial.
Syringes can be reused as long as an injection is administered through IV tubing.	Syringes and needles should never be reused. The IV tubing, syringe, and other components represent a single, interconnected unit. Distance from the patient, gravity, or infusion pressure do not ensure that small amounts of blood won't contaminate the syringe once it has been connected to the unit.
If you don't see blood in the IV tubing or syringe, it means that those supplies are safe for reuse.	Germs such as hepatitis C virus and staph or MRSA are invisible to the naked eye, but can easily infect patients even when present in microscopic quantities. Do not reuse syringes, needles, or IV tubing.
It's okay to use leftover medicine from use single-dose or single-use vials for more than one patient.	Single-dose or single-use vials should not be used for more than one patient regardless of how much medicine is remaining.

Injection Safety is Every Provider's Responsibility!

The *One & Only Campaign* is a public health effort to eliminate unsafe medical injections. To learn more about safe injection practices, please visit www.cdc.gov/injectionsafety/1anonly.html

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Safe Use of Point of Care Testing

Do staff responsible for using point of care device receive training upon hire? Annually? When processes or supplies change?

- Refer to CDC Assisted Monitoring of Blood Glucose

Is the point of care device (e.g., blood glucose meter) manufactured for use on more than one patient?

- Manufacturer must provide instructions for disinfection between uses.

A new single-use, lancing device is used for each patient.

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Environmental Cleaning and Disinfection

Do ALL staff responsible for cleaning and disinfection receive training upon hire? Annually? As needed, when processes or chemicals change?

- Identify who is responsible for disinfecting various equipment and surfaces, and frequency in which to disinfect various types of equipment and surfaces

High touch surfaces in patient care areas should be cleaned and disinfected with an EPA-registered disinfectant.

- Are staff taught how to properly apply and use disinfectants (i.e., contact time)?
- Is facility disinfectant ready-to-use or require dilution? Is there a standard process for staff to follow to dilute disinfectant per manufacturer recommendations?

The clinic should have a procedure in place to decontaminate gross spills of blood.

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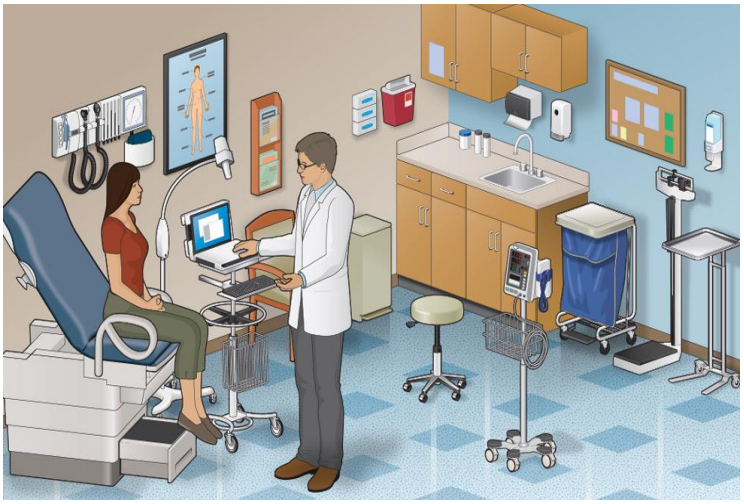
What do you look for in the exam room?



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Consideration of Work Flow

Transport patients through facility

- How will you notify receiving department of infection control concerns?

Transport and storage of equipment

- Who is responsible for disinfecting shared medical equipment?
- Where is it stored? Can you tell it's been disinfected?
- Are clean storage and soiled utility rooms separate to prevent cross contamination?

Room turnover

- Need to allow for air exchange prior to rooming next patient

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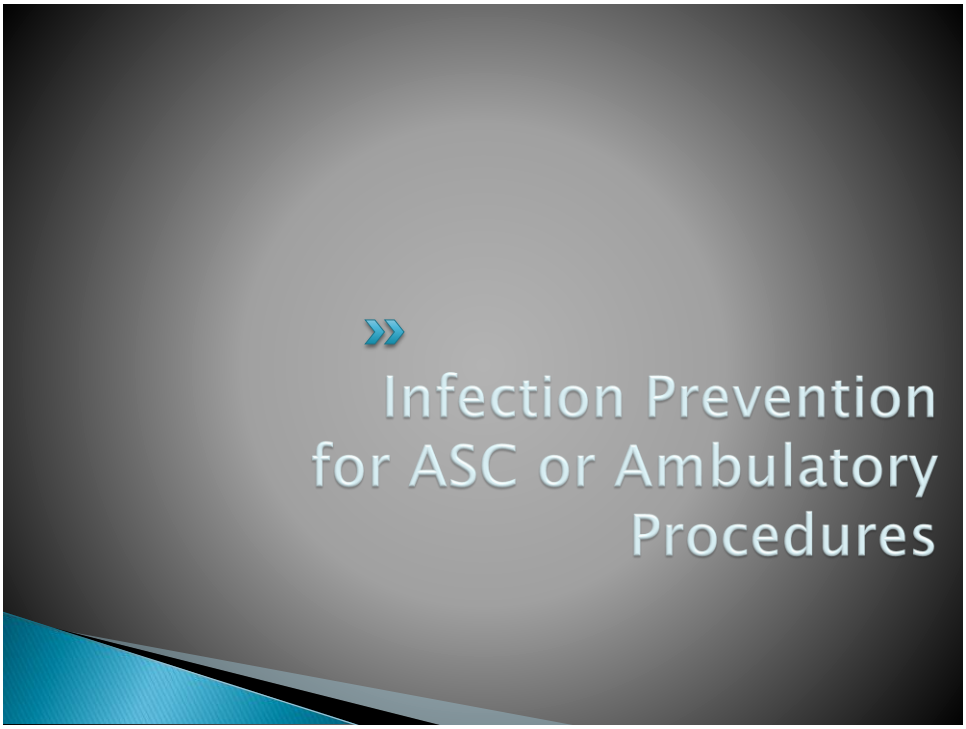

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Patient screening and education?

Pre-op Considerations

- Pre-op instructions, including pre-surgery bathing
- Pre-existing conditions
- Travel history

Post-op Considerations

- Infection prevention education
- What symptoms to report

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What to inquire about in pre-op?


Blood glucose monitoring


Pre-operative hair removal


Pre-op bathing and patient prep


Antibiotic timing


Single dose and multi dose medications


Normothermia

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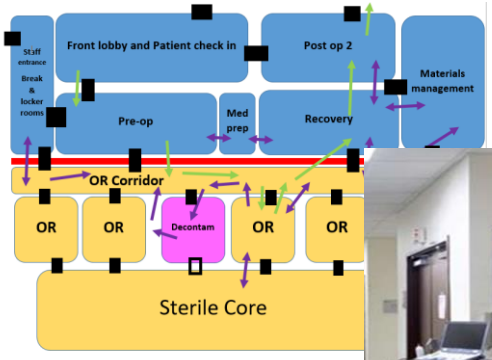
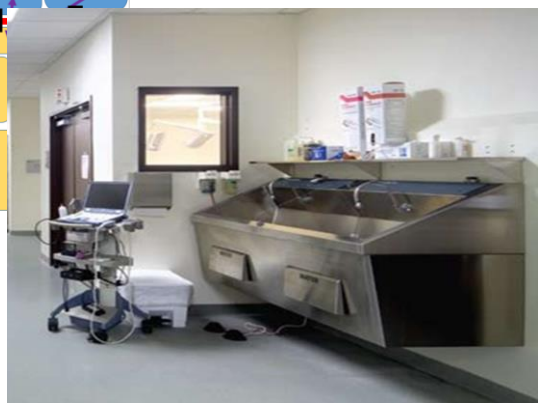
What do you look for in the sterile core?





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What do you look for in the OR Suite?

- Cleaning procedures
- Staff Attire
- Ensuring sterility of supplies
- Maintaining Sterile Field
- Limiting traffic
- Skin Prep
- Temperature regulation

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What do you look for with anesthesia cart?

- Disinfection procedures
- Hand hygiene
- Outdates
- Safe injection practices
- Attire

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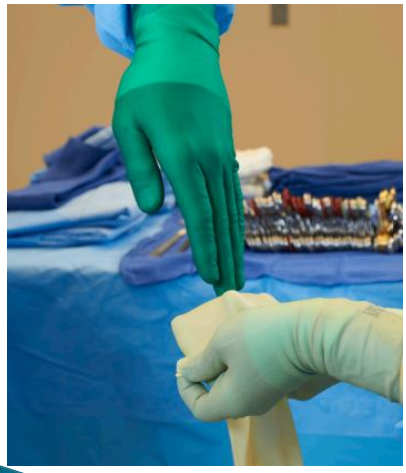
Double gloving



Sharps safety

- neutral zone
- safe scalpel
- no touch suture technique

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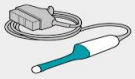
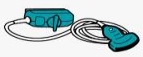
Spaulding's Classification

CATEGORY	DEVICE APPLICATION	REQUIRED LEVEL OF DISINFECTION
CRITICAL	Contact with the bloodstream or sterile tissues.  Surgical instruments, e.g. scalpels, tweezers, scissors, kidney dishes and clamps.	Sterilisation Eliminates all forms of microbial life.
SEMI-CRITICAL	Contact with mucous membranes or non-intact skin.  Endoscopes and endocavity ultrasound probes.	High-Level Disinfection Destroys all vegetative microorganisms, mycobacteria, enveloped and non-enveloped viruses, fungal spores and some bacterial spores.
NON-CRITICAL	Contact with intact skin.  Abdominal ultrasound probes.  Stethoscopes and blood pressure cuffs.	Intermediate-Level Disinfection Destroys mycobacteria, most viruses, most fungi and bacteria. Low-Level Disinfection Destroys most bacteria, some viruses and some fungi.

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Sterilization Practices

Staff receive training on sterile technique.

Staff responsible for sterilization practices receive special training, and competencies are documented.

Clinic has policies and procedures related to care and transport of soiled instruments.

- Remove soil at point of use
- Contaminated instruments should be kept moist (i.e., with pretreatment product), if unable to reprocess immediately.
- Instruments should be transported in a puncture-resistant, leak proof, closable, and biohazard labeled container

Common SPD Opportunities

- IFU availability
- Reuse of single use items
- Wet packs
- Monitor time, temperature and pressure - record
- Chemical and biological indicators - record
- Lack of PPE in decontamination

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What is wrong with these pictures?

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High Level Disinfection

Staff responsible for high-level disinfection receive special training, and competencies are documented?

Is the high-level disinfection process automated:

- Pre-clean instrument per manufacturer IFU
- Train per manufacturer IFU

High-level disinfectant training should focus on safe use of chemical:

- Pre-cleaning instrument per manufacturer IFU.
- Chemical prepared according to manufacturer instructions,
- Tested for appropriate concentration,
- Replaced according to manufacturer instructions, and
- Disinfected at the appropriate temperature .
- Proper selection and use of PPE for handling soiled instruments and chemicals.

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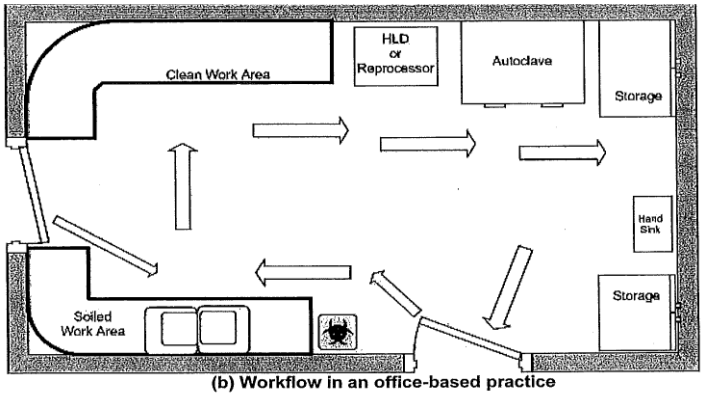
Office Based Work Flow AAMI ANSI ST79



(b) Workflow in an office-based practice

Figure 2—Workflow

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Sterile Supply Storage

Sterilized instruments are stored in a designated storage area, so that sterility is not compromised. Dedicated room or covered cabinets.

- Items should be stored so not crushed, bent, compressed, punctured or sterility compromised
- Dedicated storage room is ideal or consider covered cabinets.

8-10" from floor, 18" from ceiling, at least 2" from outside wall

If wire shelving units used, should have solid bottom shelf

No outside shipping cartons or corrugated boxes.

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ASC Air and Temperature Management

Area	Movement	Exchanges	Humidity	Temperature
OR	Positive (out)	15	30-60%	68-73^{O} F
PACU	_	6	30-60%	68-73^{O} F
Exam room	_	6	-	70-75^{O} F
Soiled room	Negative (in)	10	_	68-73^{O} F
Clean workroom	Positive (out)	4	-	75
Sterile storage	Positive (out)	4	30-60%	-

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