



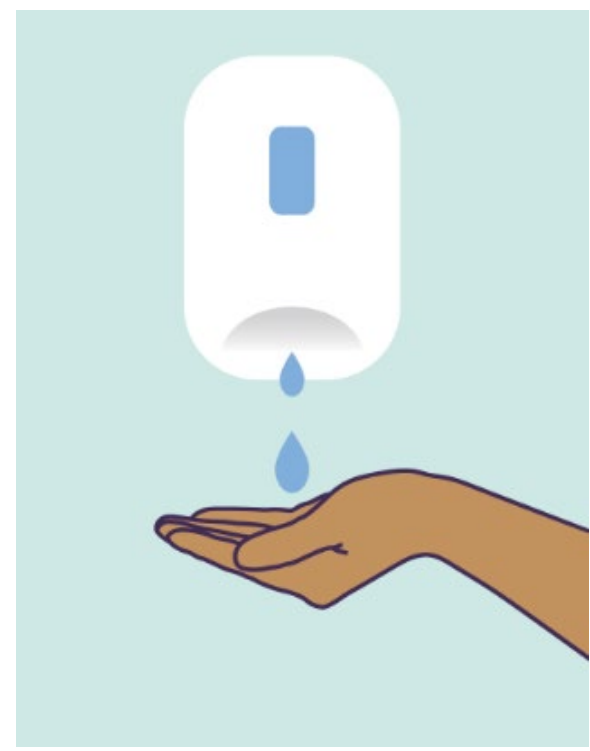
Hand Hygiene Staff Training

Healthcare-Associated Infections Program
Center for Health Care Quality
California Department of Public Health





Infection Prevention Strategies: Back to Basics



Hand Hygiene



Cleaning and Disinfection

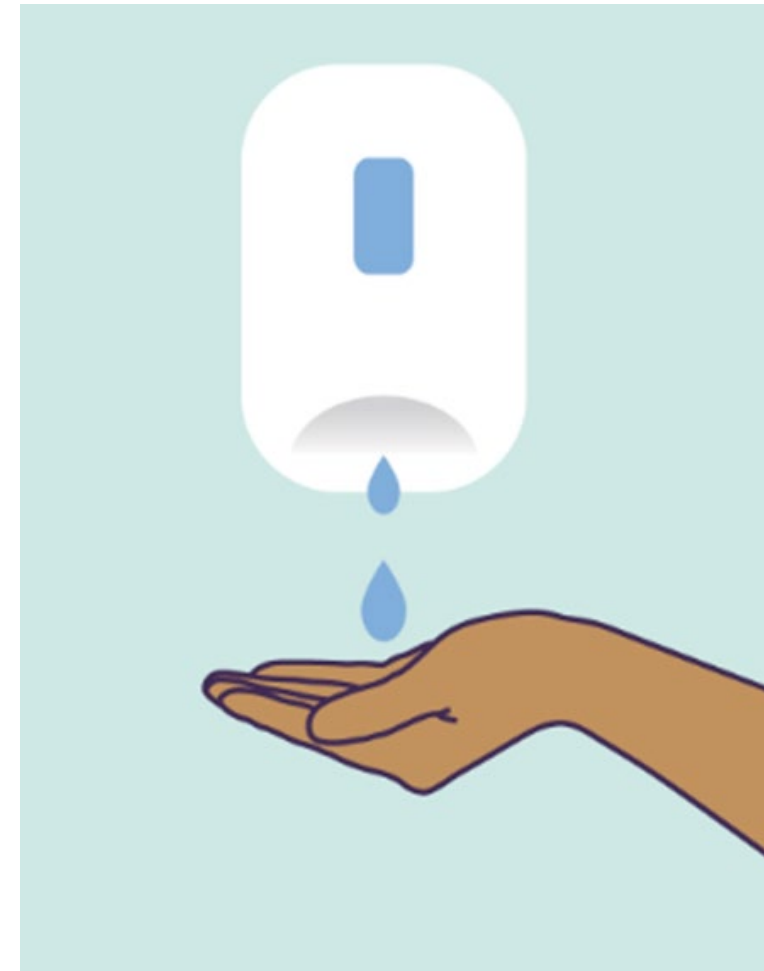


Personal Protective Equipment and Precautions



Hand Hygiene Terminology

- **Hand hygiene includes:**
 - **Handwashing:** Washing hands with plain soap and water
 - **Antiseptic hand wash:** Washing hands with water and soap containing an antiseptic agent
 - **Alcohol Based Hand Rub (ABHR):** Rubbing hands with an alcohol-containing agent





Efficacy of Hand Hygiene Products



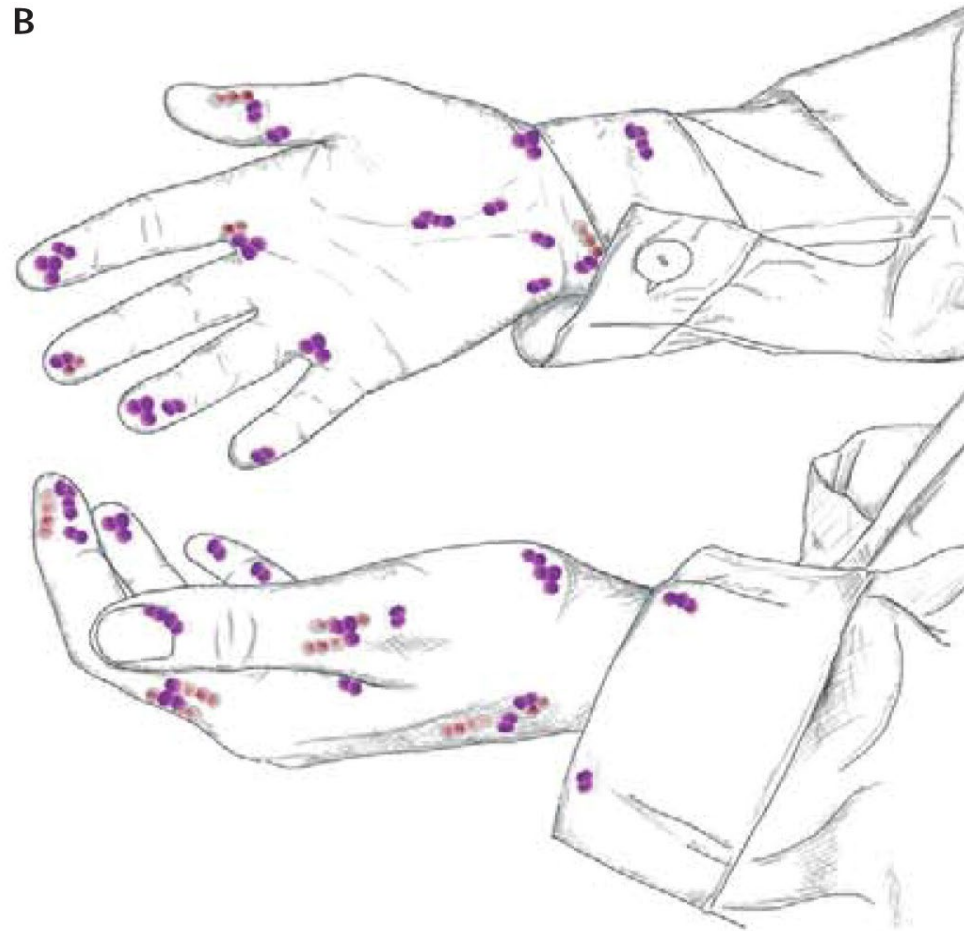
*less effective in presence of organic material





Transmission Can Occur via Healthcare Worker Hands

B

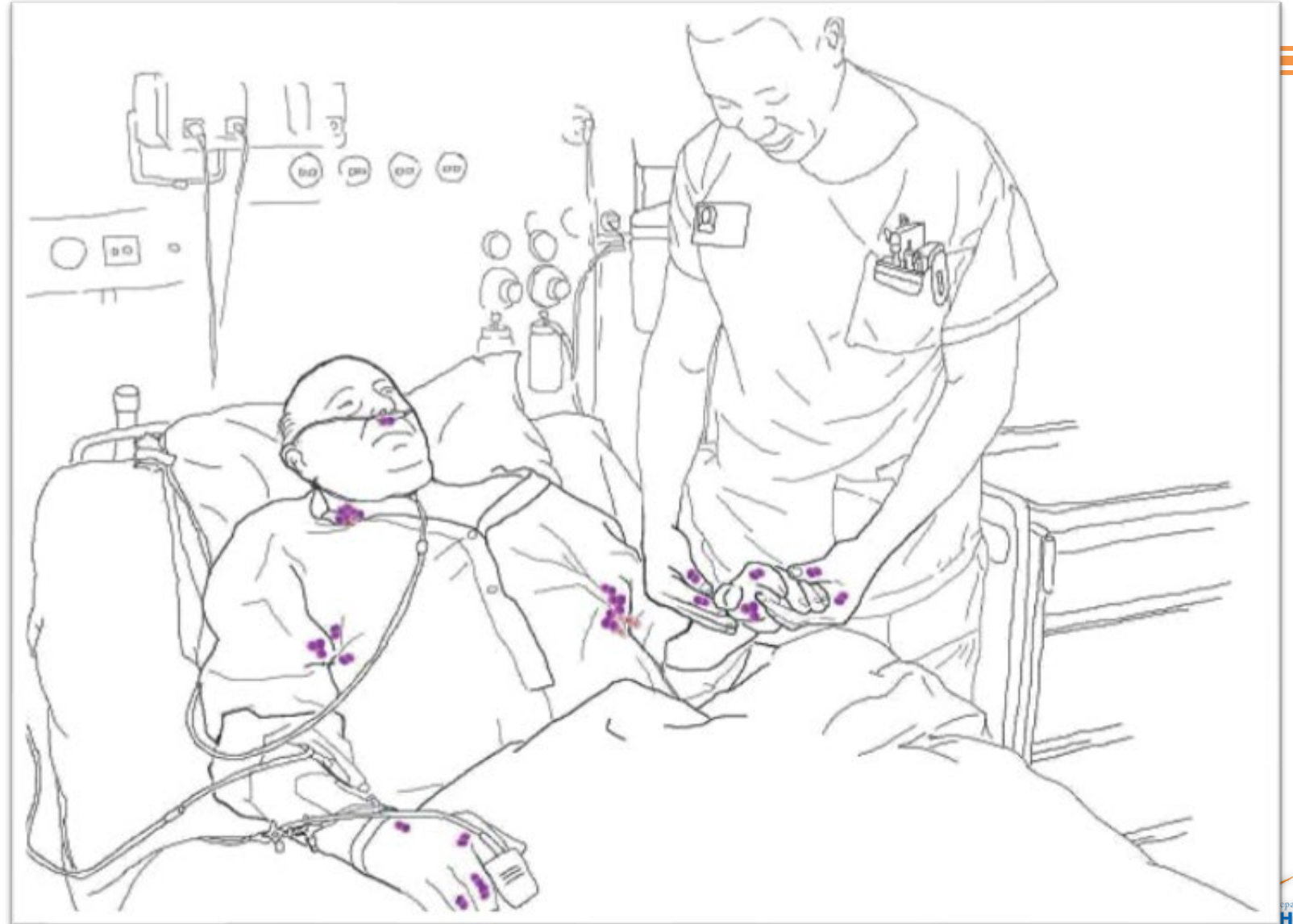


Step 1: Germs on Patient Skin and Environment



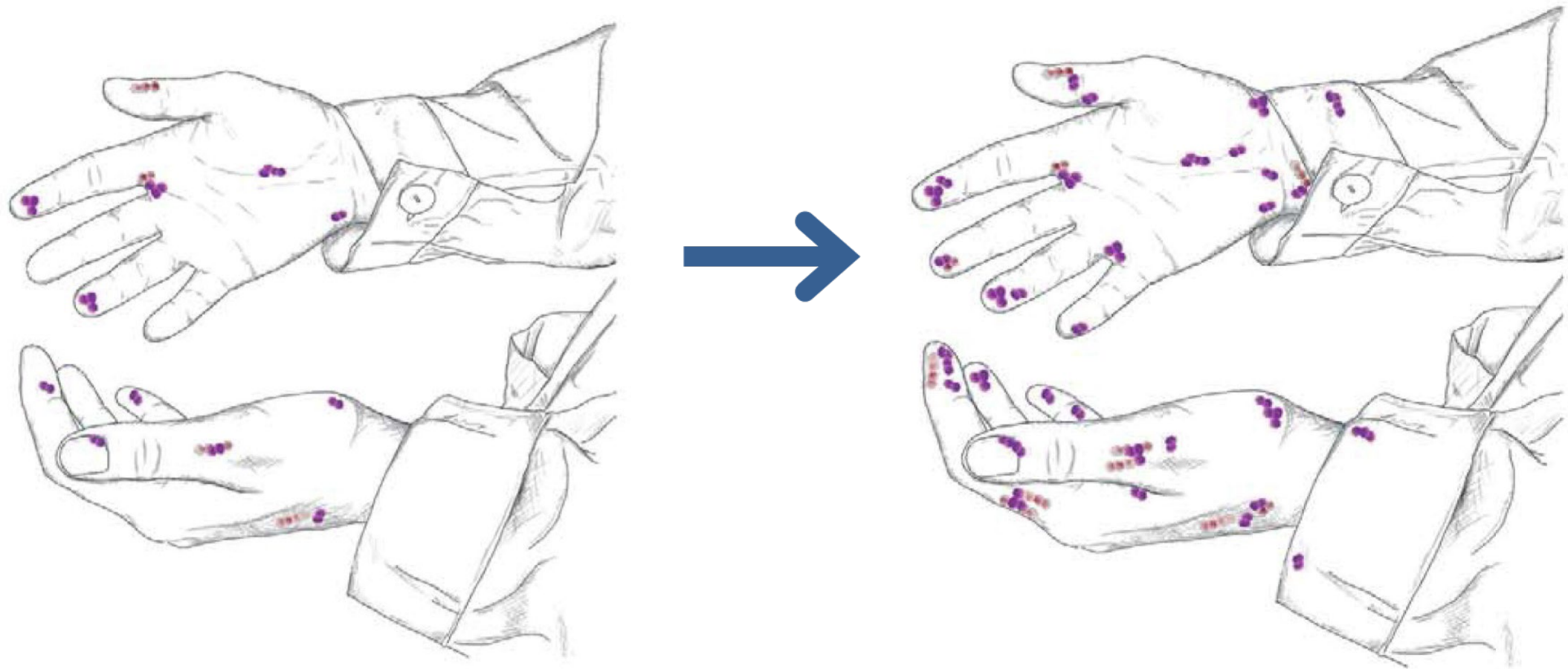
Step 2: Healthcare Worker Hand Contamination

By direct and indirect contact, patient germs contaminate healthcare worker hands.



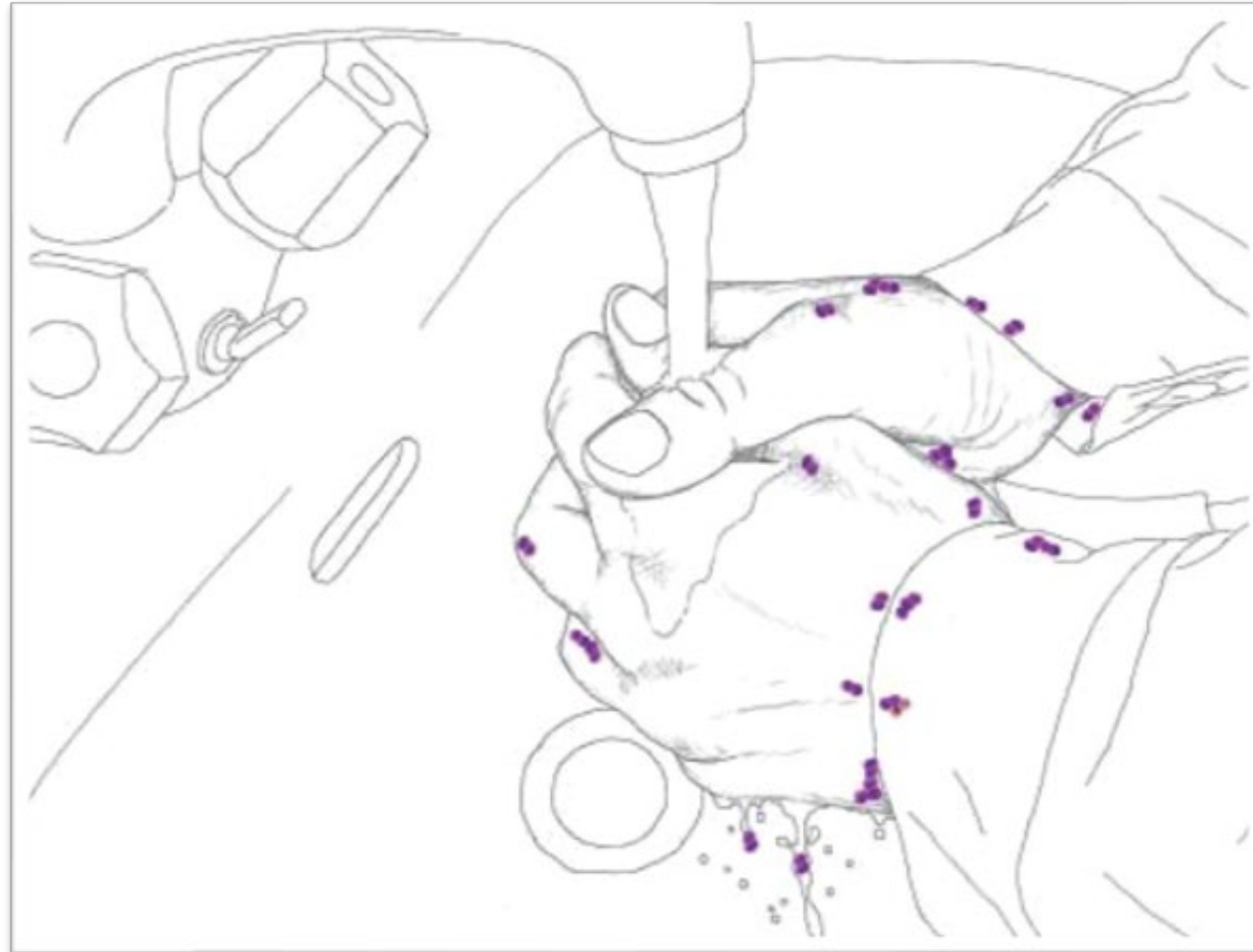


Step 3: Germs Survive and Multiply on Healthcare Worker Hands



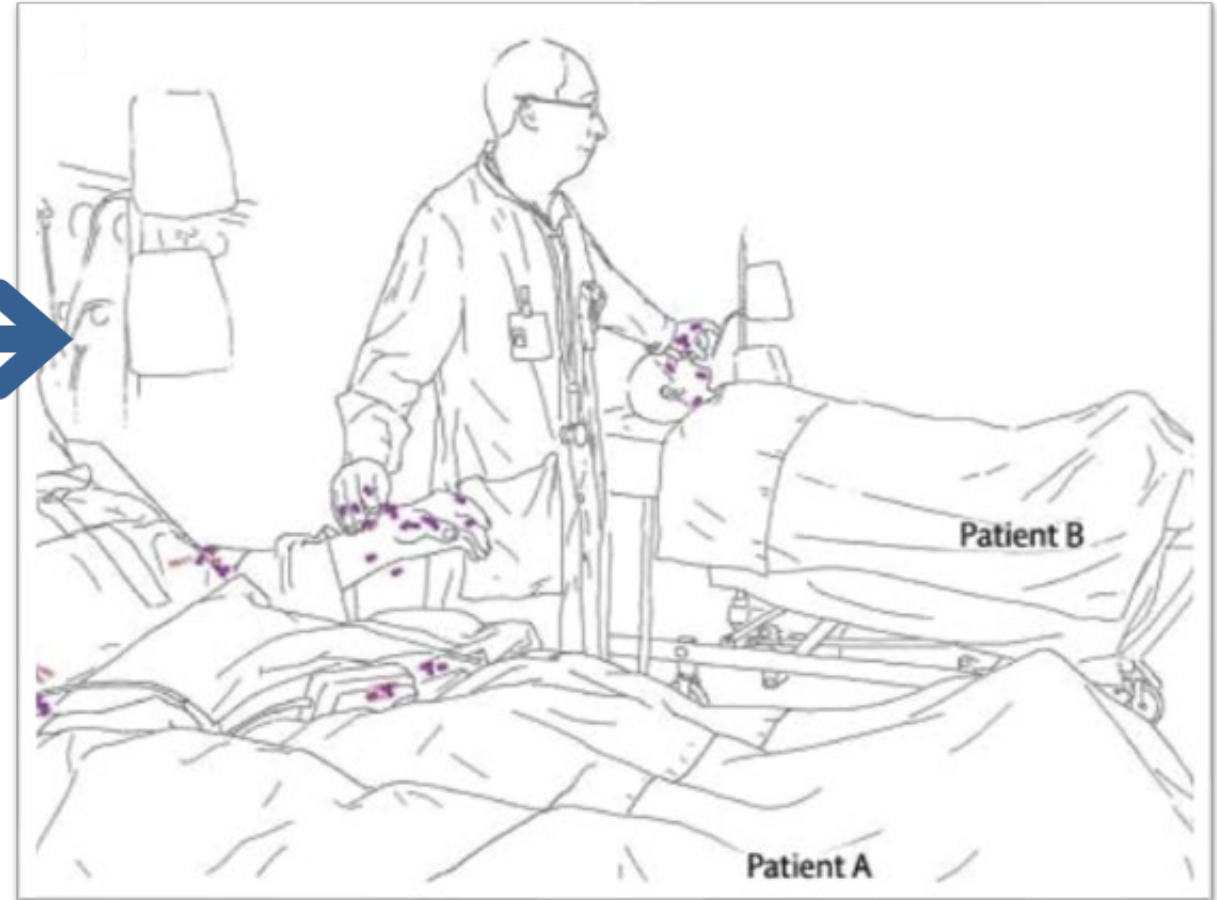
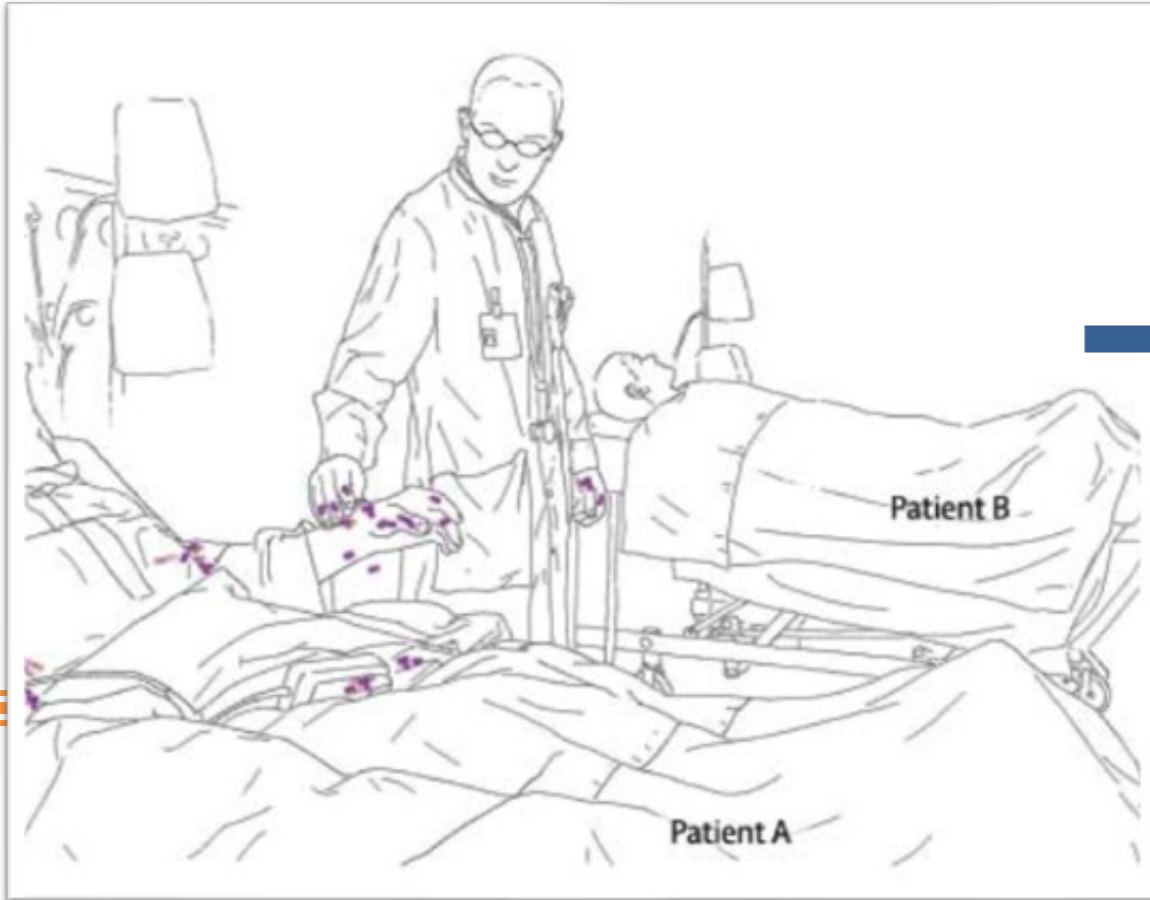


Step 4: Hands Remain Contaminated if Hand Hygiene is Missed or Poorly Performed



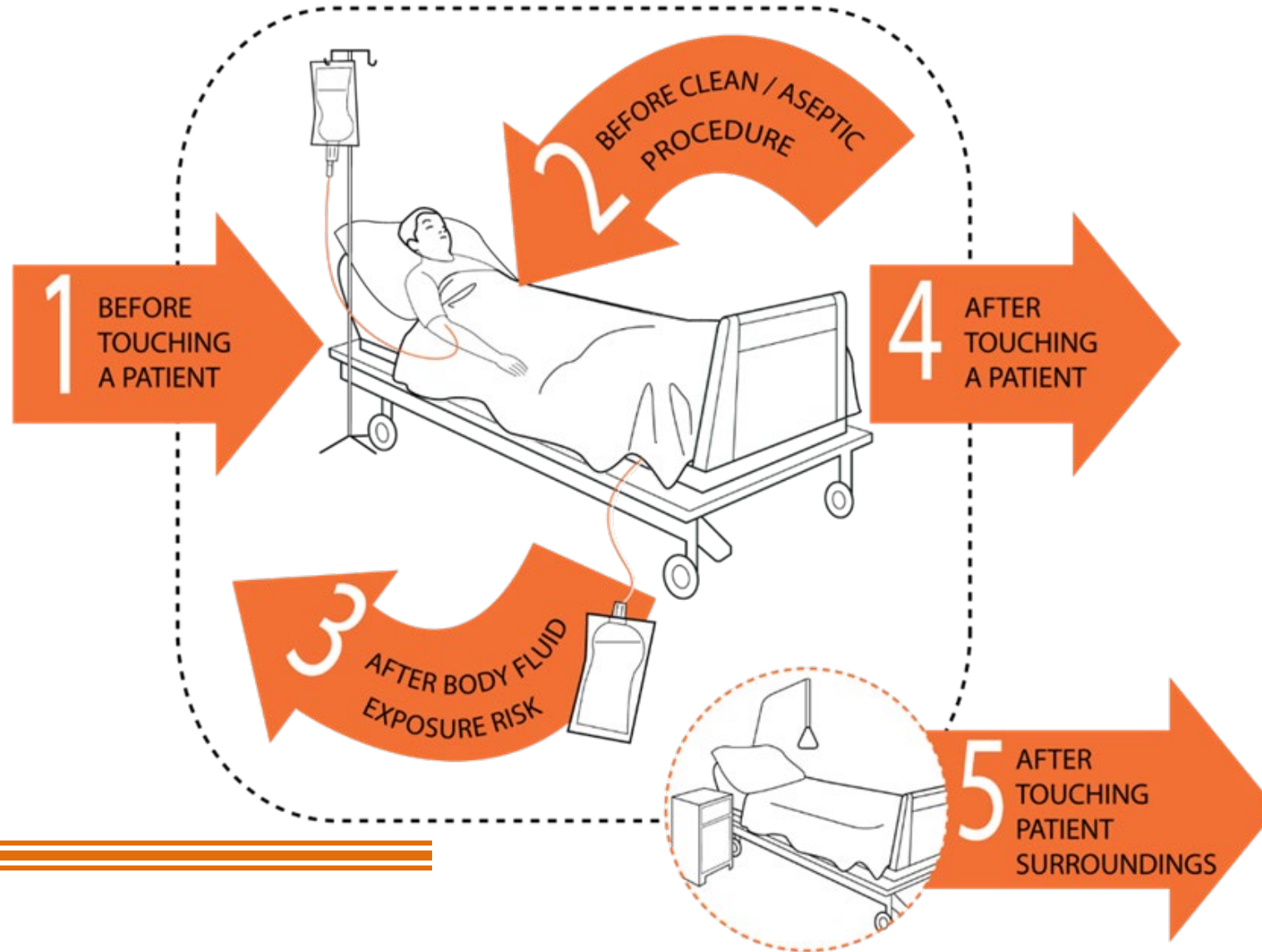


Step 5: Transmission from One Patient to Another via Healthcare Worker Hands





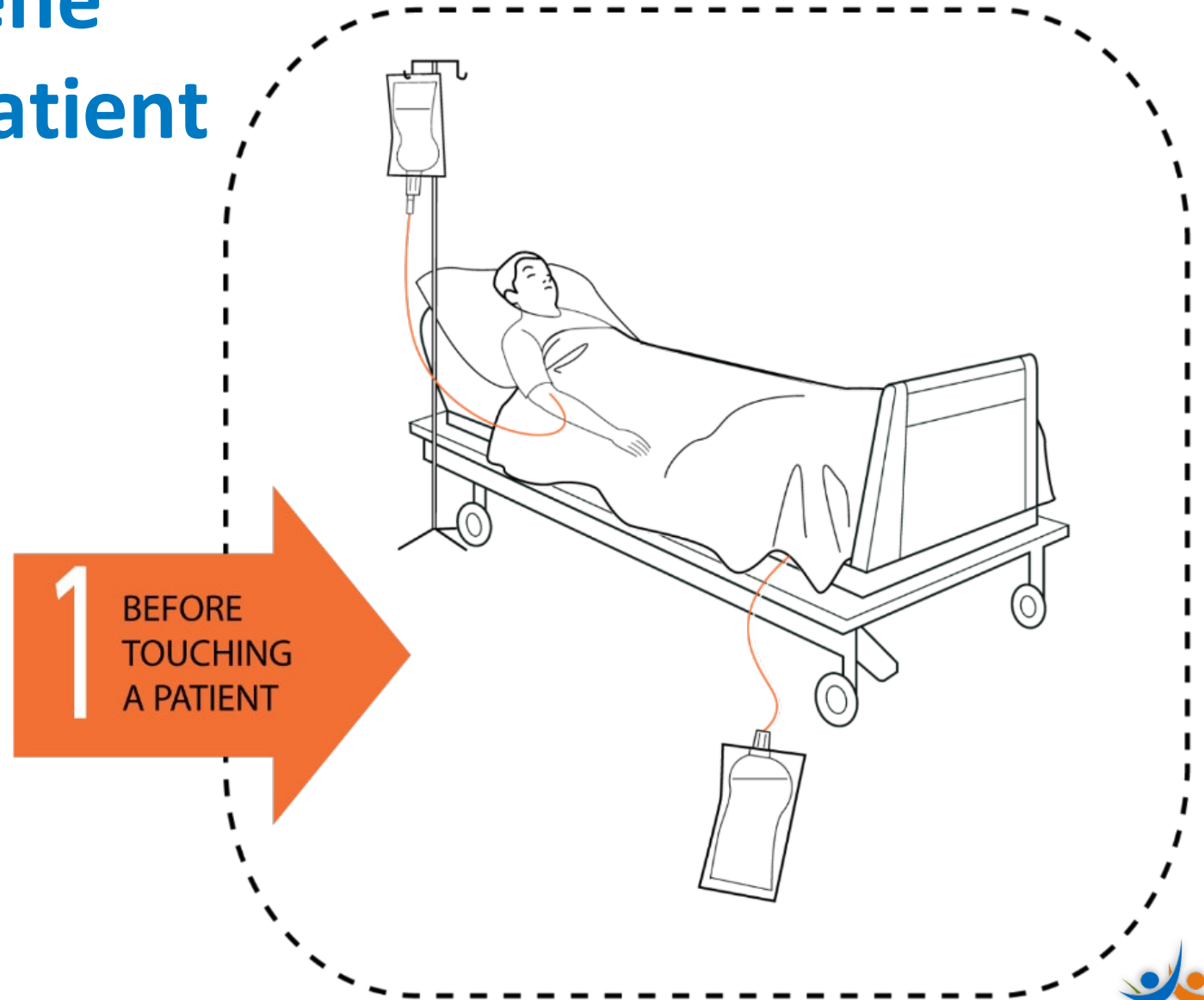
My 5 Moments for Hand Hygiene





Perform Hand Hygiene Before Touching a Patient

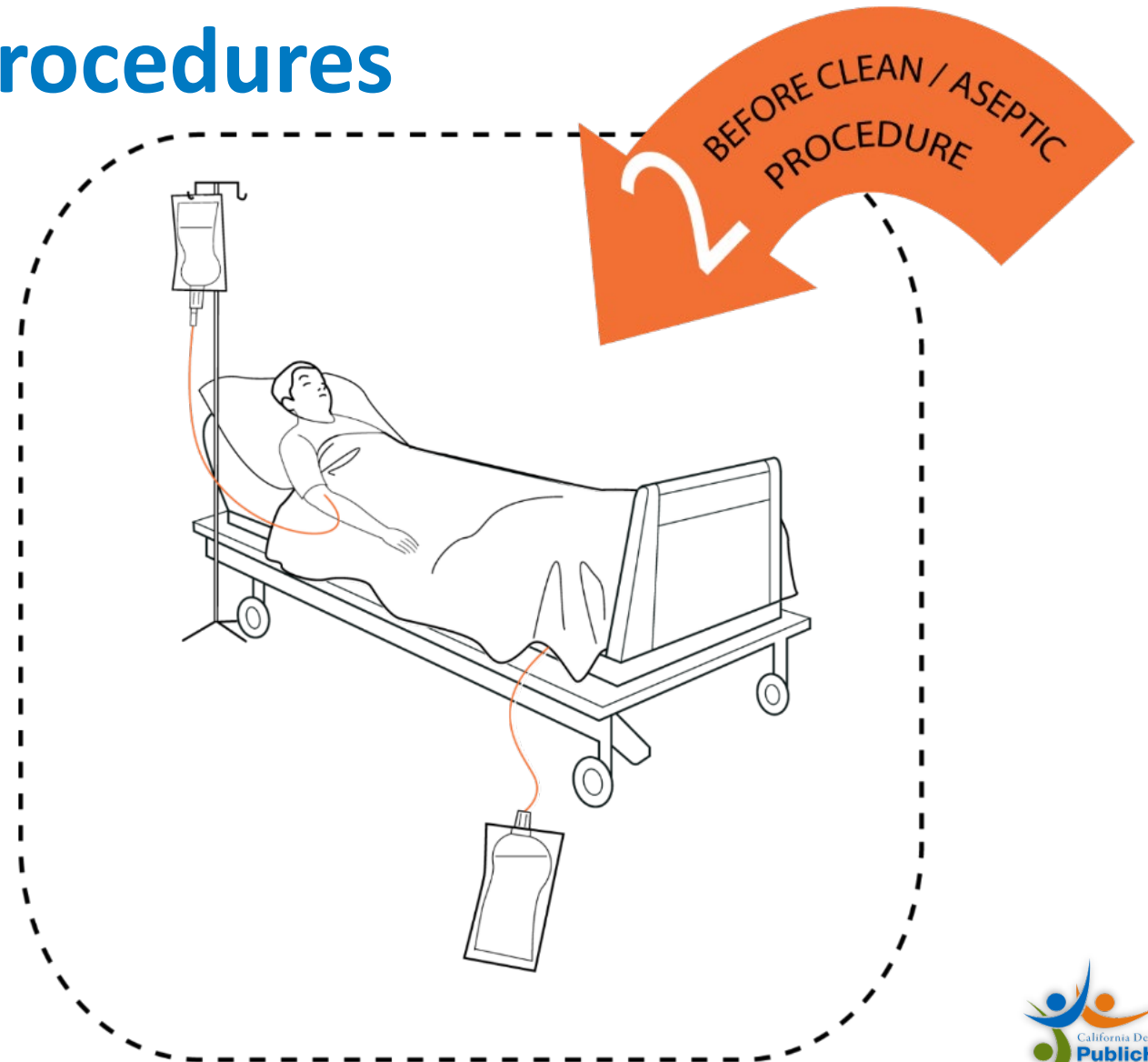
Clean your hands before touching a patient to protect them against harmful germs carried on your hands.





Perform Hand Hygiene Before Clean / Aseptic Procedures

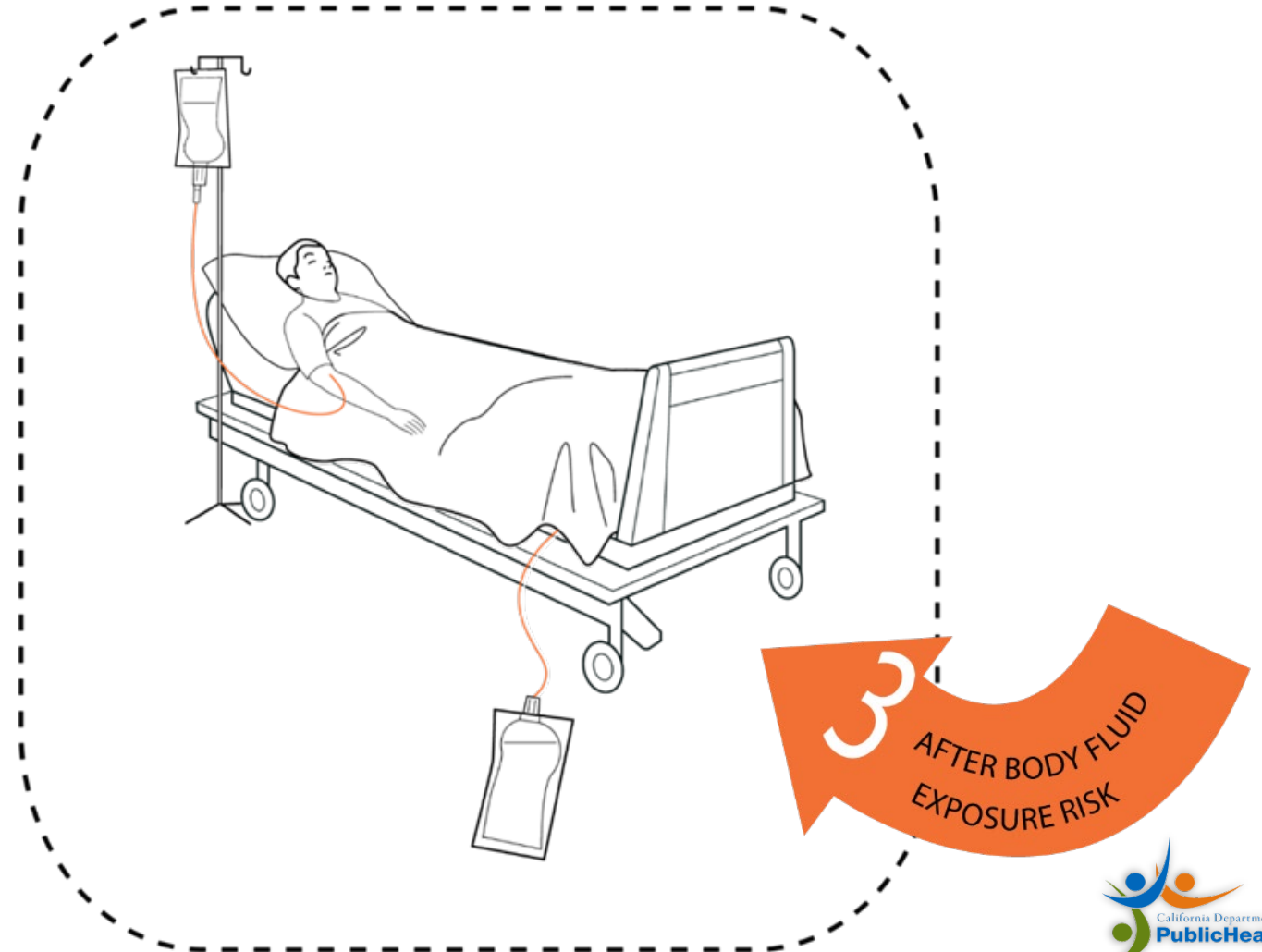
Clean your hands before accessing critical sites to protect the patient against harmful germs.





Perform Hand Hygiene After Body Fluid Exposure Risk

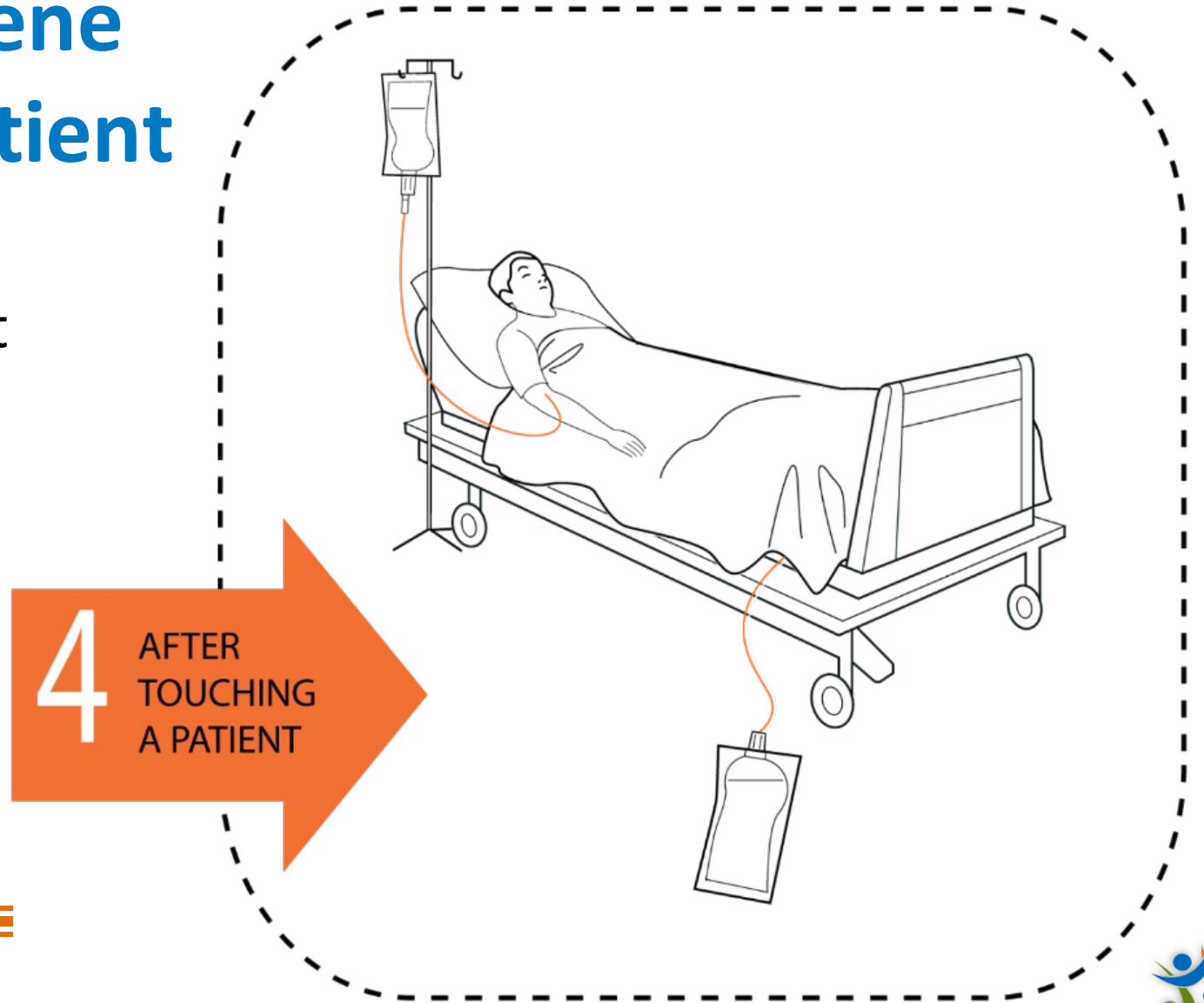
Clean your hands after body fluids exposure risk to protect yourself and the healthcare environment from harmful germs.





Perform Hand Hygiene After Touching a Patient

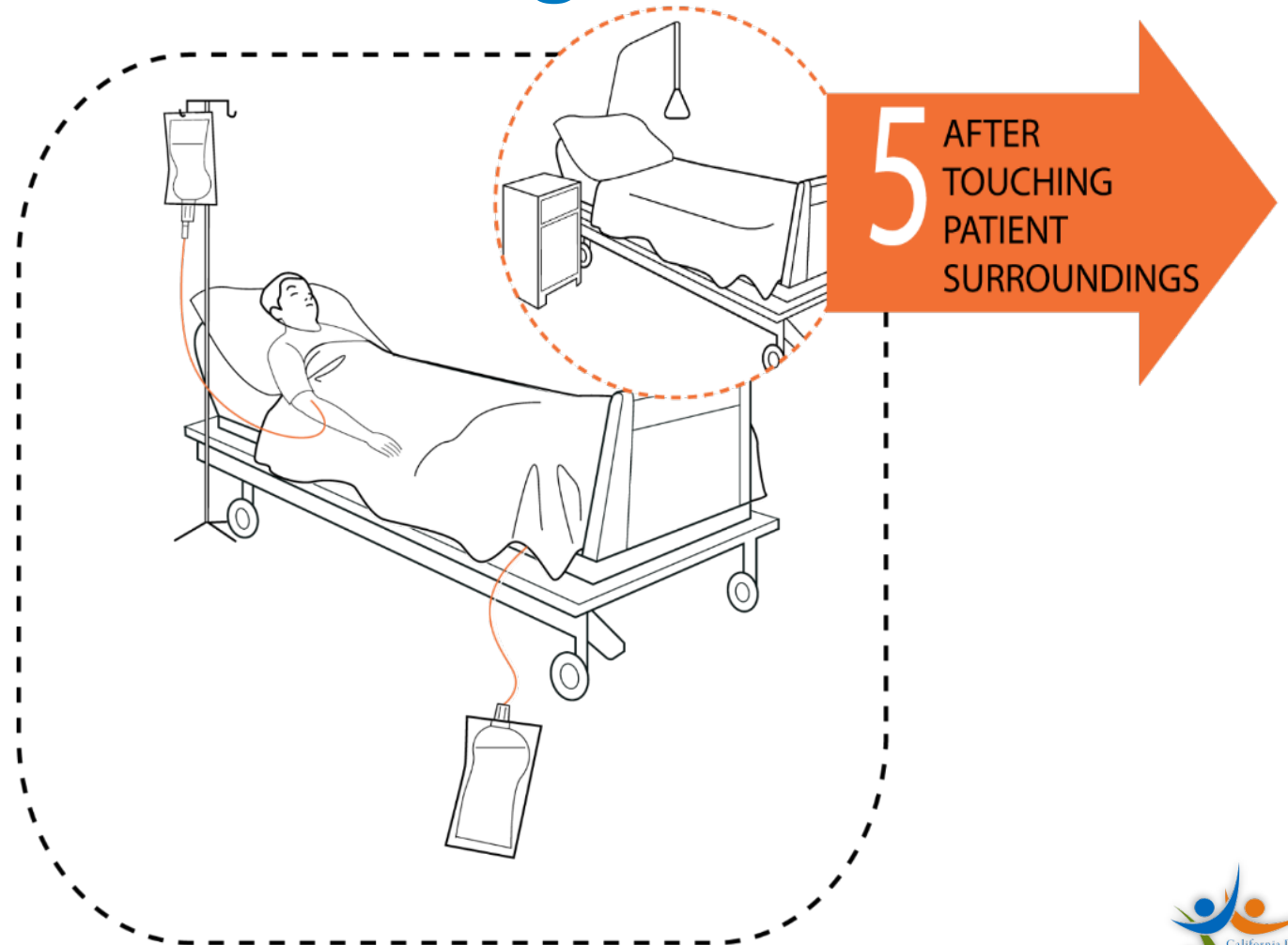
Clean your hands after touching a patient to protect yourself and the healthcare environment from harmful germs.





Perform Hand Hygiene After Touching Patient Surroundings

Clean your hands after touching any object or furniture in patient surroundings, even if you haven't touched the patient.





Correct Hand Hygiene Technique: How to Handrub

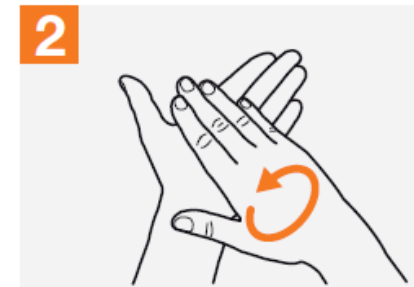
This takes 20–30 seconds.



1a Apply a palmful of the product in a cupped hand, covering all surfaces;

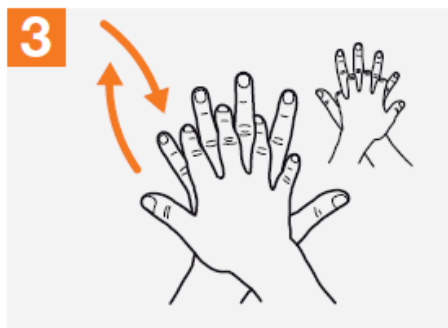


1b



2

Rub hands palm to palm;



3

Right palm over left dorsum with interlaced fingers and vice versa;



4

Palm to palm with fingers interlaced;



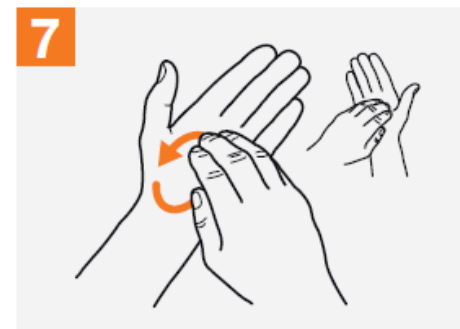
5

Backs of fingers to opposing palms with fingers interlocked;



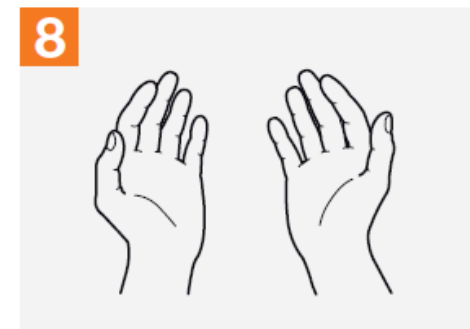
6

Rotational rubbing of left thumb clasped in right palm and vice versa;



7

Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;



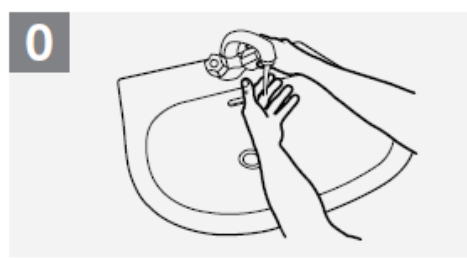
8

Once dry, your hands are safe.



Correct Hand Hygiene Technique: How to Handwash

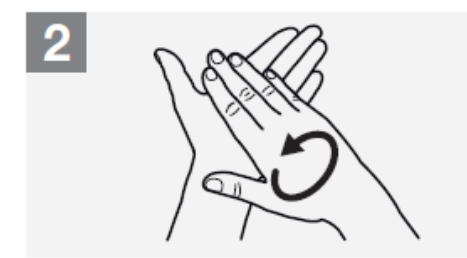
This takes 40–60 seconds.



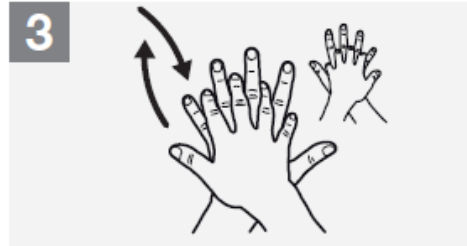
0 Wet hands with water;



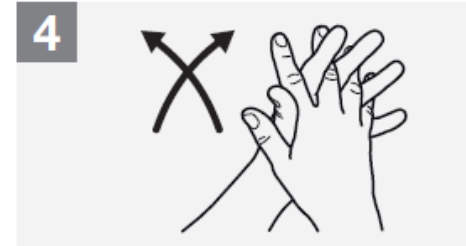
1 Apply enough soap to cover all hand surfaces;



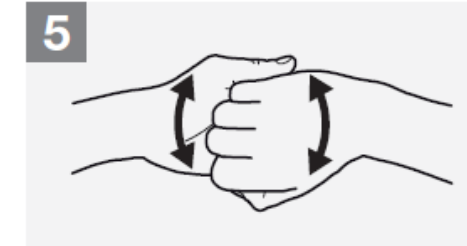
2 Rub hands palm to palm;



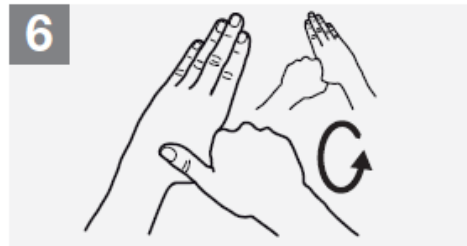
3 Right palm over left dorsum with interlaced fingers and vice versa;



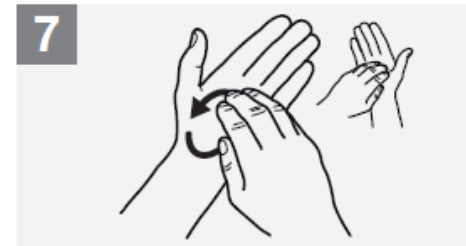
4 Palm to palm with fingers interlaced;



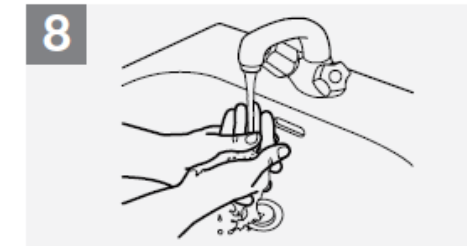
5 Backs of fingers to opposing palms with fingers interlocked;



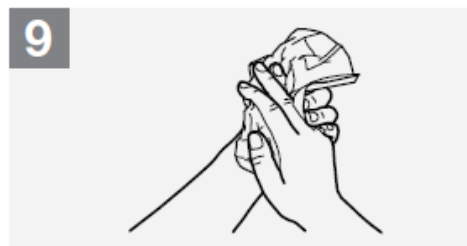
6 Rotational rubbing of left thumb clasped in right palm and vice versa;



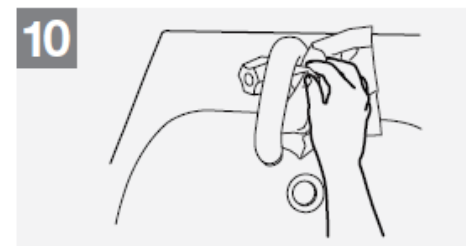
7 Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;



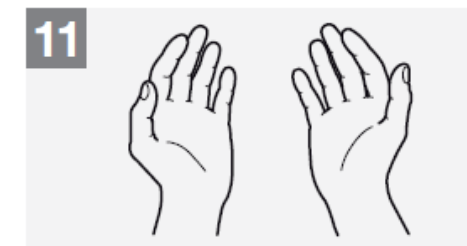
8 Rinse hands with water;



9 Dry hands thoroughly with a single use towel;



10 Use towel to turn off faucet;

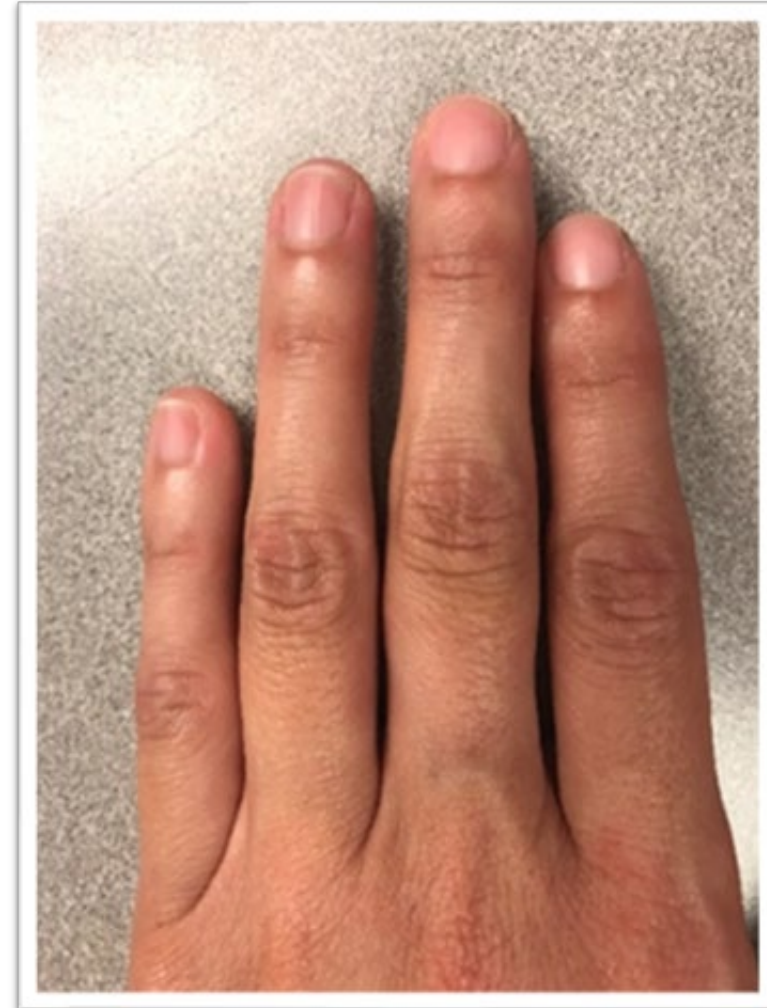


11 Your hands are now safe.



Nails

- Artificial nails and gel polishes should **not** be worn by healthcare workers
- Polish may be worn but must be intact (not chipped)
- Nail tips should be kept to ¼ inch in length





Hand Hygiene and Glove Use

- Glove use does not replace hand hygiene
- Always perform **hand hygiene before putting on and after taking off gloves**
- Gloves must be removed to perform hand hygiene as required, and changed as needed



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Summary

- Hand hygiene reduces the incidence of healthcare-associated infections (HAI)
- Remember your “5 Moments” of hand hygiene
- Follow proper technique when performing hand hygiene
- ABHR is the preferred method for hand hygiene

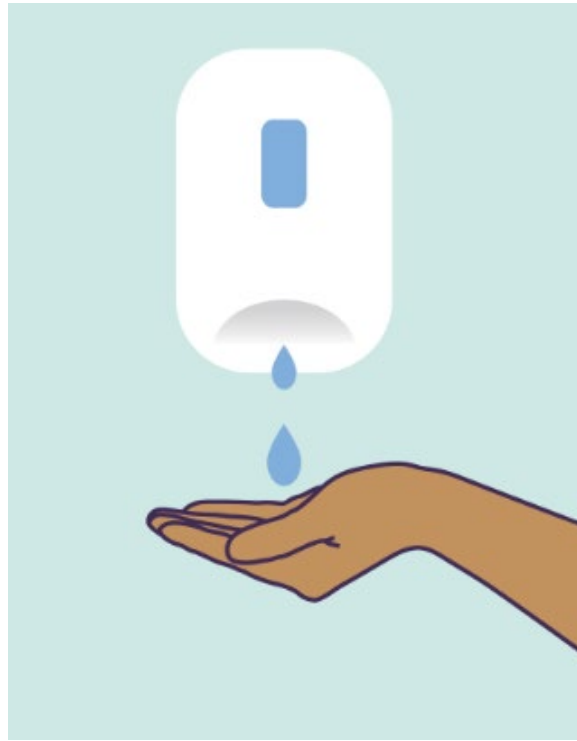


Environmental Cleaning and Disinfection Staff Training

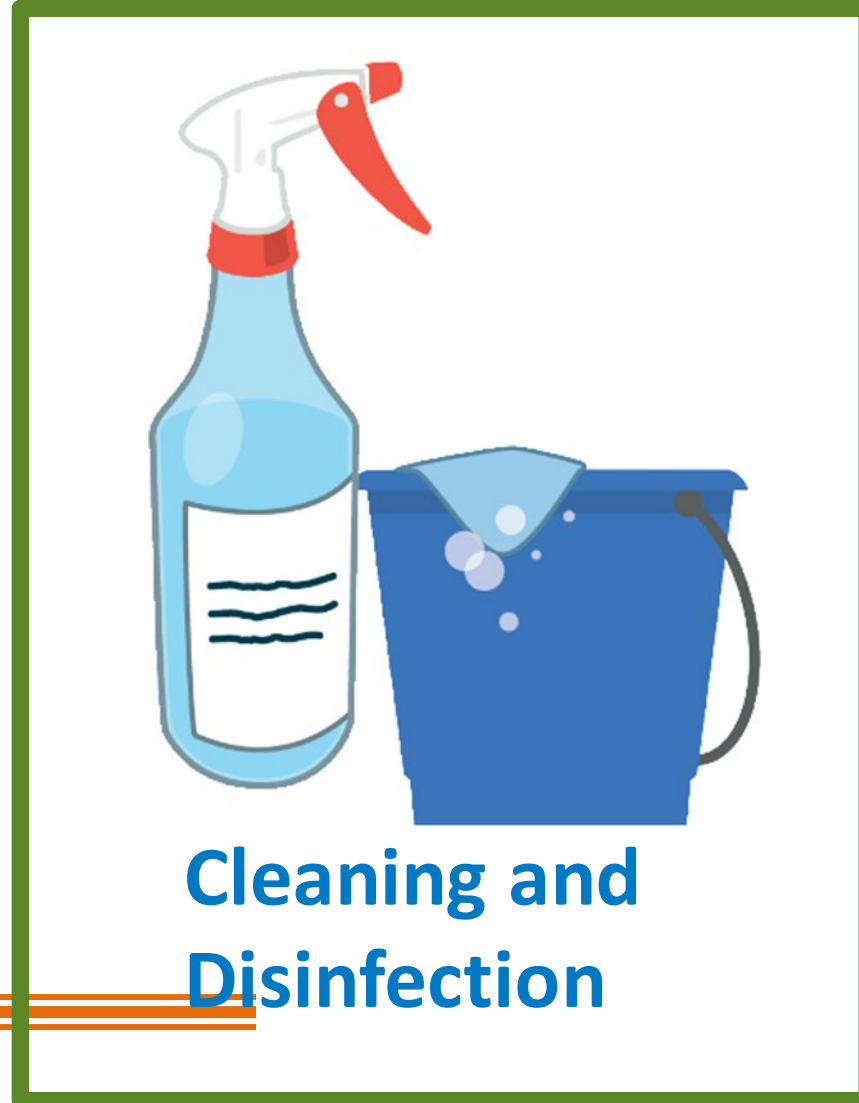
Healthcare-Associated Infections Program
Center for Health Care Quality
California Department of Public Health



Infection Prevention Strategies: Back to Basics



Hand Hygiene



Cleaning and Disinfection



Personal Protective Equipment and Precautions



Terminology

- **Cleaning** is the removal of visible soil (e.g., organic and inorganic material) from objects and surfaces
- **Disinfection** removes most germs present on surfaces that can cause infection or disease



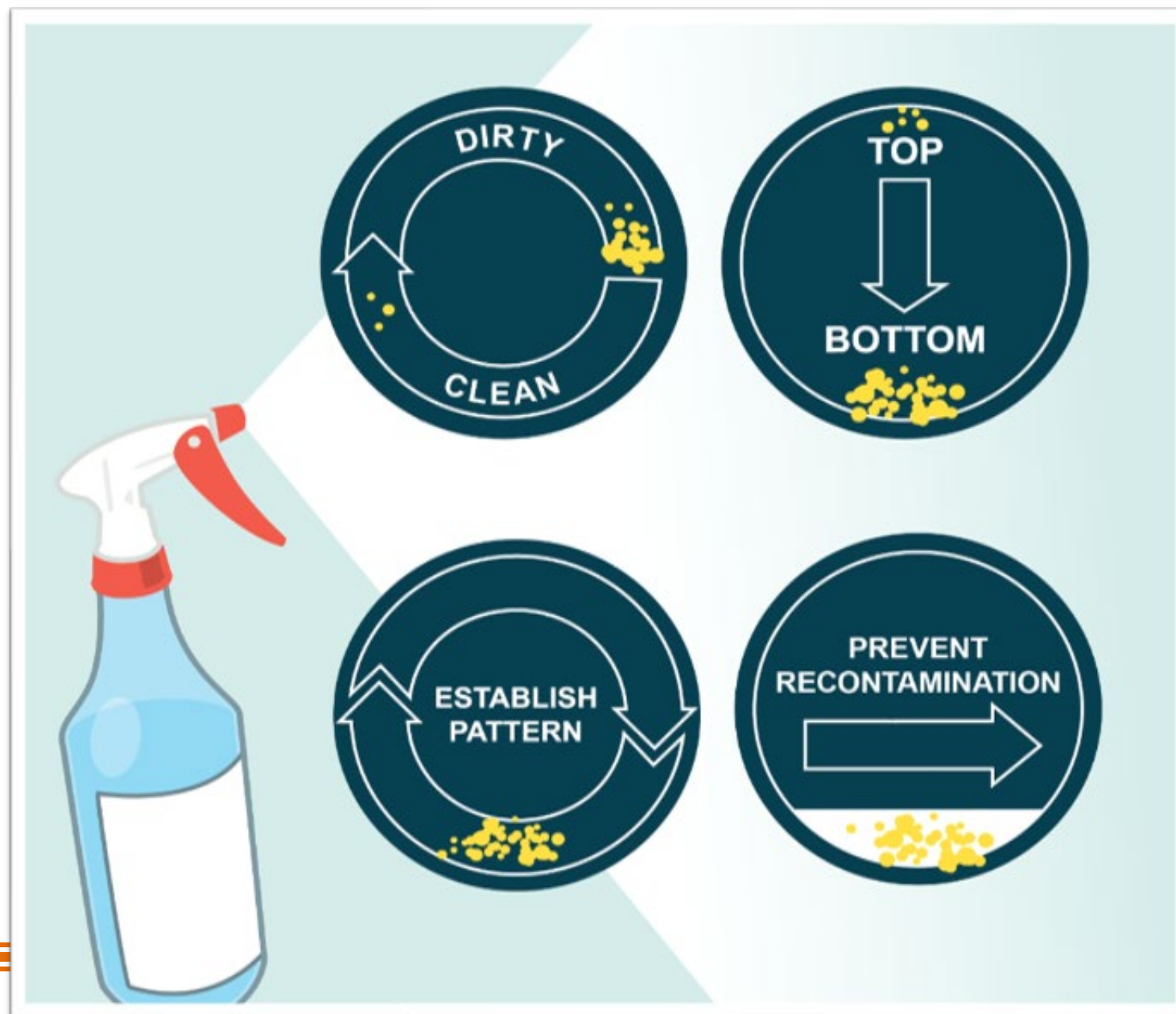
Cleaning Process

APIC materials (apic.org/resources/topic-specific-infection-prevention/environmental-services/) are downloadable. May be adapted for facility use, except for the pre-recorded audio versions of module presentations.



Cleaning Order

Follow a standard process for cleaning.



Cleaning Equipment

- Change cleaning cloths as needed
- Use cleaning equipment in a manner to prevent contamination



EPA Label Claim for Disinfectant

- Clarifies manufacturer's instructions for use
- **Wet contact time** is the time required for a disinfectant to kill microorganisms on a pre-cleaned surface



High Touch Surfaces

Perform at least daily cleaning/
disinfection on surfaces likely to be
contaminated (e.g., **high touch
surfaces**)

See example list in
[CDC Environmental Cleaning Toolkit](http://www.cdc.gov/hai/toolkits/Evaluating-Environmental-Cleaning.html)
(www.cdc.gov/hai/toolkits/Evaluating-Environmental-Cleaning.html)



DOOR HANDLE



LIGHT SWITCH



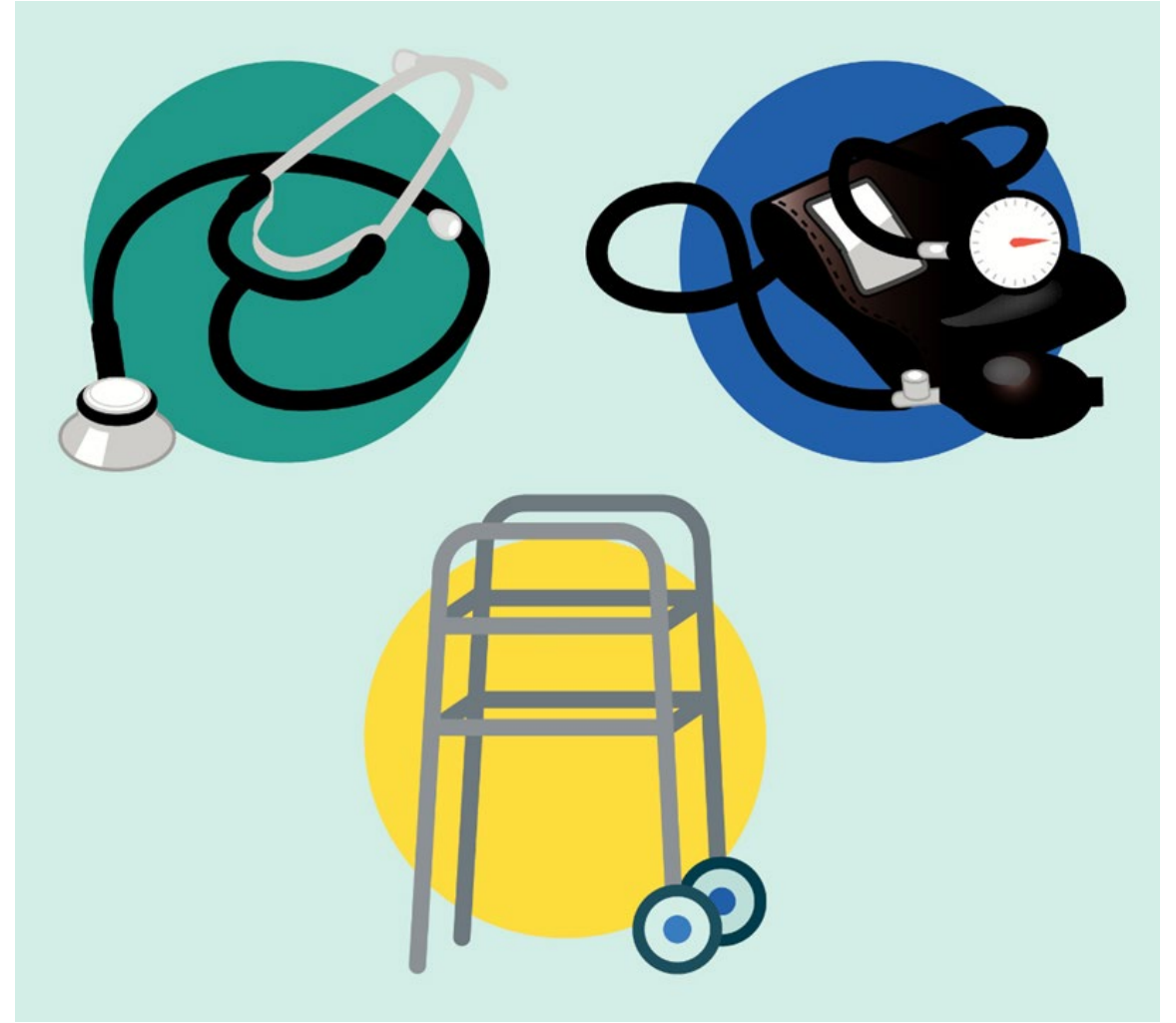
BEDPAN CLEANERS



TOILET HANDHOLDS

Cleaning and Disinfection of Shared Medical Equipment

- Clean medical equipment after each patient use
- **Everyone is responsible for environmental cleaning and disinfection**



Summary

- A properly cleaned care environment is essential to prevent infections
- **Wash your hands** before and after cleaning and as needed
- Follow a **standard process** that ensures consistency and prevents contamination
- Clean/disinfect **high-touch surfaces** at least daily
- Follow manufacturers' instructions on the label including **wet contact time** for proper use of disinfectant
- **All staff have a role in ensuring a clean patient care environment**

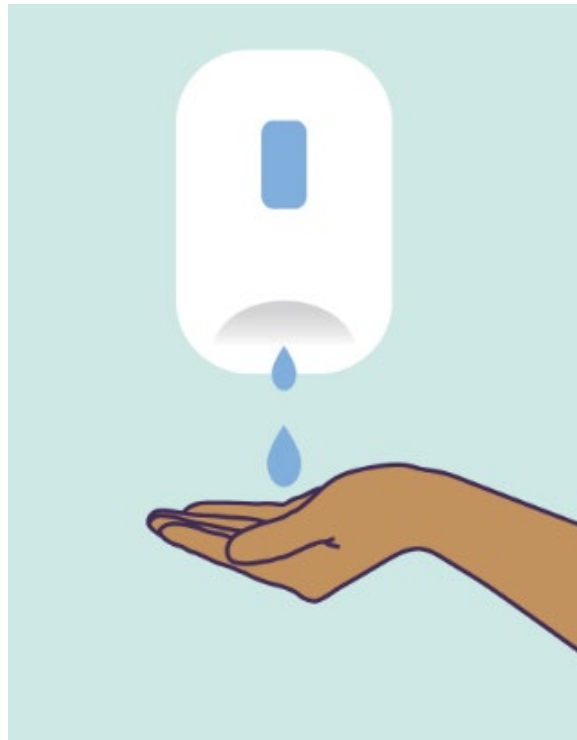


Personal Protective Equipment and Precautions Staff Training

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Infection Prevention Strategies: Back to Basics



Hand Hygiene



Cleaning and Disinfection



Personal Protective Equipment and Precautions

Sequence for Donning PPE

Perform hand hygiene before donning PPE.

1. Gown
2. Mask or respirator
3. Goggles or face shield
4. Gloves

How to Don a Gown

- Select appropriate type and size
- Opening is in the back
- Secure at neck and waist
- If gown is too small, use two gowns
 - Gown #1 ties in front
 - Gown #2 ties in back



How to Don a Mask

- Place over nose, mouth, and chin
- Fit flexible nose piece over nose bridge
- Secure on head with ties or elastic
- Adjust to fit



How to Don a Respirator

- **Select a fit tested respirator, preferably**
- Place over nose, mouth, and chin
- Fit flexible nose piece over nose bridge
- Secure on head with elastic
- Adjust to fit
- Perform a fit check –
 - **Inhale – respirator should collapse**
 - **Exhale – check for leakage around face**



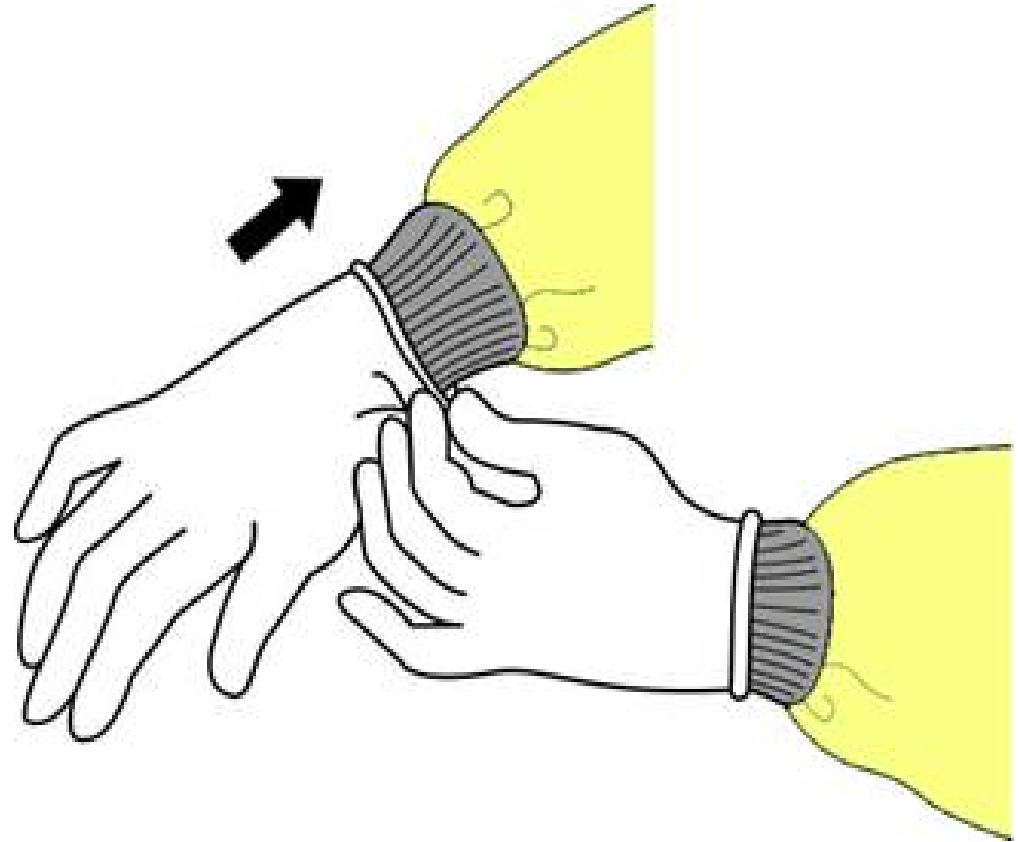
How to Don Eye and Face Protection

- Position goggles over eyes and secure to the head using the ear pieces or headband
- Position face shield over face and secure on brow with headband
- Adjust to fit comfortably



How to Don Gloves

- Don gloves last
- Select correct type and size
- Insert hands into gloves
- Extend gloves over isolation gown cuffs



Use Safe PPE Practices

- Keep gloved hands away from face
- Avoid touching or adjusting other PPE
- Remove gloves if they become torn; perform hand hygiene before donning new gloves
- Limit surfaces and items touched



Remove PPE in Appropriate Areas

- At doorway, before leaving patient room or in anteroom
- Remove respirator outside room, after door has been closed*



*Ensure hand hygiene supplies are available at the points needed, either a sink or alcohol-based hand rub

[UCSF Health Donning and Doffing PPE](#)

(www.youtube.com/watch?v=-sBNxli21n0)



Safely Remove PPE

Recognize the “Contaminated” and “Clean” areas of PPE

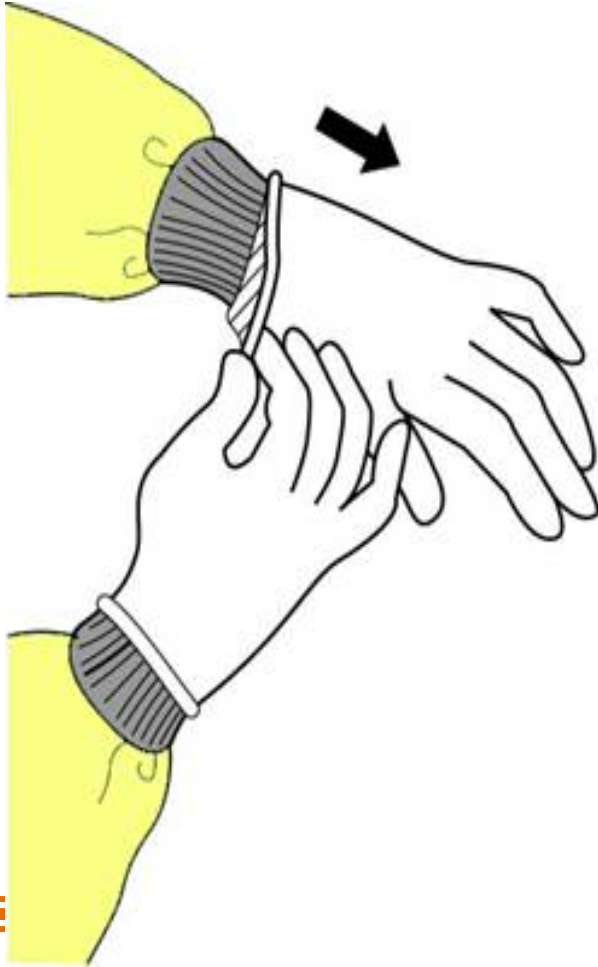
- Contaminated
 - PPE areas likely to have been in contact with body sites, materials, or surfaces with infectious organisms
 - Includes the outside and front of PPE
- Clean
 - PPE areas that are not likely to have been in contact with the infectious organism
 - Includes the inside and the outside back of PPE

Sequence for Removing PPE

1. Remove gloves*
 - Perform hand hygiene
2. Remove gown*
 - Perform hand hygiene
3. Remove face shield/ goggles
 - Perform hand hygiene
4. Remove mask or respirator
 - Perform hand hygiene

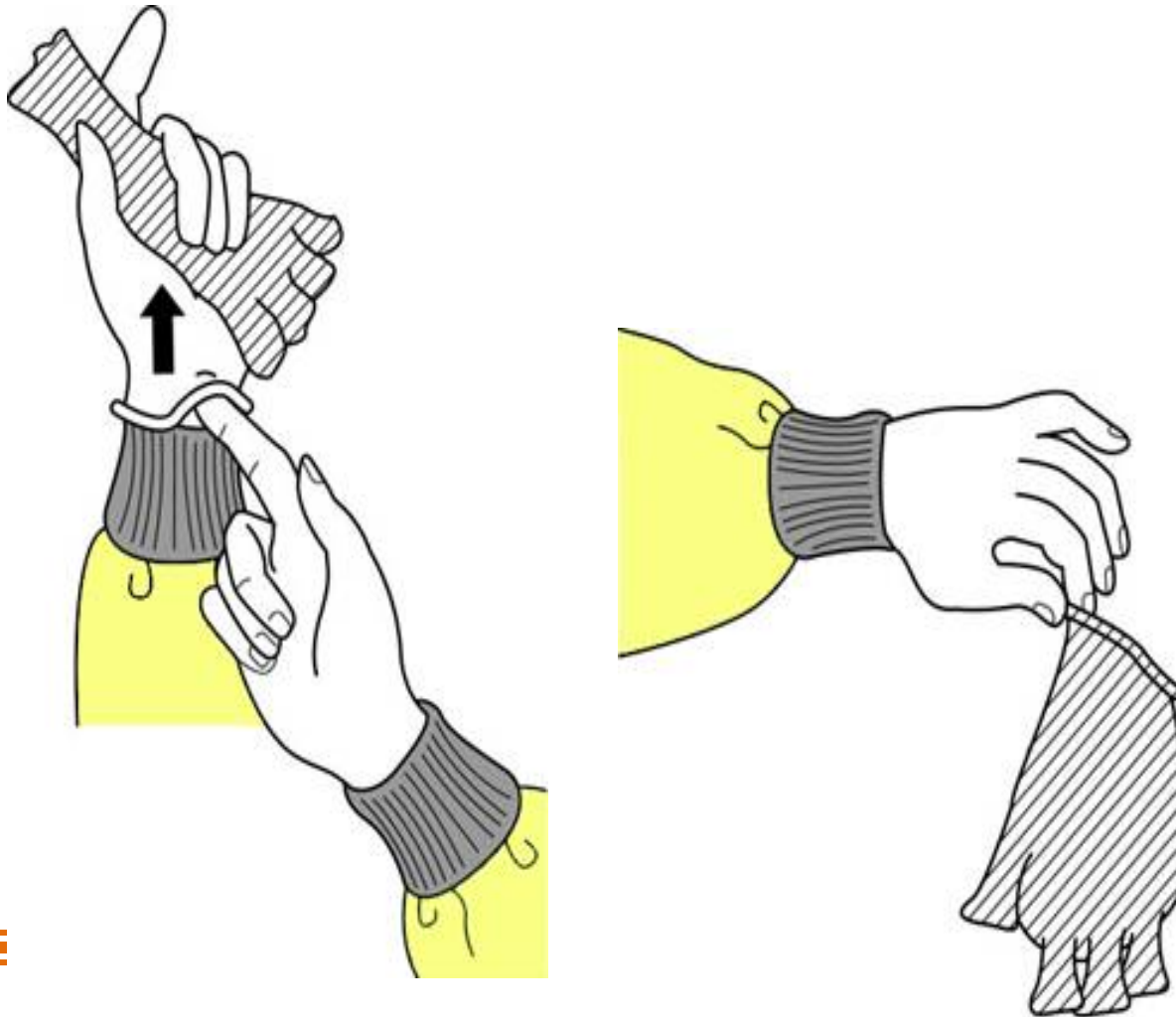
* Gown and gloves may be removed together.

How to Remove Gloves (Method 1)



- **Step 1:** Grasp outside edge near wrist
- **Step 2:** Peel away from hand, turning glove inside-out
- **Step 3:** Hold in opposite gloved hand

How to Remove Gloves (Method 1), continued

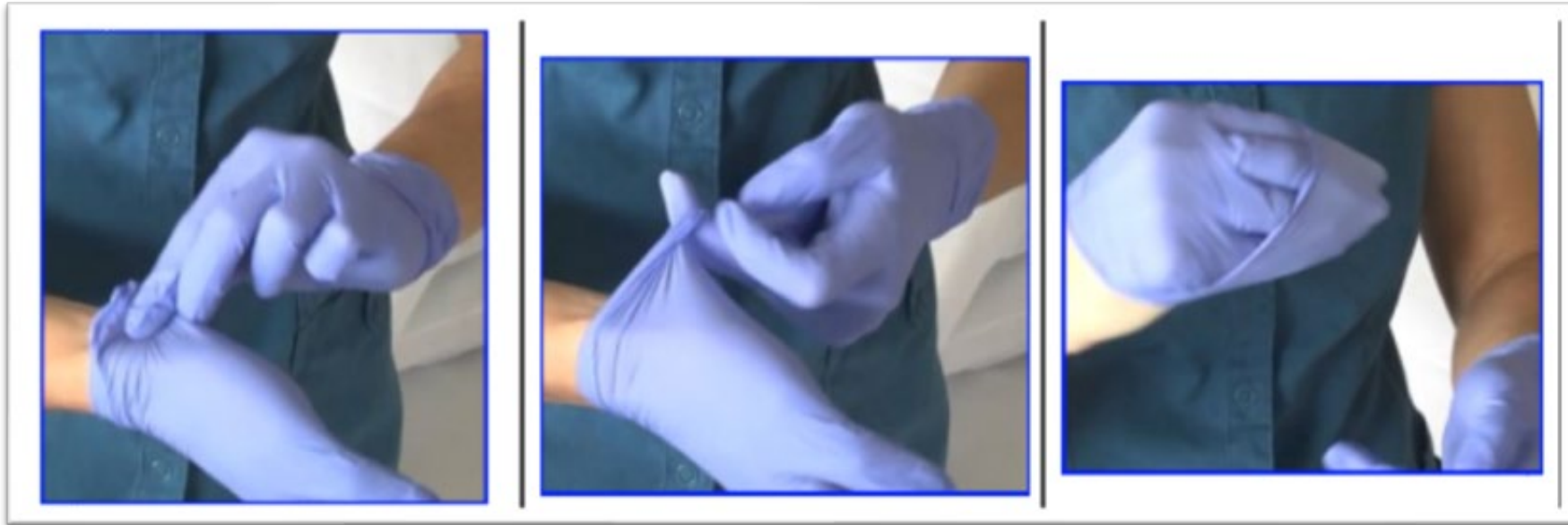


- **Step 4:** Slide ungloved finger under the wrist of the remaining glove
- **Step 5:** Peel off from inside, creating a bag for both gloves
- **Step 6:** Discard

Always perform hand hygiene after glove removal.

How to Remove Gloves (Method 2 - Beak)

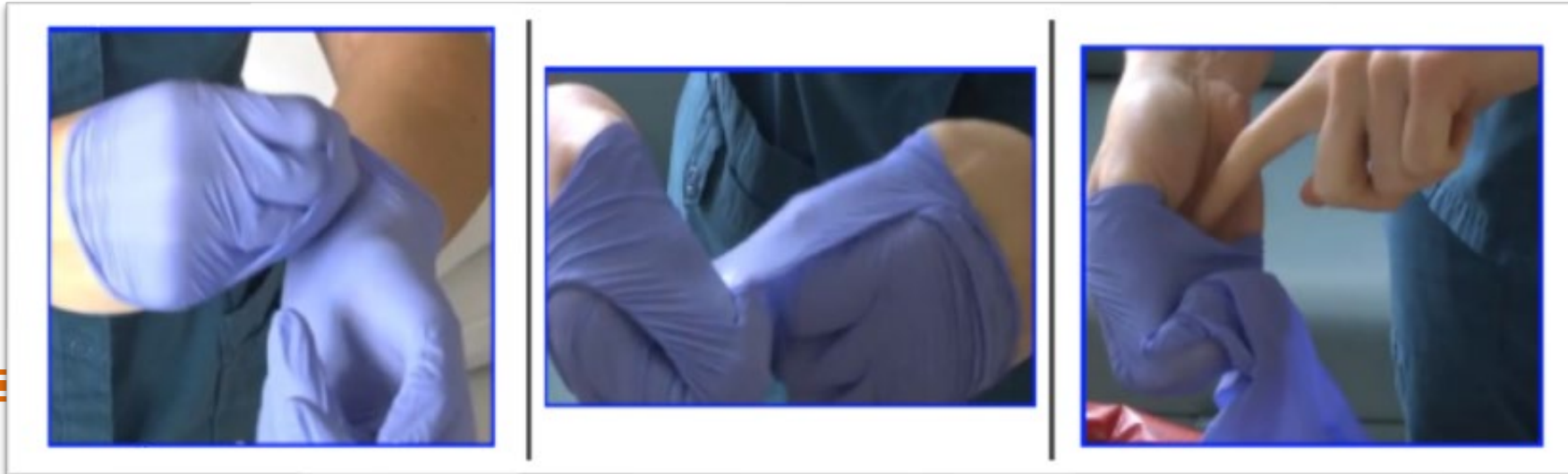
- **Step 1:** Using one gloved hand, pinch and pull the base of the other gloved hand.
- **Step 2:** Use the middle finger to scoop the cuff of the glove.
- **Step 3:** Pull the glove inside out over all the fingers and thumb to form a “beak.”



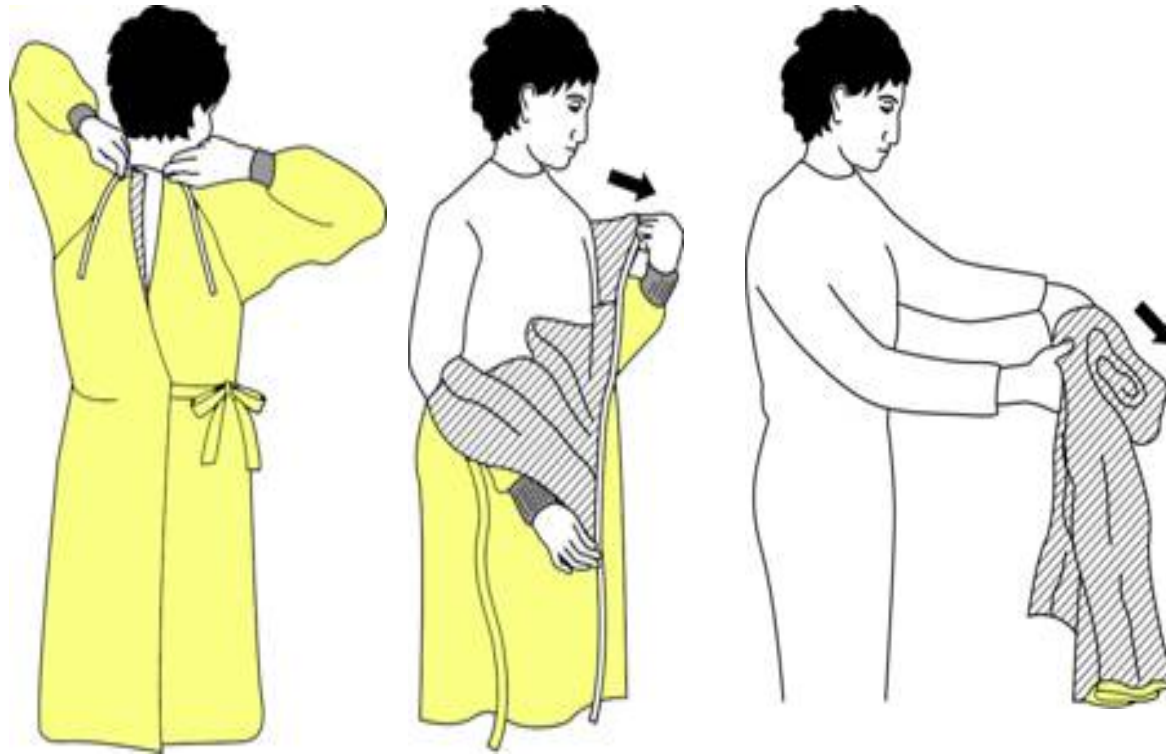
How to Remove Gloves (Method 2 - Beak), continued

- **Step 4:** With the beaked hand, pinch the opposite glove at the base and pull the cuff.
- **Step 5:** Roll the glove inside out and off the hand.
- **Step 6:** With the ungloved hand, use the index finger to pull the beaked glove off at the base of the beak and dispose into the appropriate waste container.

Always perform hand hygiene after glove removal.



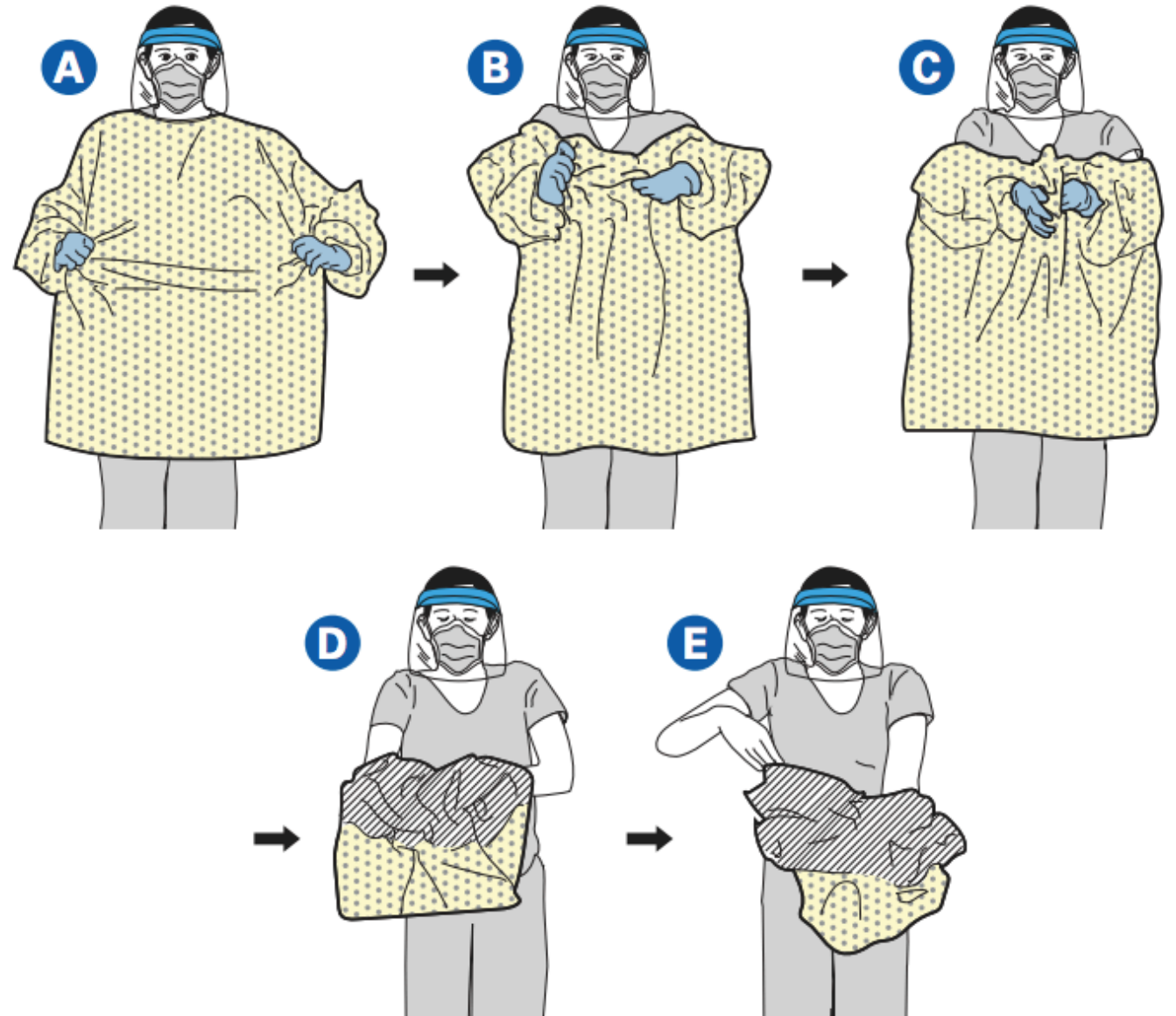
How to Remove Isolation Gown



- Unfasten ties
- Peel gown away from neck and shoulder
- Turn contaminated outside toward the inside
- Fold or roll into a bundle
- Discard
- Perform hand hygiene

How to Remove Gown and Gloves Together

- With gloved hands, grasp gown in front
- Pull gown away from body so ties break
- Fold or roll into a bundle; peel off gloves at same time
- Discard
- Perform hand hygiene



How to Remove Goggles or Face Shield



- Grasp ear or head pieces with ungloved hands
- Lift away from face
- Place in designated receptacle for reprocessing or disposal



How to Remove a Respirator

- Remove outside the room or in the ante-room
- Lift the bottom elastic over your head first
- Then lift off the top elastic
- Discard

[CDC PPE Sequence](#) (PDF)

(www.cdc.gov/hai/pdfs/ppe/PPE-Sequence.pdf)



How to Remove a Tied Facemask



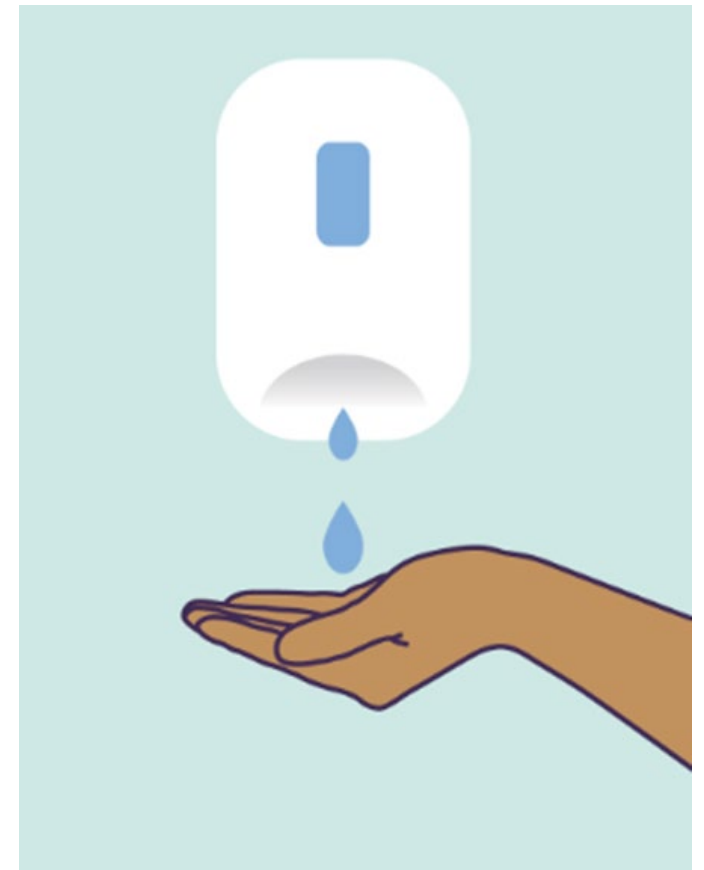
- Remove at least 6 feet away from the patient, e.g. at the door
- Untie the bottom, then top, tie
- Remove from face
- Discard



Perform Hand Hygiene After Removing PPE

- Perform hand hygiene immediately after removing PPE and preferably after each step
- Use alcohol-based hand rub or wash with soap and water

Exception: If hands become visibly contaminated during PPE removal, wash hands with soap and water before continuing PPE removal



Summary

- Select and **use the appropriate personal protective equipment (PPE)** as required
- **Educate all healthcare workers** on the PPE donning and doffing process.
- PPE should be used in a safe manner to **avoid self and cross contamination.**
- **Perform hand hygiene** before donning and after each step of PPE removal.