

# Infection Prevention & Control (IPC) During Wound Care Procedures

Part 1: Wound Care Infection Risks and Your Infection  
Prevention and Control Program



# Objectives



# 1

Discuss risks for infection transmission with wound care procedures

# 2

Describe infection prevention practices to prevent transmission of infections with wound care

# 3

Identify how to apply infection prevention to wound care procedures

# Background on Risks and the IPC Program for Wound Care



# Wound and Procedure Types



## Examples of wounds

- Pressure
- Diabetic
- Vascular
- Surgical

## Examples of wound care

- Dressing changes
- Irrigation
- Debridement
- Use of vacuum assisted closure devices

# How Have Pathogens Been Transmitted From and To Wounds?



## Hands

- Not being cleaned at the right times

## Personal protective equipment (PPE)

- Improper selection and use

## Medications

- Improper use of multi-use creams, ointments
- Not separating clean and dirty supplies

## Shared medical equipment

- Not cleaning, disinfecting, or sterilizing following manufacturer's instructions

## Environment

- Not cleaning and disinfecting after contamination from splashes or sprays from wound care procedures



CDC Wound Care course:  
<https://www.train.org/virginia/course/1081811/details>

# Wound Care Outbreak: *Acinetobacter baumannii* at a Maryland Acute Care Hospital

- 10 healthcare-associated cases of *A. baumannii* infections:
  - 8 of 10 patients had received lavage treatment
  - 3 patients developed bloodstream infections and pneumonia
    - All required intensive care admissions
    - 2 patients died
- Wound care lapses identified:
  - Environmental contamination from splashes and sprays from wound care and cleaning and disinfection did not occur afterwards

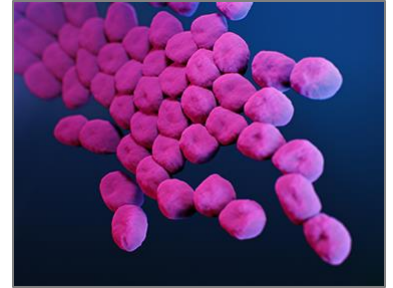


Image source:  
<https://www.cdc.gov/acinetobacter/about/>



Maragakis LL, Cosgrove SE, Song X, Kim D, Rosenbaum P, Ciesla N, Srinivasan A, Ross T, Carroll K, Perl TM. An outbreak of multidrug-resistant *Acinetobacter baumannii* associated with pulsatile lavage wound treatment. JAMA. 2004 Dec 22;292(24):3006-11.



# Wound Care Outbreak: Group A *Streptococcus* (GAS) in an Illinois Skilled Nursing Facility

- Two consecutive outbreaks of GAS infections from 2015–2016:
  - 7 resident cases (6 invasive and 1 noninvasive)
  - 5 staff cases (all strep throat)
- Wound care lapses:
  - Poor hand hygiene practices and lacking supplies
  - No facemasks worn during wound irrigation
  - Used gloves stored in pockets
  - PPE not worn entering rooms of residents on Contact Precautions
  - Shared equipment not routinely cleaned and disinfected before use

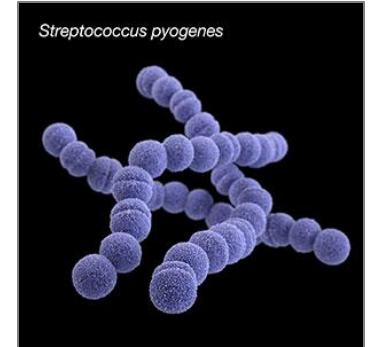
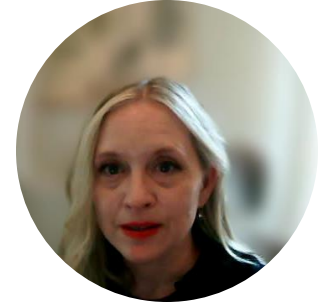


Image source: <https://www.cdc.gov/strep/lab/php/group-a-strep/>



# Wound Care Outbreak: GAS in an Illinois Skilled Nursing Facility



- Shedding during wound care was identified
  - Petri dishes were placed in proximity to 5 residents with unknown GAS status and had wound care performed
  - 1 of 5 cultures grew GAS
    - Dressing change involved a wound vac and irrigation with saline pods
- Transmission hypothesis: Saline irrigation of GAS-colonized or infected wounds led to spread of GAS-laden droplets
  - Breaches in infection control enabled intra-facility transmission
    - Indirectly to residents through contaminated hands of staff
    - Directly to staff providing wound care without use of facemasks





# Wound Care Infection Prevention Program

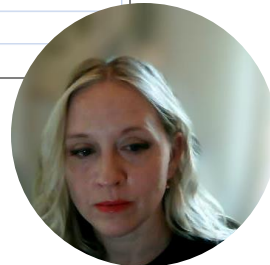
- Policies and procedures
  - Address important IPC aspects of wound care
- Education, training, and competency assessments
  - For all staff performing wound care
- Auditing wound care procedures on a routine basis
  - Includes contract staff
- Referring to evidence-based resources
  - CDC
  - Virginia Department of Health

Wound Dressing Change Observation Checklist

**Instructions:** Observe and record the following basic IPC components of wound care procedures. Steps will vary depending on the type of wound and care being performed (e.g., dressing change, irrigation, debridement; use of vacuum-assisted closure devices). Descriptions of assessment criteria can be found on the following page.

Elements to be Assessed	Assessment	Notes/Areas for Improvement
All supplies are gathered before dressing change <sup>1</sup>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	
Hand hygiene (HH) performed before dressing change	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	
Clean gloves (and other PPE, as required) donned before dressing change <sup>2</sup>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	
Multi-dose wound care meds are used appropriately <sup>3</sup>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	
Dressing change performed in manner to prevent cross-contamination <sup>4</sup>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	
Gloves removed after dressing change completed	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	
HH performed after dressing change completed	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	
Reusable equipment and surfaces are cleaned and/or disinfected appropriately <sup>5</sup>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	
Clean, unused supplies discarded or dedicated to one patient/resident	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	
Wound care is performed and assessed regularly <sup>6</sup>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	
Wound care supply cart is kept clean <sup>7</sup>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	

[VDH Wound Care IPC Audit Tool](#)

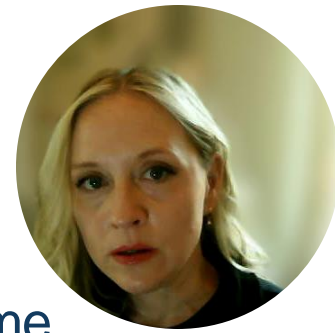


# Wound Care Contractors



- It is the facility's responsibility to ensure contractors:
  - Are aware and follow IPC practices during wound care
    - Review relevant IPC policies and procedures
    - Verify adherence through auditing
  - Understand roles and responsibilities
    - Identify who is responsible for providing supplies and equipment
    - Identify who is responsible for reprocessing reusable wound care equipment

# Scenario 1 Question



- A new wound care nurse has started working at a nursing home. *Before the nurse begins caring for residents' wounds at the nursing home, what first must occur?*



# Scenario 1 Answer

- ***Before any healthcare staff perform wound care, what first must occur?***
  - **Answer:** The facility must ensure IPC practices are shared and followed during wound care provided in the facility. This includes:
    - Communicating the facility's wound care policies and procedures
    - Identifying who is responsible for providing supplies and equipment for wound care procedures, such as PPE and dressing materials
    - Identifying who is responsible for reprocessing reusable wound care equipment, including how and where reprocessing will be performed
    - Periodically monitoring compliance with wound care IPC practices (including contractors)



Reference: <https://www.cdc.gov/infection-control/media/pdfs/ipc-mod8-wound-care-508.pdf>

# Wound Care Infection Prevention Practices

- **Standard Precautions**

- Hand hygiene
- Personal protective equipment (PPE)
- Supply and medication storage and use
- Wound care field
- Cleaning and disinfection of environmental surfaces and equipment

- **Transmission-based Precautions** (when applicable)

- Contact
- Contact and droplet

- **Enhanced-Barrier Precautions** (Nursing Homes only)



# Resources



## CDC

- Nursing Home Infection Preventionist Training Course (Module 10: Infection Prevention During Wound Care)
  - <https://www.train.org/virginia/course/1081811/details>
  - *Note: Requires registering for a free TRAIN account*
- Enhanced Barrier Precautions resources
  - <https://www.cdc.gov/long-term-care-facilities/hcp/prevent-mdro/ppe.html>
- Infection Prevention and Control Assessment Tool for General Infection Prevention and Control Across Settings: Wound Care
  - <https://www.cdc.gov/infection-control/media/pdfs/ipc-mod8-wound-care-508.pdf>
  - Includes assessment items for basic infection prevention and control

# Resources



## Virginia Department of Health

- Enhanced Barrier Precautions resources  
<https://www.vdh.virginia.gov/haiar/icprecautions/>
- Wound care infection prevention and control guidance and observation tool
  - <https://www.vdh.virginia.gov/content/uploads/sites/174/2023/10/VDH-Wound-Care-IPC-Tool-Checklist-External-Use-1.pdf>
- Wound care quick guide for nursing home infection preventionists
  - [https://www.vdh.virginia.gov/content/uploads/sites/174/2023/11/Quick-Guide\\_WoundCare\\_FINAL.pdf](https://www.vdh.virginia.gov/content/uploads/sites/174/2023/11/Quick-Guide_WoundCare_FINAL.pdf)

## Minnesota Department of Health: Wound Care Infection Prevention Recommendations for Long-Term Care Facilities

<https://www.health.state.mn.us/facilities/patientsafety/infectioncontrol/woundcare.pdf>



# Acknowledgments

## VDH Regional Infection Preventionists

Wendy Fariss

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# THANK YOU



Visit the VDH HAI/AR Website:  
<https://www.vdh.virginia.gov/haiar/>

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