



Checklist of PPE Considerations for Emergency Management Planning & Response

Prepared by:

2024 APIC Emerging Infectious Diseases Task Force



Lead Authors:

Terri Rebmann, PhD, RN, CIC, FAPIC; Bassel Molaeb, MPH, CIC, FAPIC; Kelsey P. Ostergren, MPH, CIC; Barbara A. Smith, BSN, MPA, CIC, FAPIC; Peggy Douglas, MPH, RRT, CIC; Tawanna McInnis-Cole, DHA, MS, BSN, RN, CIC; Steven J. Schweon, RN, MPH, MSN, CIC, LTC-CIP, CPHQ, FSHEA, FAPIC; Kia Parker, MACPR, CRCST, CER, CHL, a-IPC, CIC; Heather Ridge, RN, BSN, BS, CIC; Janina-Marie Tatar, CIC, LTC-CIP, MBA; Feah Altura Visan, RN, MN, MAN, CIC, FAPIC; Jill Holdsworth, MS, CIC, NREMT, FAPIC; Crystal Heishman, MBA, RN, CIC, ONC, FAPIC; Genevieve Edwards, MPH

Secondary Authors:

Alyssa Diehl, DHSc, MPH; Pamela Falk, MPH, CIC, FSHEA, FAPIC

Background

Personal protective equipment (PPE) is essential to protect healthcare personnel (HCP) from potential occupational exposure that can cause injury and maintain patient safety. Healthcare facilities and agencies need to have access to appropriate amounts and types of PPE during disasters, which requires planning prior to an event and ongoing evaluation during an event.¹ For some facilities, this may involve maintaining a PPE stockpile, which requires assessment and management protocols to ensure supplies do not expire or lose integrity.²

In addition to having access to PPE, it is critical that HCP have the knowledge and ability to demonstrate competency with PPE, including selection, donning, using, doffing, and disposal.¹ The type of PPE needed for a disaster depends on several factors, including the nature and scope of the event and whether the disaster involves a communicable disease. Infectious disease disasters, such as outbreaks of emerging pathogens, bioterrorism, or a pandemic will require access to large amounts of PPE, PPE training for HCP, and auditing of practices to ensure proper use.¹

During large-scale events or prolonged infectious disease disasters, it is likely that facilities' PPE supplies will become depleted. It is essential that healthcare facilities and agencies develop crisis standards of care outlining how to allocate PPE when supplies are limited or depleted during declared public health emergencies.¹ This is best done as part of emergency management planning but may be performed during disaster response if needed.

How to use the checklist

This checklist was developed to aid infection preventionists (IPs) in PPE-related issues for emergency management, including during planning and disaster response. ***Please note that information in this checklist is to be used for a disaster or declared public health emergency only, and not for routine PPE needs.***

This checklist outlines the PPE-related topics that should be incorporated into an emergency management plan. Please see other APIC resources for more thorough information regarding emergency management planning.^{1,3,4}

To complete this checklist, the IP should gather relevant stakeholders involved in PPE management, emergency management, supply chain management or purchasing, as well as other key decision makers such as executive leaders. The checklist should be used to guide discussion around each line item and serve as a starting point for a thorough review of current PPE processes and needs. Through these discussions, gaps and areas for improvement may be identified, which can guide IPs and their facilities on priority areas to address prior to an event.

While this checklist outlines general PPE-related topic areas, it may not address all PPE needs that arise during disaster response. IPs are encouraged to add additional elements to this checklist that are relevant to their facility or a specific event. The Notes section is available for documenting any relevant questions or follow-up needed, validate a shared understanding of the current state for any item, and outline the responsible party for each task. The Notes field may also be used to document progress and provide updates related to each task.

Following initial completion of this checklist, IPs are encouraged to review and update it annually, to ensure information remains up-to-date and inclusion of any new processes, partners, or policies.

Checklist/Considerations

Notes

1. How is the pathogen transmitted?

2. What PPE is required?

Item/Consideration	Yes	No	Notes
3. Is any of the needed PPE unusual/not used in routine patient care?	<input type="checkbox"/>	<input type="checkbox"/>	
4. Will healthcare staff require unique/specific training to use the needed PPE?	<input type="checkbox"/>	<input type="checkbox"/>	
4a. If yes, is the training competency-based?	<input type="checkbox"/>	<input type="checkbox"/>	
4b. Are there specific groups who are a high priority for training?	<input type="checkbox"/>	<input type="checkbox"/>	
5. Does the PPE require an observer for donning and/or doffing?	<input type="checkbox"/>	<input type="checkbox"/>	
6. Can the used PPE be discarded following standard facility protocols, or does it require special handling and disposal procedures (such as during a smallpox bioterrorism attack or a viral hemorrhagic fever outbreak)?	<input type="checkbox"/>	<input type="checkbox"/>	
6a. If yes, does the facility have a process for special handling and disposal procedures?	<input type="checkbox"/>	<input type="checkbox"/>	
7. Is the facility part of a healthcare system?	<input type="checkbox"/>	<input type="checkbox"/>	
7a. If yes, are the PPE protocols standardized across the system, including PPE crisis standards of care?	<input type="checkbox"/>	<input type="checkbox"/>	
8. Does the facility want to coordinate PPE protocols across the region so that similar facilities follow the same protocols?	<input type="checkbox"/>	<input type="checkbox"/>	
9. What is the facility's estimated PPE needs (i.e., burn rate)? CDC PPE burn rate calculator: https://www.cdc.gov/niosh/topics/pandemic/ppe.html	<input type="checkbox"/>	<input type="checkbox"/>	
10. How much PPE does the facility keep available (ie, for how many days)?	<input type="checkbox"/>	<input type="checkbox"/>	
11. How and where is PPE stored?	<input type="checkbox"/>	<input type="checkbox"/>	
12. Does the facility have a protocol for assessing PPE storage areas?	<input type="checkbox"/>	<input type="checkbox"/>	

Item/Consideration	Yes	No	Notes
13. Can the facility lock up or restrict access to PPE supplies?	<input type="checkbox"/>	<input type="checkbox"/>	
14. Does the facility have a PPE stockpile or access to a local or regional stockpile?	<input type="checkbox"/>	<input type="checkbox"/>	
14a. If yes, how often is the PPE stockpile assessed for integrity or expiration of supplies?	<input type="checkbox"/>	<input type="checkbox"/>	
14b. If yes, is there a process for assessing supply integrity in the stockpile?	<input type="checkbox"/>	<input type="checkbox"/>	

PPE Crisis Standards of Care	Yes	No	Notes
15. Does the facility have a protocol for allocating supplies when PPE starts to become depleted (i.e., crisis standards of care)? CDC guidance: https://www.cdc.gov/niosh/topics/pandemic/conserving.html https://www.cdc.gov/niosh/topics/pandemic/strategies-n95.html	<input type="checkbox"/>	<input type="checkbox"/>	
16. Does the facility have a protocol for when to implement crisis standards of care related to PPE?	<input type="checkbox"/>	<input type="checkbox"/>	
17. Will staff compliance with PPE protocols be assessed?	<input type="checkbox"/>	<input type="checkbox"/>	
17a. If yes, how will compliance be assessed?	<input type="checkbox"/>	<input type="checkbox"/>	
17b. If yes, how often will compliance be assessed?	<input type="checkbox"/>	<input type="checkbox"/>	
18. Will staff PPE tolerance be assessed?	<input type="checkbox"/>	<input type="checkbox"/>	
18a. If yes, how will tolerance be assessed?	<input type="checkbox"/>	<input type="checkbox"/>	
18b. If yes, how often will tolerance be assessed?	<input type="checkbox"/>	<input type="checkbox"/>	
19. Does the facility have a process for assessing new PPE from a new source/vendor?	<input type="checkbox"/>	<input type="checkbox"/>	

For Diseases Requiring Airborne Precautions	Yes	No	Notes
20. Have staff been medically cleared to use respiratory protection (i.e., N95s)? CDC/NIOSH tool: https://www.cdc.gov/niosh/npptl/hospresptoolkit/medeval.html	<input type="checkbox"/>	<input type="checkbox"/>	

For Diseases Requiring Airborne Precautions	Yes	No	Notes
21. Is fit-testing of staff required?	<input type="checkbox"/>	<input type="checkbox"/>	
21a. If yes, have staff been fit-tested in the last 12 months?	<input type="checkbox"/>	<input type="checkbox"/>	
21b. If the facility is using a new brand of N95s (either obtained a stockpile or from a vendor(s) to aid in event response), have staff been fit-tested on the new respirators?	<input type="checkbox"/>	<input type="checkbox"/>	
22. Will the facility use reusable respirators, such as PAPRs, CAPRs, or elastomeric respirators?	<input type="checkbox"/>	<input type="checkbox"/>	
22a. If yes, does the facility have a protocol for training staff on their use?	<input type="checkbox"/>	<input type="checkbox"/>	
22b. If yes, does the facility have a protocol for cleaning/disinfection between use?	<input type="checkbox"/>	<input type="checkbox"/>	
22i. If yes, is there a process for noting/designating when one has been cleaned/disinfected?	<input type="checkbox"/>	<input type="checkbox"/>	
22c. If yes, does the facility have a protocol for maintaining the reusable respirators?	<input type="checkbox"/>	<input type="checkbox"/>	
22d. If yes, where are the supplies/equipment stored?	<input type="checkbox"/>	<input type="checkbox"/>	
23. Will the facility decontaminate respirators?	<input type="checkbox"/>	<input type="checkbox"/>	
23a. If yes, does the facility have a protocol for how to safely decontaminate respirators?	<input type="checkbox"/>	<input type="checkbox"/>	
23b. If yes, will the decontamination process occur on or off site?	<input type="checkbox"/>	<input type="checkbox"/>	
24. Will the facility use respirators that are beyond the designated shelf life?	<input type="checkbox"/>	<input type="checkbox"/>	
24a. If yes, does the facility have a protocol for using those respirators for training and fit-testing versus in clinical settings for patient care?	<input type="checkbox"/>	<input type="checkbox"/>	

References:

1. Rebmann T. Infectious disease disasters: Bioterrorism, emerging infections, and pandemics. APIC Text of Infection Control and Epidemiology Washington, DC: Association for Professionals in Infection Control and Epidemiology; 2023.
2. Rebmann T, McPhee K, Osborne L, Gillen DP, Haas GA. Best Practices for Healthcare Facility and Regional Stockpile Maintenance and Sustainment: A Literature Review. Health Secur. 2017;15:409-17.
3. Rebmann T. Emergency Management. APIC Text of Infection Control and Epidemiology Washington, DC: Association for Professionals in Infection Control and Epidemiology; 2023.
4. Rebmann T. Assessing hospital emergency management plans: A guide for infection preventionists. American Journal of Infection Control. 2009;37:708 - 14.