



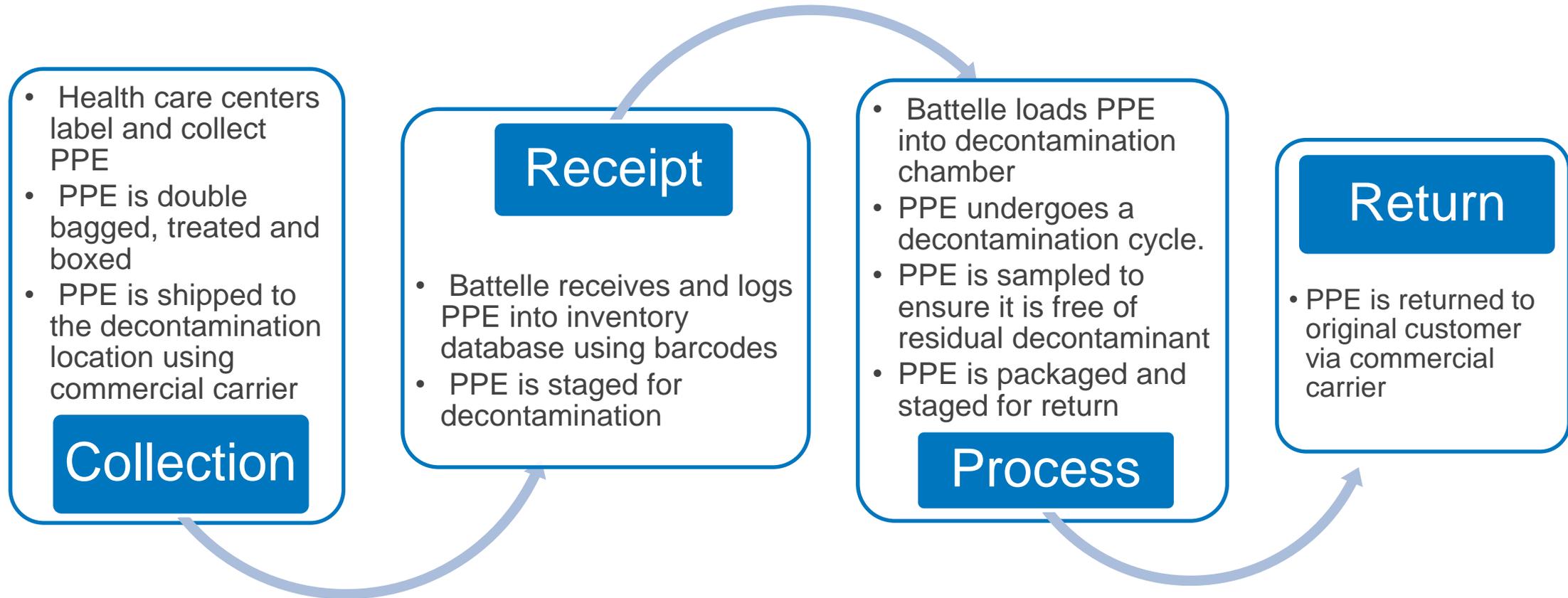
Personal Protective Equipment – Decontamination for Reuse

24 March 2020

Overview

- Battelle will use “Wet” Vapor Phase Hydrogen Peroxide (VPHP) process to decontaminate PPE, including N95 respirators
 - VPHP is an industry standard used for decades in health care and research areas
 - Battelle conducted a comprehensive study for the FDA in 2016 proving this method effective on N95 respirators
- Involves a 20’ x 8’ x 9’ chamber where up to 5,000 items are placed for decontamination
- Hydrogen Peroxide Vapor is pumped into the chamber for a pre-described contact time and followed by an extended air-wash cycle to clear the peroxide
- Battelle has scaled up from a single chamber located in West Jefferson, OH to a multi-chamber system to serve all of Ohio.
- Additional systems are being built to be deployed strategically as needed across the nation
- Battelle is researching application of this method to other PPE items and medical equipment

PPE Decontamination Logistical Flow



Additional Details

- Each N95 respirator is to be labeled at the health system with permanent Sharpie marker and include:
 - “Owner’s” Initials, 3-digit Hospital Code, and Site Location (floor, dept., etc)
 - The number of decontamination cycles is marked by Battelle to track over life of respirator
- After items are double-bagged for shipment, the outer bag will be cleaned with bleach or alcohol wipes prior to being placed into a shipping container
- 2016 Research indicates N95 respirators can undergo up to 20 decontamination cycles without significant degradation in operational performance
 - Other factors such as the number of donning and doffing cycles and proper fit need to be considered
 - Current customers are assuming 5 reuses
- FDA EUA expected to be received 3/23/20
- Battelle will work with individual customers to establish a commercial agreement prior to shipment of equipment



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It can be done

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