

Chapter 9

Patient Decontamination

Considerations for Evacuation

Evacuation of casualties under NBC conditions forces the unit commander to consider to what extent he will commit evacuation assets to actually enter the contaminated area. Generally, if most or all of a supported force is operating in a contaminated area, most of all of the medical evacuation assets will operate there also. If it is possible to keep some ambulances free from contamination, every effort should be made to do so.

On the modern battlefield we have three basic modes of evacuating casualties (personnel, ground vehicles, and aircraft). Using personnel to physically carry the casualties incurs a great deal of inherent stress. Cumbersome MOPP gear, climate, increased work loads, and battle fatigue will greatly reduce the effectiveness of unit personnel.

If evacuation personnel are to be sent into a radiologically contaminated area, OEG must be established. Radiation exposure records must be maintained by the supported unit chemical NCO and made available to the commander, staff, and medical leader. Based on OEG, the commander or medical leader will decide which evacuation elements to send into the contaminated environment. Again, every effort is made to limit the number of evacuation assets that are contaminated. Evacuation considerations should include—

- A number of ambulances will become contaminated in the course of battle. Optimize the use of resources, medical or nonmedical, which are already contaminated before employing uncontaminated resources.

- Once a vehicle has entered a contaminated area, it is highly unlikely that it will be able to be spared long enough to undergo a complete decon. This will depend upon the contaminant, the tempo of the battle, and the resources available to the evacuation unit. Normally, contaminated vehicles (air and ground) will be confined to dirty environments.

- Use ground ambulances instead of air ambulances in contaminated areas, as they are more plentiful, are easier to decontaminate, and can be replaced more easily. However, this does not preclude the use of aircraft in a con-

taminated environment or in the evacuation of contaminated patients.

- The relative positions of the contaminated area, FLOT, threat air defense systems and patient's medical condition will determine if and where air ambulances may be used in the evacuation process with minimal pilot exposure. One or more air ambulances may be restricted to contaminated areas. To the greatest extent possible, use ground vehicles to cross the line separating contaminated and clean areas. The ground ambulance proceeds to a medical treatment facility with a patient decon station. The patient is decontaminated and treated. The patient is transferred to a clean ground or air ambulance, if further evacuation is required. The routes used by ground vehicles to cross between contaminated and clean areas should be considered dirty routes and should not be crossed by clean vehicles. The effects of wind and time upon the contaminants must be considered.

- The rotorwash of the helicopters must always be kept in mind when evacuating patients, especially in a contaminated environment. The intense winds will undoubtedly disturb the contaminants, causing increased vapor hazards.

Ideally, the aircraft must be allowed to land and reduce to flat pitch before patients are brought near. This will allow some reduction in the effects of the downwash. Additionally, a helicopter must not land too close to a decon station (especially upwind) because any tract of contaminants in the rotorwash will compromise the decon procedure.

Operational decon of aircraft and ground vehicles should be accomplished to minimize crew exposure. Units should include thorough decon procedures in their SOPs (See Chapter 4).

Evacuation of patients must continue, even under NBC conditions. The medical leader must recognize the constraints NBC operations placed upon him, then plan and train to overcome these deficiencies.

Casualty Decontamination

Casualty decon presents special problems for units and health service support personnel. Under NBC conditions, contaminated wounded soldiers create increased hazards

to rescuers and health service support personnel. This discussion covers decon procedures for casualties starting at the unit level.

On the NBC battlefield, two classifications of casualties will be encountered - contaminated and uncontaminated. Those contaminated may suffer from the effects of an NBC agent, of a conventional wound or both. Some may suffer battle fatigue or heat casualties, induced by the stress of NBC conditions and extended time spent in MOPP4. It is important to follow proper decon procedures to limit the spread of contamination to others and equipment.

Casualty decon begins at the platoon and company level with the individual soldier. The soldier himself or members

of his team perform immediate decon and administer nerve agent antidotes, if required. The casualty is tagged with a field medical card (DD Form 1380) or field expedient tag (Figure 9-1), noting the time and type of contamination. If available, use the CAM to determine the type and concentration of contamination. When the casualty's condition and the battle permits, they may go through a MOPP gear exchange (Chapter 3). The MOPP gear exchange must not cause further injury to the casualty.

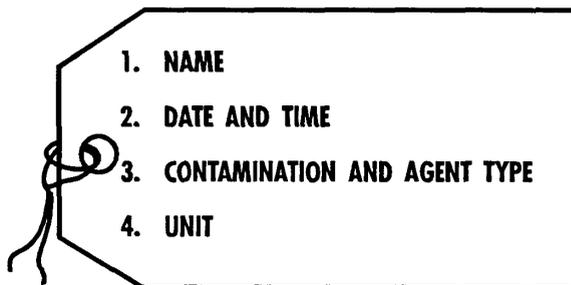


Figure 9-1. Field expedient NBC casualty tag.

Patient Decontamination at the Medical Facility

Patient Decontamination at the Battalion Aid Station

When battle conditions prevent decon procedures forward, the casualty may have to be evacuated to the battalion aid station (BAS) before decon. Upon arrival at the BAS, patients are monitored with the CAM or other detection equipment or material to determine if they are contaminated. Contaminated patients arriving at the BAS must be decontaminated before admission into the clean treatment area.

Patient decon is the systematic removal of clothing and contaminants from patients who are unable to decon themselves. Patient decon is performed by a patient decon team consisting of eight nonmedical personnel from the supported unit to support the BAS. The patient decon team operates under the supervision of medical personnel to ensure that no further injury is caused to the patient by the decon process.

Patient Decontamination at the Division Clearing Station

The division clearing station (DCS) may receive patients from the BAS or directly from other areas who have not been decontaminated. The DCS, as well as the BAS, must have a patient decon area. As with the BAS, the DCS must have at least eight nonmedical personnel from the sup-

ported units to perform patient decon. Procedures for patient decon at the DCS are the same as for the BAS.

Patient Decontamination at the Hospital

To the maximum extent possible, hospitals are located away from tactical or logistical targets. Patients evacuated from forward areas should have been decontaminated; however, patients may arrive from units located within the geographical area of the hospital that are contaminated and require decon. Patient decon is done by 20 nonmedical personnel from units located in the geographical area/base cluster of the hospital.

If the hospital does not have collective protective shelters (CPS) and becomes contaminated with a persistent agent, patients are re-routed to other hospitals. If possible, all inpatients are evacuated and the hospital decontaminated.

Upon completion of decon, the hospital will return to normal operations. Hospitals with CPS capabilities will decontaminate areas around the entry to these facilities, then continue receiving and caring for patients. Patient decon procedures used in forward medical facilities also apply to hospital operations. However, several patient decon stations can be operated at this site. All patients arriving at the hospital will be monitored for contamination before being admitted into the clean areas of the hospital. Perform decon as required.

Chemical Patient Decontamination Procedures

Decontaminate a Litter Chemical Agent Patient

Before most patients receive medical treatment, they are decontaminated by the patient decon team. Figure 9-2 shows one concept for establishing the chemical agent patient decon station. Place bandage scissors used in this procedure in a container of 5 percent chlorine solution between each use. Decontaminate the decon team member's gloves and aprons with a 5 percent chlorine solution.

Decon the patient's skin, bandages, wounds, mask, and splints with a 0.5 percent chlorine solution.

Use the ABC-MS VGH (M8) detector paper or the CAM to determine the extent of contamination on each patient before beginning decon procedures. Some patients may have been decontaminated already.

For treatment procedures, refer to FM 8-33, FM 8-9 and FM 8-285.

The litter patient is decontaminated and undressed as follows:

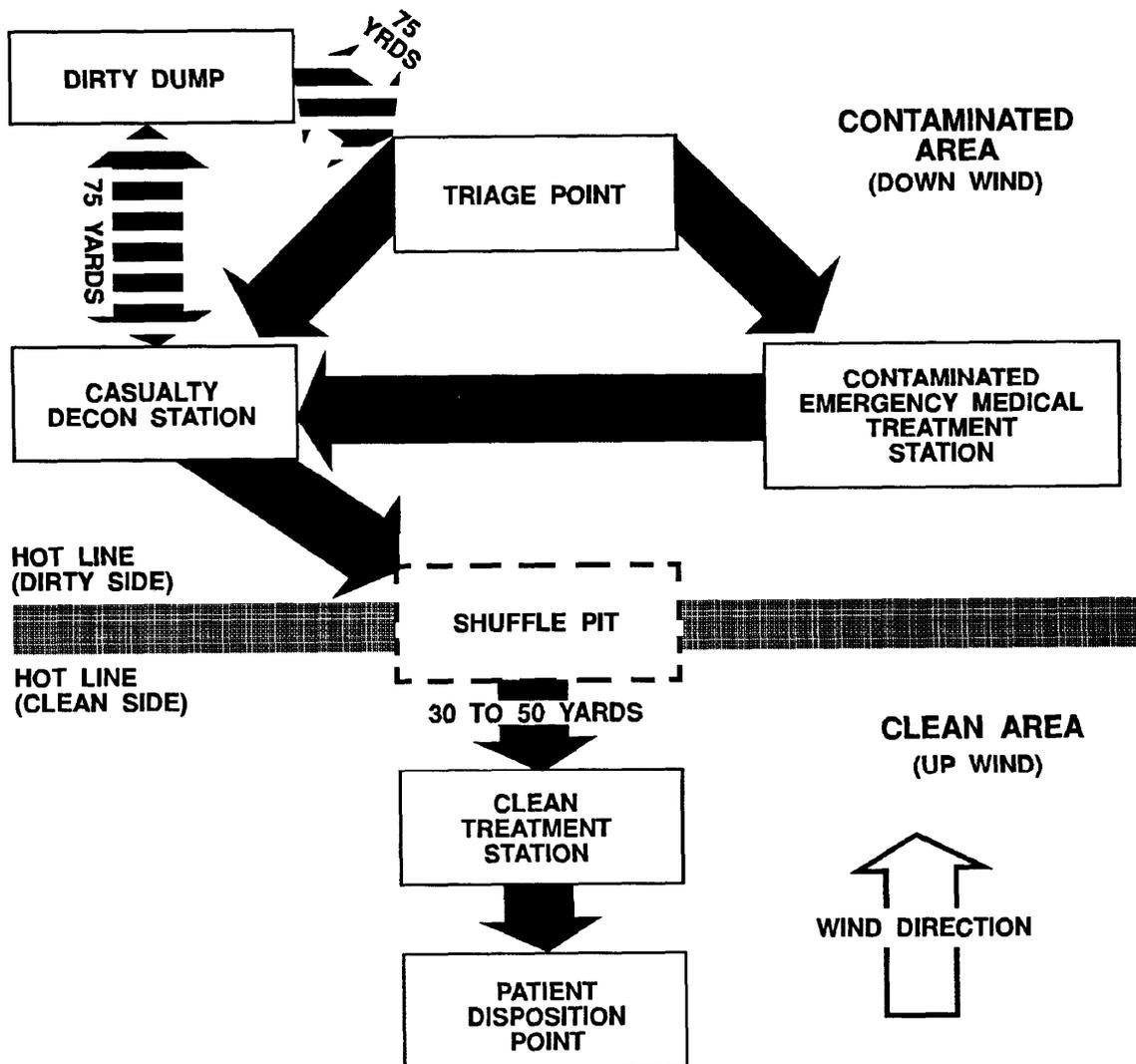


Figure 9-2. Layout for a patient decontamination station and a clean treatment area without CPS.

Step 1. Decontaminate the patient's mask and hood

Move the patient to the clothing removal station. After the patient has been triaged and stabilized (if necessary) by the senior medic in the patient decon area, move him to the litter stands at the clothing removal station.

Decontaminate the mask and hood. Use the M291 or M258A1 skin decon kit or sponge down the front, sides, and top of the mask hood with a 5 percent chlorine solution, HTH, or household bleach.

Remove hood. Remove the hood by cutting the hood (see Figure 9-3) or by loosening the hood from the mask attachment points for the quick-doff hood or other similar hoods. Before cutting the hood, dip the scissors in a 5 percent chlorine solution. Cut the neck cord, zipper cord, and the small string under the voicemitter. Release or cut the hood shoulder straps and unzip the hood zipper. Cut the hood upward, close to the falter inlet cover and eyelens outsert, upward to the top of the eyelens outsert, and across the forehead to the outer edge of the other eyelens outsert. Proceed downward toward the patient's shoulder, staying close to the eyelens and falter inlet cover, then across the lower part of the voicemitter to the zipper. After dipping the scissors in the 5 percent chlorine solution, cut the hood from the center of the forehead over the top of the head and fold the left and right sides of the hood to the side of the patient's head, laying the sides of the hood on the litter.

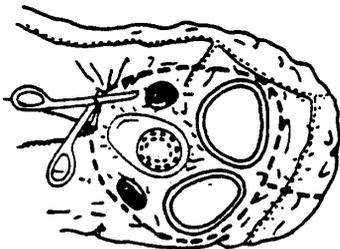


Figure 9-3. Cutting M6A2 protective mask hood.

Decontaminate the protective mask and exposed skin. Using the M291/M258A1 kit, or a 0.5 percent chlorine solution, wipe the external parts of the mask. Cover both mask air inlets with gauze or your hand to keep the mask falter dry. Continue by wiping the exposed areas of the patient's face, to include the neck, and behind the ears. Removal of the mask should be explained particularly for patients with head and neck injuries (see clean treatment station).

Remove field medical card. Cut the patient's field medical card (FMC) tie wire, allowing the FMC to fall into a plastic bag. Seal the plastic bag and rinse the outside of the bag with a 5 percent chlorine solution. Place the plastic bag with the FMC under the back of the protective mask head

straps. The FMC will remain with the patient in the contaminated area and a clean copy will be made before the patient is moved to the clean area.

Step 2. Remove gross contamination from the patient overgarment

Remove all visible contamination spots with the M291/M258A1 kit, or 5 percent chlorine solution. Decontaminate the mask by-

- Using an M291 pad on the exterior and interior of the mask, OR by
 - Using the M258A1 wipe 1, then wipe 2 for the exterior and interior of the mask, OR by
 - Using a 0.5 percent chlorine solution.
- DO NOT remove the protective mask.

Step 3. Remove patient's protective overgarment and personal effects

Cut the patient's overgarment. The overgarment jacket and trousers are cut simultaneously. Two persons will be cutting clothing at the same time. **Cut around bandages, tourniquets, and splints, leaving them in place.**

Caution:

Bandages may have been applied to control severe bleeding and are treated like tourniquets. Only medical personnel remove bandages, tourniquets, and splints.

Remove overgarment jacket. Make two cuts, one up each sleeve from the wrist up to the shoulder, and then to the collar (Figure 9-4). Do not allow the gloves to touch the patient along the cut line. Dip the scissors in the 5 percent chlorine solution before making each cut to prevent contamination of the patient's uniform or underclothing. Keep the cuts close to the inside of the arms so that most of the sleeve material can be folded outward. Unzip the jacket; roll the chest sections to the respective sides, with the inner surface outward. Continue by tucking the clothing between the arm and chest. Roll the cut sleeves away from the arms, exposing the black liner.

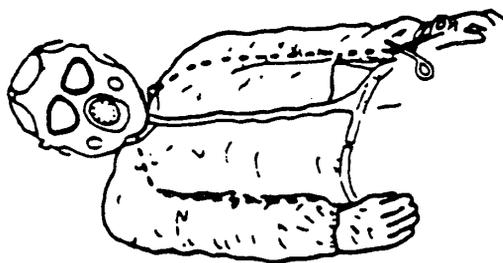


Figure 9-4. Cutting the overgarment jacket.

Remove overgarment trousers. Cut both trousers legs starting at the ankle as shown in Figure 9-5. Keep the cuts near the inseams to the crotch. With the left leg, continue cutting to the waist, avoiding the pockets. With the right leg, cut across at the crotch to the left leg cut. Place the scissors in the 5 percent chlorine solution. Fold the cut trouser halves away from the patient and allow the halves to drop to the litter with contaminated (green) side down. Roll the inner leg portion under and between the legs.

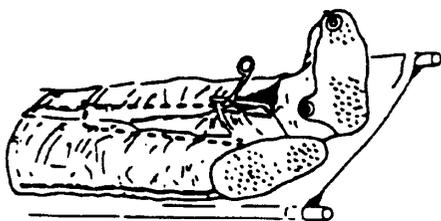


Figure 9-5. Cutting the overgarment trousers.

Remove outer gloves. This procedure can be done with one person on each side of the patient working simultaneously. Decon team will decon their gloves in 5 percent chlorine solution. Next, lift the patient's arms up and out of the cutaway sleeves unless detrimental to the patient's condition. Grasp the fingers of the glove, roll the cuff over the fingers, turning the glove inside out. Do not remove the inner cotton gloves at this time. Carefully lower the arms across the chest after the gloves have been removed (figure 9-6). Do not allow the patient's arms to come into contact with the exterior of his overgarment. Drop his gloves into

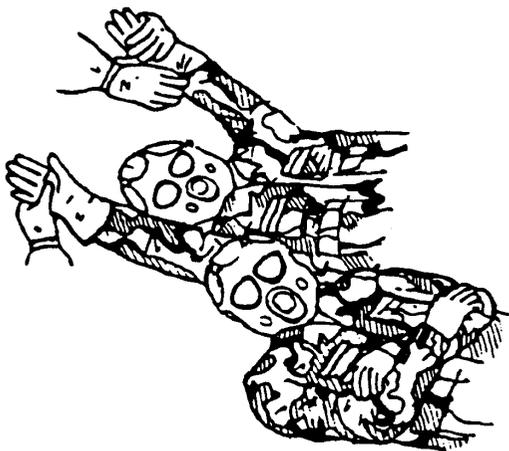


Figure 9-6. Remove outer gloves and position arms after glove removal.

the contaminated waste bag. Dip your gloves in the 5 percent chlorine solution.

Remove overboots. Cut the overboot laces and fold the lacing eyelets flat outwards. If the GVO is worn, first try to remove the overboot without cutting; if necessary, cut the boot along the front. While standing at the foot of the litter, hold the heel with one hand, pull the overboot downwards, then pull towards you to remove the overboot over the combat boot heel. Remove the two overboots simultaneously. This reduces the likelihood of contaminating one of the combat boots.

While holding the heels off of the litter, have a decon team member wipe the end of the litter with the 5 percent chlorine solution to neutralize any liquid contamination that was transferred to the litter from the overboots. Lower the patient's heels onto the decontaminated litter. Place the overboots in the contaminated waste bag. Decon personnel dip their gloves in the 5 percent chlorine solution.

Remove patient's personal effects. Remove the patient's personal effects from his protective overgarment and BDU uniform pockets. Place the articles in a plastic bag, label with patient's identification and seal the bag. If the articles are not contaminated, they are returned to the patient. If the articles are contaminated, place them in the contaminated holding area until they can be decontaminated, then return them to the patient.

Step 4. Remove patient's battledress uniform

Remove combat boots. Cut the boot laces along the tongue. Remove the boots by pulling them towards you. Place the boots in the contaminated waste bag. Do not touch the patient's skin with contaminated gloves when removing his boots.

Remove inner clothing. Follow the procedures for cutting away the protective overgarment and rolling it away from the patient. If the patient is wearing a brassiere, cut it between the cups. Cut both shoulder straps where they attach to the cups and lay them back off of the shoulders. Remove the socks and cotton gloves.

Step 5: Transfer the patient to a decon litter

After the patient's clothing has been cut away, he is transferred to a decon litter or a canvas litter with a plastic sheeting cover. Three decon team members decontaminate their gloves and aprons with the 5 percent chlorine solution. One member places his hands under the patient's legs at the thighs and Achilles tendons, a second member places his arms under the patient's back and buttocks, and a third member places his arms under the patient's shoulders and supports the head and neck. They carefully lift the patient using their knees (not their backs) to minimize back strain. While the patient is elevated another decon team member removes the litter from the litter stands and another member replaces it with a

decontaminated (clean) litter. The patient is carefully lowered onto the clean litter. Two decon members carry the litter to the skin decon station. The contaminated clothing and overgarments are placed in bags and moved to the decontaminated waste dump. The dirty litter is rinsed with the 5 percent chlorine solution and placed in a litter storage area.

NOTE: Before obtaining another patient, the decon team drinks approximately half a quart of water. The amount consumed is increased or decreased according to the work level and the temperature.

Step 6. Decontaminate Skin

Spot decon. With the patient in a supine position spot decontaminate the skin using the M291/M258A1 kit or a 0.5 percent chlorine solution. Decontaminate areas of potential contamination. Include areas around the neck, wrists, and lower parts of the face.

Aidman care. During decon, the clothing around bandages, tourniquets, and splints was cut and left in place. The aidman replaces the old tourniquet by placing anew tourniquet 1/2 to 1 inch above the old one. He then removes the old tourniquet, decontaminates the patient's skin using the M291 pads, the M258A1 kit, or a 0.5 percent chlorine solution.

Usually the aidman will gently cut away bandages. The aidman decontaminates the area around the wound and irrigates the wound with the 0.5 percent chlorine solution. If bleeding begins the aidman replaces the bandage with a clean one.

Warning

DO NOT use the M291 pads or wipes from the M258A1 kit around the wounds.

DO NOT remove splints. Splints are decontaminated by applying the 0.5 percent chlorine solution to them to include the padding and cravats. Splints will not be removed until the patient has been evacuated to a corps (combat support or MASH) hospital. The patient is checked with M8 detector paper or the CAM for completeness of decon.

NOTE: Other monitoring devices may be used when available.

Dispose of contaminated bandages and coverings by placing them in a contaminated waste bag. Seal the bag and place it in the contaminated waste dump.

Step 7. Transfer the patient across the shuffle pit

The patient's clothing has been cut away and his skin, bandages, and splints have been decontaminated. Now the litter is transferred to the shuffle pit and placed upon the litter stands. The shuffle pit is wide enough to prevent the patient decon team members from straddling it while carrying the litter. A third member of the decon team assists

with transferring the patient to a clean treatment litter in the shuffle pit.

Decon personnel rinse or wipe down their aprons and gloves with the 5 percent chlorine solution.

Three decon team members lift the patient off of the decon litter (see Step 5 for lifting procedures).

While the patient is elevated, another decon team member removes the litter from the stands and returns it to the decon area. A medic from the clean side of the shuffle pit replaces the litter with a clean one. The patient is lowered onto the clean litter. Two medics from the clean side of the shuffle pit move the patient to the clean treatment area. The patient is treated in this area or awaits processing into the collective protection shelter. The litter is wiped down with the 5 percent chlorine solution in preparation for reuse. Once the patient is in the airlock of the CPS and the air lock has been purged, his protective mask is removed. Place the mask in a plastic bag, close, and seal the bag.

NOTE: Before decontaminating another patient, each decon team member drinks approximately half a quart of water. The exact amount of water consumed is increased or decreased according to the work level and temperature (See FM 3-4).

Decontaminate an Ambulatory Chemical Agent Patient

All ambulatory patients will be decontaminated at the battalion aid station (BAS), if possible, before evacuation. Stable patients not requiring treatment at the BAS, but requiring evacuation to the division clearing station or a corps hospital for treatment (for example, a patient with a broken arm), may be evacuated in their protective overgarments and masks by any available transportation. However, before evacuation, spot remove all thickened agents from protective clothing. For ambulatory patients requiring treatment at the BAS, complete decon will be accomplished. A member of the decon team or other ambulatory patients will assist in removing clothing and decontaminating the skin of these patients.

NOTE Place bandage scissors used in this procedure in container of 5 percent chlorine solution when not in use. Most ambulatory patients will be treated in the contaminated treatment area and returned to duty. Upon removal of an ambulatory patient's clothing, he becomes a litter patient. The BAS and DCS do not have clothing to replace those cut off during the decon process. The patient must be placed in a patient protective wrap (PPW) for protection during evacuation (Figure 9-7).

The ambulatory patient is decontaminated and undressed as follows-

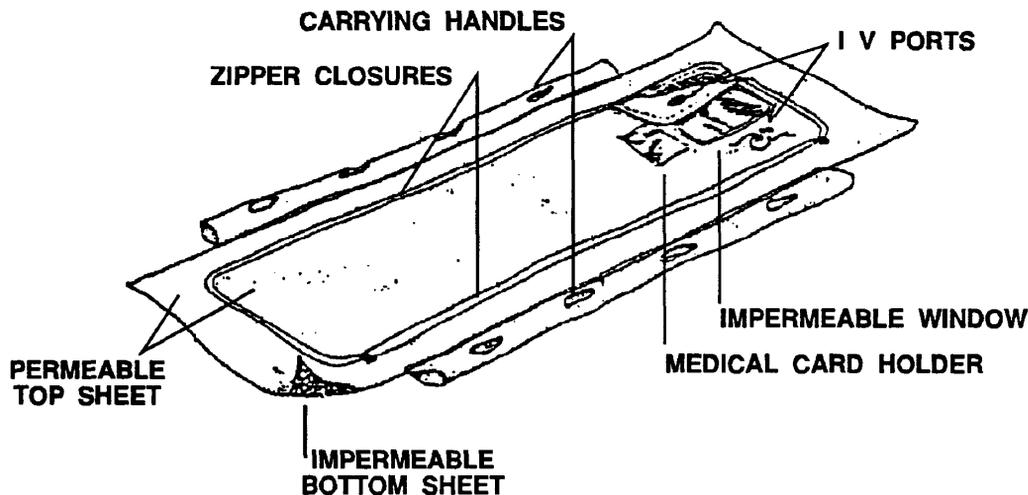


Figure 9-7. Chemical warfare agent protective patient wrap (PPW).

Decontaminants	Use	Preparation
Calcium Hypochlorite (HTH)	Biological-Chemical 5% solution mask decon	5% — mix 3 pounds (48 oz) HTH to 5 gallon water
	.5% solution skin decon	.5% — mix 6 ounces to 5 gallons water
Supertropical Bleach (STB)	Biological-Chemical Dry Mix for shuffel pit	See Appendix F
Skin Decon Kit M258A1 or M291	See Appendix B	None
Warm, Soapy Water	Rad — Patient shower or wash	M17 SANATOR

Step 1. Remove load-carrying equipment

Remove load-carrying equipment (LCE) by unfastening/unbuttoning all connectors or tie straps; then place the equipment in a plastic bag. Place the plastic bag in the designated storage area for later decon.

Step 2. Decontaminate the patient's mask and hood

Send patient to clothing removal station. After the patient has been triaged and treated (if necessary) by the senior medic in the patient decon station, he walks to the clothing removal station.

Decontaminate and remove mask hood.

Sponge down the front, sides, and top of the hood with a 5 percent chlorine solution. Remove the hood by cutting (Figure 9-3) or, with the quick doff hood or other hoods, by loosening the hood from the mask attachment points. Before cutting the hood, dip the scissors in the 5 percent

chlorine solution. Begin by cutting the neck cord zipper cord, and the small string under the voicemitter. Next, release or cut the hood shoulder straps and unzip the hood zipper. Proceed by cutting the hood upward, close to the falter inlet cover and eyelens outserts, to the top of the eyelens outsert, across the forehead to the outer edge of the other eyelens outsert. Proceed downward toward the patient's shoulder, staying close to the eyelens and filter inlet. Cut across the lower part of the voicemitter to the zipper. After dipping the scissors in the 5 percent chlorine solution again, cut the hood from the center of the forehead over the top of the head and fold the right and left sides of the hood away from the patient's head, removing the hood.

Decontaminate mask and patient's face by using the M291/M258A1 kit or a 0.5 percent chlorine solution.

NOTE: This solution is a 0.5 percent solution, considerably weaker than the 5 percent used for scissors.

Wipe the external parts of the mask; cover both mask air inlets with gauze or your hands to keep the mask filters dry. Continue by wiping the exposed areas of the patient's face, to include the neck and behind the ears.

Step 3. Remove field medical card

Cut the card tie wire, allowing the card to fall into a plastic bag. Seal the plastic bag and rinse it with the 5 percent chlorine solution. Place the plastic bag under the back of the protective mask head straps.

Step 4. Remove all gross contamination from the patient's overgarment

Remove all visible contamination spots by using the M291/M258A1 kit or a sponge dipped in a 0.5 percent chlorine solution.

Step 5. Remove overgarments

Remove overgarment jacket. Have the patient stand with his feet spread apart at shoulder width. Unsnap the jacket front flap and unzip the jacket. If the patient can extend his arms, have him clinch his fist and extend his arms backward at about a 30° angle. Move behind the patient, grasping his jacket collar at the sides of the neck, peel the jacket off the shoulders at a 30° angle down and away from the patient. Avoid any rapid or sharp jerks which spread contamination. Gently pull the inside sleeves over the patient's wrists and hands.

If the patient cannot extend his arms, you must cut the jacket to aid in its removal. Dip the scissors in the 5 percent chlorine solution between each cut. As with the litter patient, cut both sleeves from the inside, starting at the wrist, up to the armpit. Continue cutting across the shoulder to the collar. Cut around bandages or splints, leaving them in place. Next, peel the jacket back and downward to avoid spreading contamination. Ensure that the outside of the jacket does not touch the patient or his inner clothing.

Remove the patient's butyl rubber gloves by grasping the heel of the glove, peel the glove off with a smooth downward motion. Place the contaminated gloves in a plastic bag with the overgarment jacket. Do not allow the patient to touch his trousers or other contaminated objects with his exposed hands.

Remove overboots. Remove the patient's overboots by cutting the laces with scissors dipped in the 5 percent chlorine solution. Fold the lacing eyelets flat on the ground. Step on the toe and heel eyelets to hold the overboot on the ground and have the patient step out of it. Repeat this procedure for the other overboot. If the GVO is worn, first try to remove the overboots without cutting if necessary cut the overboot along the front. If the overboots are in good condition, they can be decontaminated and reissued.

Remove overgarment trousers. Unfasten or cut all ties, buttons, or zippers before grasping the trousers at the waist and peeling them down over the patient's combat boots. Again, the trousers are cut to aid in removal. If necessary, cut both trouser legs starting at the ankle, keeping the cuts near the inside of the legs, along the inseam, to the crotch. Cut around all bandages, tourniquets, or splints. Continue to cut up both sides of the zipper to the waist and allow the narrow strip with the zipper to drop between the legs. Place the scissors in the decon solution. Peel or allow the trouser halves to drop to the ground. Have the patient step out of the trouser legs one at a time. Place the trousers in the marked and contaminated disposal bag.

Have the patient remove his cotton glove liners to reduce the possibility of spreading contamination. Have the patient grasp the heel of one glove liner with the other gloved hand, peeling the glove off of his hand. Hold the removed glove by the inside and grasp the heel of the other glove, peeling it off of his hand. Place both gloves in the contaminated waste bag.

Place the patient's personal effects in a clean bag and label with the patient's identification. If they are not contaminated, give them to him. If his personal effects are contaminated, place the bagged items in the contaminated storage area until they can be decontaminated, then return them to the patient.

Step 6. Check patient for contamination

After the patient's overgarments have been removed, check his BDU by using M8 detector paper or the CAM. Carefully survey all areas of the patient's clothing, paying particular attention to discolored areas on the uniform, damp spots, tears, areas around the neck, wrist, ears, and dressings, splints, or tourniquets. Remove spots by using the 0.5 percent chlorine solution, using the M291/M258A1 kit or cutting away the contaminated area. Always dip the scissors in the 5 percent chlorine solution after each cut. Recheck the area with the detection equipment.

Step 7. Decontaminate the patient's skin

Use the M291/M258A1 kit, or the 0.5 percent chlorine solution to spot decontaminate exposed neck and wrist areas, other areas where the protective overgarment was damaged, dressings, bandages, or splints.

Have the patient hold his breath and close his eyes. Have him or assist him in lifting his mask at the chin. Wipe his face with M291/M258A1 or the 0.5 percent chlorine solution. Wipe quickly from below the top of one ear, being careful to wipe all folds of the skin, top of the upper lip, chin, dimples, ear lobes, and nose. Continue up the other side of the face to the top of the other ear. Wipe the inside of the mask where it touches the face. Have the patient reseal and check his mask.

Caution

Keep the decon solution out the patient's eyes and mouth.

Step 8. Remove bandages and tourniquets

During the clothing removal, the clothing around bandages, tourniquets, and splints was cut and left in place.

The aidman will replace the old tourniquet by placing a new one 1/2 to 1 inch above the old tourniquet. When the old tourniquet is removed, the skin is decontaminated with the M291/M258A1 kit or the 0.5 percent chlorine solution.

Do not remove splints. Decontaminate them by thoroughly rinsing the splint, padding, and cravats with the 0.5 percent chlorine solution.

The aidman gently cuts away bandages. The area around the wound is rinsed with the 0.5 percent chlorine solution,

and the aidman irrigates the wound with the 0.5 percent chlorine solution. The aidman covers massive wounds with plastic secured with tape. Mark the wound as contaminated. The aidman also replaces bandages that are needed to control massive bleeding.

Dispose of contaminated bandages and coverings by placing them in a plastic bag and sealing the bag with tape. Place the plastic bags in the contaminated waste dump.

Step 9. Proceed through the shuffle pit to the clean treatment area

Have the decontaminated patient proceed through the shuffle pit to the clean treatment area. Make sure that the patient's boots are well decontaminated by stirring the contents of the shuffle pit as he crosses it. Patient's combat boots and protective mask will be removed in the entrance of the CPS.

Biological Patient Decontamination Procedures

The decon station as established for chemical agent patients can also be used for biologically contaminated patients. The 8-man patient decon team is required for biologically contaminated patient decon procedures.

Decontaminate a Litter Biological Agent Patient

Remove the FMC by cutting the tie wire and allowing the FMC to drop into a plastic bag. Keep the FMC with the patient.

Patient decon team members first apply a liquid disinfectant, such as chlorine dioxide solution, to the patient's clothing and the litter.

NOTE: Disinfectant solution for use in patient decon procedures must be prepared in accordance with the label instructions on the container. The strength of solution for use on the skin can also be used to irrigate the wound.

Patient decon team members remove the patient's clothing as in decon of chemical agent patients. Bandages, tourniquets, and splints are not removed. Move patient to a clean litter as described for a chemical agent patient. Place patient's personal effects in a clean plastic bag; label the bag. If uncontaminated, give to patient. If contaminated, place in contaminated storage, decontaminate when possible, then return to patient. Place patient's clothing in a plastic bag and dispose in a contaminated waste dump.

Bathe patient with soap and warm water, followed by reapplication of a liquid disinfectant. The medic places a new tourniquet 1/2 to 1 inch above the old tourniquet, then he removes the old one. The medic removes bandages and decontaminates the skin and wound with the disinfectant solution or the 0.5 percent chlorine solution; he replaces

the bandage, if needed, to control bleeding. Splints are disinfected by soaking the splint, cravats, and straps with the disinfectant solution.

NOTE: Use a 0.5 percent chlorine solution to decontaminate patients suspected of being contaminated with mycotoxins.

Two decon team members move patient to the hotline and transfer him to a clean litter as described for chemical agent patients. Place the patient's FMC in the plastic bag on the clean litter with him. Two medics from the clean side of the hotline move the patient from the hotline to the clean treatment/holding area.

Decontaminate an Ambulatory Biological Agent Patient

Remove the patient's FMC by cutting the tie wire and allowing it to drop into a plastic bag. Keep the bagged FMC with the patient.

Apply a liquid disinfectant solution, such as chlorine solution, over the patient's clothing.

Remove the patient's clothing as described for a chemical agent patient. Do not remove bandages, tourniquets, or splints. Place patient's clothing in a plastic bag and move the plastic bag to the contaminated waste dump.

Have the patient bathe with soap and warm water. If the patient is unable to bathe himself, a member of the decon team must bathe him. Reapply the disinfectant solution. A medic places a new tourniquet 1/2 to 1 inch above the old one and removes the old one. A medic removes bandages and decontaminates the wound and surrounding skin area with the disinfectant solution or the 0.5 percent chlorine solution. The medic replaces the bandage, if required, to control bleeding. Splints are decontaminated in place by

applying the disinfectant solution or the 0.5 percent chlorine solution to the splint, cravats, and straps.

NOTE: Use a 0.5 percent chlorine solution to decontaminate ambulatory patients suspected of being contaminated with mycotoxins.

Direct the patient to cross the hotline to the clean treatment area. His boots must be decontaminated at the hotline before he enters the clean treatment area.

NOTE: This patient becomes a litter patient. He must be placed in a patient protective wrap before evacuation.

Nuclear Patient Decon Procedures

Decontaminate nuclear patients. The practical decon of nuclear contaminated patients is easily accomplished without interfering with the required medical care.

NOTE: Patients must be monitored by using a radiac meter (VDR2 or PDR 27) before, during, and after each step of the decon procedure.

Decontaminate a Litter Nuclear-Contaminated Patient

Patient decon team members remove the patient's outer clothing as described for chemical agent patients. Do not remove bandages, tourniquets, or splints. Move the patient to a clean litter. Place the patient's contaminated clothing in a plastic bag and move the bagged clothing to the contaminated waste dump.

Wash exposed skin surfaces with soap and warm water. Wash the hair with soap and warm water, or clip the hair and wash the scalp with soap and warm water.

Move the patient to the hotline. Two medics from the clean side of the hotline move the patient into the clean treatment area.

Decontaminate an Ambulatory Nuclear-Contaminated Patient

Have the patient remove his outer clothing (or have a decon team member assist him). Place his contaminated clothing in a plastic bag and move the bagged clothing to the contaminated waste dump.

Wash exposed skin surfaces with soap and warm water. Wash his hair with soap and water, or clip the hair and wash the scalp with soap and water.

Direct the patient to move to the hotline. Decontaminate his boots before he crosses into the clean treatment area.

NOTE: This patient becomes a litter patient. He is protected by using a blanket or other protective material during evacuation.

Battalion aid station operations under NBC conditions are described in FM 8-10-4 and FM 8-10-7.

Treatment of chemical agent casualties is described in FM 8-285. Treatment of nuclear, biological, and chemical casualties is also described in FM 8-9.