



2.8 Preventing and Controlling Infection through cleaning and disinfectant

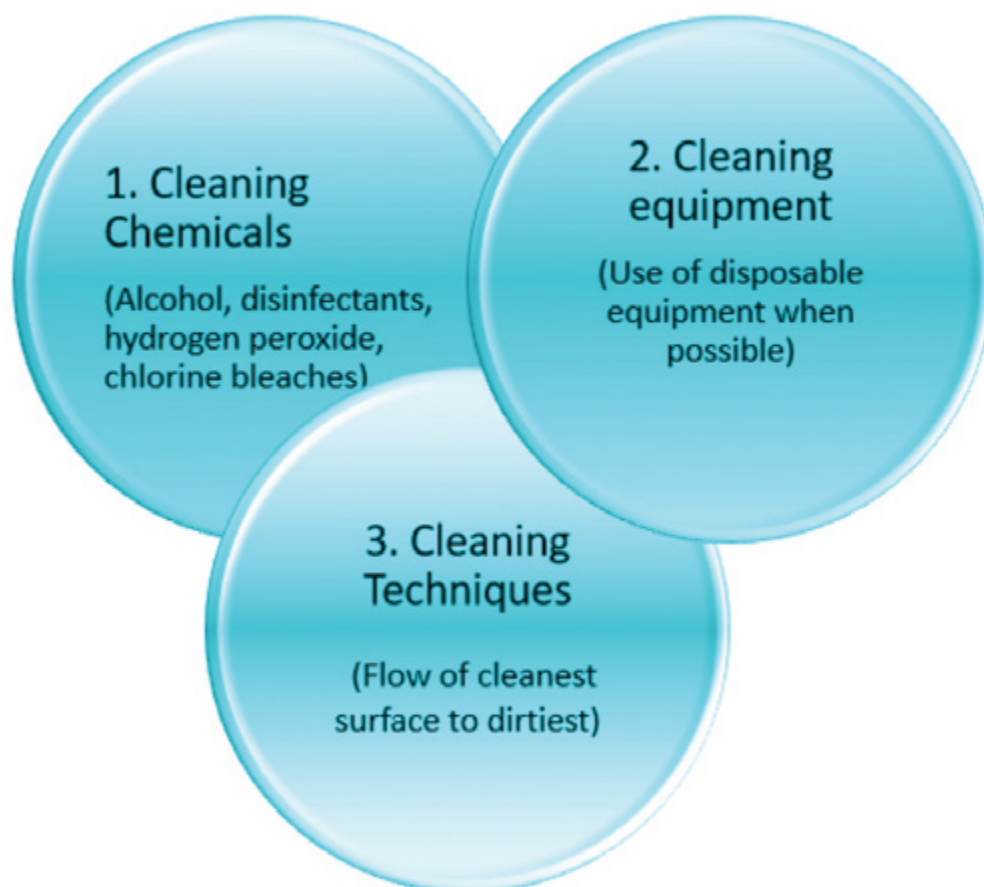
Disease transmission by direct contact with contaminated surfaces is preventable with good cleaning and disinfectant practices. The role of cleaning is to reduce the number of infectious particles that may be present on a surface and therefore reduce the risk of transmission. Cleaning and disinfecting are not the same things.

- Cleaning involves physically removing dirt and organic matter from surfaces.
- Disinfecting involves the use of chemicals to eliminate germs on surfaces.
- It's important to clean before disinfecting because organic matter and dirt can reduce the ability of disinfectants to eliminate germs.

Frequently touched surfaces such as bench tops, shared computers, door handles, light switches, toilets and taps need to be cleaned more regularly and then disinfected.

Recommendations during COVID-19 were that surfaces contaminated with respiratory droplets as a result of someone coughing should be immediately disinfected with the use of: disinfectants containing 70% + alcohol, hydrogen peroxide (oxygen bleach) or sodium hypochlorite (chlorine bleach) for hard surfaces. Disinfectants also must remain on a surface for enough time to eradicate the virus particles and this can be found in various product recommendations.¹⁹

These three factors in combination help ensure that cleaning and disinfection practices are of a high standard



A full resource presenting considerations and methods to clean across the quarantine site (including resident zones) has been presented here. It is recommended that for the purpose of environmental cleaning, the resource prepared by the Australian Commission on Safety and Quality in Health Care *Principles of environmental cleaning: product selection* is also consulted.²⁰

Establishing an effective cleaning process is a priority for a quarantine service to protect its staff and residents from infections. The type and level of PPE and the methods of cleaning all vary depending on the location of cleaning in relation to zones and the purpose of the area being cleaned. For example, health clinic areas will require a more frequent cleaning regime undertaken supported by the clinic and cleaning staff, as opposed to cleaning the resident's room which will occur once when the resident has exited the facility (with residents responsible to self-clean their rooms whilst in quarantine and isolation).

This resource presents a number of directions and recommendations for cleaning across the quarantine site.

2.8.1 Cleaning the quarantine site

The Cleaning Team are a vital part of the quarantine facilities staff, they require the same PPE and IPC training as all staff on site as well as additional support to learn the cleaning specific to quarantine facility requirements (in alignment with that of communicable disease risk). Regular auditing should be completed on staff cleaning techniques and all cleaning in each area needs to be documented to record when cleaning was undertaken, the date, time and by whom. This all provides evidence the cleaning was completed and is treated as an official site document.

Each area within the quarantine site needs to have a set of designated cleaning equipment to avoid cross-contamination. For example, the cleaning equipment used for the vaccination clinic is to be used and stored for this purpose only and should not be used in any other areas on site. All cleaning equipment must be cleaned and stored appropriately after each use in a space allocated for this purpose only (no other equipment should be stored in the same area as the vaccine clinic cleaning equipment).

A colour coding system of equipment ensures that materials and equipment are not used in multiple different areas (reducing risk of cross-contamination). For example, red-coloured equipment is only used for the resident red zones.

Cleaning should always be completed from clean to dirty with low touch or lightly soiled areas cleaned before those considered high touch or heavily soiled areas.

Cleaning should also be from high-reach surfaces to low-reach surfaces. Whenever cleaning in bathroom areas turn the extraction fan on to reduce exposure to chemical/cleaning fumes.



All cleaning chemicals need to be stored safely according to their individual guidelines and the date the product is opened should be clearly written on the product or accompanying auditing documents. The main rule is that different disinfectants and detergents should not be mixed together as this can cause explosions and danger to the eyes or inhalation injuries. The recommended PPE should also be used for the product in alignment with IPC site PPE requirements.

At the quarantine facility, the outdoor walkways and road areas do not require any specific cleaning. Even if these areas form part of the resident arrival process access can continue as usual immediately following the completion of the arrivals process. If any building areas are used these require more specific cleaning to be done.

Any rooms/buildings used for the resident arrival process are cleaned following each arrival process using routine cleaning standards for the floors and wiping down all potential touch points in the area (mirrors, door handles, and tables) with disinfectant. Once this surface cleaning/ wiping down of all the touch points has been completed the area can be accessed as a green zone.

A guide to the recommended routine cleaning frequencies has been presented in Appendices A. This is based on the following level of risk as presented in the below table and is adapted from the Australian Commission on Safety and Quality in Health Care, National Safety and Quality Health Service Standards (Second Edition).²

Section 2: Table 13: Health care settings level of risk to determine cleaning requirements.

Risk rating	Settings
Very high risk	An outbreak in a high-risk area
High risk	Intensive care unit, high dependency unit, burns unit, renal unit, operating suites, and emergency departments.
Significant risk	General hospital wards, COVID-19 vaccination clinics, quarantine facility staff areas, and medical clinics.
Low risk	Rehabilitation, primary health care centres, long-term care, office-based, domiciliary nursing services.

2.8.2 Cleaning techniques

When cleaning any areas across the site, cleaning staff are required to work from low-risk to high-risk areas, in the order as defined on the table provided in Appendices A. On entering the areas to be cleaned the space should first be assessed for hazards such as spilt water or sharps and it needs to be ascertained it is an appropriate time for cleaning (considering there may be clients in the health clinic or a leadership meeting may be taking place). The cleaning equipment from the designated storage area for the area to be cleaned is to be accessed (only use the cleaning equipment allocated for this area).

The minimum PPE for general site cleaning in green zones is:

- chemical gloves
- safety glasses
- safety boots
- high visibility clothing
- dust/surgical mask

Section 2: Table 14: Instructions on cleaning techniques to implement across the quarantine site (including resident rooms)

Areas to be cleaned	Instructions
Cleaning bathrooms	<p>Turn extraction fan ON.</p> <p>Pre-treat the hand basin, shower and toilet with the recommended cleaning chemical. Apply cleaning chemical to all surfaces to give it time to activate whilst other duties are performed.</p> <p>NOTE: PPE must be worn at all times when applying cleaning chemicals.</p>

Empty waste bin	<p>To avoid bending, lift the waste bin and place on the desk. Place both hands on either side of waste bin and loosen top of liner from bin. Tie the liner at top to secure rubbish and place outside (this will be deposited into a larger collection bin).</p> <p>Disinfect bin as required ensuring bin is dry before liner is replaced. Remove next bag from roll of liners. Place bag in bottom of bin. Secure tight new liner in bin and return to designated location.</p> <p>NOTE: Use correct manual handling techniques.</p> <p>NOTE: Clean up any mess/spills immediately.</p>
Clean Desk	<p>Clean desk by spraying recommended cleaning chemical on the cloth and wipe down the surface including the edges of the desk. Conduct a visual inspection of the desk to ensure that smears are eliminated.</p> <p>NOTE: Do not remove any items from desk; clean around them.</p>
Clean outside cupboards and doors	<p>Clean outside of cupboards doors, edges and handles by spraying recommended chemical on and wipe down entire surface with yellow microfiber cloth. Conduct a visual inspection of the cupboard to ensure that smears are eliminated.</p> <p>NOTE: Be aware of any sharp edges when cleaning near the underside of cupboards.</p>
Clean bench/desk	<p>Clean bench/desk by spraying recommended cleaning chemical on the cloth and wipe down surface including the edges of the bench. Repeat the process until bench is fully cleaned. Conduct a visual inspection of the desk to ensure that smears are eliminated.</p> <p>NOTE: Be aware of any sharp edges when cleaning near the underside of benches.</p>
Clean outside of refrigerator	<p>Use a warm damp cloth to wipe over the outside surface and seals of the refrigerator with warm soapy water. Using a clean microfiber cloth, dry the outside of fridge leaving no streak marks.</p>
Sanitise telephone	<p>Spray small amount of disinfectant onto a clean yellow microfibre cloth. Wipe the earpiece, mouthpiece, phone handle and keypad, the base of phone and surrounds. Wipe the entire phone with paper towel to remove any residue.</p> <p>NOTE: Do not spray disinfectant directly onto phone. NOTE: Use correct manual handling techniques.</p> <p>NOTE: Ensure that area is well ventilated before commencing task. NOTE: Clean up any spills immediately.</p>
Remove cobwebs	<p>Using a cobweb broom, remove webs by standing to the side of the working area and brushing cobwebs away from the body, alternating between high and low areas.</p> <p>NOTE: Use correct manual handling techniques.</p> <p>NOTE: Ensure clear access to area is maintained while conducting task.</p>

<p>Refill and clean paper towel dispenser</p>	<p>Use key to unlock top of dispenser (if required). Open the front panel and insert required amount of towels ,do not overfill. Close the front panel and lock and check that dispenser is in working order and clean. Damp wipe and clean all internal surfaces to remove grease marks or any other stubborn stains. Damp wipe outside of dispenser including underneath.</p> <p>NOTE: Use correct manual handling techniques and wear gloves to prevent contact with sharp edges.</p> <p>NOTE: Do not place towels on floor, shelf or cistern NOTE: Do not open packets until required.</p> <p>NOTE: Do not use abrasive items to clean dispenser.</p>
<p>Clean mirrors and windows</p>	<p>Spray glass cleaner on to a clean microfiber cloth. Clean the surface using systematic overlapping passes. Clean away any excess chemical solution. Polish glass or mirror to remove any smears with a paper towel or dry microfiber. If possible, move to a different angle to check sheen of mirror or glass.</p> <p>NOTE: Use correct manual handling techniques.</p> <p>NOTE: Ensure that area is well ventilated before commencing task. NOTE: Clean up any spills immediately.</p>
<p>Clean vanity basin</p>	<p>Rinse the basin with clean water and apply recommended chemical including around the base of taps. Wait a few minutes for the chemical to activate. With a microfibre cloth, carefully activate the chemical all over the area concentrating on areas around base of taps and nozzles. Thoroughly rinse the microfibre cloth at the same time rinsing the basin and wipe surrounding vanity space until all chemical residue is eliminated. Buff taps and handles. Rinse the cloth with clean water and dry cloth by wringing out excess water, wipe all areas as dry as possible. Replace consumables as necessary (e.g. soap).</p> <p>NOTE: Use correct manual handling techniques</p> <p>NOTE: Clean up any spills immediately.</p>

<p>Clean and sanitise shower recess</p>	<p>If installed, hang shower curtain over top of shower to one end or remove if replacing. Apply cleaning chemical and wait few minutes for the chemical to activate, and then scrub the shower walls one section at a time from the top down using a doodlebug or equivalent. Rinse after scrubbing each side. Concentrate on any joined areas as necessary. Scrub and rinse the soap container, taps and shower rose using a green scourer.</p> <p>Use a doodle bug (this is a floor scrub attached to the bottom of a mop with a flexible head) to scrub the floors to reduce manual handling. Scrub and rinse the base of the shower paying attention to the join area of the walls as necessary. Use a doodle bug to scrub the floors to reduce manual handling. Remove any items that are trapped in the drain cover. Rinse shower recess thoroughly.</p> <p>NOTE: Use correct manual handling techniques. NOTE: Ensure that area is well ventilated before commencing task.</p> <p>NOTE: Clean up any spills immediately.</p>
<p>Clean toilet</p>	<p>Ensure hands are washed, dry and sanitised before applying any chemical gloves. Remove all solid matter by flushing toilet. Apply cleaning chemical directly to the inside of bowl, including under the rim. Wait a few minutes for the chemical to activate. Remove any splashes and marks from surrounding walls.</p> <p>NOTE: Do not leave the chemical soaking in toilet unattended.</p> <p>NOTE: Ensure that area is well ventilated before commencing task. NOTE: Clean up any spills immediately.</p> <p>NOTE: Do not mix cleaning chemicals.</p>
<p>Sweep and mop floors</p>	<p>Ensure clear access to area prior to commencing task. Move all obstacles (where applicable) using correct manual handling techniques. Seek assistance if required. Start in one edge or corner and sweep in overlapping strokes. Pull the broom against the floor in one direction and lift it back to that edge in the other direction. Make sure the broom reaches into the angle of each corner so that you sweep out the dust from there. Work around the room, collecting the debris into a small pile or piles. Be systematic, working generally from one direction to another. Once the debris has been swept into a pile, use a small brush and pan to collect and remove to the appropriate waste bin. Fill mop bucket with warm water and add chemical to the water using correct dilution rate. Ensure mop head is securely connected to mop handle. Place mop in bucket and wring out until damp. Mop the area length wise along the skirting boards. Change water and chemical in mop bucket regularly and rinse mop frequently.</p> <p>NOTE: Use correct manual handling techniques.</p> <p>NOTE: Ensure that broom and mop handle is of the appropriate length. NOTE: Handle chemical as per SDS</p> <p>NOTE: Clean up any spills immediately</p>
<p>Clean up</p>	<p>Ensure area is clean and tidy. Return equipment back to designated storage areas. Wash hands with warm soapy water and sanitise before commencing next task.</p>

2.8.3 Managing the cleaning of resident rooms

During their stay resident's rooms are to be cleaned by the residents. Basic cleaning material is provided in the resident's welcome pack and additional cleaning materials can be obtained via click-and-collect. The provided cleaning materials include: a bucket, dustpan and broom, disinfectant wipes, hand sanitiser, tissues, and dish wipes.

Areas in the facility that are vacated by residents who have completed 14 days of quarantine are considered green zones. If other residents remain in the zone it is still considered an orange zone and PPE must be worn.

A daily situation report (sit rep) to reflect room cleaning requirements facilitates clear communication across cleaning teams and ensures room availability and other information is consistently updated.

Daily room cleaning sit rep report

The following information is to be included in the daily room cleaning sit rep report.

- Total Rooms cleaned, fitted and available for occupancy in all zones
 - provides guidance on where new resident arrivals can be directed.
- Current occupied rooms
 - this should correlate with the number of residents on the sites master list
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 - this should correlate with the number of residents on the sites master list
- Dirty awaiting Clean
 - Allows planning for cleaning team staffing numbers and resources required
- Rooms locked out for Maintenance
 - Allows planning for maintenance team and flags room unavailable for resident allocation.
- Respite rooms
 - These are located in certain zones to allow cleaning staff to doff and redon in a safe place and cool down/take a break.
- Awaiting check after maintenance complete
 - Presents where priority action is required to ensure these rooms can go back online for resident occupancy.
- Locked out for High clean
 - Allows planning for high cleaning team staffing numbers and resources required.
- Rooms classified as a biohazard
 - Allows planning with the IPC professional for the cleaning approach, staff and resources for contaminated rooms.
- Offline for reasons other than maintenance
 - Ensures these rooms are flagged as unavailable for resident occupancy.
- Total rooms

Residents will be given a linen pack every 7 days to change their own linen and instructed to place used linen in a provided linen bag outside their room for collection by the site facilities staff. The resident's linen can be washed onsite or contracted to a cleaning agency offsite.

2.8.4 Cleaning of resident rooms in the green zone

All orange zone rooms are provided a normal clean if the resident did not test positive during their quarantine. This should be done once the residents have vacated the zone meaning the zone is then considered a green zone. If a resident in the orange zone tests positive for COVID-19 and is moved to a room in the red zone, the original room is closed with a sign placed on the door with the date the room was last occupied by the resident.

The NT Health guideline states that the air settlement time required to achieve 99.99% microorganism removal in an average patient room is 3 hours and 27 minutes.²¹ At the Centre For National Resilience a 24-hour vacancy period was installed prior to any resident room cleaning. This is considered a very conservative period to allow viral particles in the air to settle on surfaces and for the COVID-19 virus to degrade and become non-infectious.

A core part of the site processes is consultation with facility teams to rotate the use of zone rooms to enable blocks to be turned into green zones for routine cleaning and maintenance. This ensures the zone is not available for quarantine during the green zone period facilitating a safe space for staff to work.

The process for cleaning a resident room in the green zone for preparation for the next resident entry is as follows:

- PPE is donned in accordance with cleaning requirements.
- As the room is in a green zone, PPE for the purpose of disease transmission is not required, PPE to be worn is in accordance with cleaning chemicals recommendations.
- The resident's room is stripped of all dirty linen and this is put into linen bags for collection.
- The room is cleaned (in accordance with the general cleaning outline presented in Table 14).
- New linen packs are placed in the room and the bed is made.
- Room supplies set up in the room.

2.8.5 High cleaning of contaminated rooms.

At times there may be a high turnover of residents requiring cleaning staff to clean rooms of positive residents prior to the 24 hour vacancy period. Rooms cleaned within 24 hours of the positive resident's departure will be provided a high clean.

No fogging or misting is recommended due to inhalant risk and the time taken to settle out of the air (poses a risk to staff). Surface cleaning and disinfection are recommended and this is performed with an approved surface cleaning and disinfectant solution.

The process for cleaning a positive room is as follows:

- Full PPE is donned using GMEG and in accordance with cleaning requirements.
- The resident's room is stripped of all dirty linen, this is put into linen bags for collection. For multiple room cleans this is left on the resident balcony for collection. For single-room cleans the linen bag is taken to the designated spot for laundry collection.
- The room is cleaned (in accordance with the general cleaning outline presented in Table 15).
- Once cleaning is completed, PPE is doffed and staff are to redon in clean PPE
- New linen packs are placed in the room and the bed is made.
- Room supplies set up in the room.

Section 2: Table 15: Instructions on how to clean resident rooms (considered contaminated) in the red or orange zones

Preparation

Acquire the cleaning materials using only those delegated for use in contaminated rooms. Use of disposable products is recommended.

Stock linen cart with adequate supplies of linen and ensuring adequate:

- 240L bin liners

Donning PPE

Remove all jewellery (earrings, rings) Obtain and inspect PPE. Do not use damaged PPE, discard and/or inform your Supervisor as appropriate.

The PPE for this task is:

- Surgical Mask for non-patient contact or N95 Respirator for close patient contact less than 1.5 metres for greater than 15 minutes contact
- Safety goggles, Safety Shield only if you are wearing own glasses
- Disposable gloves

NOTE: the PPE mask has a potential compromise with facial hair- wearers are required to be clean shaven.

Areas to be cleaned	Instructions
Entering OCCUPIED accommodation room	<p>Knock on door. The resident should open door with their mask on, if not remind them to do so. Ask the resident to preferably sit on their balcony when cleaning their room.</p> <ul style="list-style-type: none"> • Bring in cleaning equipment • Spray bottles • 240L bin liner for linen • Broom & dustpan brush • Disposable cloths <p>NOTE: Isolated residents with mask on can sit on their balcony whilst you clean the room</p>
Entering UNOCCUPIED accommodation room	<p>Unoccupied Knock on door to announcing housekeeping arrived. Place all clean linen required on outside table.</p> <p>Bring in cleaning equipment</p> <ul style="list-style-type: none"> • Spray bottles • 240L bin liner for linen • Broom & dustpan brush • Disposable cloths <p>NOTE: Accommodation room door MUST remain closed at all times, this is followed in the Orange or red zone cleaning.</p>

Room Clean	<p>Begin with removing coverlet from doona and pillow cases and place in centre of bed (on top of existing linen).</p> <p>NOTE: Hold contaminated linen away from body</p> <p>NOTE: Do not shake linen just roll into a ball</p>
Cleaning ensuite	<p>Switch on exhaust fan</p> <ul style="list-style-type: none"> · Apply cleaner disinfectant to toilet bowl · Apply cleaner disinfected to shower · Apply cleaner disinfectant to vanity basin · Remove used bathroom linen (to be placed on bed) <p>Exit room closing bathroom door.</p> <p>NOTE: Hospital strength cleaner & disinfectant MUST be used.</p>
Stripping bed	<p>Move bed to access all corners. Fold in the corners of the fitted sheet gently and remove sheet protector from underneath adding into a pile of used linen. Wrap used linen using a fitted sheet and place into 240L bin liner. Apply sanitising mist over the bare bed and corner walls where bed is placed and reposition the bed to the corner.</p>
Room surfaces and fittings	<p>Clean & sanitise horizontal surfaces and clean fittings in the room Apply disinfectants to disposable cloths and wipe down shelving, desk and nightstand. Place used cloth into the waste basket. Apply sanitising mist to cleaned surfaces.</p>
Floor sweep	<p>Sweep floors gently to a pile in centre of the unsuited and accommodation room using a pan and brush to collect and dust/waste.</p> <p>Dispose into waste basket.</p>
Sanitising ensuite	<p>Clean and sanitise ensuite. Clean mirror, shower recess, basin and toilet as per Table 2. Dispose used cloths in waste bin. Remove liner from waste basket and tie up and place outside of accommodation room. Apply sanitising mist to all surfaces including walls and inside door of ensuite.</p> <p>NOTE Hospital-strength sanitiser must be used.</p>
Make Bed and sanitise accommodation room.	<p>Make Bed and sanitise accommodation room. Leave accommodation room and remove disposable gloves (place in bin liner). Apply hand santiser 5 moments of hand hygiene rub (hands must be dry) and then apply new disposable gloves once hands are dry.</p> <p>Collect linen required and enter accommodation room from outside table. Place clean linen on sanitised surface and make bed as per Table 2.</p> <p>Room servicing- Apply sanitising mist to all surfaces including walls and inside door of ensuite.</p>

Floor clean	Mopping Floor - Collect mop and bucket from outside of accommodation room. Mop floor as per Table 2. Damp mopping commencing from the ensuite directed towards to accommodation door. NOTE: Hospital grade cleaner and disinfectant MUST be used.
Final room clean	Apply sanitising mist to accommodation door handle on inside and outside of room. Place bagged rubbish in bin liner and place bagged linen / rubbish back at collection point. Remove disposable gloves, apply hand sanitiser 5 moments of hand hygiene rub (hands must be dry) and apply new disposable gloves. Proceed to next room in isolation (if applicable).

Doffing PPE

Prepare bin liner for contaminated clothing.

Remove PPE in the following sequence at Doffing station (while placing into bin liner)

- Disposable gloves
- Apply hand sanitiser
- Face shield / goggles
- Apply hand sanitiser
- Hand sanitiser
- Mask / respirator (do not touch face)
- Hand sanitiser

NOTE: Place bagged contaminates into YELLOW biohazard bin.

2.8.6 Sanitising of reusable items

When staff are exiting the red or orange zone they are often carrying items that can be reused if they are adequately sanitised (including cleaning equipment). This may include reusable goggles, pens, or medical equipment.

Buckets of disinfectant are recommended to be located at each doffing station following these guidelines.

Prepare the disinfectant following the ratio of bleach 20mls in 5 litres water (unless otherwise specified on the container).

- Mix solution into the CLEAN bucket.
- Allow the reusable item to soak for 30 minutes.
- Once 30 minutes has passed, take the reusable item out of the solution with the tongs or heavy duty glove and lay out on a towel allow to air dry.
- Once reusable item is dry it can be reused.

2.8.7 Cleaning site buggies

Buggies need to be routinely cleaned as they are recognised as a shared asset and should be left clean and hygienic for the next team's use. There are two aspects to cleaning buggies, one is routine cleaning of the buggy presented here. The second is cleaning the buggy upon exiting from a resident zone. In this case, the buggy needs to be wiped over with disinfectant wipes focussing on all touch points. All equipment that entered the zone on the buggy needs to be removed and cleaned at the doffing station.

Routine cleaning of the site buggies

- Park the vehicle on a flat surface in a well-ventilated area. Ensure the vehicle has the brake applied and the buggy is chocked to ensure the vehicle will not move. The key is removed from the ignition.
- Clear items from the vehicle to a safe storage area.
- With a hand brush or small hand broom sweep the floor area and back tray if required. If the cart has built-in cupboards (domestic) ensure these are clean and litter free.
- Wash over the exterior panel's windshield with warm soapy water and rinse, wiping the area dry.
- Hose out the back tray if required and clean with warm soapy water using a bristle brush.
- Clean the tyres by hosing them down high contact areas using disinfectant wipes- dash, steering wheel, gears, seats, and seatbelts.
- Restock vehicle



2.9 Waste Management

The process for managing the removal of waste is covered in the *Section 1: Processes, infrastructure and communication*. From the IPC perspective, the following core points need to be followed.

- Biohazard waste goes into yellow biohazard bags and is managed in accordance with approved processes and procedures. PPE waste at doffing stations is collected as clinical waste.
- All other waste is treated as general waste and managed by the facilities manager.
- Residents are responsible to remove their waste from their rooms, including disposing off the waste generated by the food supply. Waste bins are provided in each resident area.
- Waste bins are collected from the resident zones by a contractor, with staff wearing appropriate PPE.
- Waste collected during the process of swabbing is collected in clinical waste bags and later treated as general waste as per guidelines.

All waste management approaches need to consider the environmental impact (sustainable practice), and costs, and aim to improve health and safety (reduces the risk of spreading infection).