

STRATEGIES FOR COMPLYING WITH CDC ISOLATION AND PPE GUIDELINES

Once an Ebola patient presents at the ED, they must proceed from triage or the EMS entry directly to an isolation room. This document discusses a range of solutions for converting or creating isolation space to comply with the October 20, 2014 CDC guidelines for PPE donning, doffing, and staff observation. Approaches vary from interim configurations with minimal facility impacts to long term solutions with dedicated space and additional square footage.

When determining an appropriate level of facility intervention, hospitals in major metropolitan areas with an international airport may consider solutions 3, 4, or 5. Solutions 1 or 2 may suffice for rural and community-based hospitals or hospitals with a relatively low infection risk. Regardless of the approach, flexible dual use spaces can serve infectious patients now, and function differently as program needs evolve.

GUIDELINES SUMMARY



Isolate patients: private room, toilet



1 way flow from clean to contaminated



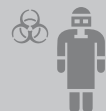
Donning must occur outside patient room



Doffing: chair(s) + infectious waste container



Trained observer must watch all phases



Shower after doffing PPE recommended

COMPARISON OF RECOMMENDATIONS

	1	2	3	4	5
Donning Configuration	Corridor	Adjacent Room	Ante Room	Ante Room	Ante Room
Doffing Configuration	Ante Room	Ante Room	Dedicated Space	Hot Zone for Decon Shower	Staff Toilet
Observation Configuration	Corridor	Corridor	Corridor, Staff Toilet	Cold Zone for Decon	Alcove
Size	310 sf	475 sf	445 sf	555 sf	440 sf
Cost - Phased Retrofit in Occupied Space	\$69,000	\$78,000	\$106,000	\$142,000	\$95,000
Cost - New Space	\$55,000	\$63,000	\$87,000	\$118,000	\$78,000

HAS YOUR E.D. MANAGED RISK APPROPRIATELY?

If you feel that your facility does not address the minimal guidelines, Christopher Morales can help you find the right balance between immediate needs and future flexibility.

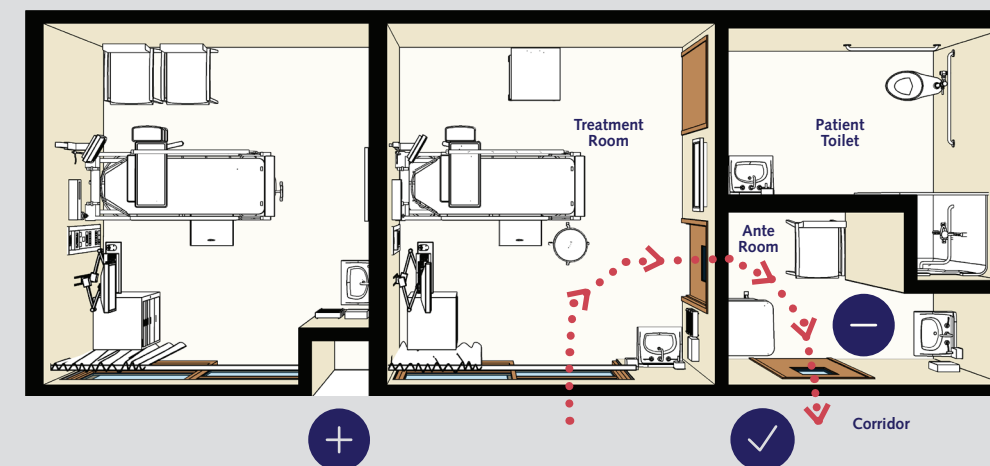
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1

Donn in Corridor Doff in Ante Room

Appropriate for emergency departments that have a very low risk for an Ebola occurrence, such as in community hospitals. This configuration requires an existing available ante room.



PROS

- Doffing room can be used as an ante room in normal isolation use
- Minimal renovation

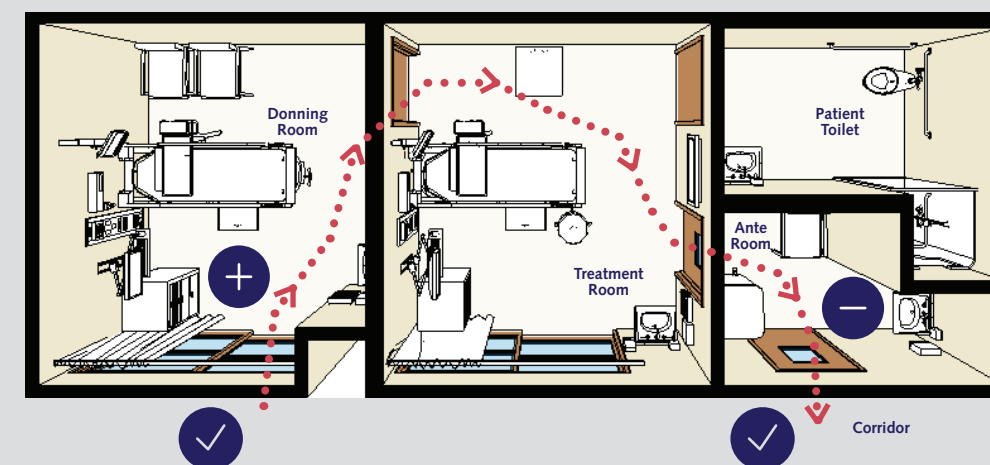
CONS

- Sliding door complicates negative pressure when an ante room is not the primary entrance.
- Ebola incident flow is different from normal isolation flow.
- Must dedicate corridor space for PPE/cart, donning seating, and observer.

2

Donn in Adjacent Room Doff in Ante Room

Appropriate for emergency departments with a lower risk for an ebola occurrence. This configuration requires staff to commandeer an additional treatment room for donning in the event of Ebola isolation.



PROS

- Doffing room could be used as standard ante room when protocol is not activated

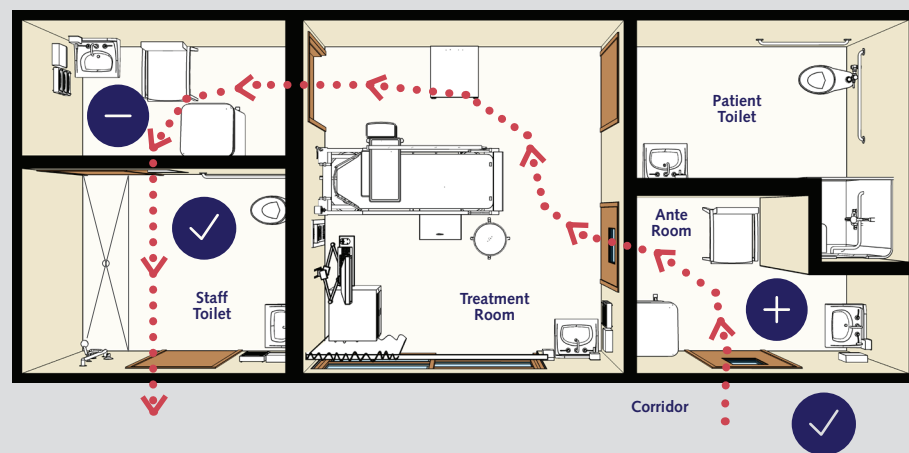
CONS

- Lose a treatment room every time the protocol is activated
- Adjacent room door requires additional security measures during normal use
- Ebola incident flow is different from normal isolation flow.

3

Donn in Dedicated Space Doff in Staff Toilet

Appropriate when hospital infection control risk assessment (ICRA) indicates a higher Ebola risk and need for dedicated doffing space.



PROS

- Maintains same flow regardless of doffing
- Toilet room provides doffing air buffer
- Available shower on doffing path in staff toilet
- Staff always enter ante room first, so flow and protocols remain consistent

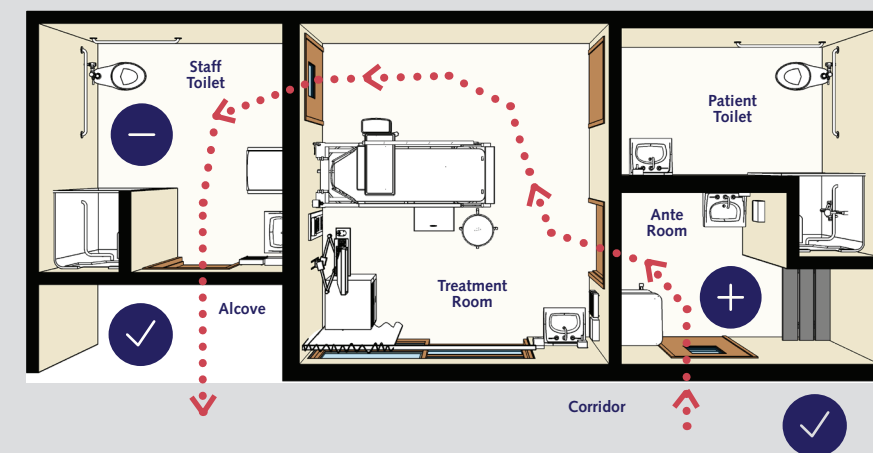
CONS

- Staff toilet becomes observation space and unavailable during Ebola isolation
- Dedicated doffing space is less flexible

5

Donn in Ante Room Doff in Staff Toilet

Appropriate when hospital infection control risk assessment (ICRA) indicates a higher Ebola risk but dual-natured spaces and flexibility are important during day-to-day use.



PROS

- Available shower on doffing path
- Staff toilet for doffing minimizes added /dedicated space
- Alcove can house equipment during normal use
- Maintains same flow during normal use

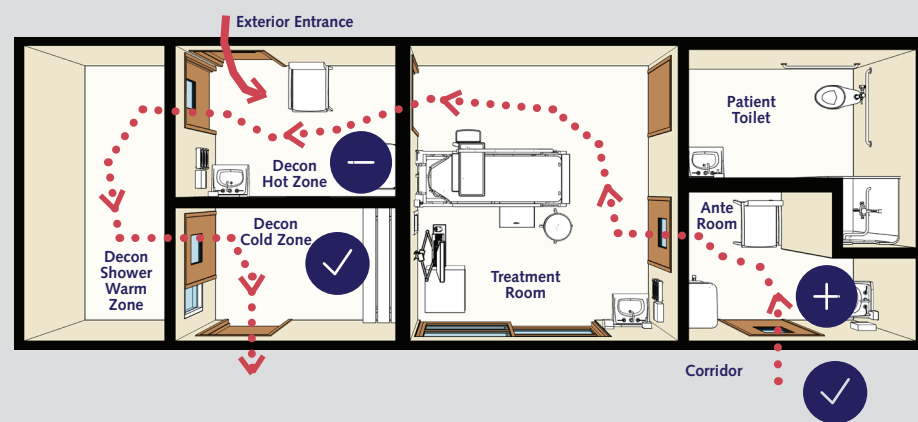
CONS

- Staff toilet unavailable during Ebola isolation
- May require additional staff toilet in program

4

Donn in Ante Room Doff in Decon Shower

Appropriate when the isolation space can be newly constructed as part of a 3-zone decontamination strategy.



PROS

- Maintains same flow regardless of doffing
- Toilet room provides doffing air buffer
- Available shower on doffing path
- Patients can enter directly from outside rather than pass through waiting room

CONS

- Most expensive option
- Not suited for renovation

DESIGN CONSIDERATIONS

* important for flexible functionality during typical airborne isolation use



Nearby sterilization equipment location for soiled PPE pickup



Automatic no-touch hardware. Fully controlled access.



Minimize sliding doors. Use swing doors with full seals.



Clean Room lighting fixtures, cleanable hard ceilings.



No built-ins. Portable / disposable storage.



Monolithic showers. No ceramic tiles or pre-fab units.



Wall-hung sinks with no exposed piping.



Protect open switches and outlets.



*Negative pressure airflow, independent HVAC systems.



*100% outside air and 100% exhaust with dedicated filters.