

INFECTION CONTROL: IMMUNOCOMPROMISED PATIENTS AND COVID-19

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DISCLOSURES

- No conflicts of interest or financial interests to disclose

“IPAC CONFERENCE”



OBJECTIVES

1 Discuss pre-pandemic infection control measures on transplant and oncology wards

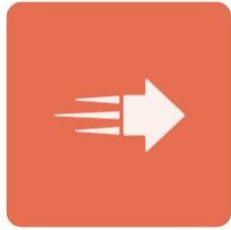
2 Discuss Pandemic related changes

PRE-PANDEMIC MEASURES

ROUTINE PRACTICES



Hand Hygiene



Prompt
Isolation



Surface
cleaning



Universal
masking

UNIVERSAL MASKING



Staff/Patients



Allo/Auto Units



Reduce
Transmission

- RVI
- Outbreaks



REDUCING AIRBORNE EXPOSURE: VENTILATION



Air Exchanges

>12 air exchanges



Filtration



Air Cleaners



Positive
Pressure

POST-PANDEMIC MEASURES

“IPAC CONFERENCE, IN LEGO”




A NOTE ON THE TRANSMISSION SPECTRUM....

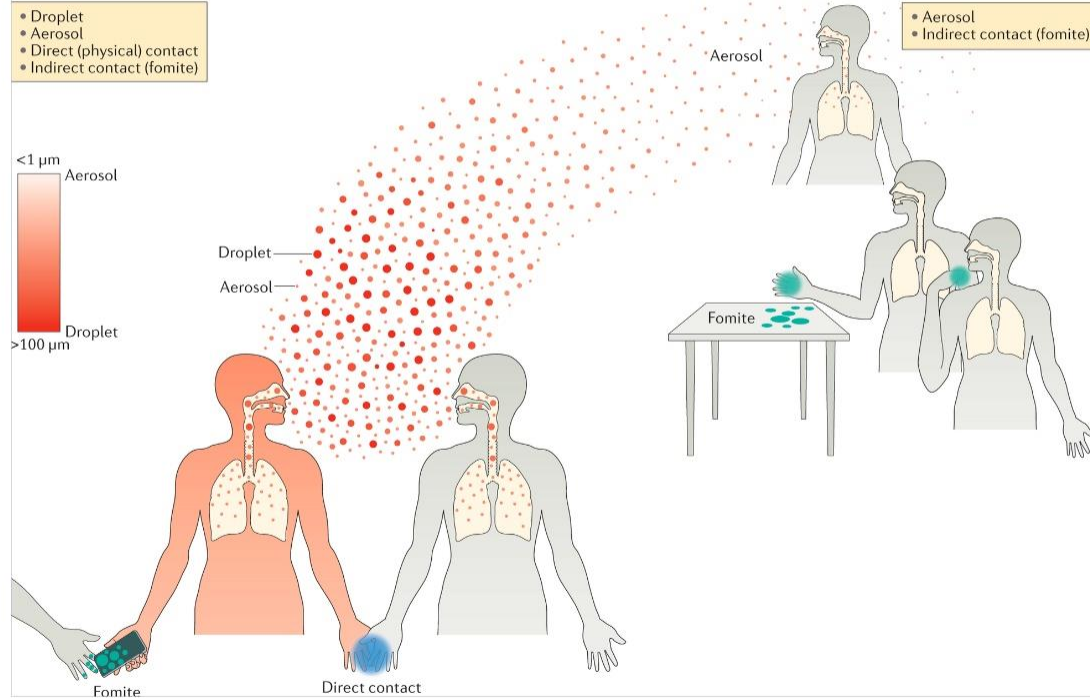
Short-range transmission

- Droplet
- Aerosol
- Direct (physical) contact
- Indirect contact (fomite)

<1 μm Aerosol



>100 μm Droplet





PANDEMIC CHALLENGES: NON-CLINICAL AREAS



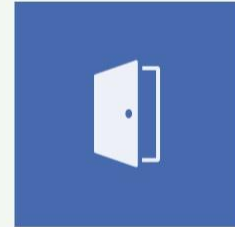
Meeting Areas



Common Spaces



Ventilation



Portals of Entry



UNIQUE ASPECTS ASPECTS FOR IMMUNOCOMPROMISED PATIENTS



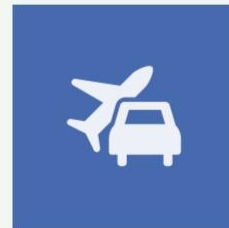
Vaccine efficacy



Unique Wards



Infection relapse

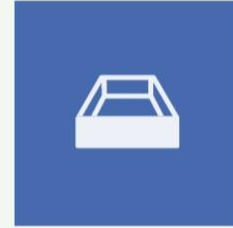


Portals of Entry

PANDEMIC CHALLENGES: CLINICAL SPACES



Multi-bed Rooms



Negative Pressure
Isolation Rooms

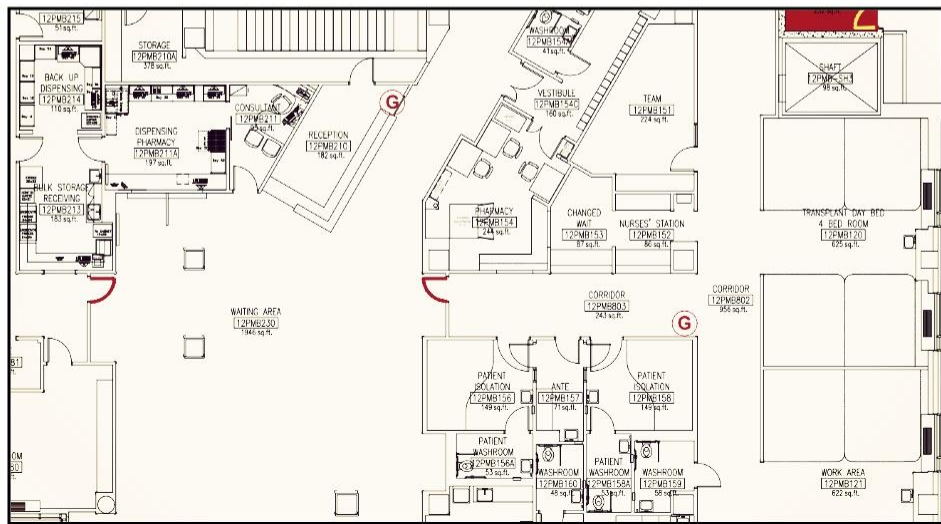
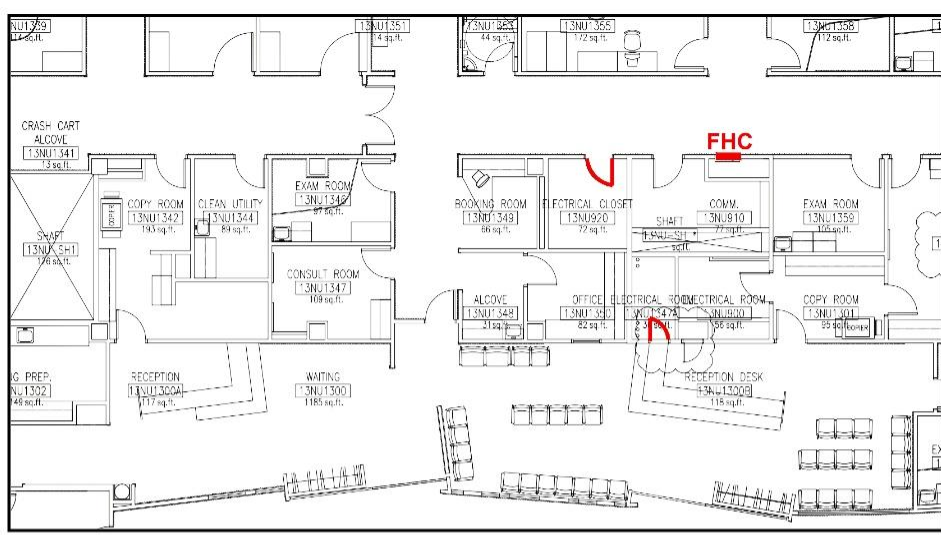
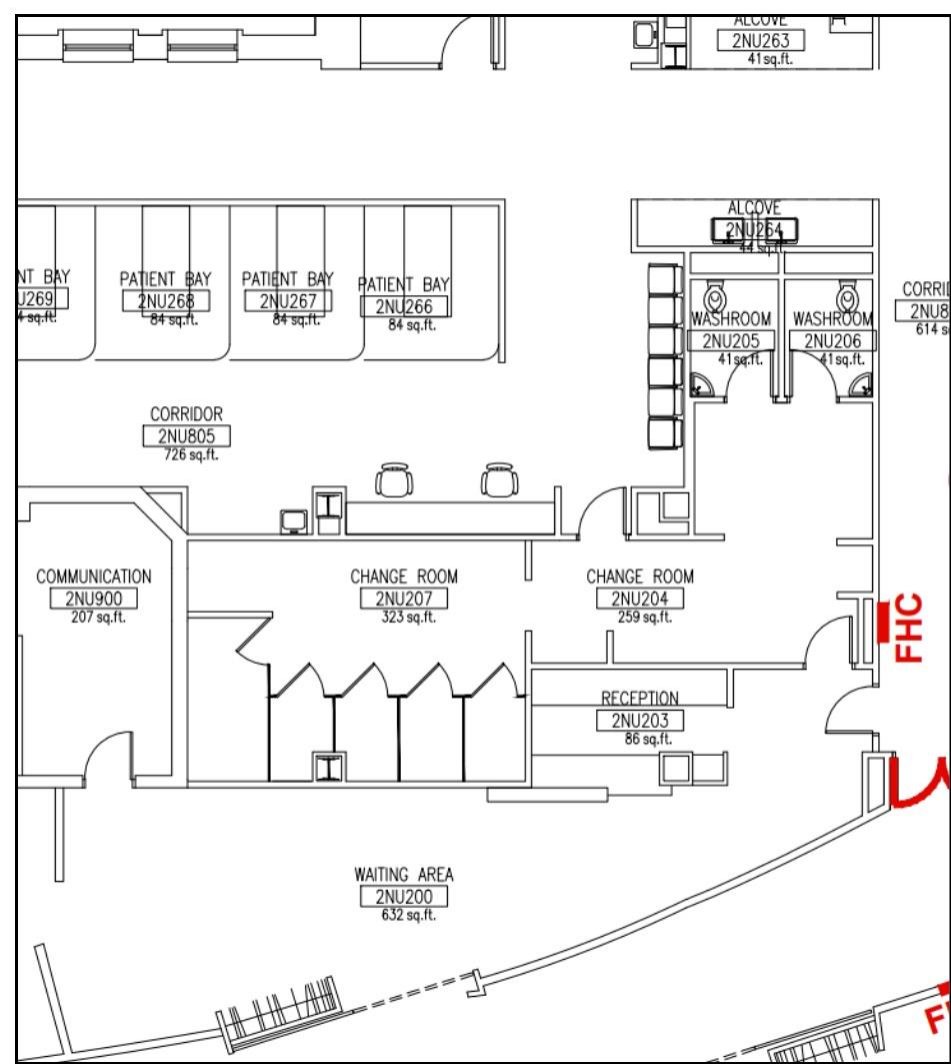


HCW protection

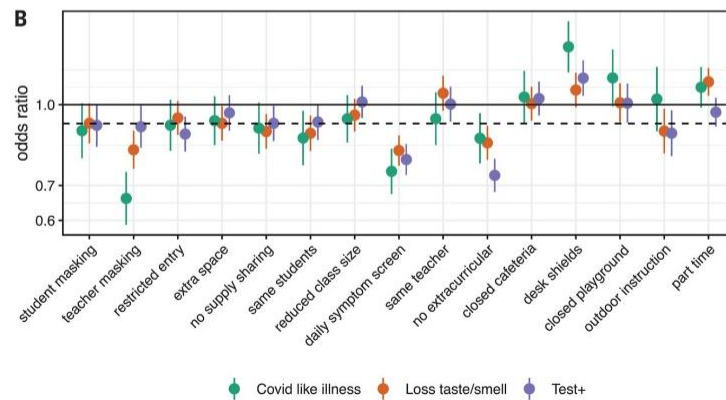


Triage Areas





USE OF SHIELDS/BARRIERS





BENEFITS OF SINGLE-BED ROOMS

Infection control

COVID-19, MRSA, C. difficile

Privacy

Patient/visitors/family

Reduction in Disturbance

Noise/medical care

PANDEMIC CHANGES



Universal masking



Increased virtual care



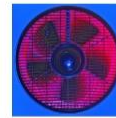
Twice daily
syndromic screening



Reduce volumes



Universal Testing



Review airflow



UNIVERSAL TESTING

Symptomatic

Low threshold

On Admission

All patients

Pre-procedure

BMT

Surgery

Endoscopy

Weekly Prevalence

Long-stay units

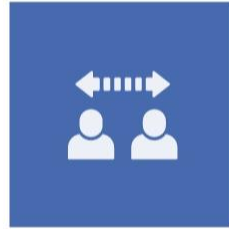
FALSE POSITIVES



Cancels
treatment



Patient
Distress



Outbreak
Declaration



Contact
Tracing

REDUCE EXPOSURES

Reduce Procedure

BMTs

Transplant surgeries

Limit Visitors

All patients

Switch to virtual care

Outpatient clinics

Close common spaces

Social/therapy





VENTILATION

Use Fresh Air

- Where possible, also open doors/windows
- Open outdoor dampers

Recurrent Maintenance

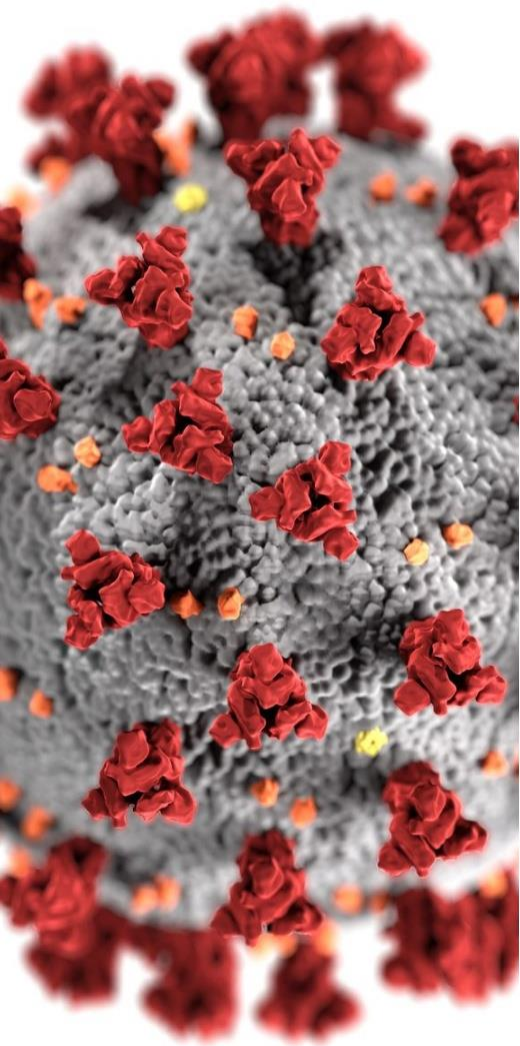
Communication with facilities, operators, engineers

Portable Cleaners

HEPA filters in high risk settings (AGMP)

More Isolation Beds

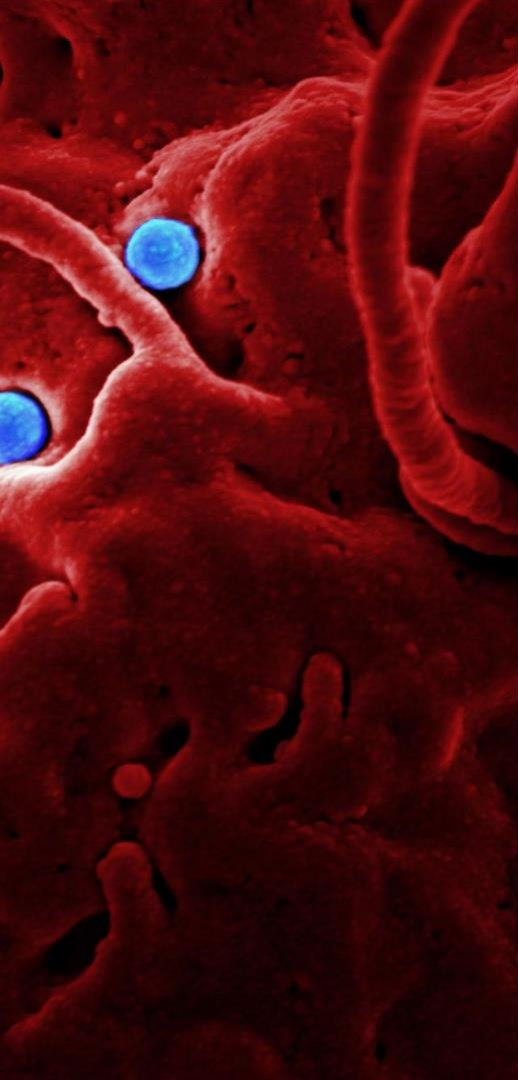
Infrastructure development



COVID-19+ PATIENTS

Where to place them?

- Move away from positive pressure units
- Dedicated unit
- Transfer to outside facility



COVID-19 OUTBREAKS

- Prompt identification
- Test staff, patients
- Visitor restrictions
- Increased Cleaning
- Close the unit

CHALLENGES TO OUTBREAK MANAGEMENT



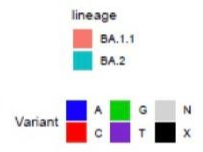
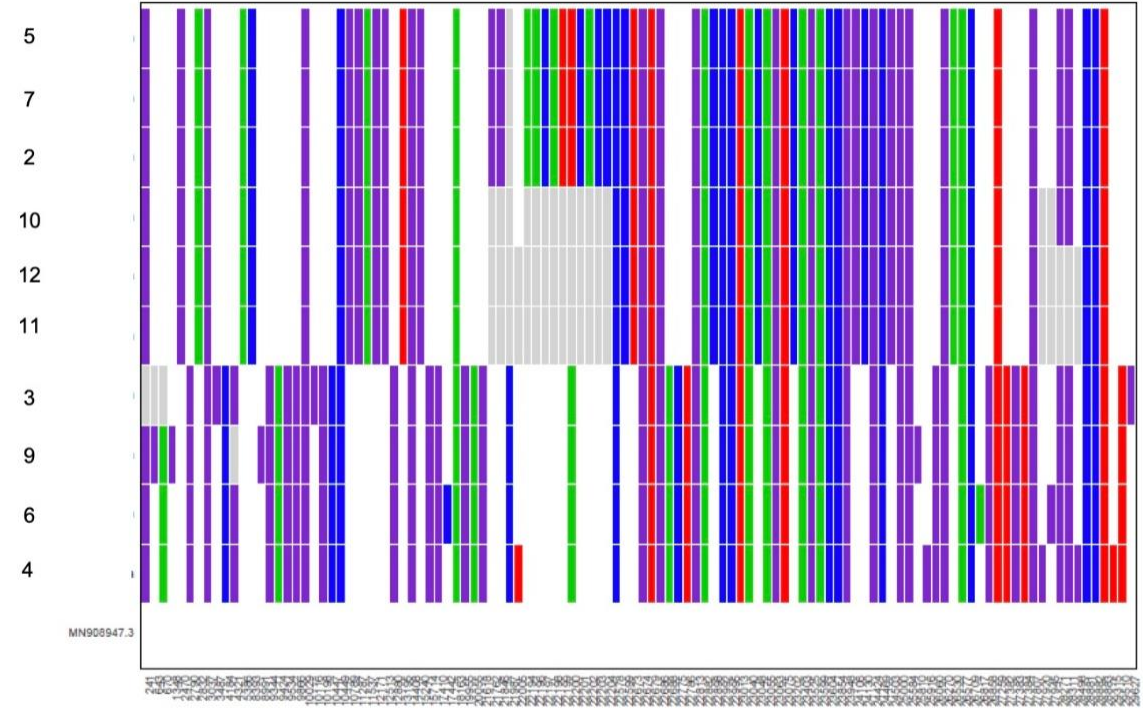
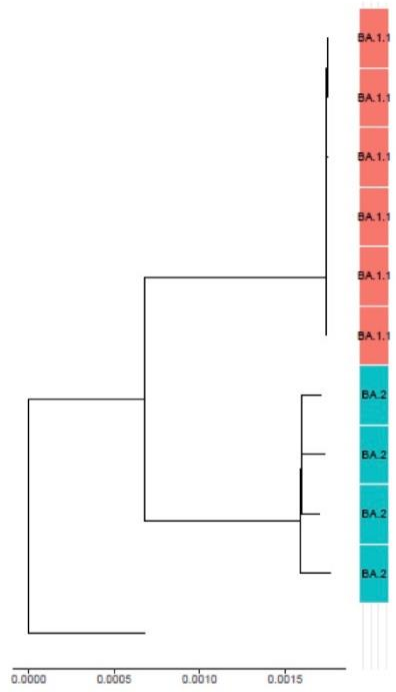
Multi-bed Rooms

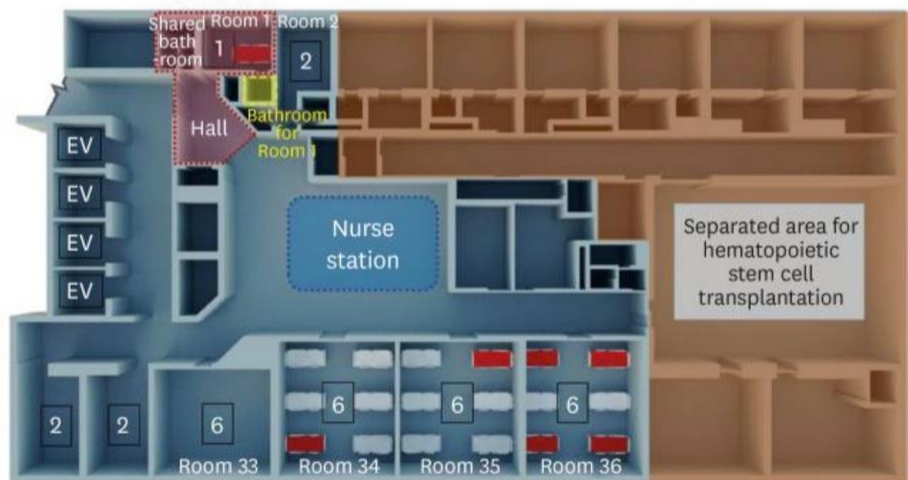


Shared Spaces
(lounge, locker room)



Common Areas
(nursing stations,
clinical areas)



A**B**

A scanning electron micrograph (SEM) of a virus particle, likely a coronavirus, showing its characteristic surface spikes and two prominent blue circular structures. The background is a textured, reddish-brown surface.

POST PANDEMIC CHANGES

- Maintain masking?
- Maintain broad testing?
- Reinforce pre-pandemic measures
- Surveillance for the next pandemic

CONCLUSIONS

- 1 Many pre-pandemic measures in place
- 2 Many pandemic changes unlikely to change
- 3 Ongoing surveillance will be needed



THE END



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