INFECTION CONTROL: IMMUNOCOMPROMISED PATIENTS AND COVID-19

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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
A NOTE ON THE TRANSMISSION SPECTRUM....
PANDEMIC CHALLENGES: NON-CLINICAL AREAS

- Meeting Areas
- Common Spaces
- Ventilation
- Portals of Entry
UNIQUE ASPECTS ASPECTS FOR IMMUNOCOMPROMISED PATIENTS

- Vaccine efficacy
- Infection relapse
- Unique Wards
- Portals of Entry
PANDEMIC CHALLENGES: CLINICAL SPACES

- Multi-bed Rooms
- Negative Pressure Isolation Rooms
- HCW protection
- Triage Areas
USE OF SHIELDS/BARRIES
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
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
- Testing all 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)
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
REFERENCES

- CID, Volume 73, Issue 6, 15 September 2021, Pages e1356–e1364,
- Science. 4 Jun 2021; Vol 372, Issue 6546; pp. 1092-1097
UNIQUE ORGANISMS
OUTBREAK RISK

- Aspergillosis
  eg. During construction

- Respiratory Viruses
  Prolonged secretions

- Adenovirus
UNIQUE ORGANISMS
OUTBREAK RISK

• Vancomycin Resistant Enterococcus
  Increasing prevalence across Canada

• Pseudomonas
  • Surface/water transmission