

Immunocompromised Host in the ED

Should All be Treated the Same Way?

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My Talk

- Not about individual cases or diagnoses
- Departmental and antibiotic policies vary
- More about implementing system wide changes

Head of
Department



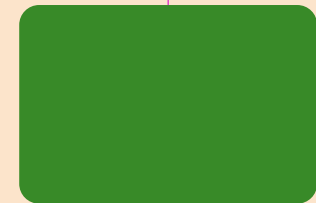
Emergency
Physicians



Emergency
Nurses



Support
Teams



Immunocompromised Patients

- Impaired humoral immunity
- Neutropenia
- Impaired cellular immunity
- Hematopoietic cell transplant recipients
- Solid organ transplant recipients

- Burns, severe trauma, invasive procedures, prolonged antibiotic use, diabetes mellitus

Immunocompromised Patients

- Have defects in their natural immune system
- Increased risk for severe, rapidly progressing and life-threatening infections
- Any pathogen can cause an infection at any time

OUR GOAL

Protect immunocompromised patients from contamination, in ER and during transport.

Emergency Departments

- Busy environment
- Interventions begin prior to reaching diagnosis
- Close proximity of patients
- Hurried handoffs
- Frequently changing staff who need training





The Problem

Emergency department is not an ideal place for immunocompromised patient to be in.

- High risk for community acquired infections
- High risk for nosocomial infections
- High risk for staff related errors







System Wide Change

- Early recognition of all patients at risk
- Separation within the ED
- Resuscitation and treatment with extra care
- Team decisions for antibiotics
- Early transfer to isolation facilities / ICU

Immunocompromised patients must be identified and isolated from the point of entry.



Trigger - EMS

LOOK AT YOUR AMBULANCE PROTOCOLS

- Ambulances vehicles are high risk for infection
- Training of paramedics
- Detection, isolation and communication

Trigger - Triage

- Immunocompromised patients do not show the normal physiological response to infections.
- Fever and other symptoms may not be obvious
- More difficult to detect in triage
- Waiting times delay treatment

LOOK AT TRIAGE PROTOCOLS

Aim of Triage & EMS

- Early recognition
- Early communication
- Early isolation
- Early start of barrier nursing

Resuscitation Room

- It is not practical to resuscitate in a sterile environment
- Use reverse barrier nursing as soon as possible
- Focus on identifying the infection source
- Involve intensivist for antibiotic decisions

USE PROTECTIVE ISOLATION



Treatment & Observation

- History, review of patient records
- Complete blood counts, chest x-ray, cultures
- Appropriate imaging
- Look for viral and fungal infection
- Look for abscesses
- Try to reach a diagnosis

AVOID TRANSPORT TO RADIOLOGY



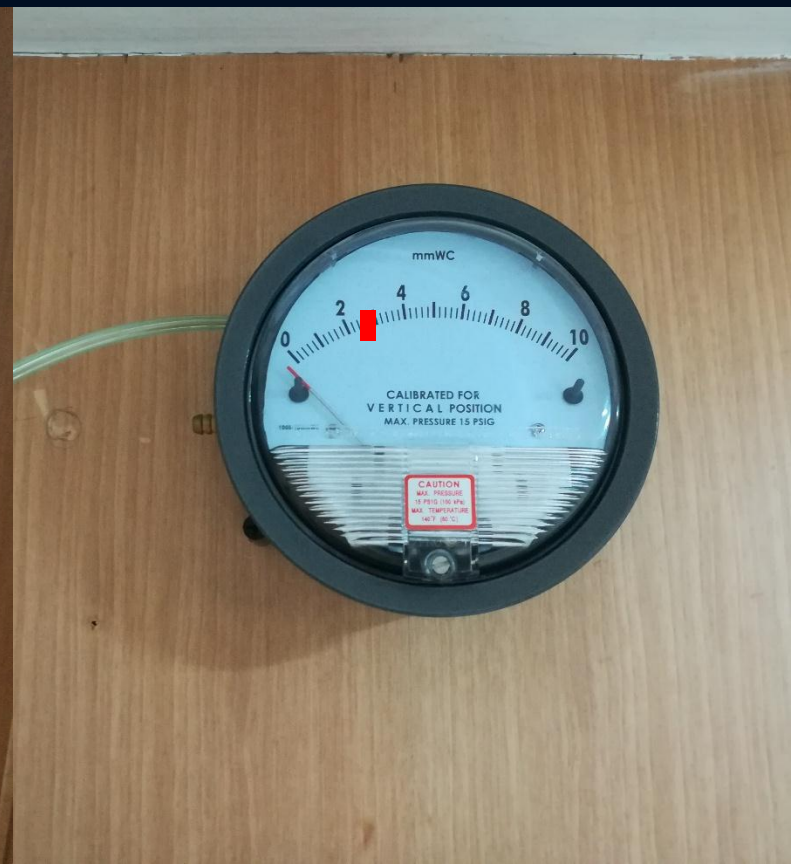
ED Isolation Facilities

- Disinfection, Decontamination & Cleaning Policy
- Standard Precautions (PPE) Policy
- Hand Hygiene
- Guidelines for Management of Neutropenic Sepsis
- Policy for insertion of IV cannula
- Policy for insertion of central venous cannula
- Urinary catheterization
- Single use policy for devices



Positive Pressure Rooms

- Have higher pressure inside



Role of ED Support Services

- Laboratory
- Radiology
- Blood bank
- Housekeeping
- Administrative
- Physician assistants
- Nursing students

CONTROL ACCESS TO PATIENT

Continuing Care in ED

- Over crowding
- Boarding
- Lack of ICU beds
- Lack of isolation facilities
- Lack of staff

PREPARE FOR PROLONGED CARE

Role of Intensive Care

- Extensive
- Outcome of patient is dependent on ICU care

INVOLVE INTENSIVIST EARLY

Hand Over to Intensive Care

- Maximum errors occur at this stage



Simple Changes First

- Handwashing and Hand rub solutions
- Use of gloves
- Personal protective equipment
- Temporary isolation areas with ED
- Awareness about neutropenic patients
- Control visitors



Core Processes Next

- Triage and EMS policies
- Departmental policies
- Handover policies
- Intensive care unit policies



Restricted Entry పరిమిత ప్రవేశం

Please confirm with the staff nurse before entering the room
రూమ్‌లోకి ప్రవేశించే ముందు స్టాఫ్ నర్స్ అనుమతి తీసుకోండి





Staff Training

- Play a crucial role, especially in academic EDs
- Must be frequent and at regular intervals

Personal Protective Equipment (PPE)



Effective Hand Washing







Summary

Emergency department is not an ideal place for immunocompromised patient to be in.

Immunocompromised patients do not show the normal physiological response to infections.

These patients must be identified and isolated from the point of entry.

Protect patients from contamination, in ER and during transport.

Take Home Points

Review your EMS, Triage and ED policies

Create facilities for 'Protective Isolation' within ED

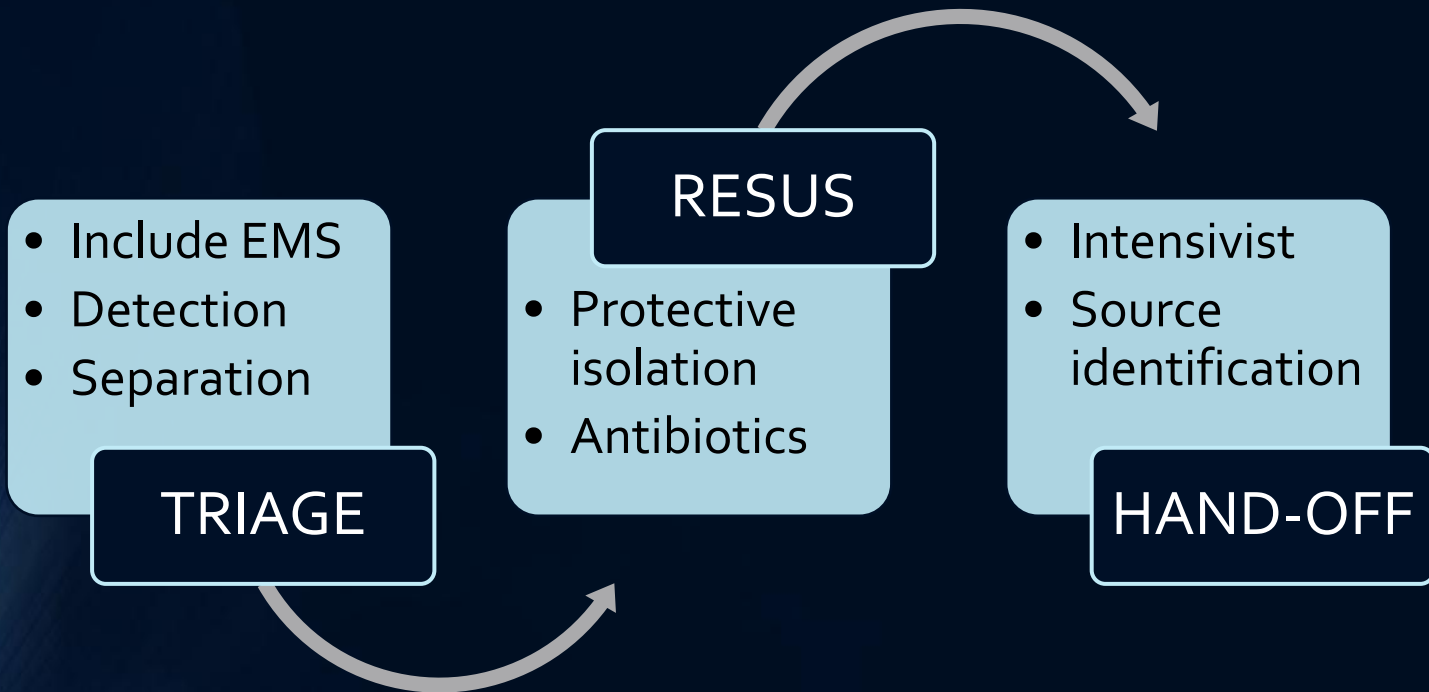
Avoid unnecessary transportation

Control access to patient

Involve intensivist early

Prepare for prolonged care

NEUTROPENIC PATIENT PATHWAY IN ED



We all say

“Assume all patients to have HIV”

Assume all patients to be
immunocompromised.

“Hypotensive patient should not go out
of ER”

Immunocompromised patients should
not go out of ER.

Thank you for your time

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