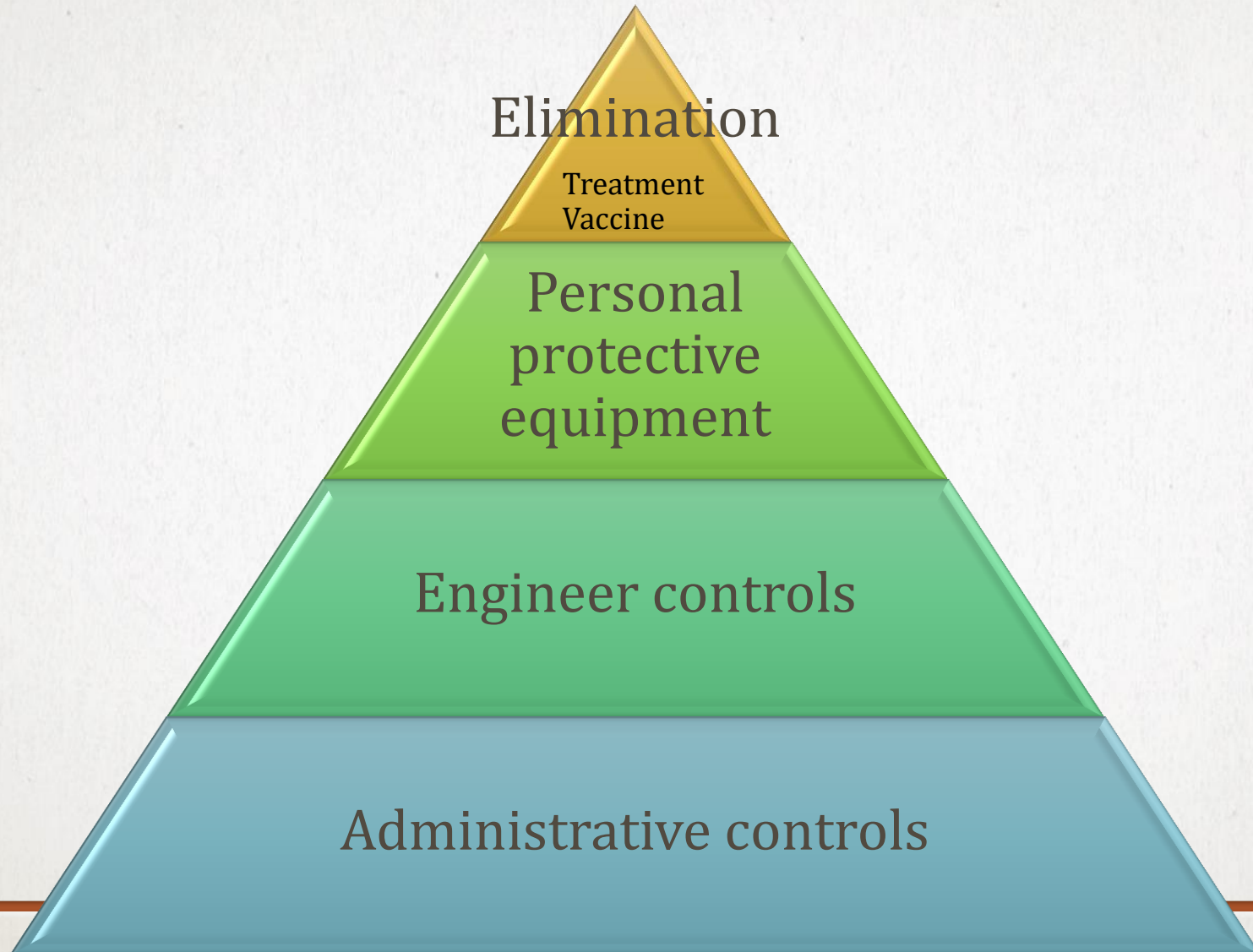


**What should
we do?**

HIERARCHY OF INFECTION PREVENTION AND CONTROL FOR EIDS



WHAT IS “AIRBORNE INFECTION ISOLATION ROOM (AIIR)?”

- Single-patient room
- monitored negative pressure relative to the surrounding area (Pressure differential range of 2.5-8 Pa (0.01-0.03-inch water gauge – ideal at 8 Pa)
- 12 air changes per hour (ACH)

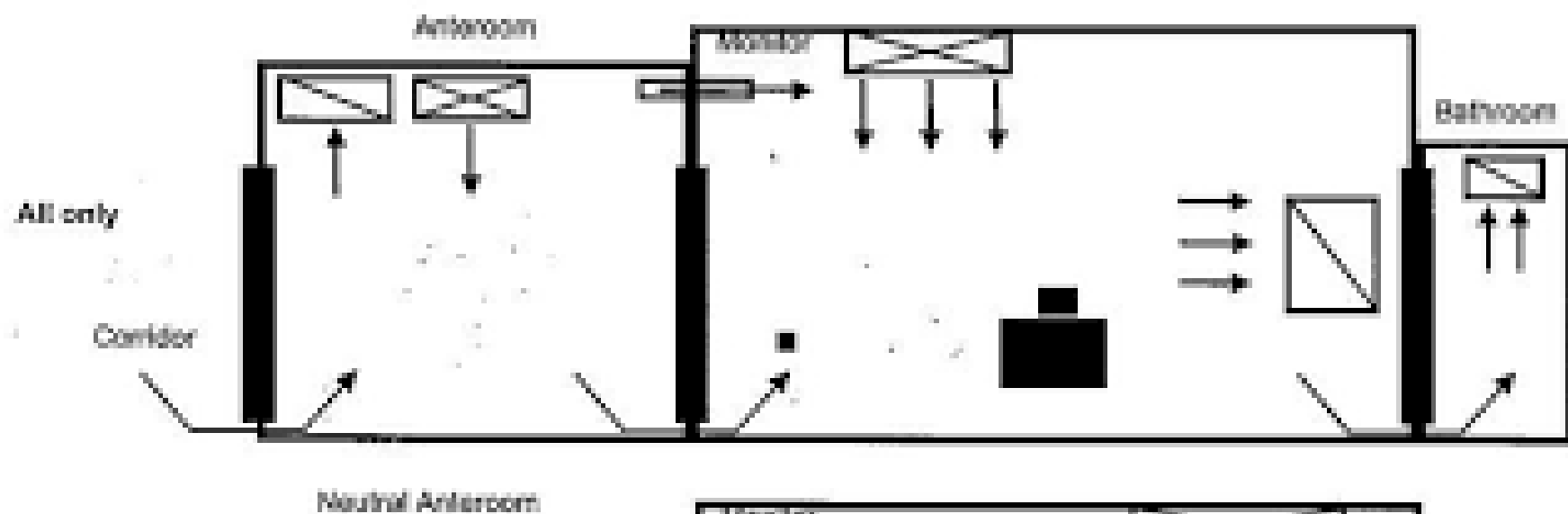
WHAT IS “AIRBORNE INFECTION ISOLATION ROOM (AIIR)?”

- Install self-closing devices on all AIIR room exit doors
- well-sealed by properly constructing windows, doors, and air-intake and exhaust ports.
- Direct exhaust air to the outside, away from air-intake and populated areas.
 - If this is not practical, air from the room can be recirculated after passing through a HEPA filter

AIRBORNE PRECAUTIONS

- Pressure should be monitored with visible indicator
- Use of respiratory protection (e.g., fit tested N95 respirator) or powered air-purifying respirator (PAPR) when entering the room
- Limit movement and transport of the patient.
- Use a mask on the patient if they need to be moved
- Keep room door closed

Figure 4. Example of airborne infection isolation (AII) room with anteroom and neutral anteroom* + §



Respiratory protection

N95



HOW TO DON A PARTICULATE RESPIRATOR

- Select a fit tested respirator
- Place over nose, mouth and chin
- Fit flexible nose piece over nose bridge
- Secure on head with elastic
- Adjust to fit
- Perform a fit check –
 - Inhale – respirator should collapse
 - Exhale – check for leakage around face



POWERED AIR PURIFYING RESPIRATORS (PAPRS)

- PAPRs use HEPA filters (high-efficiency particulate air filters), which are as efficient as P-100 filters
- Provide a higher level of protection than disposable respirators.

CRITERIA FOR DISCONTINUING AII PRECAUTIONS

- Infectious TB is unlikely and another diagnosis is made that explains the syndrome

Or

1. Patient has received standard antituberculosis treatment (minimum of 2 weeks), and
2. Patient has demonstrated clinical improvement, and
3. Patient has
 - TB: 3 consecutive negative AFB sputum smear results*
 - MDR/XDR TB: 2 consecutive negative sputum culture results

* At least 8 hours apart and at least one collected during early morning

CRITERIA FOR DISCONTINUING AII PRECAUTIONS

	Period of communicability	Incubation period (day)
Airborne- transmitted diseases		
Varicella	1 day b4 onset of rash => All lesions are crusted	10-21
Measles	4 days before to 4 days after the rash appears	5-21

TABLE 1. Air changes per hour (ACH) and time required for removal efficiencies of 99% and 99.9% of airborne contaminants*

ACH	Minutes required for removal efficiency [†]	
	99%	99.9%
2	138	207
4	69	104
6	46	69
12	23	35
15	18	28
20	7	14
50	3	6
400	<1	1

* This table can be used to estimate the time necessary to clear the air of airborne *Mycobacterium tuberculosis* after the source patient leaves the area or when aerosol-producing procedures are complete.

[†] Time in minutes to reduce the airborne concentration by 99% or 99.9%.