COME ON DOWN!

THE PRICE IS RIGHT:

Making Infection Prevention the Easy Choice

Boosting PPE Use in Isolation Rooms Through Adult Learning and Workflow Optimization

Disclosures:
Nothing to disclose



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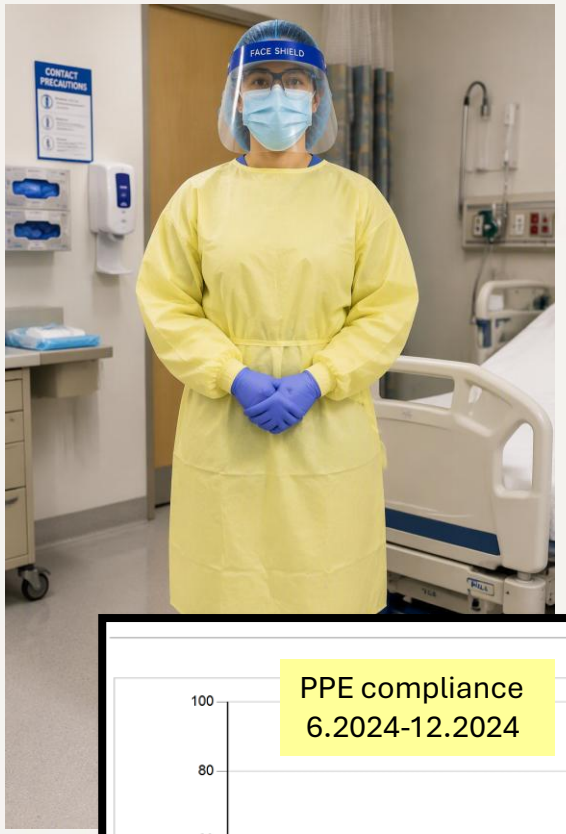
Learning Objective:

1. **Identify common barriers** to PPE compliance in isolation settings and explain their impact on infection prevention outcomes.

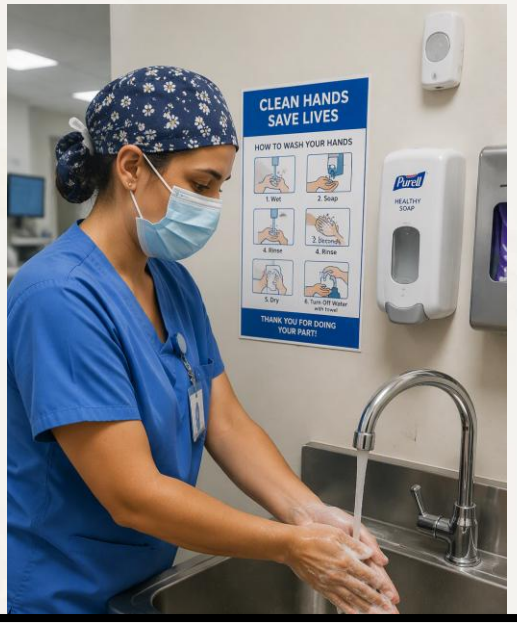
2. **Apply adult learning principles** to design effective staff education and behavior change strategies in clinical environments.

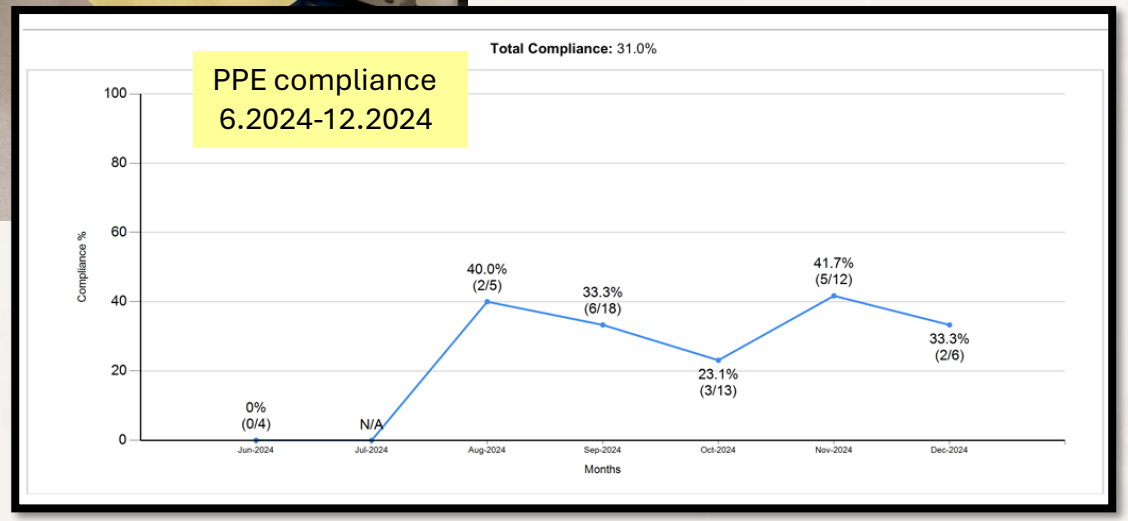
3. **Develop actionable strategies** to sustain PPE compliance through auditing, feedback, and leadership engagement.

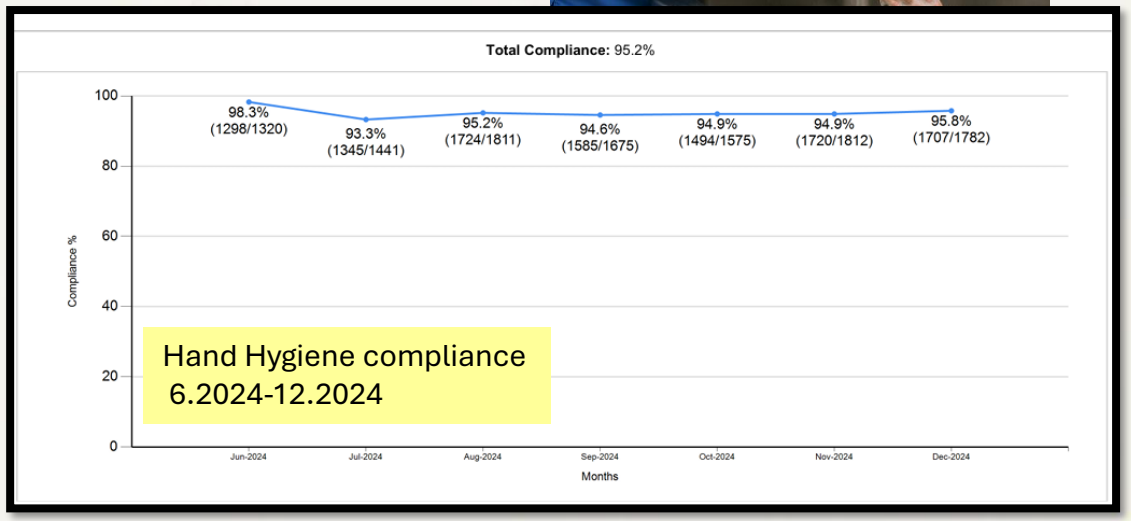
Infection Prevention is easy… Right?



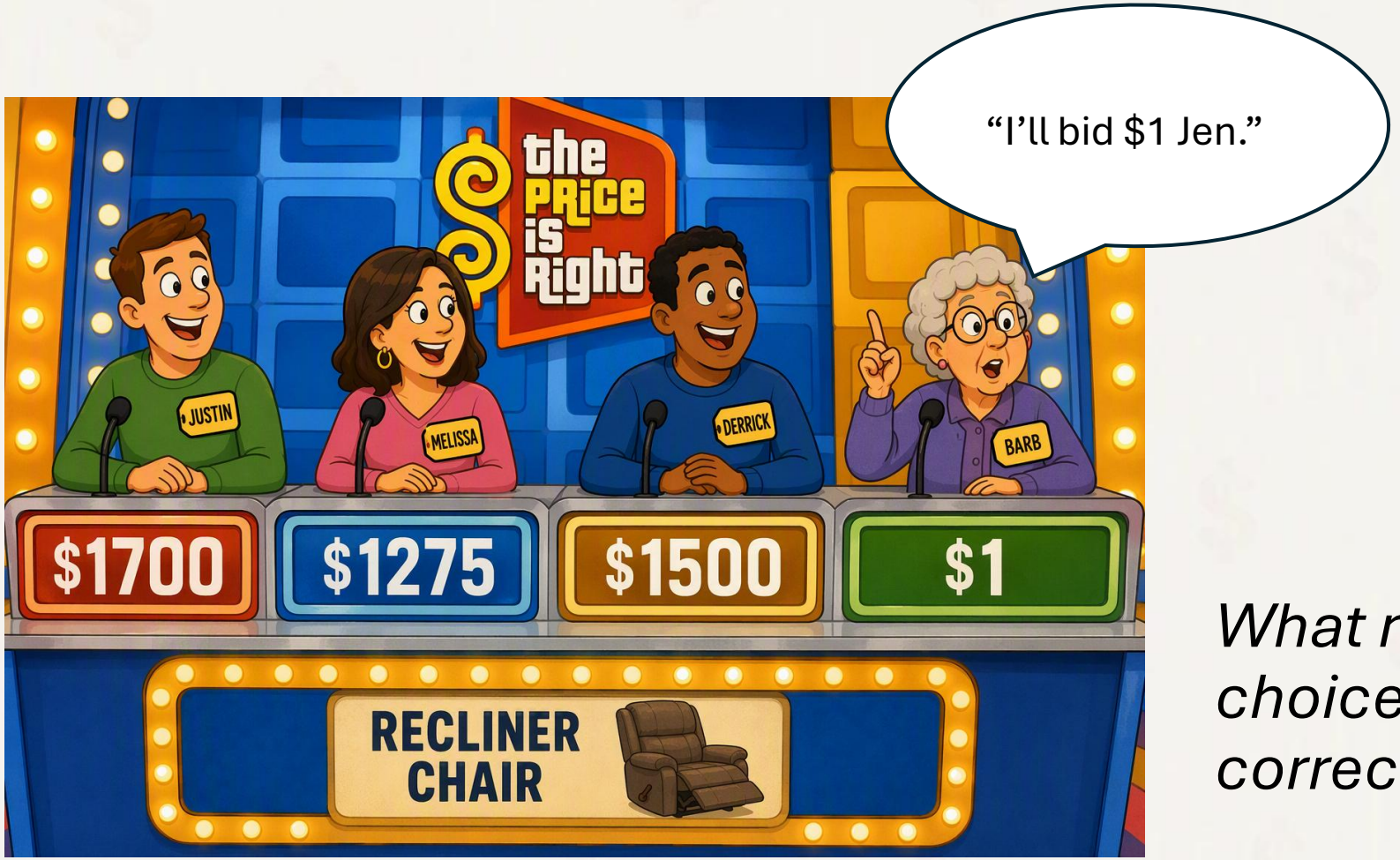
Which has higher compliance in your organization?







How do we make it easier for staff to do the right thing?



What made the wrong choice easier than the correct choice?

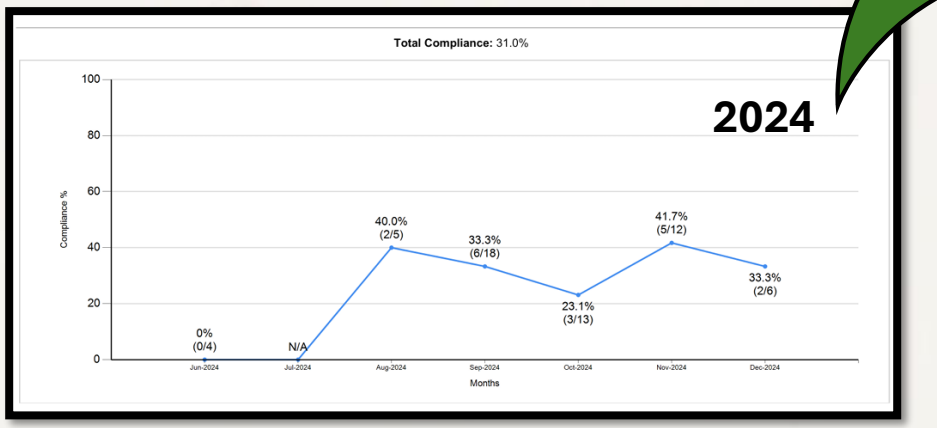
Breaking down the PPE Barriers

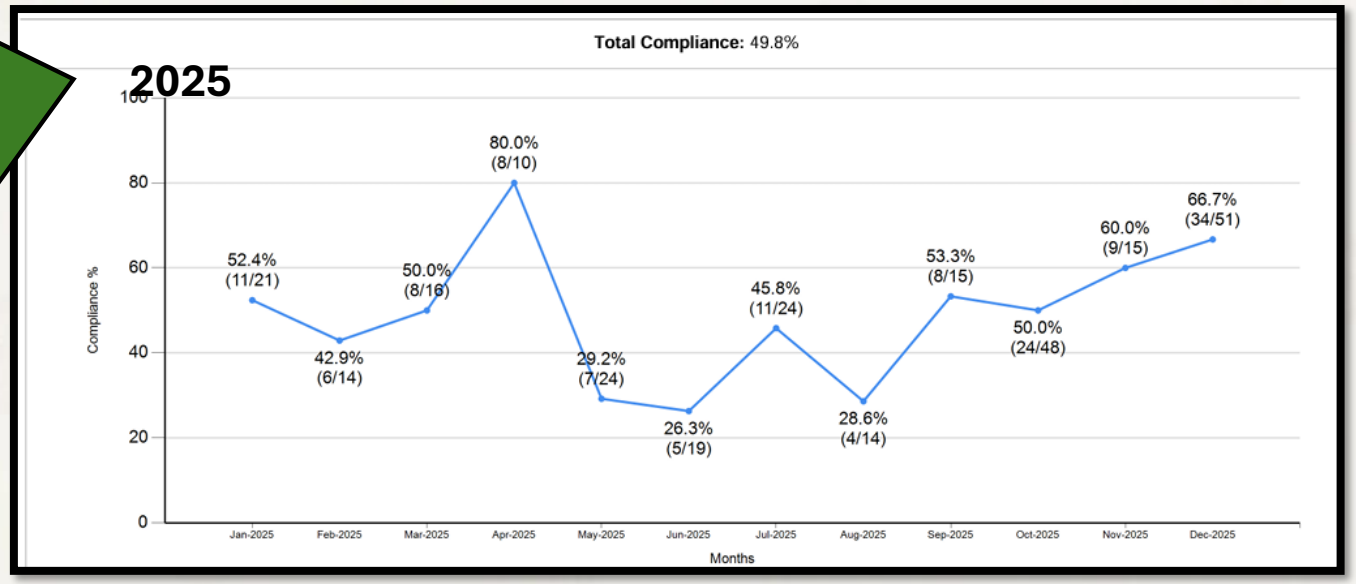
Current process for education:

- Meetings
- Tips sheets, Fliers & Newsletters
- Computer based training(CBT) modules
- Rounding

What were we missing?

- Is this the best way to educate staff?
- How should we adapt for different learning styles?
- Is this the easiest and most convenient approach for the current situation?







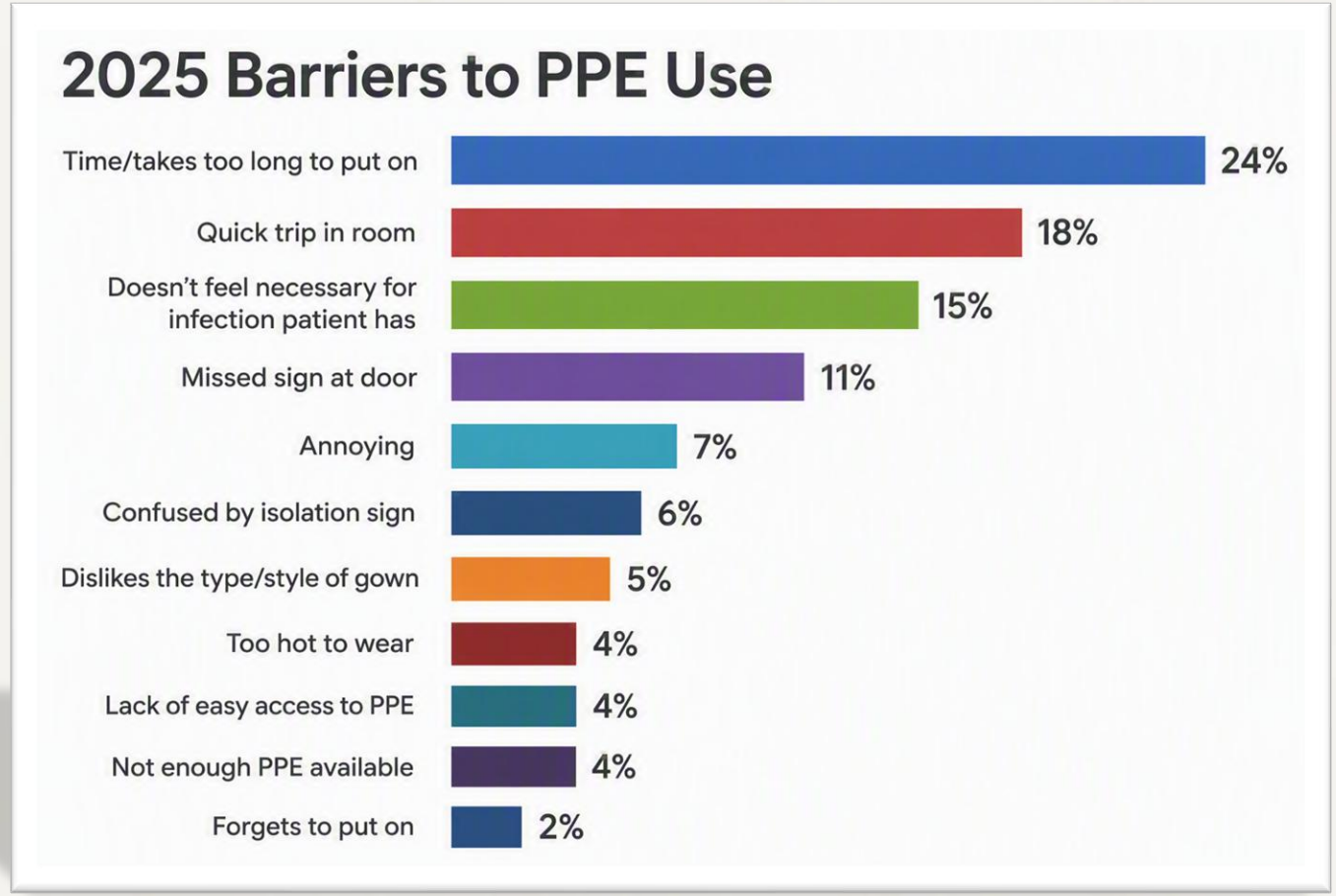
What causes non-adherence to wearing PPE?

Shell 1:Knowledge deficit

Shell 2: Staff don’t care

Shell 3: Workflow & environment design

Shell 4: All the above



What we know about adult learning



Human factor engineering (HFE) involves research into human psychological, social, physical and biological characteristics. The goal of HFE is to create designs that are safe, comfortable and effective for humans to use.

Ergonomics is the science of studying people at work, then create tasks, job, tools, equipment to meet their needs. Then create a working environment to makes it safe, effective, productive and comfortable.

Reliability science studies the process to achieve a ‘failure-free’ process and improve system safety.

Resiliency is the ability of a system to sustain operations over a long period of time.

APIC Adult Learning Principles

- ★ Adults need to know why they are learning.
- ★ Adults are motivated to learn by the need to solve problems.
- ★ Adults' previous experience must be respected and built upon.
- ★ Adults need learning approaches that match their background and diversity.
- ★ Adults need to be actively involved in the learning process.

Four laws of Behavior Change

By James Clear – Atomic Habits

- Make it obvious.
- Make it attractive.
- Make it easy.
- Make it satisfying.

Adult learning limitations can also lead to error



Limited Memory- if loner than 5-7 steps, create checklist

Stress can create tunnel vision





Multi tasking

Fatigue and sensory overload → sign fatigue, PPE fatigue, Alarm fatigue, etc.



Human Behavior is predictable

When a staff member enters the room for the 5th time in 20 minutes, what influences their behavior the most?

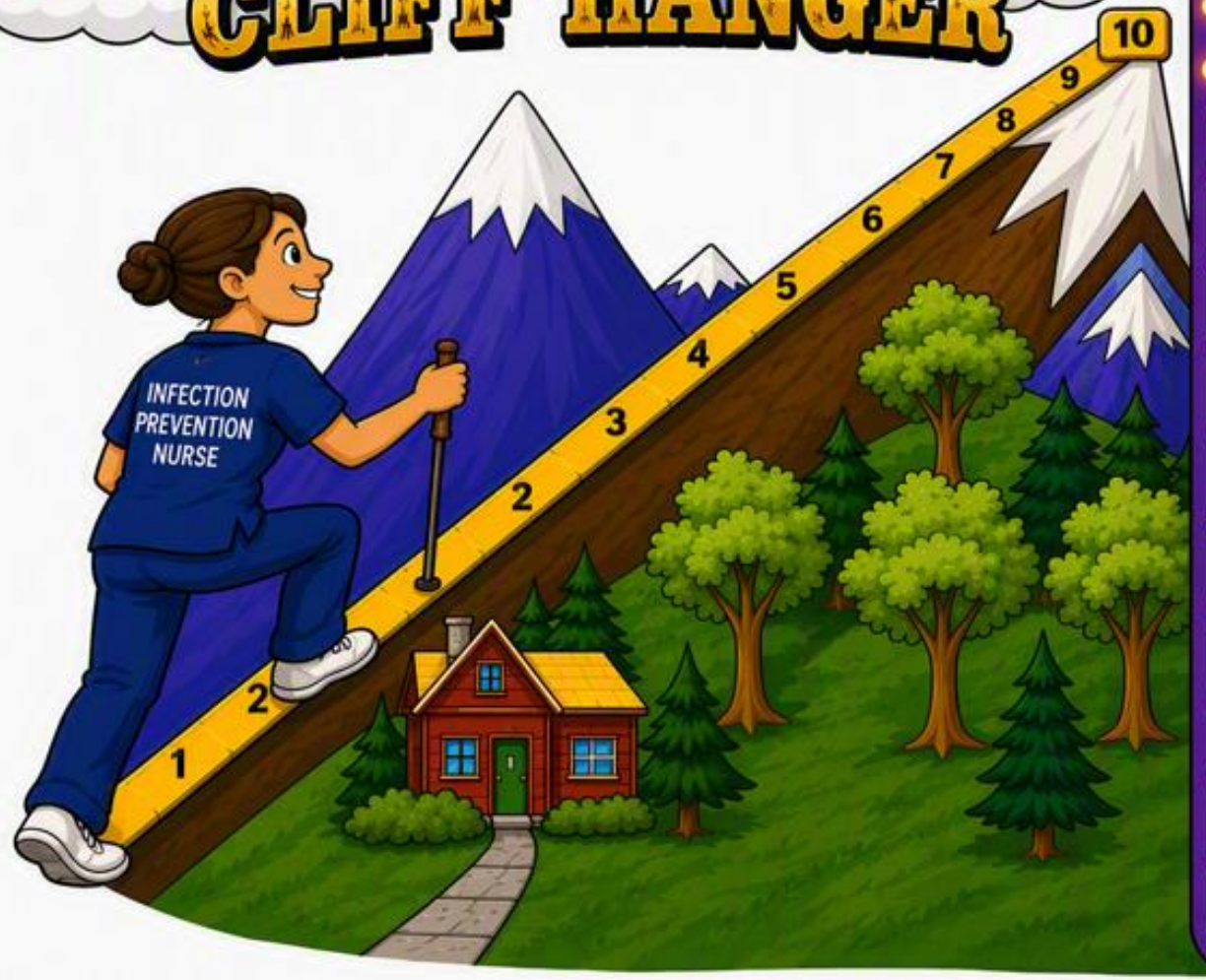
- ❌ Not a policy
- ❌ Not annual education



The strongest influence are:

- ✅ Convenience- “I have to walk farther.”
- ✅ Time- “I’m already behind.”
- ✅ Environment- “The PPE isn’t stocked.”
- ✅ Social norms- “No one else is doing it.”
- ✅ Mental Workload- “It’s just one more thing to do.”

INFECTION PREVENTION CLIFF HANGER

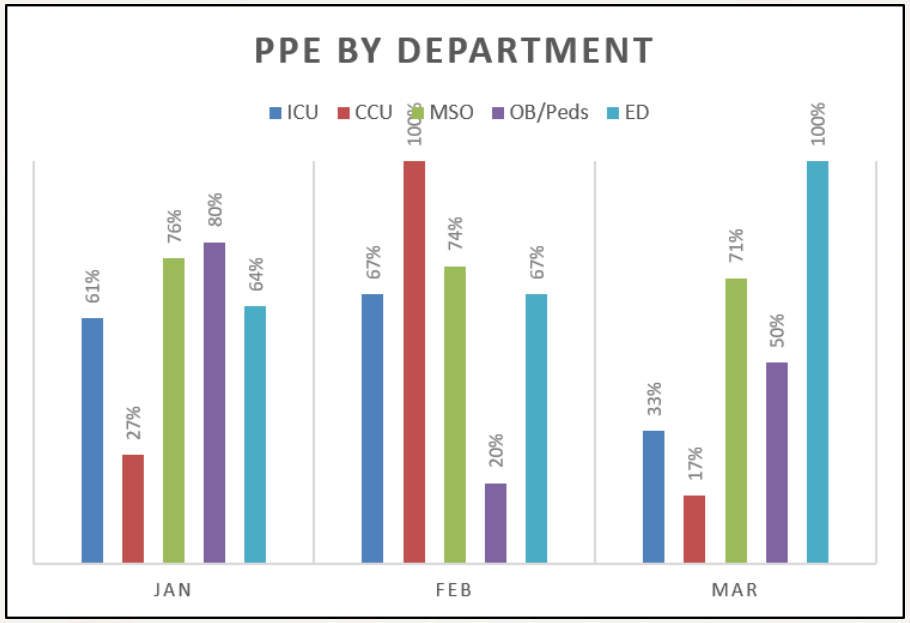


"How do we get this right without toppling over?"

10	Rounded to identify PPE barriers and workflow gaps
9	Rounded with patients on understanding of their isolation needs
8	Observed real time rounding on challenges with PPE
7	Providers involved with challenges they had with PPE
6	Evaluated isolation caddy & PPE at room entry
5	Investigated PPE options & conducted new gown trial
4	Developed adult learner PPE education
3	Met with leaders on PPE risks
2	Just-in-time education
1	Report out findings

Make it **ATTRACTIVE**: Rounding to influence

- Share your stories when rounding- Think big impact.
- Call out those who are wearing PPE and say thanks
  →Break the social norms.
- Create some competition between units.
- Celebrate with treats and include leadership.
- Speak up for safety and 5:1 feedback.



Make it **EASIER**:

Isolation Gown Trial



Top 3 Challenges

- ✗ Sticky tab closure failure
- ✗ No Thumb Holes
- ✗ Behind Back Tie

Top 3 Request

- ✓ Over Head Design
- ✓ Thumb Holes
- ✓ Side Tie



Make it **OBVIOUS**:
Evaluate isolation sign location

Common Infections and Required Isolation- Not a full list

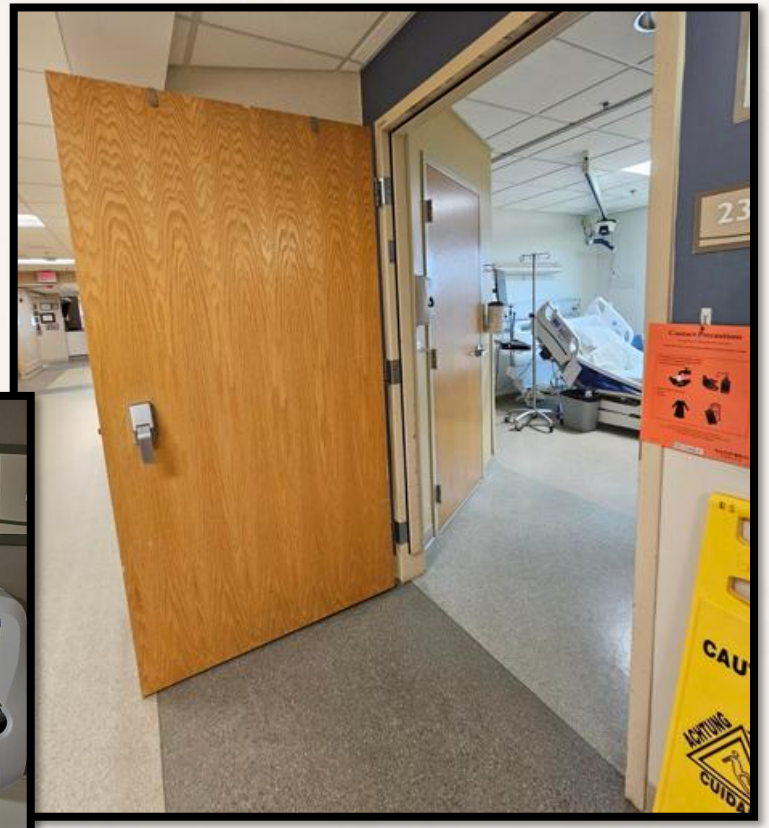
Follow policy: **Standard and Transmission Based Precautions (isolation)-Enterprise**

Pediatric patients under 18 yrs old.	
Contact	MRSA, VRE, ESBL, CRO/CRE infections
	Adenovirus (without respiratory infection)
	Parainfluenza
	RSV
	Gastroenteritis/enterovirus
	Conjunctivitis (viral or bacterial)
	Lice
	Human Metanumovirus
Droplet & (2 separate Contact orders)	Rhinovirus/enterovirus
	Adenovirus (with respiratory infection)
Droplet	Pertussis
	Mycoplasma pneumonia (place when test is ordered)
	Pharyngitis
Contact- GI	Hep A
	Cdiff
	Norovirus- including indeterminante
	Acute Diarrhea with unknown etiology
Enhanced droplet	Influenza (SUSPECTED or Confirmed)
Airborne	TB- active or suspected
	Measles
Airborne-Contact	Disseminated herpes zoster/shingles
	Chickenpox/varicella
Airborne and Contact (2 separate orders!)	Covid 19

Adult patients 18 yrs and older	
Contact	MRSA, VRE, ESBL, CRO/CRE infections
	RSV (immunocompromised adults ONLY)
	Gastroenteritis (if incontienent)
	Conjunctivitis (viral or bacterial)
	Lice
	Human Metanumovirus
Droplet & (2 separate Contact orders)	Rhinovirus/enterovirus **(if incontinent of stool)**
	Adenovirus (with respiratory infection)
Droplet	Rhinovirus/enterovirus (ADD Contact if incontinent of stool)
	Pertussis
	Mycoplasma pneumonia (place when test is ordered)
	Streptococcus disease, Group A
Contact- GI	Hep A
	Cdiff
	Norovirus- including indeterminante
	Acute Diarrhea with unknown etiology
Enhanced droplet	Influenza (SUSPECTED or Confirmed)
Airborne	TB- active or suspected
	Measles
Airborne-Contact	Disseminated herpes zoster/shingles
	Chickenpox/varicella
Airborne and Contact (2 separate orders!)	Covid 19

- Created a quick references for staff.
- Door caddies had out outside of door and in some rooms the door swung outward leaving caddies behind door.



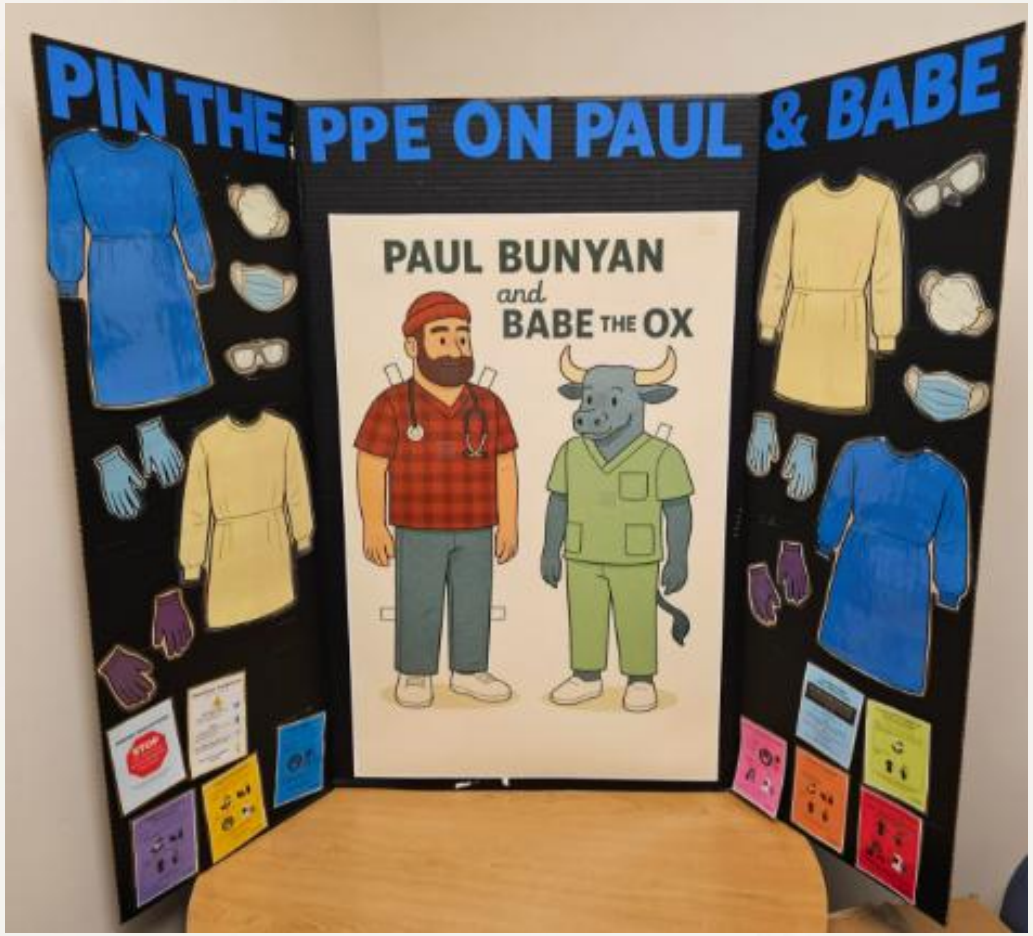


Solution→ Placed a 2nd sign under room number.

Photos courtesy of Sanford Health Northern Minnesota

Make it **SATISFYING:**

Education at staff meetings using adult learning



Contact Isolation	Droplet Isolation	GI-Contact Isolation	Airbrone Isolation	Isolation Champions
100 pt	100 pt	100 pt	100 pt	100 pt
200 pt		200 pt	200 pt	200 pt
		300 pt	300 pt	300 pt
	400 pt	400 pt	400 pt	400 pt
500 pt	500 pt	500 pt	500 pt	500 pt

200: Contact Isolation

Dress the nurse with the correct PPE items for contact precautions.

Contact Isolation	Droplet Isolation	GI-Contact Isolation	Airborne Isolation	Isolation Champions
100 pt	100 pt	100 pt	100 pt	100 pt
200 pt	200 pt	200 pt	200 pt	200 pt
300 pt	300 pt	300 pt	300 pt	300 pt
400 pt	400 pt	400 pt	400 pt	400 pt
500 pt	500 pt	500 pt	500 pt	500 pt

100: Contact Isolation

Color of the contact isolation sign

100: Contact Isolation

What is: Orange

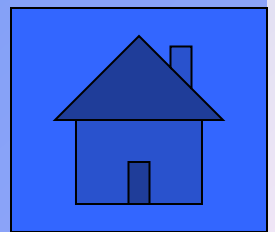


200: Contact Isolation

Dress the nurse with the correct PPE items for contact precautions.

200: Contact Isolation

What is: Gown and Gloves

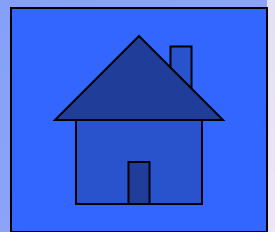


300: Contact Isolation

You go to answer your patient in contact isolation, how far can you enter the room without PPE on?

300: Contact Isolation

What is: the door sweep
or 3 feet

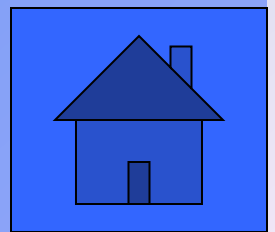


400: Contact Isolation

True or False: Wearing gloves is a reasonable alternative to cleaning your hands

400: Contact Isolation

What is: False. Always perform hand hygiene after wearing gloves. Gloves have micro-pores so organisms/germs can wiggle through



500: Contact Isolation

Name 3 infections that require contact isolation

500: Contact Isolation
What is:

Diseases requiring isolation

Multidrug resistant organisms (MDRO, any flagged MDRO)
- MRSA- Methicillin-resistant Staphylococcus aureus
- VRE- Vancomycin-resistant Enterococcus
- ESBL- Extended spectrum beta lactamase
- CRE- Carbapenem-resistant enterobacteriaceae
- CRO- Carbapenem-resistant organism

Wounds or abscesses with uncontained drainage

Herpes simplex:
- Disseminated, primary and severe and neonatal (until lesions dry and crusted)

Herpes zoster/shingles
- ONLY if disseminated or localized in immocompromised patient (also add airborne)

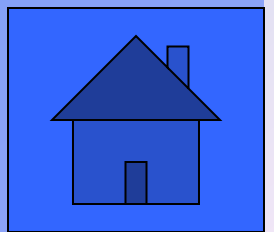
Scabies

Lice

Impetigo

Respiratory (most frequent, this is partial listing. See policy for complete list.)
- Bronchiolitis
- Human metapaneumovirus (wear mask according to Standard Precautions)
- Parainfluenza-infants and young children
- RSV/Respiratory Syncytial Virus-infants, young children, immunocompromised adults (wear mask according to Standard Precautions)
- Cystic Fibrosis
- SARS (contact and airborne)
- MERS (contact and airborne)
- COVID-19 (contact and airborne)

Gastroenteritis
- Enterovirus (use contact for diapered or incontinent children)
- Adenovirus infants and young children (contact and droplet)
- E coli, Enterohemorrhagic fever 0157:H7, Rotavirus
- Shigella-only in diapered or incontinent patients



100: Droplet Isolation

What is the color of the droplet isolation sign?

100: Droplet Isolation

What is: Blue

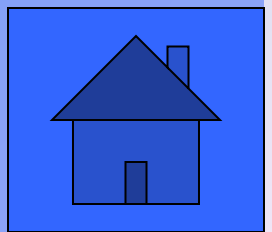


200 Droplet Isolation

Dress the nurse with the correct PPE
for droplet precautions.

200 Droplet Isolation

What is: Surgical mask



300 Droplet Isolation

When is Enhanced droplet precautions used?

300 Droplet Isolation

What is: Influenza patients



400 Droplet Isolation

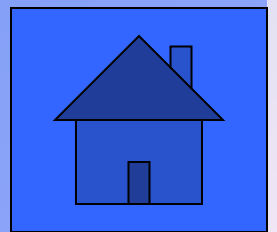
When do you need to wear a N95 or PAPR with a patient in enhanced droplet precautions?

400 Droplet Isolation

What is: Giving an aerosol-generating procedure

Aerosol-generating procedures (AGP) stimulate coughing and promote the generation of aerosols.

- Sputum induction
- Bronchoscopy
- Endotracheal intubation
- Cardiopulmonary resuscitation
- Open suctioning of respiratory tract (including tracheostomy care)
- Autopsy
- Extubation



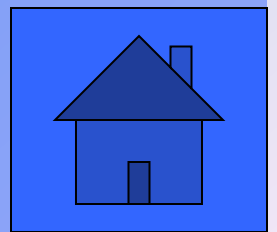
500 Droplet Isolation

Name 3 infections that require Droplet isolation

500 Droplet Isolation

Common conditions:

- Diphtheria (pharyngeal)
- Meningococcal disease (Neisseria meningitis): sepsis, pneumonia, meningitis- known or suspected
- Mumps
- Pertussis (whopping cough)
- Parvovirus B19
- Pneumonia
  - Adenovirus (droplet and contact)
  - Mycoplasma pneumonia
- Haemophilus influenza
  - Meningitis
  - Epiglottitis, meningitis
  - Pneumonia (infants and young children)
- Streptococcus, Group A
  - Pneumonia
  - Skin, wound or burn major, (contact and droplet)
  - Pharyngitis (infants and young children)
  - Scarlet fever (infants and young children)
  - Serious Invasive disease
- Plague (Yersinia pestis) Pneumonic
- Rhinovirus
- Rubella

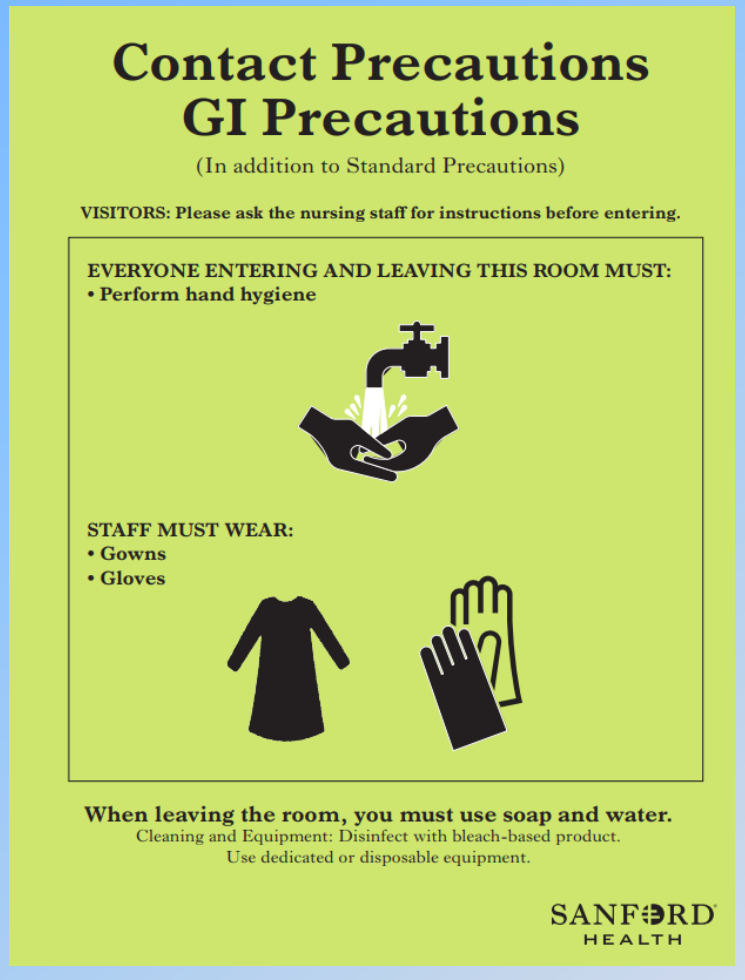


100 GI-Contact Isolation

What color is the
GI-Contact isolation sign?

100 GI-Contact Isolation

What is: Green

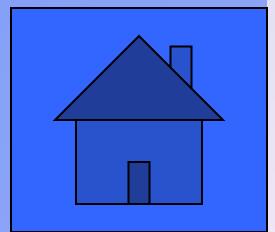


200 GI-Contact Isolation

What should the nurse do when they notice their patient is having active diarrhea,(Bristol scale 6 or 7) but not more than 3 times in 24 hours yet?

200 GI-Contact Isolation

What is: Place patient in GI-Contact isolation for early protection.



300 GI-Contact Isolation

After removing a glucometer from the patient's room with GI-contact precautions, what PDI wipe do you use to clean and disinfect it with?

300 GI-Contact Isolation

What is: Bleach (orange top)

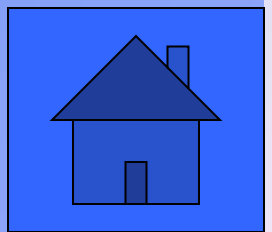


400 GI-Contact Isolation

True or False: When leaving a GI-contact patients room, healthcare staff need to wash hands with soap and water but visitors may use hand sanitizer.

400 GI-Contact Isolation

What is: False. Everyone leaving a GI-contact room must wash hands with soap and water.



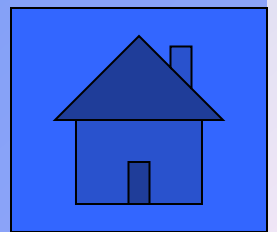
500 GI-Contact Isolation

Name 3 conditions that you would place a patient in GI-Contact

500 GI-Contact Isolation

Common conditions:

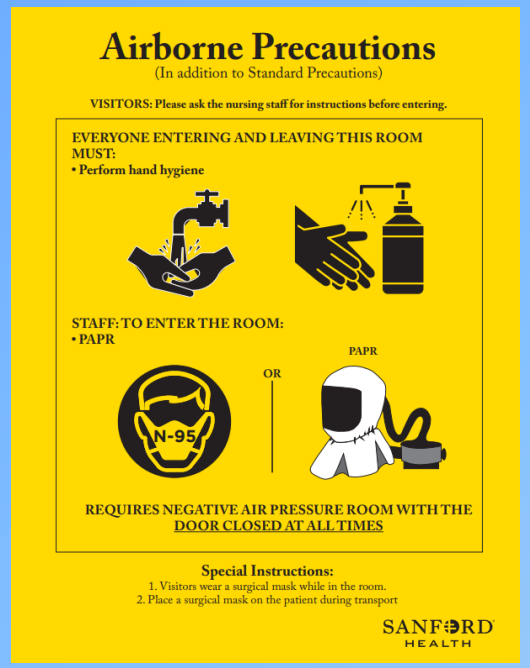
- Acute diarrhea with unknown etiology
- Clostridium difficile
- Norovirus
- Hepatitis A



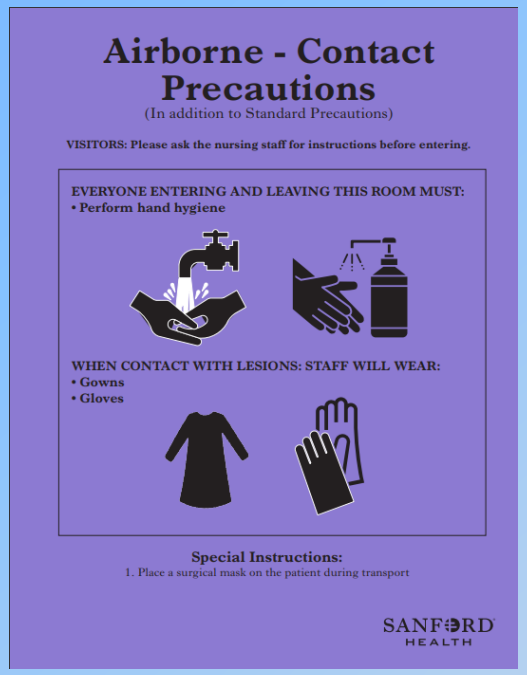
100 Airborne Isolation

How many different airborne precautions does Sanford have?

100 Airborne Isolation
What is: Three



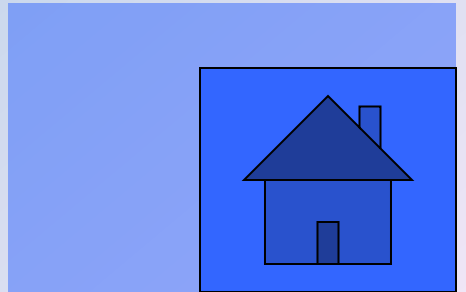
Common conditions:
Measles, TB
Monkeypox



Common conditions:
Chickenpox
Disseminated
zoster (shingles)



For COVID only

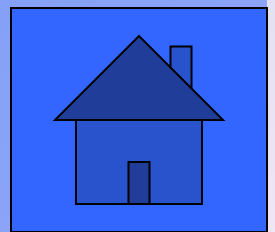


200 Airborne Isolation

Dress the nurse with correct PPE
for COVID isolation precautions.

200 Airborne Isolation

What is: Gown, Gloves, eye protection & N95 or PAPR



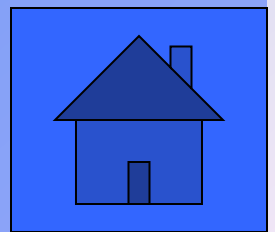
300 Airborne Isolation

True or False: You can re-use a N95 mask until it shows signs of wear, then discard it in the trash.

300 Airborne Isolation

What is: False.

Never re-use N95 masks, gowns, gloves or eye protection.

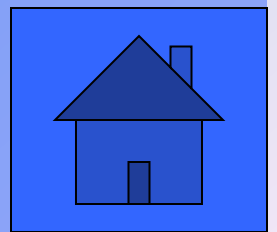


400 Airborne Isolation

True or False: A non-immune healthcare worker can take care of a patient with chickenpox.

400 Airborne Isolation

What is: True. It is preferred if an immune healthcare worker takes care of the patient if available, if not the non-immune healthcare worker must wear a N95 or PAPR in addition to gown and gloves.

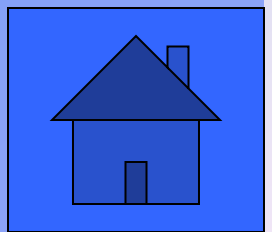


500 Airborne Isolation

What would you do if a patient in Bagley medical center needed a negative pressure room?

500 Airborne Isolation

What is: Place patient in ED room# with negative airflow fan and contact nursing leadership

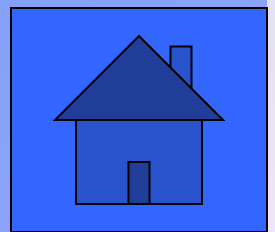


100 Isolation Champions

True/False: Prescription eye glasses are sufficient to wear to protect the mucus membranes of your eyes

100 Isolation Champions

False: Spray and aerosolized germs can easily spray up and under those glasses

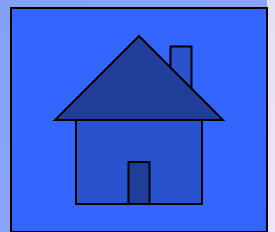


200 Isolation Champions

Who’s job is it to make sure patients are isolated correctly?

200 Isolation Champions

What is: EVERYONES

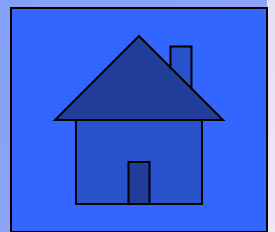


300 Isolation Champions

True/False: You do not need to use standard precautions with patients who are on isolation precautions

300 Isolation Champions

What is: FALSE. You may still need standard precautions while working with some patients on isolation precautions



400 Isolation Champions

Your patient is positive for rhinovirus/enterovirus and is incontinent. What isolation precautions do they need?

400 Isolation Champions

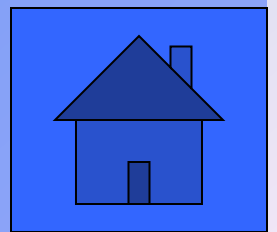
What is: Contact and Droplet precautions

DROPLET PRECAUTIONS

When a patient is suspected or confirmed to have the following infections:

1. Diphtheria, pharyngeal
2. Meningococcal disease due to Neisseria meningitidis (sepsis, pneumonia, meningitis)
3. Mumps (infectious parotitis)
4. Parvovirus B19 (Erythema infectiosum)
5. Pertussis (whooping cough)
6. Adenovirus (droplet)
7. Mycoplasma
8. Plague, pneumonic (Yersinia pestis)
9. Streptococcus disease, Group A (droplet in patient with respiratory infection. Add contact if draining lesions present)
10. Pharyngitis (infants and young children)
11. Scarlet fever (infants and young children)
12. Rhinovirus
13. Rubella (German measles)

7. Gastroenteritis (diapered or incontinent persons)
   a. Adenovirus, Campylobacter sp; Cholera (Vibrio cholerae); Cryptosporidium sp; E. coli enteropathogenic 0157:H7; Enterovirus, Shiga toxin-producing strains; Giardia lamblia; Rotavirus; Salmonella sp; Shigella sp.; Vibrio parahaemolyticus; Yersina enterocolitica; and Viral if not covered elsewhere.

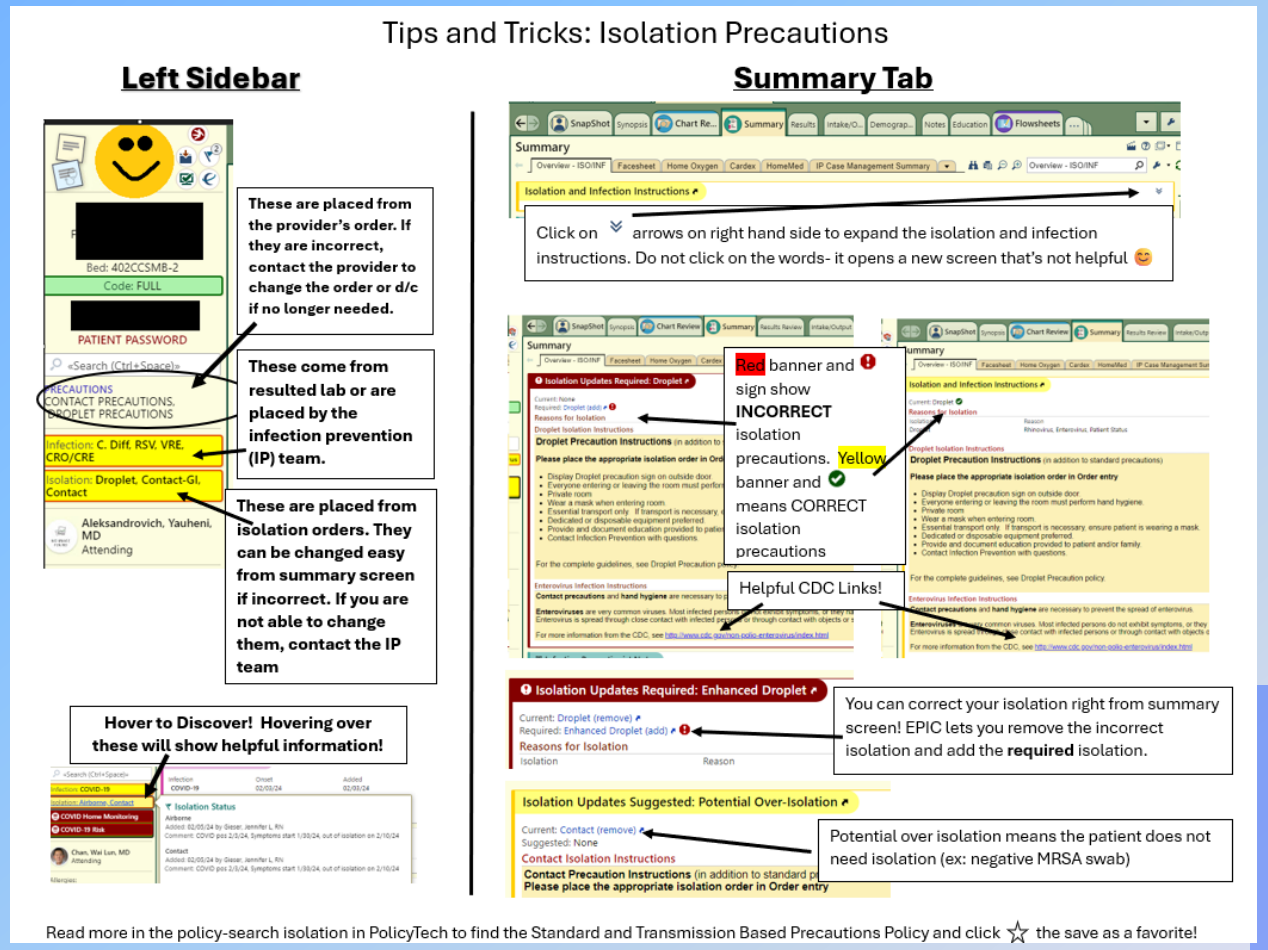


500 Isolation Champions

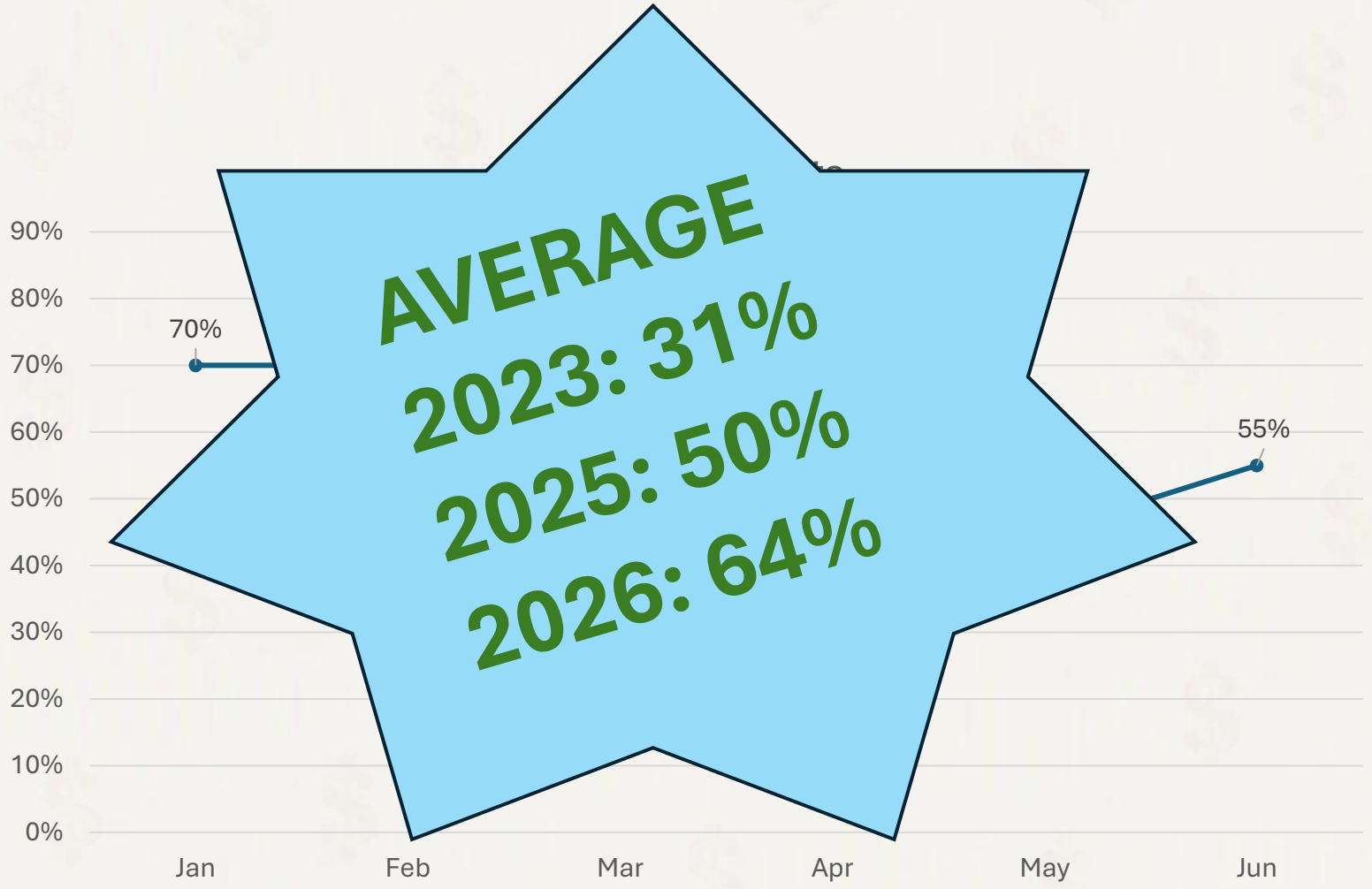
Does EPIC alert staff on what isolation precautions a patient needs, and if so, where can you find them?

500 Isolation Champions

What is: Yes!



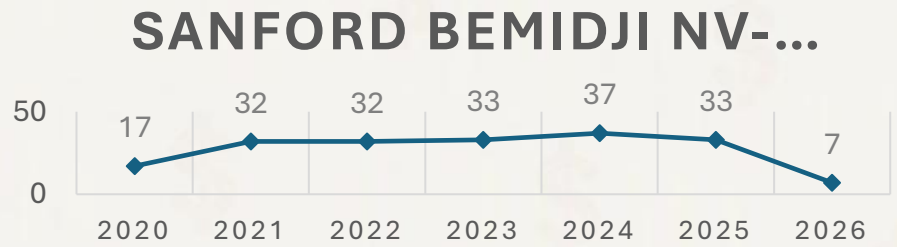
The Showcase Showdown: Where are we at?





The Showcase Showdown: Once is nice, but let's do it Twice

Oral care challenge



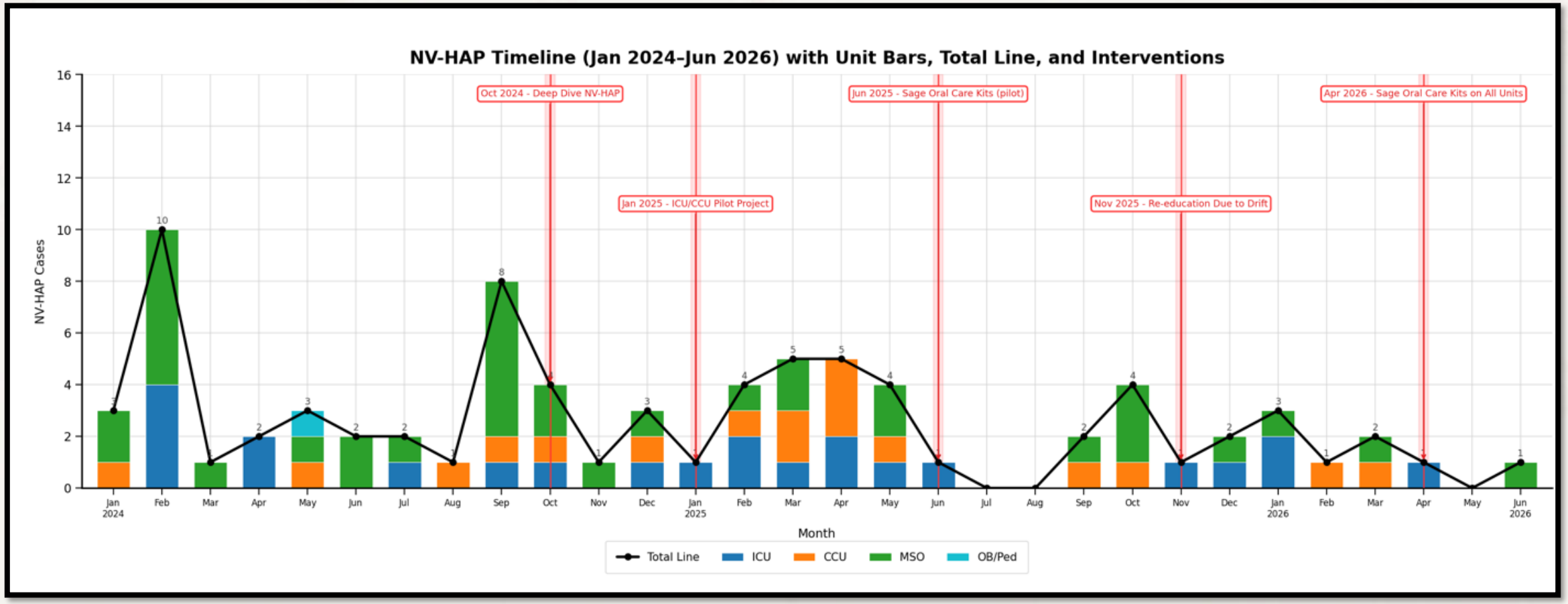
- NV-HAP was identified to continue to climb since covid.

- Best practice to reduce NV-HAP→ORAL CARES!



The Showcase Showdown: Oral care challenge

The work:



Oral cares and Adult learning :

Similar missed oral care opportunities for staff:

- Time constraints- “I’m too busy.”
- Competing priorities -“I have 3 other patients to care for.”
- Patient refusal- “They refused to have their teeth brushed.”
- Lack of supplies – “I don’t have the supplies in the room when I’m in there.”
- Documentation burden “I forgot to chart it.”
- Unclear ownership “I think the aides and therapists do that task.”

Most barriers are not knowledge deficits.
They are workflow barriers.

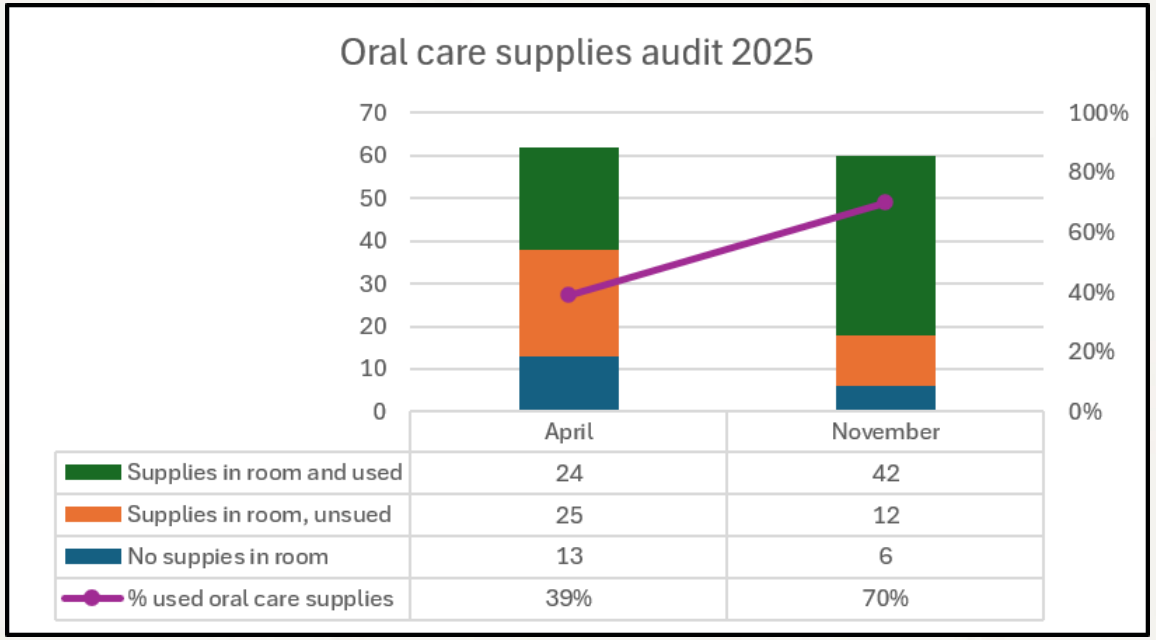
Making oral cares

ATTRACTIVE

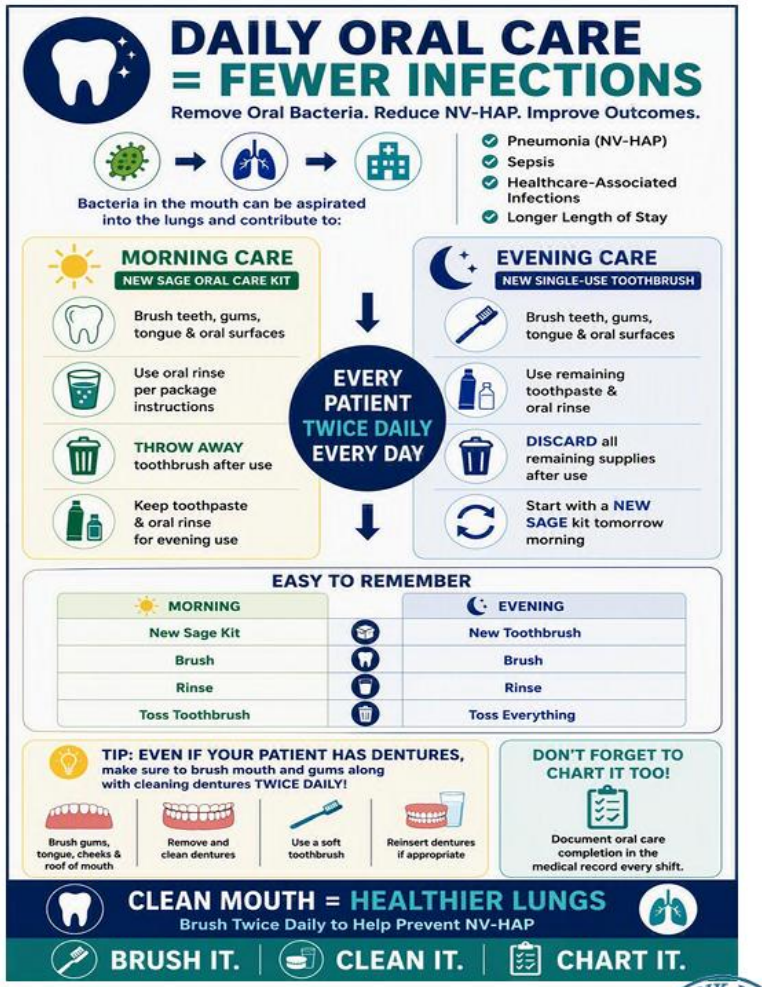
- Shared learnings during rounding on prevalence and microbiology study.
- Patients whose care was impacted by oral cares not getting done.

EASY

- Gave a 10-sec. ‘elevator pitch’ for all staff to use.
- Switched to oral care kit by Sage.
- Gave a standard approach to oral care kits and when to use.



Making oral cares



OBVIOUS

- Updated where oral care supplies are kept in supply room.
- Removed all prior oral care supplies. (toothpaste, mouthwash)
- Put up one page flyer on oral cares.
- Round with the oral care kit and talk to staff.

SATISFYING

- Reviewing one page flyer with staff prior to putting it out.
- Sharing data.
- Rounding with treats.

Systems shape behavior. Education supports change, but a thoughtful system design makes desired behavior easier to sustain.



Questions?

“When we stop asking people to work around broken systems and start designing systems that work for people, everybody wins.”

–Author unknown

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