THE ICAR EXPERIENCE ACROSS THE TARHEEL STATE

APIC Fall Conference

September 26, 2017

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NO DISCLOSURES

...These SPICE Girls
*Not those SPICE Girls...*

OBJECTIVES

- **Describe the Infection Control Assessment and Response (ICAR) implementation in North Carolina.**

- **Identify Infection Control gaps in acute care, long-term care, outpatient and dialysis settings.**

- **Discuss mitigation efforts for identified infection control gaps.**

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BACKGROUND (ICAR)
LESSONS LEARNED...EBOLA IN AMERICA

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LESSONS LEARNED...EBOLA IN AMERICA

Dr. Tom Frieden
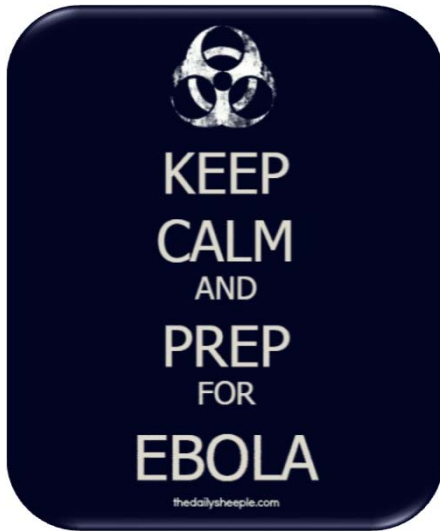
"*Post and even pre-Ebola we recognized there were huge gaps in world preparedness and that we're all vulnerable because of them....*

"*A blind spot anywhere is a vulnerability everywhere. It's so unpredictable. No one could have predicted that H1N1 could have come from Mexico. That MERS would arise in the Middle East. So the only insurance policy is to strengthen everywhere.*"

Tom Frieden, ND, MPH, former CDC director and Founder of Resolve, a global health initiative that will focus on heart health and epidemic preparedness.

*New York Times: September 12, 2017*

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BACKGROUND (ICAR)
HOW READY IS AMERICA FOR THE NEXT…..

- **CDC funding to Department of Health (DPH) in all 50 states**

- **NC DPH contracted with SPICE Nurse Consultants to perform assessments**

- **ICAR assessments: FREE, non-regulatory and consultative**

3 year project Goal
(End Date 3/2018)

- *Long-term care-80* ✅
  - *Acute care-30* ✅
  - *Outpatient-100*
- *Dialysis centers-40*
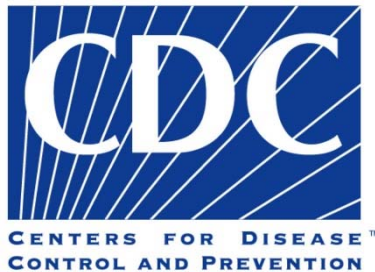
ICAR-SURVEY ASSESSMENT TOOLS

- **Separate tool for each facility type**
  - **Facility Demographics**
  - **IC Program/Infrastructure**
    - *Hand Hygiene*
    - *PPE*
    - *Injection Safety*
    - *HAI Prevention*
    - *Environmental Cleaning*
    - *Device Reprocessing*
  - **Direct observations of facility practices (as applicable)**
  - **IC Guidelines/Resources**

> *Focus on 5 key elements: Policies, Training, Competencies, Audits, Feedback*
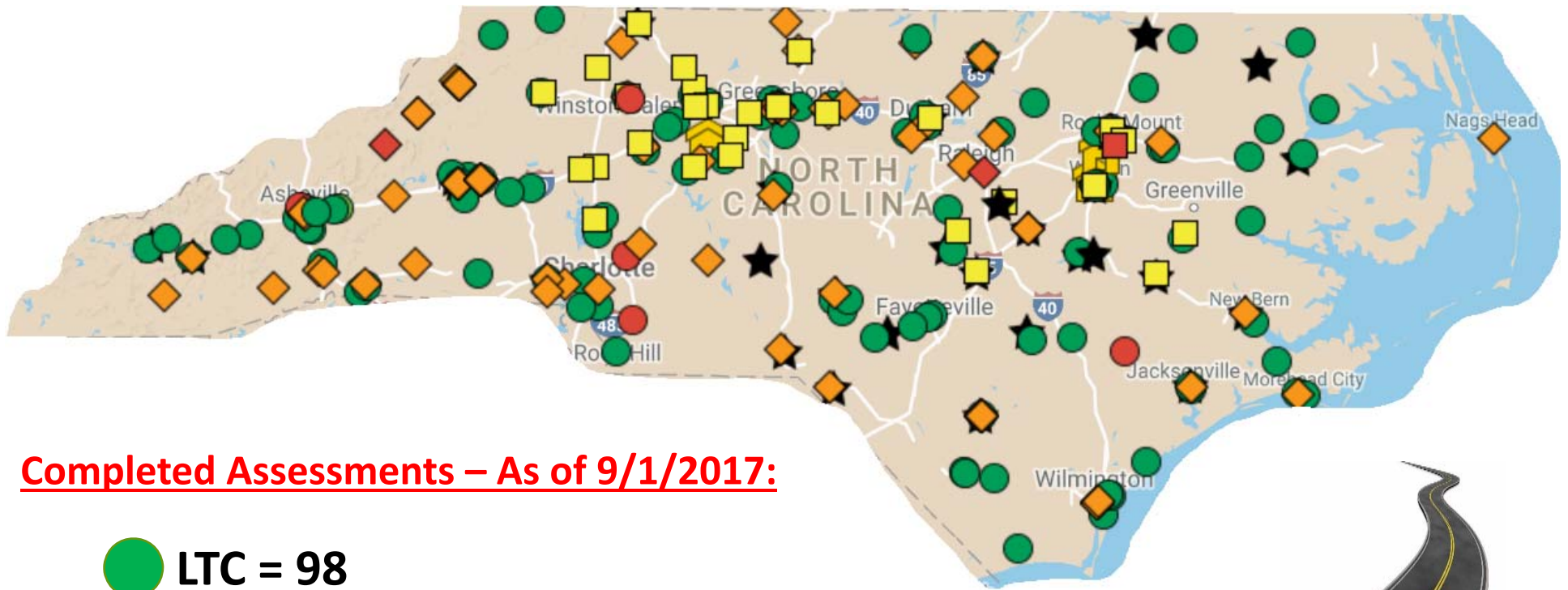
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LIMITATIONS

- **ICAR tool training**
- **Recruiting process**
  - **"Regulatory" fear**
  - **Volunteer program**
  - **Access**
- **Tool design with multiple parameters in 1 question**
  - **Observational conclusions were developed**
- **3 different consultants; skewed interpretation**
- **Individual state approaches**
  - **Infection Preventionists vs. State HD employees**

GEOGRAPHIC DISTRIBUTION

Completed Assessments – As of 9/1/2017:

- 🟢 LTC = 98
- ★ Acute Care = 33
- 🔶 Outpatient = 77
- 🟨 Dialysis = 30

39,000 miles traveled

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SUCCESS

- **Visits requested**
- **Observed best practices**
- **Support from local networks**
- **Receptive to feedback**
- **Engaged in program improvement**

COMMON GAPS
ACROSS THE CONTINUUM

WHY is this IMPORTANT to YOU!!!

COMMON PROGRAM GAPS
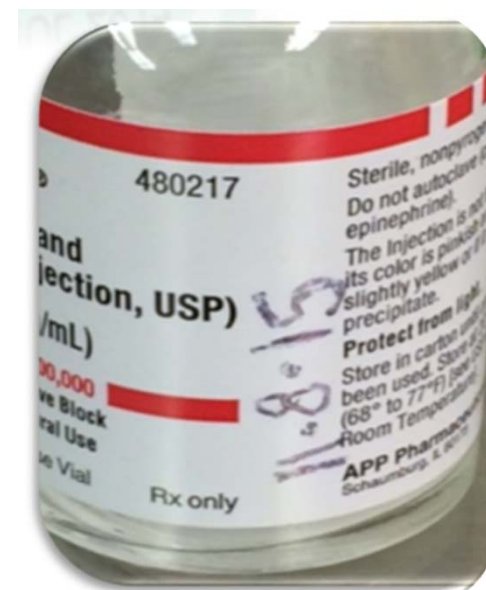
COMMON GAPS
PROGRAM

- **FTE allocated to Infection Control/Prevention**
  Increasing demands

- **IP Oversight & ICC/QAPI follow up**
  Education, processes, audits

- **TB policy/Annual risk assessment**
  TST or not to TST annually...

- **Hand Hygiene**

COMMON GAPS
SAFE INJECTION PRACTICES

- **Drug diversion/IP role?**

- **Single-Dose Vial (SDV)**
  Used as Multi-dose vials

- **Multi-Dose Vial (MDV)**
  Not dated when opened
  Not discarded within 28 days unless the manufacturer specifies a different date

- **Shared MDV**
  Stored in the immediate patient treatment area e.g., operating room, patient room/cubicle, etc.

COMMON GAPS
SAFE INJECTION PRACTICES

Injections are NOT prepared using aseptic technique in a clean area

- **Med Prep areas in middle of lab with specimens and/or re-processing area**

- **Visibly soiled counters/pads without routine cleaning procedure**

- **On desks in patient interview rooms**

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COMMON GAPS GLUCOMETERS

Storage and Cleaning

- **Nylon Case (not cleanable)**

- **Glucometers used on multiple patients without following IFU for cleaning**

  CDC states if no IFU, then should not be used on multiple patients

- **Storage in dirty areas and/or splash zones**

BE AWARE DON'T SHARE

One Insulin Pen, Only One Person

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OTHER COMMON GAPS

Single use items being re-used

- *Tourniquets*

- *Wound packing strips*

- *Disposable BP cuffs*

- *Suture removers*

OTHER COMMON GAPS

- **Clean vs. Dirty**
  - *Co-mingling of supplies*
  - *Clean supplies close to patients/biohazard bins, sink splash zones*
  - *Equipment; clean/dirty*
- **Expired patient care items**
  - *ABHR, soap, disinfectants, blood collection tubes, needles*

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OTHER COMMON GAPS

Linen Management

Storage
- *Bottom shelf not solid*
- *Uncovered*
- *Mixed with other supplies*
- *Open under exam table*

Transport
- *Uncovered carts*
- *In hands against uniform*

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OTHER COMMON GAPS

Environmental Cleaning

- **Lack of delegation of duties**

- **Contract workers (duties not clearly defined)**

- **Disinfectant contact times not known**

- **Mystery chemicals**
  (un-labeled bottles, over the counter products, inappropriate dilutions, topping off, no dates when poured)

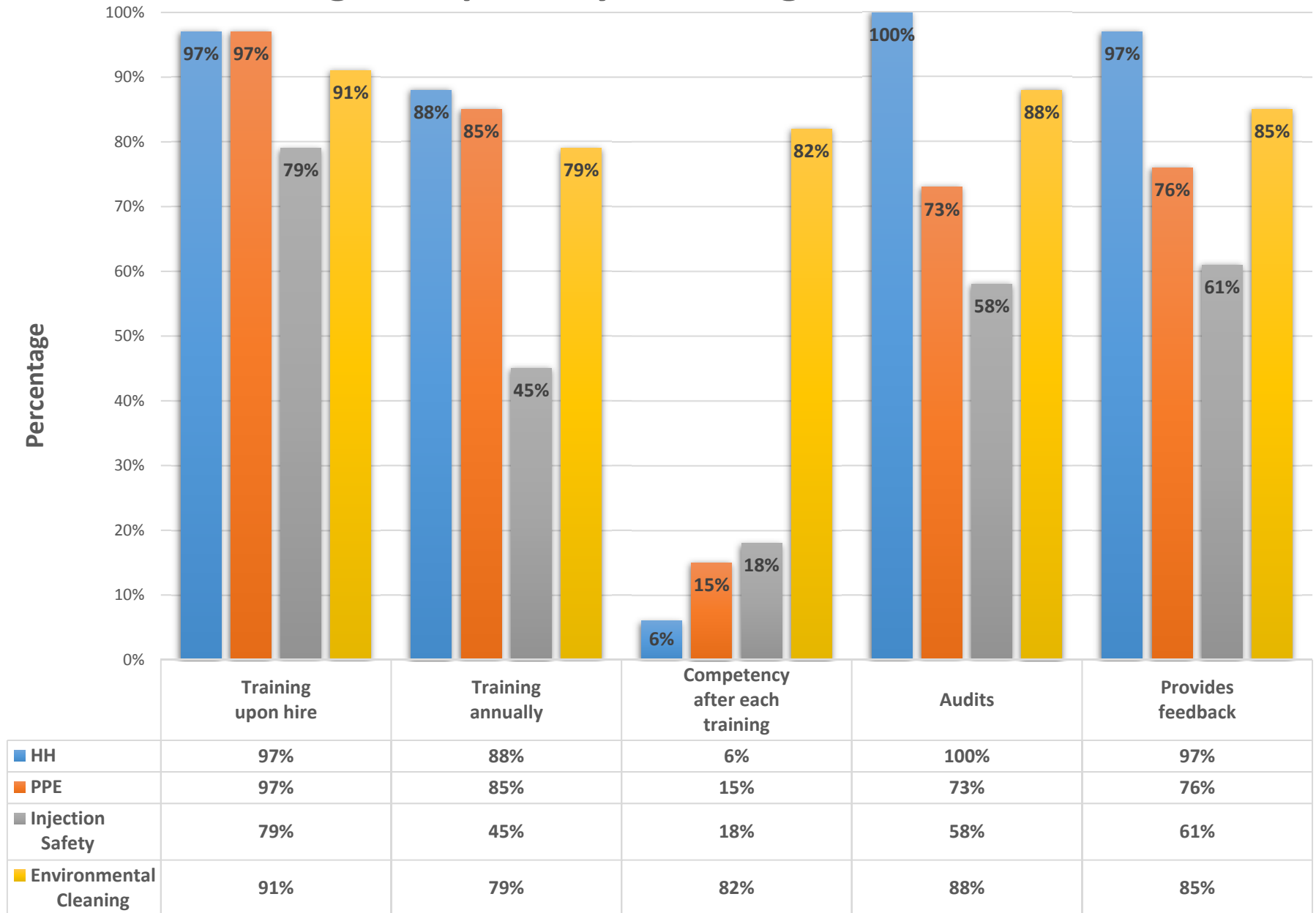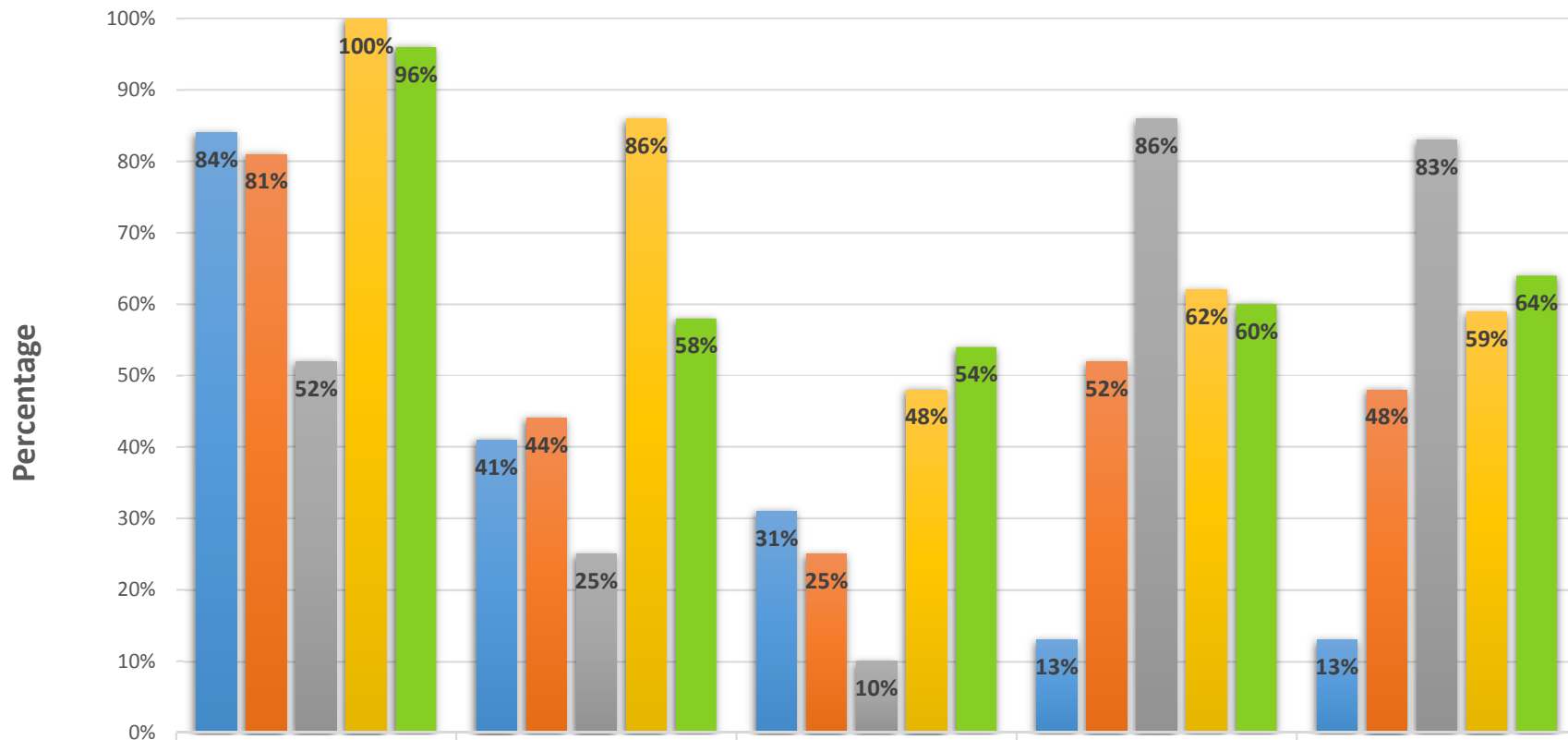# ACUTE CARE

TYPE OF HOSPITALS VISITED
GOAL = 30
N = 33

Hospital Types	# Assessed
Acute care	24
LTACH	1
Critical Access	4
Behavioral	3
Rehab	1

	Licensed Beds	IP FTE
Range	8 – 435	0.05 - 5
Mean	165	0.95
Median	110	0.86

Acute Care Compliance - Non Device Related
Training, Competency, Auditing and Feedback

	Training upon hire	Training annually	Competency after each training	Audits	Provides feedback
HH	97%	88%	6%	100%	97%
PPE	97%	85%	15%	73%	76%
Injection Safety	79%	45%	18%	58%	61%
Environmental Cleaning	91%	79%	82%	88%	85%

Acute Care Compliance - Device Related
Training, Competency, Auditing and Feedback

	Training upon hire	Training annually	Competency after each training	Audits	Provides feedback
UC (Insertion)	84%	41%	31%	13%	13%
UC (Maintenance)	81%	44%	25%	52%	48%
CL (Insertion)	52%	25%	10%	86%	83%
CL (Maintenance)	100%	86%	48%	62%	59%
VAE	96%	58%	54%	60%	64%

ACUTE CARE OBSERVATIONAL GAPS

- **What is wrong with this picture?**
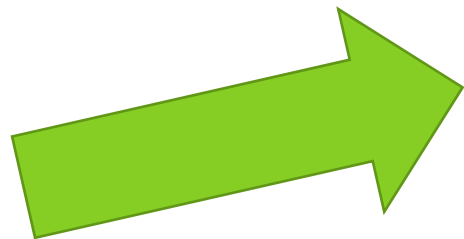
ACUTE CARE OBSERVATIONAL GAPS

- **SPD decontamination with door open**

- **HLD**

  - **Endoscope storage in soiled rooms with open cabinet, vaginal US probe rinsed in HH sink**

- **Rusty casters in the OR**

POINTS TO PONDER...

- **How to implement a thorough competency training program?**

- **Audits**
  - **Who?**
  - **What?**
  - **When?**
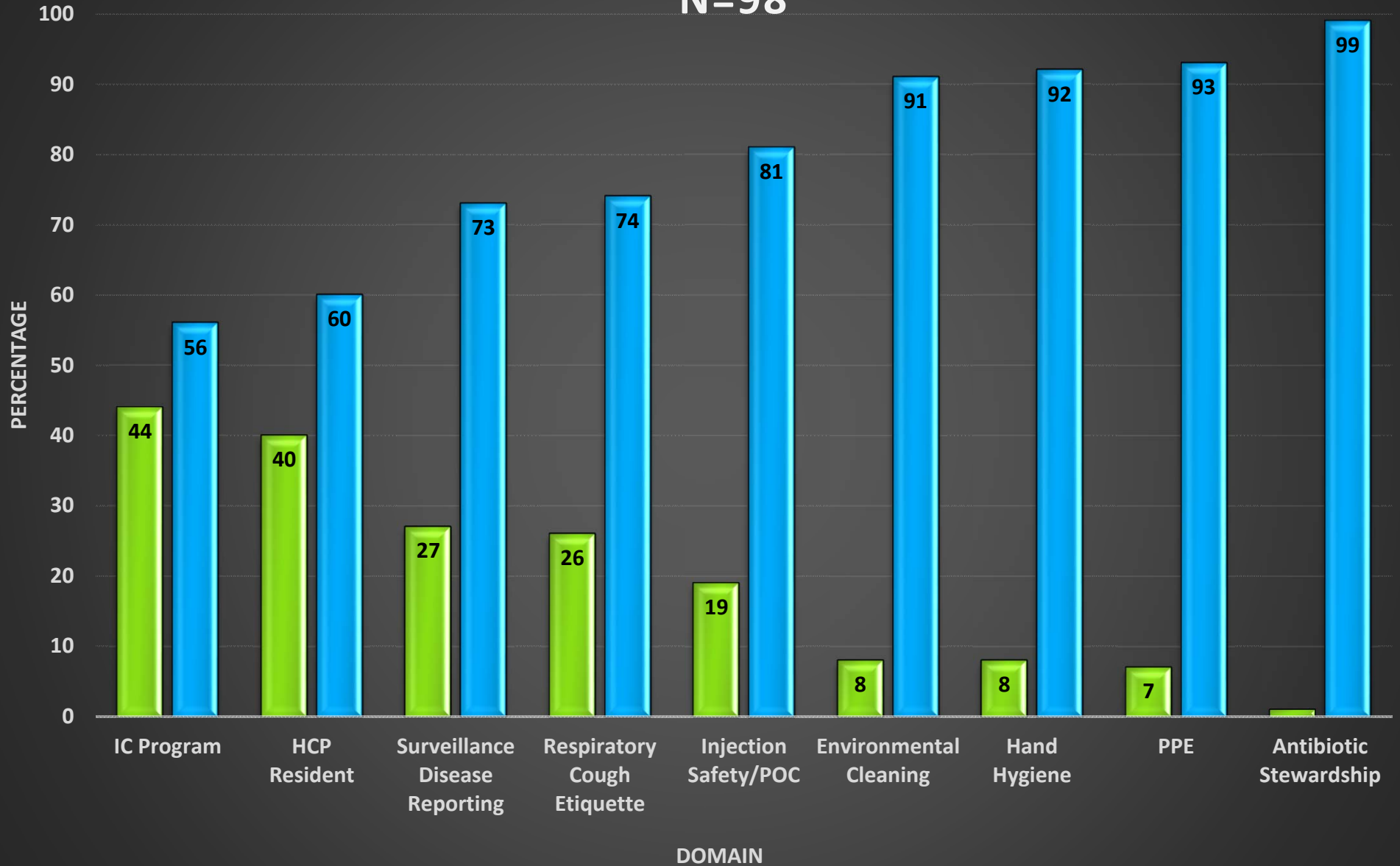
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TYPE OF FACILITIES VISITED

GOAL=80
N=98

Type of a facility	Bed Size	# Assessed
Skilled	< 100	47
Skilled	> 100	49
Assisted Living	80	1
Adult Developmental	283	1

Hospital Affiliated	Hours per week dedicated to IC
8	9.9 (min 1/max 35)

ANTIBIOTIC STEWARDSHIP
CMS Requirement - November 28, 2017
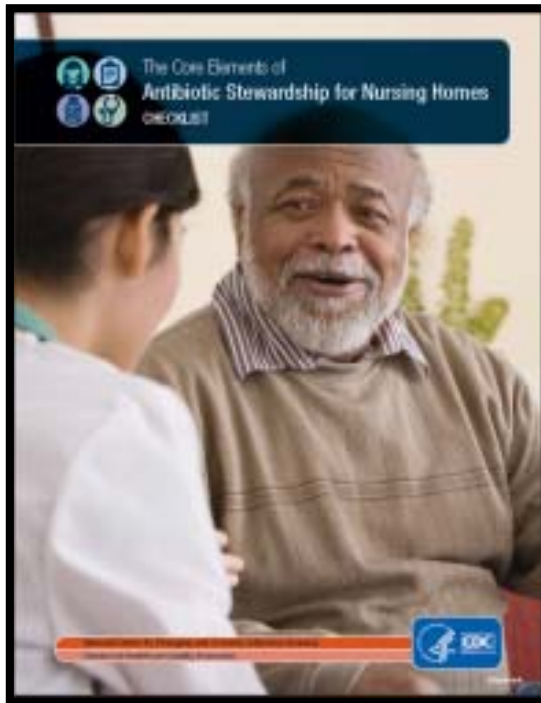
7 Core Elements Implementation

- *Limited pharmacy/MD support*

- *Data analysis skills*

- *Family pressure*

- *Antibiogram =*

- *Staff/MD/Patient/Family Education*

HAND HYGIENE

Policy

- *Lack of preferential use of ABHR over soap and water*

Barriers

- *Miscommunication*
- *Communal living*
- *Cognitive decline*
- *Homelike atmosphere*
- *Limited access to sinks*

Observations

- *ABHR not always readily accessible*
    - *Med carts*
    - *Soiled rooms*
    - *Dining area*
    - *Clean supply*
    - *Common areas*
    - *Activity room*

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OBSERVATIONAL GAPS

- **Surveillance**

  - *Data is collected; however no standardization for comparison. Based off...*

    - *MD diagnosis, MDS (coding data), antibiotics prescribed, modified McGeer, updated McGeer, EMR IC program*

Goal = standardization McGeer/NSHN

- **Designated person has multiple roles/turnover**

  DON, ADON, SDC, wound nurse, supervisor, hiring, staffing...

POINTS TO PONDER...

- **Patient hand hygiene (dining, activities, etc.)**

- **Gait belts as a fashion accessory**

- **Privacy curtain cleaning**

- **Linen management**

- **Lift slings dedicated or shared?**

- **FEES scopes/HLD?**

- **Construction/renovation**
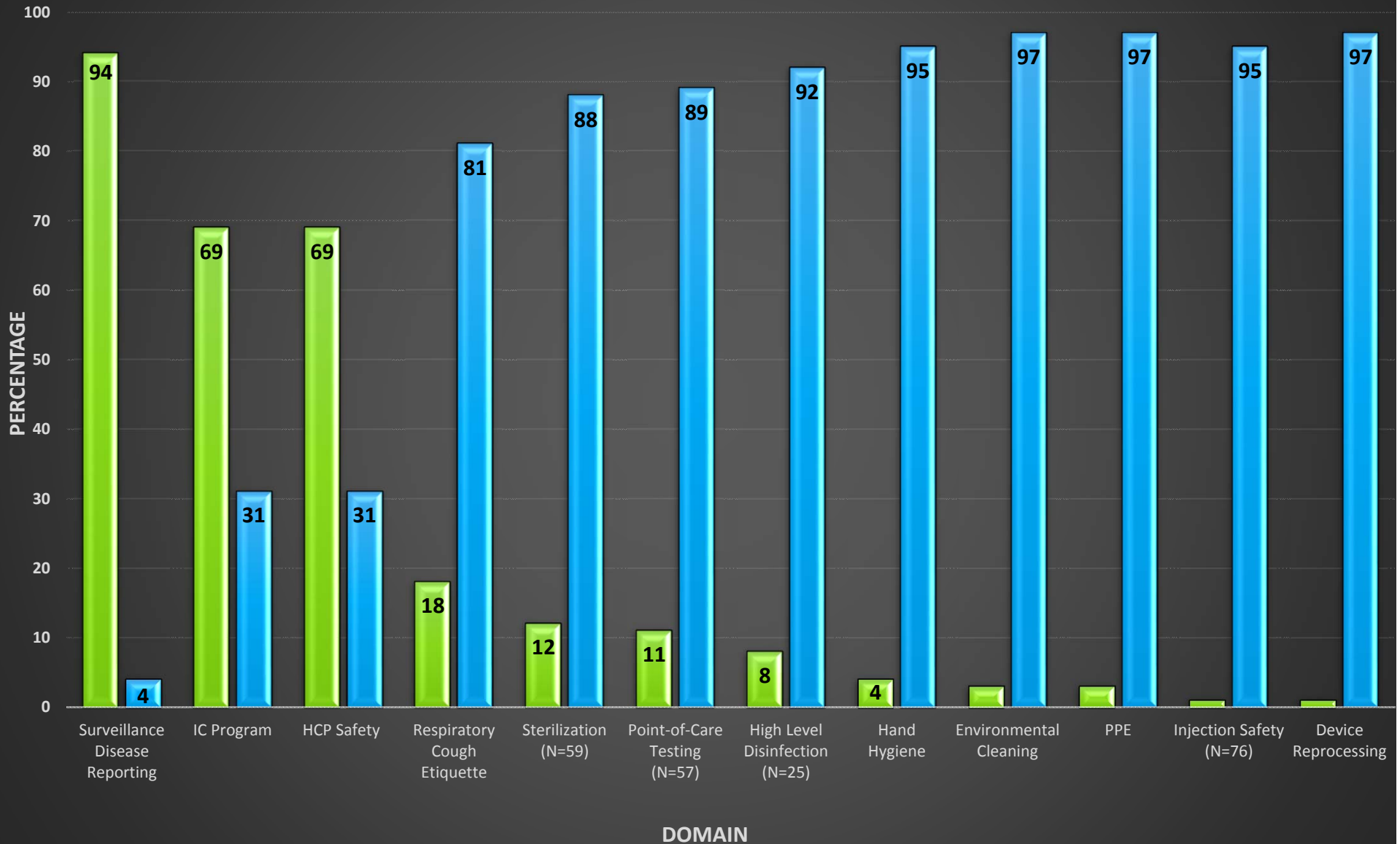

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OUTPATIENT

TYPE OF FACILITIES VISITED
GOAL=100
N=77

Independent	Hospital Affiliated
28*	49

* Local health departments = 16

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Outpatient Clinics Gap Analysis by Domain
N=77*

OUTPATIENT
RESPIRATORY HYGIENE/COUGH ETIQUETTE

- **Facilities lack policies and procedures regarding respiratory hygiene.**

  - *Offering facemasks to symptomatic persons*

  - *Providing space in waiting areas and encouraging separation*

- **Lack of signs at entrances with instructions for patients with symptoms of respiratory infection**

- **Lack of tissues and no-touch receptacles for disposal of tissues**

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DEVICE REPROCESSING
STERILIZATION
HIGH LEVEL DISINFECTION (HLD)

Mr. Insomnia

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OUTPATIENT STERILIZATION GAPS

- **Competency training (Resource?)**
- **Pre-cleaning**
- **Length of time before processing (dry/wet)**
- **Transport**
- **HCW PPE**

- **Decontamination**
- **Packaging/pouching**
- **BI/Chemical indicators**
- **Maintenance**
- **Logs**
- **Storage**

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OUTPATIENT GAPS
HIGH LEVEL DISINFECTION (HLD)

- **HLD chemical use**
  - *Temperature*
  - *Rinsing*
- **Drying after HLD**
- **Safe storage**
- **Enzymatic/detergent used according to manufacturer**
- **Brush use**

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POINTS TO PONDER…

- **How do you ensure training/competency for sterilization/HLD?**

    - **Who are your "go-to" resources?**

    - **One staff member is not enough…who is back-up?**

    - **Are you prepared to notify patients of breaches in infection control practices?**

- **Would you personally have an invasive procedure in your own clinic?**

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HEMODIALYSIS

TYPE OF FACILITIES VISITED

GOAL=40
N=30

Dialysis Center	Free-standing Clinic	Hospital Contract	Total
National Company	6	6	12
Independent Company	17		17
Hospital Owned		1	1
Total	23	7	30

Hemodialysis Gap Analysis by Domain
N=30

Facilities with NO Gaps per domain | Facilities with at least 1 gap per domain

DOMAIN	NO Gaps	At least 1 gap
IC Training, Competency & Audits	97	3
Hand Hygiene	77	23
Respiratory Cough Etiquette	53	47
HCP Safety	43	57
PPE	43	57
Environmental Cleaning	30	70
Vascular Access Care	17	83
Surveillance Disease Reporting	10	90
Injection Safety	3	97

PERCENTAGE
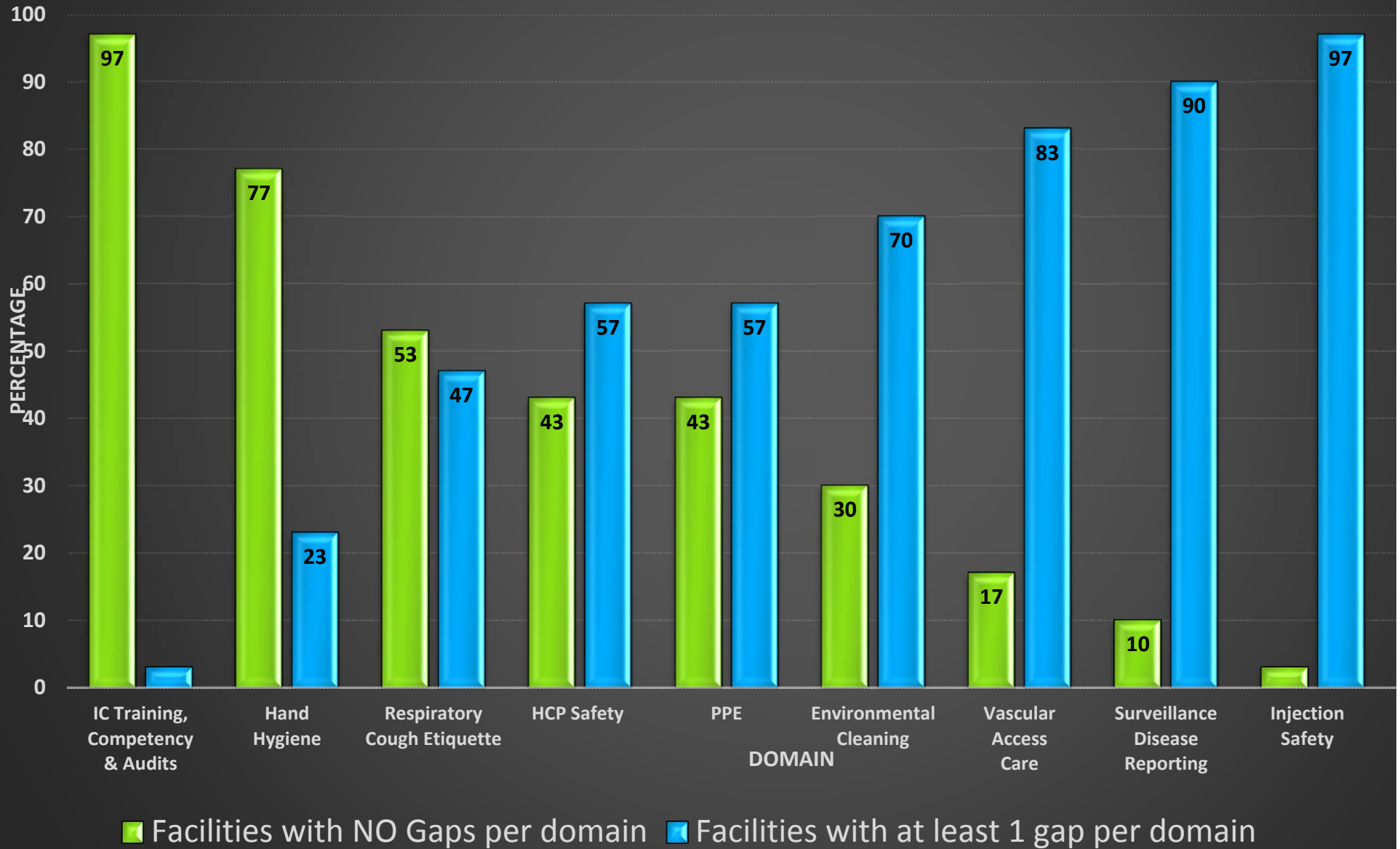
DIALYSIS PRACTICE OBSERVATION COMPLIANCE
N=30

% Compliance

- Hand Hygiene (761/1073): 71%
- Catheter Exit Site Care (13/21): 62%
- Injectable Med Prep (13/22): 59%
- Dialysis Station Disinfecton (31/71): 44%
- Catheter Connect/ Disconnect (14/33): 42%
- AFV/ Graft Cannulation (9/23): 39%
- Injectable Med Administration (16/47): 34%
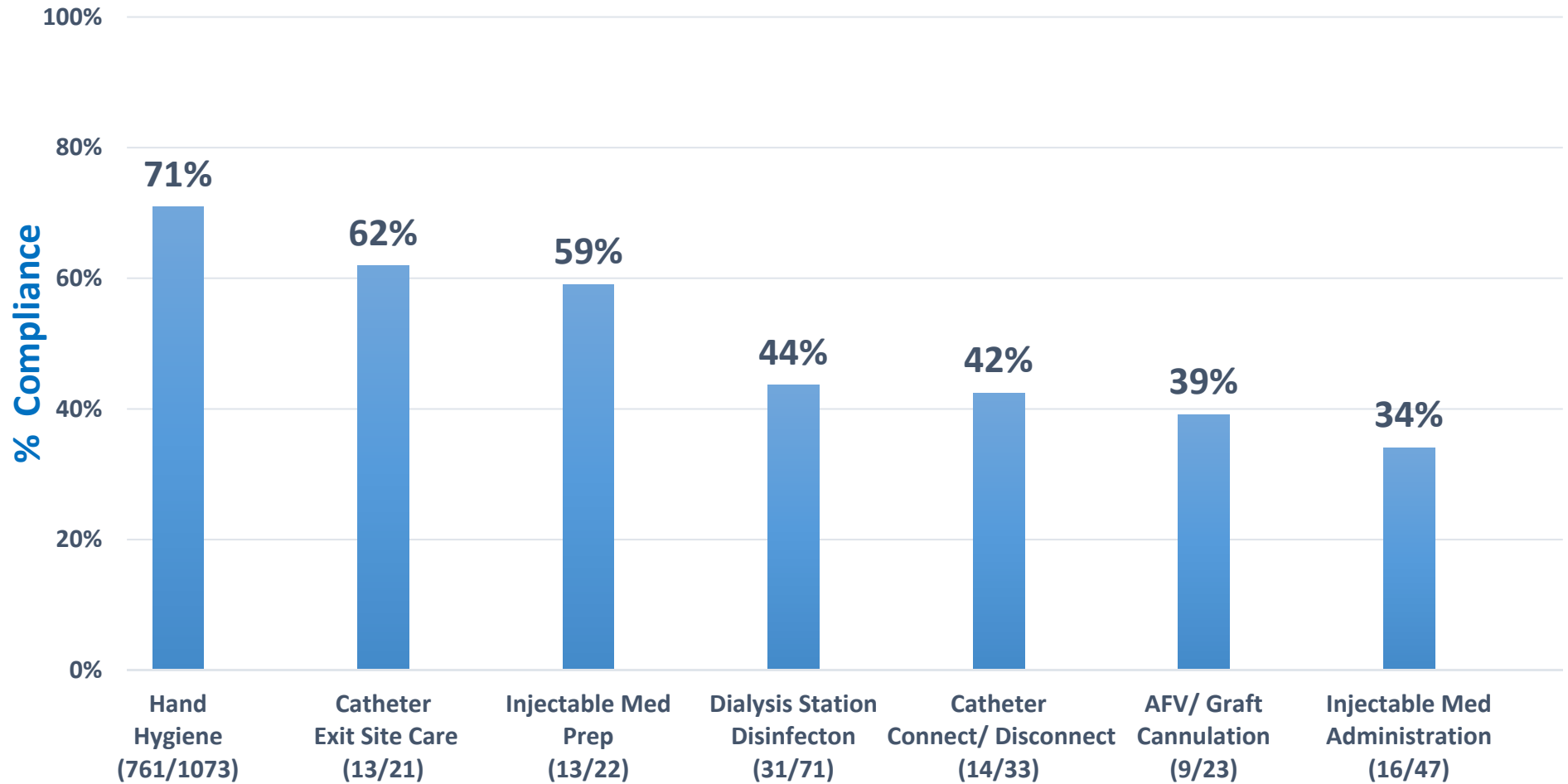
Practice Observations

DIALYSIS GAPS
INJECTION SAFETY/MEDICATION PREP

- **Safety devices**

  - *Lack of safety needles and not moving sharps bins to bedside*

  - *Best practices identified (mounted sharps on HD machines)*

- **Physically separate med room**

  - *Carts in patient care zones*

  - *Cross contamination with dirty items such as PPE/lack of HH*
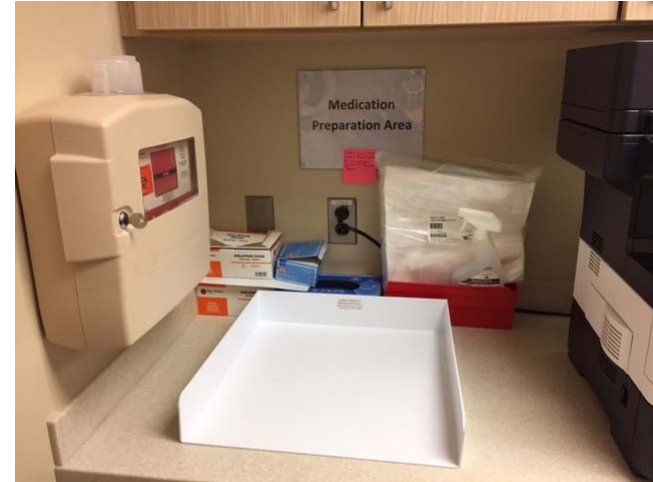
Routine cleaning of med prep areas

NO policy
NO standard practice

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DIALYSIS GAPS
INJECTION SAFETY/OBSERVATIONAL GAPS

- **Pre-assembling syringes and needles**

- **Not cleaning septum**

- **Not labeling MDV**

- **Not scrubbing ports with every access**

- **Pre-drawing of medications for extended periods of time (up to 4 hours)**

DIALYSIS GAPS
# CATHETER AND VASCULAR ACCESS

- **First line skin antiseptic agent**

  - *Betadine and/or alcohol (Not CHG)*

- **Antibiotic ointment or povidone-iodine ointment applied to catheter exit sites**

  - *Protocols exist; however provider dependent*

DIALYSIS GAPS OBSERVATIONS

- **Conflicting standards of care for Outpatient vs. Inpatient**

  - *"Clean" procedure for dressing changes*

  - *Dressings*

    - *Paper tape/gauze vs. CHG impregnated/BioPatch*

- **Antiseptic drying time**

- **Tape barrier to prevent contamination**

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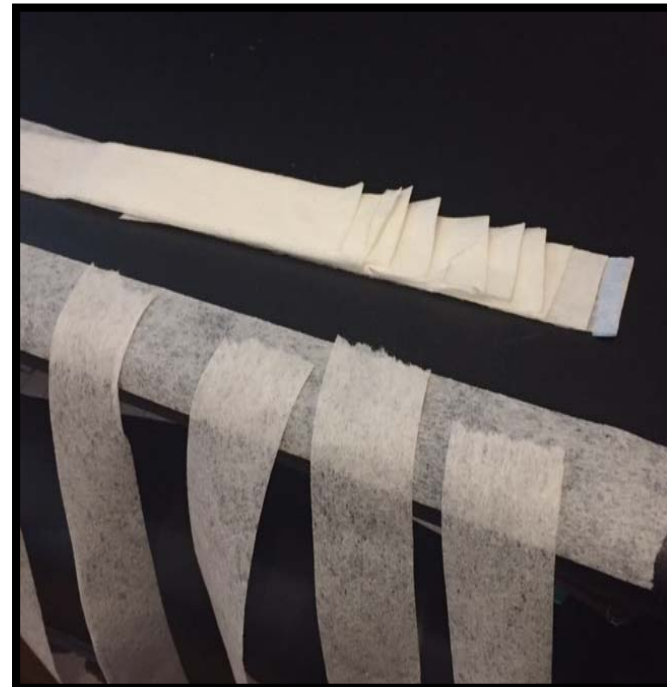
DIALYSIS GAPS
HAND HYGIENE

- ## Observations

  - *Soap & water scrub < 15 seconds majority of time*

  - *ABHR accessibility*

  - *Before donning gloves*

  - *After removing gloves*

  - *Lack of HH by patient prior to gloving/applying pressure to access site*

- ## Best practices

  - *Mounted to HD machine*

  - *Cleaning of patient hands/access sites prior to entering bay and upon discharge*

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DIALYSIS GAPS
ENVIRONMENTAL CLEANING OBSERVATIONS

- **Not allowing disinfectant to dry after cleaning HD station**

- **Bringing clean supplies to station when not ready for use**

- **Cleaning machine and prepping when chair has not been cleaned**

- **Not cleaning underneath chair tables or hanging clamps**

- **Inconsistent cleaning of shared keyboards**

- **Patient still present when cleaning**

June 2, 2017
**CMS Memo
Disinfection of Station**

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DIALYSIS GAPS
ENVIRONMENTAL CLEANING

Does the facility have policies and procedures for routinely cleaning and disinfecting:

- **Dialysis Clamps**
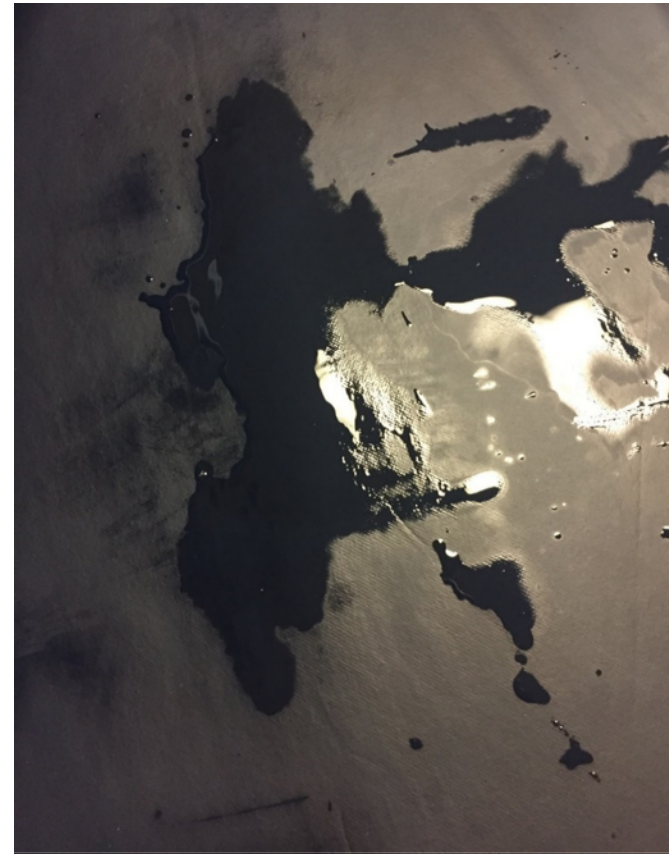
- **Glucometers**
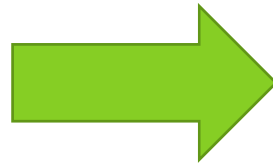
- **Dialysate Conductivity/pH meters**

Packet stated "single use only"

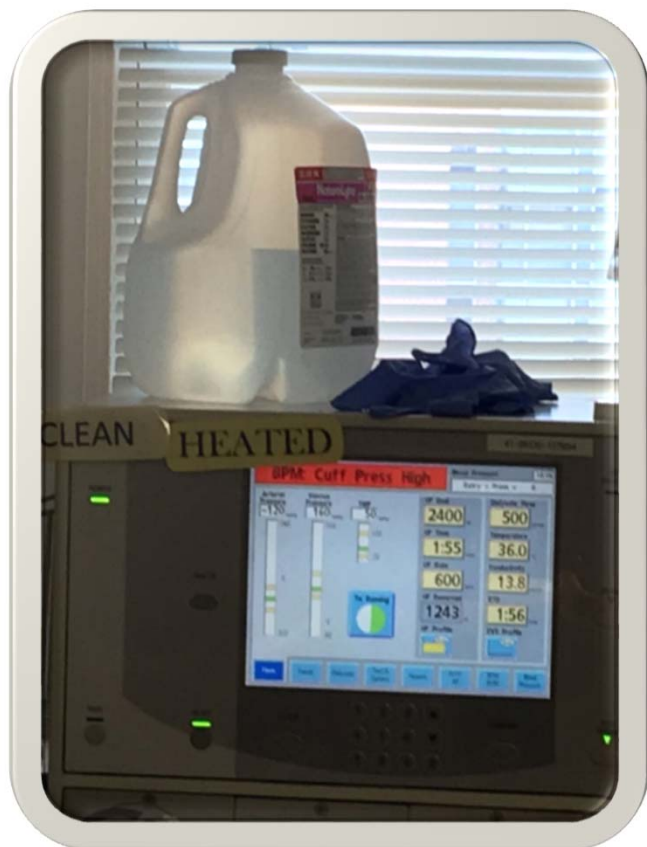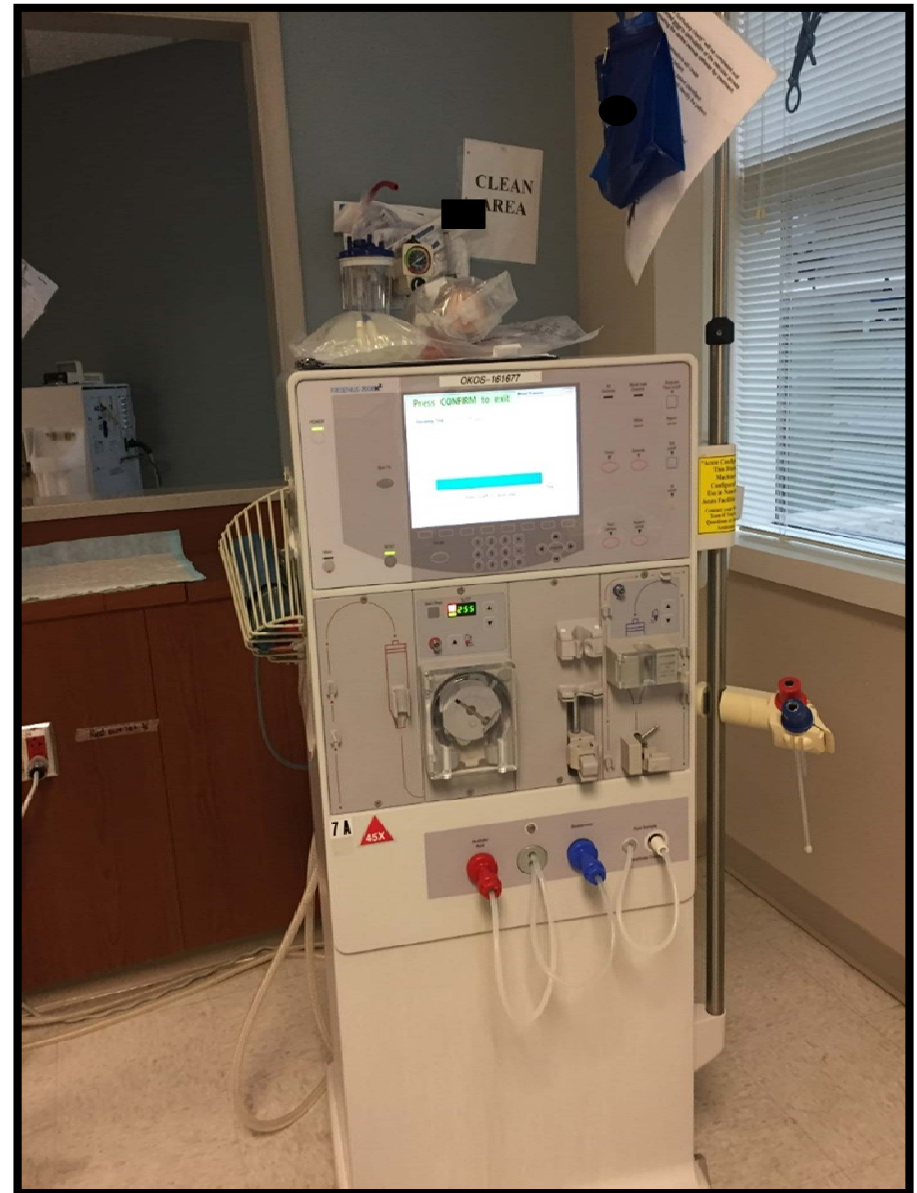**Not following manufacturer IFU**

GOWNS NOT IMPERVIOUS

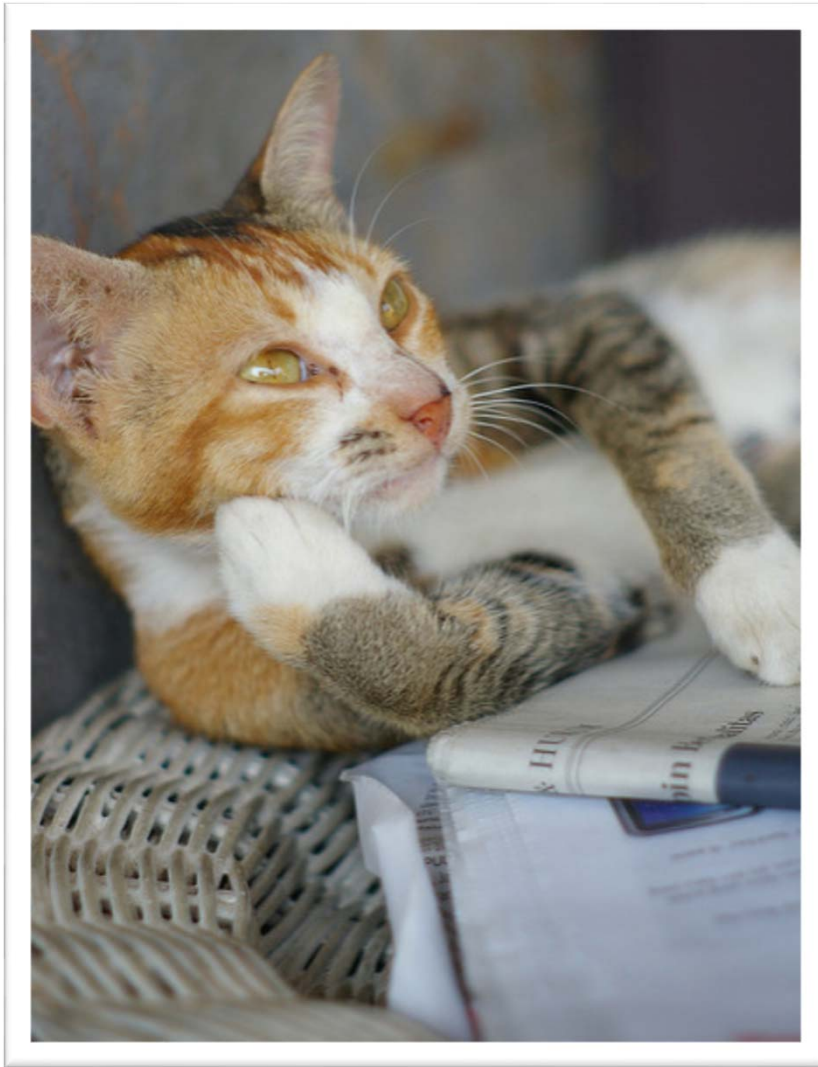Tape and residue on bedside table — ready for patient

Supplies on top of HD machine while in use

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- **Tight space**
- **Blue bag with clamps open**
- **Suspicious blood spot on ready to use machine**
- **Clip board stored on top of machine**

POINTS TO PONDER...

- **Amount of patient care belongings in HD stations**

- **Eating during visit**

- **Individual trash cans**

- **Spacing of HD stations**

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MITIGATION EFFORTS

Statewide Program for Infection Control and Epidemiology
Education to prevent and control healthcare associated infections across the healthcare spectrum

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Home | About SPICE | Ask SPICE | Facility Type | IC Courses | All Resources | On-Line Education | IC Assessments: ICAR | Related Links | 🔍

PRACTICAL ADVICE FOR IMPLEMENTING AN ANTIBIOTIC STEWARDSHIP PROGRAM IN LONG TERM CARE

Lisa Davidson, MD
Medical Director of Carolinas HealthCare System
Antimicrobial Support Network

North Carolina SPICE — Statewide Program for Infection Control & Epidemiology | CDC — Centers for Disease Control and Prevention | NCPH — North Carolina Public Health

Infection Control Assessment and Response (ICAR)

IC Assessments: ICAR

- Schedule a FREE Infection Control Assessment and Consultation
- On-Line Infection Control Assessment
- Infection Control Assessment (MS Word)
- Infection Control Tools: Policy, Risk Assessment, Competency, and more
- ICAR Program Background

Infection Control Tools: Policy, Risk Assessment, Competency, and more

IC Program / Policy

LTC Infection Control Program / Policy Sample

IC Risk Assessment

Template Risk Assessment

Competency Tools

Hand Hygiene Competency Tool

PPE Competency Tool

Injection Safety Competency Tool

Surveillance Tools for Long Term Care

UTI Infection Worksheet (NHSN) SPICE

Skin-Soft Tissue-Mucosal Infection Worksheet (McGeer) SPICE

Respiratory Tract Infection Worksheet (McGeer) SPICE

Gastroenteritis-Norovirus Infection Worksheet (McGeer) SPICE

C. difficile Infection Worksheet (NHSN-McGeer) SPICE

All GI Infection Worksheet (McGeer) SPICE

https://spice.unc.edu/infection-control-tools-policy-risk-assessment-competency-and-more/

MITIGATION EFFORTS

- **Patient safety follow up visits/action plans**

- **Updating SPICE NC .0206 training modules online/live**

- **Participation in outbreak investigations/education**

- **NC DPH, DHSR, SPICE outbreak regional education training**

NC .0206 law
Video available
Dr. Mask, Dr. Moore, Dr. Weber

SPICE online self assessment tool…

WHERE DO WE GO POST 3-31-2018?

- **Remain vigilant**

- **Ask questions**

- **Develop sustainable partnerships for ongoing improvements**

- **Network with local facilities to promote IP and staff development**

- **Explore FTE options for expanding program**

- **Be an IP both at work and as a consumer**

KEEP GOING DONT LOOK BACK

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THANK YOU TO...

- **All sites that welcomed us into their facilities**

- **North Carolina Department of Health (NC DPH)**

- **North Carolina Association of Professionals in Infection Control (APIC)**

- **North Carolina Hospital Association**

  - **North Carolina Division of Health Service Regulation (DHSR)**

  - **North Carolina Health Care Facilities Association (NCHCFA)**

- **End Stage Renal Disease Network 6 (ESRD)**

- **Dr. Weber, Dr. Moore & Dr. Mask**

- **Alliant Quality**

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Thank you for your time and for supporting this project!