


TEXAS Health and Human Services

 Texas Department of State Health Services

Infection Control Assessments in East Texas

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TEXAS Health and Human Services

 Texas Department of State Health Services

Objectives

1. Describe the Centers for Disease Control and Prevention (CDC) Infection Control Assessment and Response (ICAR) project.
2. Present the infection control assessment findings for Region 4/5N.
3. Provide a focus on areas of opportunity and review infection prevention guidelines.

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Healthcare-Acquired Infection Impact



• 75,000 HAI deaths per year in the U.S. ¹

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Infection Control Visits in the Piney Woods of East Texas



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ICAR Tool

Infection Control Assessment and Response



- Developed by the CDC under the Epidemiology and Laboratory Capacity (ELC) Grant
- Started with Ebola preparedness, expanded to all facility types

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ICAR Tool Sections

- Facility Demographics
- Infection Control Domains
- Direct Observation of Facility Practices (optional)
 - Audit tools for hand hygiene (HH) and personal protective equipment (PPE)
 - Audit tool for point of care (POC) testing
 - Audit tools for observing care of devices
 - Audit tool for wound dressing change
- Infection Control Guidelines and Resources

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Acute Care Infection Control Program

FAQs

	Yes	No
IC program po	10	1
Written infecti	10	1
evidence based	11	0
IC education p	11	0

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Long-Term Care Infection Control Program

	Yes	No
Facility has specified a person who is responsible for IC Program	19	0
Infection prevention policies are evidence-based	1	11
The facility has a written plan for emergency preparedness	19	0

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Acute Care Healthcare Personnel Safety

	Yes	No
Hospital has occupational health program including workplace exclusion policies	11	0
The program has work exclusion policies that do not penalize with loss of wages/benefits/job	11	0
Personnel are educated regarding prompt reporting of illness to supervisor/occupational health	11	0
Hospital follows ACIP recommendations for immunization of healthcare personnel	11	0

- Doing a good job:
 - Offering employees sick time to ensure those with communicable diseases stay home.
 - Ensuring ACIP recommendations are followed.

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Long Term Care Healthcare Personnel Safety

	Yes	No
Facility has a policy to assess employee risk for TB that may include screening	8	11

- Doing a good job:
 - Having work-exclusion policies in place for transmissible conditions
 - Offering Influenza and Hep B vaccines to staff
 - Providing training on Bloodborne Pathogen (BBP) exposures

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Long Term Care Healthcare Personnel Safety



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Acute Care Respiratory Hygiene

	Yes	No
Respiratory etiquette program includes: posting signs at entrances	11	0
Respiratory etiquette program includes: providing tissues and no touch receptacles	11	0
Respiratory etiquette program includes: providing hand hygiene supplies in/near waiting area	11	0
Respiratory etiquette program includes: offering facemasks to symptomatic patients	11	0
Respiratory etiquette program includes: providing space in patient waiting areas to sit away from others	6	4

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Long-Term Care Surveillance

Surveillance	National	State	Region 4/5H
Facility has a written surveillance plan outlining activities for monitoring/tracking infections	76%	70%	74%
Facility has system for follow-up on clinical information when residents are transferred to hospitals	79%	79%	85%

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Long-Term Care Disease Reporting

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Acute Care Hand Hygiene

Competency-based Training in Hand Hygiene in Acute Care Hospitals

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Acute Care Hand Hygiene

	Yes	No
Hospital has a competency-based training program for hand hygiene	7	4
Hand hygiene training is provided to all personnel, including ancillary personnel	11	0
Hospital audits (monitors and documents) adherence to hand hygiene	11	0
Process for hand hygiene audits can be described	11	0
Frequency of hand hygiene audits can be described	11	0
Hospital provides feedback from hand hygiene audits to personnel	11	0
Hand hygiene policies promote preferential use of ABHR over soap and water	6	2

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Long-Term Care Hand Hygiene

	Yes	No
Facility hand hygiene policies promote ABHR over soap and water	7	12
All personnel receive HH training and competency: upon hire	19	0
All personnel received HH training and competency: within the past 12 months	19	0
Facility audits (monitors and documents) adherence to HH	16	13

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Recent Developments in Hand Hygiene Research

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Acute Care Personal Protective Equipment (PPE)

Hospital has a competency-based training program for proper use of PPE

	Yes	No
Hospital regularly audits (monitors and documents) adherence to PPE use	4	7
	4	7

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Acute Care Personal Protective Equipment (PPE)

Occupational Safety and Health Administration

NAICS Code: 82 Health Care and Social Assistance

State	Industry	Regulation	Penalty	Enforcement
CA	82	151	10000	OSHA
TX	82	151	10000	OSHA
FL	82	151	10000	OSHA
NY	82	151	10000	OSHA

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Long-Term Care Personal Protective Equipment (PPE)

PPE audits in LTCFs

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Acute Care Prevention of CAUTI

	Yes	No
Hospital has physician/nurse champions for CAUTI prevention activities	8	3
Hospital has competency-based training for insertion of urinary catheters	7	4
Hospital regularly audits (monitors and documents) insertion of urinary catheters	3	0
Hospital has a competency-based training program for maintenance of urinary catheters	5	6
Hospital regularly audits (monitors and documents) adherence to catheter maintenance	4	7

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Acute Care Prevention of CAUTI

HICPAC
 Available for Prevention of Catheter-Associated Urinary Tract Infections 2009

In the LTC ICAR tool:

Intentional removal frequency	Indication compliance	AS before handling	Clean prior to hand hygiene	Bag & fill	Bag before handle
<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A

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Acute Care Prevention of CLABSI

	Yes	No
Hospital has physician/nurse champions for CLABSI prevention activities	8	3
Hospital has competency-based training for insertion of CVC	5	4
Hospital regularly audits (monitors and documents) insertion of CVC	6	5
Hospital has competency-based training for maintenance of CVC	9	2
Hospital regularly audits (monitors and documents) CVC maintenance	4	7

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Acute Care Prevention of CLABSI

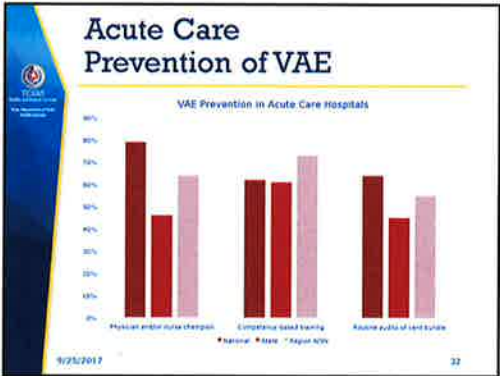
In the LTC ICAR tool:

Central Venous Catheter (CVC) Maintenance Observations
NOTE: Info. by state or by Central Line and Safety (CLS) site

Indicator appropriate	CVC maintenance performed regularly?	Dressing clean, dry and intact?	Dressing date?	Site performed before handling CVC?	Clean gloves worn before handling CVC?	CVC connected and disconnected aseptically?
<input type="radio"/> Yes	<input type="radio"/> Yes	<input type="radio"/> Yes	<input type="radio"/> Yes	<input type="radio"/> Yes	<input type="radio"/> Yes	<input type="radio"/> Yes
<input type="radio"/> No	<input type="radio"/> No	<input type="radio"/> No	<input type="radio"/> No	<input type="radio"/> No	<input type="radio"/> No	<input type="radio"/> No
<input type="radio"/> NA	<input type="radio"/> NA	<input type="radio"/> NA	<input type="radio"/> NA	<input type="radio"/> NA	<input type="radio"/> NA	<input type="radio"/> NA

CVC hub scrubbed?	CVC hub allowed to dry?	Uncapped CVC ports are capped?	CVC assessed with sterile devices only?	Gloves removed after handling CVC?	PIH after handling CVC?
<input type="radio"/> Yes	<input type="radio"/> Yes	<input type="radio"/> Yes	<input type="radio"/> Yes	<input type="radio"/> Yes	<input type="radio"/> Yes
<input type="radio"/> No	<input type="radio"/> No	<input type="radio"/> No	<input type="radio"/> No	<input type="radio"/> No	<input type="radio"/> No
<input type="radio"/> NA	<input type="radio"/> NA	<input type="radio"/> NA	<input type="radio"/> NA	<input type="radio"/> NA	<input type="radio"/> NA

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Acute Care Prevention of SSI

	Yes	No
Hospital regularly audits (monitors and documents) adherence to IC practices for SSI prevention	6	3
Adherence to preoperative surgical scrub and hand hygiene	6	3
Appropriate use of surgical attire and drapes	6	2
Adherence to aseptic technique and sterile field	7	2
Proper ventilation requirements in surgical suites	7	2
Minimization of traffic in the operating room	6	3
Adherence to cleaning and disinfection of environmental surfaces	7	2

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Acute Care Prevention of SSI

Centers for Medicare & Medicaid Services
Hospital Infection Control Worksheet

Section 4.1. Surgical Procedures

Standard	Yes	No
4.1.1. All facilities performing surgery must adhere to the following: (a) plan for long-term adherence & monitoring for an appropriate length of time post-surgery for all the surgical sites based on the surgical site.	2	10

Note: If facility cannot meet the standard, the facility should be assessed for the appropriate level of care.

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Acute Care & Long-Term Care Injection Safety

Acute Care	Yes	No
Hospital audits (monitors and documents) adherence to injection safety practices	2	10

American Journal of Infection Control

This study was designed only to test a variety of physician and nurse knowledge, attitudes, and practices around injection safety. Maria A. Brennan, MD, PhD, et al. Infection Control & Hospital Epidemiology, 2014; 39(10):1247-1252. doi:10.1017/S0950268814000000



ESCHMAYER 2016

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Long-Term Care Injection Safety

Long-Term Care	Yes	No
Facility audits (monitors and documents) injection safety procedures during POC testing	2	10



ESCHMAYER 2016



ESCHMAYER 2016

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Acute Care Antibiotic Stewardship

Antibiotic Stewardship programs in place that meet 7 CDC core elements

Category	Percentage
National	100%
State	100%
Region 4/5	100%

Item	Yes	No
Hospital has antibiotic stewardship program that meets the 7 CDC core elements	10	0
Hospital leadership commitment. Written statement of support from leadership	10	0
Program leadership: There is a leader responsible for outcomes of stewardship activities	10	0
Drug expertise: There is at least one pharmacist responsible for improving antibiotic use	11	0
Pol: Hospital has a policy that requires antibiotics to document indication	11	0
Track: Hospital monitors antibiotic use	10	0
Report: Prescribers receive feedback by the stewardship program about antibiotic use	10	0
Education: Stewardship program provides education to clinicians and relevant staff	10	0

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Long-Term Care Antibiotic Stewardship

Health Service Region 4/5 4 Long-Term Care Facility Antibiotic Stewardship

Item	Percentage
Facility has leadership support in antibiotic stewardship	74%
Facility has antibiotic stewardship program with program leadership	84%
Facility has written policies on antibiotic stewardship	100%
Facility has medication analysis or similar expert review	62%
Facility has a pharmacy pharmacist, pharmacist, or pharmacist-in-charge	100%
Facility has a pharmacist responsible for outcomes of stewardship activities	100%
Facility has a policy that requires antibiotics to document indication	100%
Facility monitors antibiotic use	100%
Facility provides feedback on antibiotic stewardship to clinicians, providers, and/or staff	100%
Facility provides training on antibiotic stewardship to clinicians, providers, and/or staff	100%

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Acute Care Prevention of C. difficile

Hospital has specific antibiotic stewardship strategies in place to reduce CDI

Item	Yes	No
Hospital has specific antibiotic stewardship strategies in place to reduce CDI	5	5
Hospital has strategies to reduce unnecessary use of high risk antibiotics	10	1

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Acute Care Device Reprocessing



	Yes	No
Hospital has a competency based training program for reprocessing critical devices	0	0
Hospital regularly audits (monitors and documents) adherence to critical reprocessing procedures	0	0
Hospital has a competency based training program for semi-critical device reprocessing	5	4
Hospital regularly audits (monitors and documents) adherence to semi-critical reprocessing procedures	4	2

Hospital has a competency based training program for reprocessing critical devices



Hospital regularly audits (monitors and documents) adherence to critical reprocessing procedures

Hospital has a competency based training program for semi-critical device reprocessing

Hospital regularly audits (monitors and documents) adherence to semi-critical reprocessing procedures


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Acute Care Device Reprocessing

Semicritical Medical Devices


Guidance for Identification and Disinfection in Healthcare Facilities, 2008



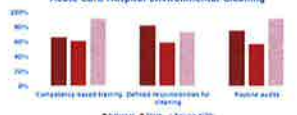
- Sterilize
 - Spore-resistant disinfectant
 - Autoclave (high heat/pressure)
 - Ethylene oxide (ETO) (low heat/pressure)
- Level of disinfection
 - Intermediate
 - Low
- Disinfectant/sterilant use
 - All work surfaces must remain moist
 - 100% coverage achieved
 - Actual results not required

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Acute Care Environmental Cleaning



Acute Care Hospital Environmental Cleaning



Competency based training Surfactant disinfectant use Patient areas

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Long-Term Care Environmental Cleaning

	Yes	No
Facility policies include cleaning of equipment shared among residents (e.g., blood pressure cuffs)	6	10
Job-specific training/competency validation on cleaning/disinfection for staff on hire	17	2
Job-specific training/competency validation on cleaning/disinfection for staff in last 12 months	13	6
Supplies necessary for appropriate cleaning procedures are available (including products for C. DIFF)	14	6

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Acute Care Environment of Care

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References

1. Healthcare Associated Infections At A Glance, Centers for Disease Prevention and Control (CDC), <https://www.cdc.gov/hai/surveillance/index.html>
2. The Society for Healthcare Epidemiology of America. Patient Education Guides on HAIs, <https://www.shea-online.org/links/educational-resources/patient/>
3. Guideline for Hand Hygiene in Healthcare Settings, 2002, <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5010a.htm>
4. World Health Organization Guidelines on Hand Hygiene in Health Care, 2009, <http://www.who.int/gpsc/5may/docs/9789211557506/en/>
5. 2007 Guideline for Isolation Precautions, CDC, <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5610a.htm>
6. Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Healthcare Settings, 2005, <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5410a.htm>
7. Texas Notifiable Conditions List, 2017, <https://www.dhs.texas.gov/health-topics/notifiable-conditions>
8. Single-use test coverage serves to foster hand hygiene compliance in health care settings, 2010, <http://dx.doi.org/10.1186/14752875-1-1>
9. Individual Monitoring Improves and Sustains Hand Hygiene (IHM) Compliance and Correlates with a Reduction in Healthcare-Associated Infections (HAI) in Hospital Outpatient Settings, Lindsted et al. American Journal of Infection Control, Volume 43, Issue 4, 527
10. Use of a patient engagement tool for hand hygiene, Lattiger, Allison et al. American Journal of Infection Control, Volume 45, Issue B, 824 - 829
11. Occupational Safety and Health Administration, Top Health Care Clean Standards from October 2014 to September 2016, <https://www.osha.gov/press-releases/standards-for-health-care-clean-standards>

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References, cont.

12. Sequence for Putting on Personal Protective Equipment (PPE), CDC. <https://www.cdc.gov/infectioncontrol/evidencebasedpractice/pdf/sequence-for-putting-on-ppe.pdf>
13. Guideline for Prevention of Catheter Associated Urinary Tract Infection, 2009, HCA. <https://www.cdc.gov/hai/pdf/16182main.pdf>
14. Centers for Medicare and Medicaid Services, Infection Control Hospital Worksheet: <https://www.cms.gov/medicare/coverage/coverageguides/2012/2012main/suppl/suppl2012main/suppl2012main010114.pdf>
15. One needle, one syringe, only one time? A survey of physician and nurse knowledge, attitudes, and practices around injection safety. Hoover Smith, Rachel A. et al. American Journal of Infection Control
16. Prevalence of Clostridium difficile infection in acute care hospitals, long-term care facilities, and outpatient settings: Is Clostridium difficile infection undiagnosed? A long-term care facility general hospital, Shar et al. American Journal of Infection Control
17. Guideline for Disinfection and Sterilization in Healthcare Facilities, CDC, 2008. <https://www.cdc.gov/infectioncontrol/guidelines/disinfection/guidelines.pdf>
18. Dr. Wilbur A. Rutala's Disinfection and Sterilization website: www.dprc.org/education/learning
19. SHEA Practical Inpatient Epidemiology. Rutala W, Weber DJ, Lestchen E, Weelke KF, Platen PR, 3rd ed, 2013.
20. Guidelines for Environmental Infection Control in Health Care Facilities, CDC/HEPA, 2002. <https://www.cdc.gov/infectioncontrol/guidelines/environmental/guidelines.pdf>
21. List K. EPA's Registered Antimicrobials Products Effective Against Clostridium difficile Spores: <https://www.epa.gov/ekg/antimicrobials-effective-against-clostridium-difficile-spores>

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Thank you!

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