

INFECTION PREVENTIONIST RESOURCE TOOLKIT

Many materials end up creating an Infection Preventionists' (IP) resource toolbox. Depending on the responsibilities of the IP, the following materials may or may not be applicable to the job. Infection prevention and control covers many aspects of healthcare. Included in this document are a To-Do checklist and lists of organizations, websites and documents that should be helpful to any IP.

TO-DO CHECKLIST

There is no template for where to begin on day one as a new IP. The needs of your facility, the state of the program, and the amount of man-hours dedicated to the program will all influence what pulls your immediate attention. Below is a checklist that an IP should try to tackle within their first month 'in office'.

- ✓ CLOSE OUT PENDING ITEMS FROM ANY RECENT SURVEY FINDINGS THAT MAY NEED TO BE RESOLVED (STATE, CMS, OR ACCREDITATION SURVEY).
- ✓ REVIEW REQUIRED ANNUAL DOCUMENTS:
 - ***Infection Prevention Plan*** – Findings from surveys can be used to fine tune your plan for the facility. Use control charts for each type of HAI or NHSN-required reportable condition to track where the facility stands and plan interventions based on data analysis. Plan should include:
 - Demographics of community served
 - General facility information such as number of beds and average monthly census and/or length of stay
 - Specific prioritized infection prevention goals for the current year and interventions that will be undertaken to achieve those goals. Should always include:
 - Monitoring for occurrence of infections (house-wide and targeted surveillance)
 - Outbreak investigation
 - Policy and procedure review and revision

- Staff education related to infection prevention
 - Quality assurance
 - Consultation – a resource to physicians, staff, administrators and patients
- Division of responsibilities for infection prevention activities
- Reporting
 - Reports to Infection Prevention Committee
 - Reports to Infection Prevention supervisor and others as directed
 - Providing feedback to staff
 - Reporting to NHSN, DSHS TxHSN and public health as required for notifiable conditions
- ***Infection Control Risk Assessment and Prioritized Goals*** – should be formally reviewed at least annually and whenever significant changes occur in the elements that affect risk. Should include:
 - Risks from geographical location and community environment
 - Potential device-associated infections
 - Surgical site infections
 - Specific MDROs
 - MRSA, VRE, MDR-A, ESBLs, CREs, etc.
 - Specific infections
 - Influenza, novel influenza (e.g., avian influenza, swine influenza)
 - Legionella or Tuberculosis
 - Anything prevalent in the community that may show up at the facility
 - Prioritized goals based on risk score in descending order
 - Identify strategies to mitigate these risks

✓ REVIEW PAST INFECTION PREVENTION COMMITTEE MINUTES (NAME OF COMMITTEE MAY VARY)

✓ REVIEW ADDITIONAL ITEMS THAT WERE MONITORED BY THE DEPARTMENT/PROGRAM BUT NOT REPORTED IN THE MINUTES

- ✓ BECOME FAMILIAR WITH POLICIES, CREATE TIMELINE FOR ANY THAT ARE OUTDATED OR NEED UPDATING.
 - Review references in policies and make sure they are up-to-date.

- ✓ VERIFY REQUIREMENTS AND REPORTING STATUS FOR NHSN AND TXHSN AND HAVE FACILITY ADMINISTRATOR UPDATE THE CONTACT INFORMATION
 - Obtaining access to NHSN may take a while so make sure to do this as soon as possible.
 - For assistance with TxHSN, email HAITexas@dshs.texas.gov

- ✓ LEARN THE SYSTEM FOR CAPTURING AND RECORDING YOUR SURVEILLANCE – INFECTIONS, REPORTABLE DISEASES AND COLONIZATION

- ✓ TOUR THE FACILITY AND DO A SHORT SURVEY, INCLUDING THE STAFF AND MANAGEMENT, RELATED TO INFECTION PREVENTION POLICY, PROCEDURE, AND PRACTICES AND CREATE A LIST OF ITEMS THAT SHOULD BE ADDRESSED
 - Some examples of the survey would include:
 - Cleanliness: Floor to ceiling, in patient vs. non-patient care areas, sterile vs. non-sterile
 - Location and number of negative air pressure rooms
 - Are PPE and hand hygiene products readily available?
 - Is the facility using current best practices for reducing infections?
 - What disinfectants are currently used at the facility?
 - Begin communication with Housekeeping, Facilities and Pharmacy staff
 - Some of their functions and expertise will assist you in your duties

IF YOU ARE NEW TO INFECTION PREVENTION, THE FOLLOWING RESOURCES WILL HELP YOU GET STARTED:

- Read and keep the guidelines from the CDC on Hand Hygiene, Isolation Precautions and Environmental Control. Read the other guidelines by the CDC/HICPAC as time permits.
- Contact your local APIC chapter and attend the meetings, if one is available.

ORGANIZATIONS, WEBSITES, AND RESOURCES

Most of the organizations mentioned in this document are non-regulatory. However, regulatory and accrediting bodies will often use these organizations' guidelines or recommendations as standards. The list below is in order of usefulness to an IP, though this may be subjective to the reader. Regulatory and accrediting agencies have been noted with an asterisk.

Though some of the documents listed below may overlap, rarely do they have conflicting viewpoints. Not all documents published by an organization have been listed, but the ones provided are a good starting point for a new IP. Items listed under 'Guidelines and Resources' are ones that an IP should be familiar with and know where to locate the information. As a new IP, it would be considered an interminable task to try and memorize these documents in their entirety at the beginning of your career. Rather, consider keeping these handy resources in a binder or in the bookmark section of your internet browsing toolbar.

ASSOCIATION FOR PROFESSIONALS IN INFECTION CONTROL AND EPIDEMIOLOGY (APIC)

APIC is the leading professional association for IPs. APIC works with other professional organizations, consumer groups, regulatory and accrediting bodies to produce recommendations and guidelines related to infection prevention and control.

- **Website:** <http://www.apic.org/>
- **Guidelines and Resources:**
 - **Practice Resources:** <http://apic.org/Professional-Practice/Practice-Resources>
 - **Monthly Scientific Journal:** <http://www.ajicjournal.org/>
 - **APIC Text:** <http://text.apic.org/>
 - **Local Chapters:** <http://www.apic.org/Member-Services/Chapters>
 - **Risk Assessment Template:**
<http://community.apic.org/sierra/resources/overview>

Scroll down to IC Risk Assessment Documents for templates.

CERTIFICATION BOARD OF INFECTION CONTROL AND EPIDEMIOLOGY (CBIC)

CBIC is the leading provider of professional certification for infection prevention and control. Certification by CBIC is the standard of excellence that Infection Prevention and Control professionals will seek in order to ensure the delivery of quality care that the public expects, demands, and deserves.

- **Website:** <http://www.cbic.org>
- **Online Initial Certification Application:**
<http://www.cbic.org/certification/examination-application>

CDC - CENTERS FOR DISEASE CONTROL AND PREVENTION

CDC's mission is to collaborate to create the expertise, information, and tools that people and communities need to protect their health.

- Website: <http://www.cdc.gov/>
- Guidelines and Resources:
 - **Health Care Associated Infections:** <http://www.cdc.gov/hai/>
 - **Morbidity and Mortality Weekly Report (MMWR):**
<http://www.cdc.gov/mmwr/>

Recommended Resources

- ❖ Infection Control in Health Care Personnel, 1998
- ❖ Preventing the Transmission of *Mycobacterium tuberculosis* in Health-care Settings, 2005
- ❖ Emergency Water Supply Planning Guide for Hospitals and Health Care Facilities, 2011
- ❖ Guidance for Control of Carbapenem-resistant Enterobacteriaceae (CRE) toolkit, 2015
- ❖ Pink book (Vaccination Guidance) 2012

CDC'S NATIONAL HEALTHCARE SAFETY NETWORK (NHSN)

NHSN is the nation's most widely used healthcare-associated infection (HAI) tracking system. It also has the capabilities to track additional items such as blood safety errors, healthcare personnel influenza vaccine status, and infection control adherence, to name a few.

- Website: <http://www.cdc.gov/nhsn/settings.html>
- Guidelines and Resources:
 - Select your Facility Type from the link above, next select a focus area.
 - Each focus will have CDC/NHSN/HICPAC resources listed.

HEALTHCARE INFECTION CONTROL PRACTICES ADVISORY COMMITTEE (HICPAC)

HICPAC is a federal advisory committee that provides advice and guidance to the CDC and the Secretary of the Department of Health and Human Services regarding the practice of infection control and strategies for surveillance, prevention, and control of healthcare-associated infections, antimicrobial resistance and related events in healthcare settings.

- **Website:** <http://www.cdc.gov/hicpac/index.html>
- **Guidelines and Resources:** <http://www.cdc.gov/hicpac/pubs.html>
 - ❖ Guidelines for Hand Hygiene in Healthcare Settings, 2002
 - ❖ Guidelines for Environmental Control in Healthcare Facilities, 2003
 - ❖ Preventing Healthcare-Associated Pneumonia, 2003
 - ❖ Management of Multidrug-Resistant Organisms, 2006
 - ❖ **Isolation Precautions: Preventing Transmission of Infectious Agents**, Appendix A, 2007 https://www.cdc.gov/hicpac/2007IP/2007ip_appendA.html
 - ❖ Guidelines for Disinfection and Sterilization in Healthcare Facilities, 2008
 - ❖ Prevention of Catheter-associated Urinary Tract Infections, 2009
 - ❖ Prevention of Intravascular Catheter-Related Infections, 2011
 - ❖ Prevention and Control of Norovirus Gastroenteritis Outbreaks, 2011

THE SOCIETY FOR HEALTHCARE EPIDEMIOLOGY OF AMERICA (SHEA)

SHEA is an organization that works to define best practices in healthcare epidemiology and aims to prevent and control healthcare-associated infections.

- Website: <http://www.shea-online.org/>
- Guidelines and Resources:
 - Professional Resources: <https://www.shea-online.org/index.php/practice-resources>
 - Patient Education Guides: <https://www.shea-online.org/index.php/practice-resources/patients>
 - Monthly Scientific Journal: <https://www.shea-online.org/journal-news/iche-journal>

THE JOINT COMMISSION (COMMONLY REFERRED TO AS TJC)*

The Joint Commission is an independent, not-for-profit organization, which accredits and certifies care organizations and programs. Accreditation is sometimes a prerequisite for facilities to receive reimbursement or to fulfill state requirements. Pronounced 'JAY-co' though the organization prefers to be called Joint Commission.

- Website: <http://www.jointcommission.org/>
- Guidelines and Resources:
 - Infection Prevention and Control Section:
http://www.jointcommission.org/infection_control.aspx
 - National Patient Safety Goals:
http://www.jointcommission.org/standards_information/npsgs.aspx

TEXAS DEPARTMENT OF STATE HEALTH SERVICES (DSHS) – INFECTIOUS DISEASE CONTROL UNIT (IDCU)*

The Infectious Disease Control Unit (IDCU) is responsible for assisting local or regional public health officials in investigating outbreaks of acute infectious disease or isolated cases of rare or unusual disease. The Unit is comprised of two branches, The Emerging & Acute Infectious Disease Branch (EAIDB) and the Zoonosis Control Branch (ZCB). The EAIDB oversees a variety of different conditions, specifically the notifiable conditions in TX. Under the EAIDB is the Healthcare Safety Group (HCS group) which oversees healthcare-associated infections (HAIs) and reporting requirements for the State, as well as outbreak responses across the continuum of care. Within the HCS group there are two specific teams: the HAI audit team and the HAI investigation team. The HAI audit team works with NHSN and TxHSN data and healthcare reporting and audit validation. The HAI investigation team is comprised of regional HAI epidemiologist that work with healthcare facilities on a variety of different tasks and are a great resource for new IPs. (Find out who your regional HAI Epi is for your health service region). While the EAIDB is not a regulatory branch, the DSHS Health Facility Program which oversees facility licensing is and the two work together.

- Website: <http://www.dshs.state.tx.us/idcu/>
- Guidelines and Resources
 - Health Care-Associated Infections and Reporting Requirements: www.HAITexas.org
 - TxHSN – viewable, facility reported HAI data: <http://txhsn.dshs.texas.gov/hcsreports>
 - Notifiable Conditions State Requirement: <http://www.dshs.texas.gov/idcu/investigation/conditions/>
 - Health Facility Program: <http://www.dshs.texas.gov/facilities/default.aspx>

Note: If you are a general hospital, the Texas Administrative Code 25 Title 25, Part 1, Chapter 133, Subchapter C, Rule §133.41 g. “Infection Control” would be important to know.

TEXAS DEPARTMENT OF AGING AND DISABILITY SERVICES (DADS)*

The Texas Department of Aging and Disability Services (DADS) provides assistance and resources to long-term care facilities in the form of written resources, conferences and quality improvement strategies.

- Website: <http://www.dads.state.tx.us>
- Guidelines and Resources:
 - Long-term Care Facility Handbooks and Resources:
<https://hhs.texas.gov/laws-regulations/handbooks>

ASSOCIATION FOR PERIOPERATIVE REGISTERED NURSES (AORN)

AORN is a non-profit organization that focuses on nursing education, standards, and clinical practice resources in the perioperative arena.

- Website: <http://www.aorn.org/>
- Guidelines and Resources:
 - Perioperative Standards and Recommended Practices, located under publications at the link above

ASSOCIATION FOR THE ADVANCEMENT OF MEDICAL INSTRUMENTATION (AAMI)

AAMI is the primary resource for the industry, the professions, and government for national and international standards dealing with the understanding, development, management, and use of safe and effective medical technology.

- Website: <http://www.aami.org/>
- Guidelines and Resources:
 - Publications: <http://www.aami.org/publications/standards/index.html>
Note: An IP will mainly use Dialysis and ST79.

CENTERS FOR MEDICAID AND MEDICARE SERVICES (CMS)*

CMS is the federal agency that delivers Medicare, Medicaid and Child Health Insurance programs.

- Website: <http://www.cms.gov/Regulations-and-Guidance/Regulations-and-Guidance.html> Note: This is not the main website. CMS covers multiple areas. At this link you can find your appropriate **Provider Type** and view the regulations & resources
- Guidelines and Resources:
 - CMS reporting requirements: <http://www.cdc.gov/nhsn/cms/index.html>
 - Hospital Conditions of Participation (CMS-3244-F)

Note: The link is too large to post. On the CMS website search for “Hospital Conditions of Participation”, select the first link and scroll to the bottom for the document. Located within this document are the infection control requirements.

WORLD HEALTH ORGANIZATION (WHO)

WHO is the directing and coordinating health authority within the United Nations system. It is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries, and monitoring and assessing health trends.

- Website: <http://www.who.int>
- Guidelines and Resources:
 - Infection Control http://www.who.int/topics/infection_control/en/
 - Patient Safety <http://www.who.int/patientsafety/en/>

INFECTIOUS DISEASE SOCIETY OF AMERICA (IDSA)

IDSA is a professional organization for those specializing in infectious disease. They also provide clinical practice guidelines covering this area.

- Website: <http://www.idsociety.org>
- Guidelines and Resources:
 - Practice Guidelines: [http://www.idsociety.org/IDSA Practice Guidelines/](http://www.idsociety.org/IDSA_Practice_Guidelines/)

TEXAS SOCIETY OF INFECTION CONTROL AND PREVENTION (TSICP)

The mission of TSICP is to be recognized as the leading authority in prevention, control, and surveillance of infection control related healthcare issues within Texas, and, to provide affordable educational opportunities to enhance individual and/or team efforts toward infection prevention.

- Website: <http://tsicp.org/>
- Guidelines and Resources: Click the “Toolkit Resources” tab on their homepage

INSTITUTE FOR HEALTHCARE IMPROVEMENT (IHI)

IHI is a leading innovator in health and healthcare improvement worldwide.

- Website: <http://www.ihl.org/Pages/default.aspx>
- Guidelines and Resources:
 - Explore by Interest: <http://www.ihl.org/explore/Pages/default.aspx>
 - Project Joins: <http://www.cdc.gov/hai/organisms/cre/cre-toolkit/background.html#definition>

INFUSION NURSING SOCIETY (INS)

INS is a professional organization for healthcare professionals involved with infusion therapy in any healthcare setting.

- Website: <http://www.ins1.org>
- Guidelines and Resources:
 - Standards of Practice available for purchase at:
<http://www.ins1.org/Store/INSStore.aspx>

INFECTION CONTROL TODAY (ICT)

ICT provides information on infection control in both digital and magazine subscription form.

- Website: <http://www.infectioncontrolday.com>

DNV HEALTHCARE (DNV)*

DNV is an accrediting body with deeming authority. This means they can officially determine which facilities meet CMS certification requirements. Their standards integrate ISO 9001 quality management system requirements.

- Website: <http://dnvaccreditation.com>
- Guidelines and Resources: None currently listed, however DNV offers training in managing infection risk.

LABORATORY AND MICROBIOLOGY

It is important to find out what tests your lab performs in-house and what tests they send out, if a lab is onsite.

Most IPs will need to understand lab reports in order to do surveillance, be able to discuss cases with staff and physicians and appropriately know when to isolate patients. APIC has two resources available on their website for purchase called *The Infection Preventionist's Guide to the Lab* and *Ready Reference for Microbes*. Both provide a good basis for someone new to the lab and microbiology.

ADDITIONAL RESOURCES

There are niche organizations that set standards for healthcare facilities that the infection prevention community will uphold though they may not get the attention as the above groups or documents. Additionally, there are many websites that offer substantial help and training to the novice and seasoned veteran alike. Some of these resources are listed below, in alphabetical order.

ACADEMY OF ARCHITECTURE FOR HEALTH (AAH), AMERICAN INSTITUTE OF ARCHITECTURE (AIA), AND FACILITY GUIDELINES INSTITUTE (FGI)

Together these three organizations publish the *Guidelines for Design and Construction of Hospital and Health Care Facilities*. This document provides information on room ventilation and construction precautions.

AMERICAN SOCIETY FOR ANESTHESIOLOGISTS (ASA)

ASA is an educational, research, and scientific association of physicians organized to raise and maintain the standards of the medical practice of anesthesiology and improve the care of the patient. Reference Document: Infection Control for Anesthesia Professionals

AMERICAN SOCIETY FOR GASTROINTESTINAL ENDOSCOPY (ASGE)

ASGE is a physician-based professional group for those specialized in endoscopic procedures of the digestive tract. They developed the widely used 2011 Clinical Practice guideline called “*Multisociety guidelines on reprocessing flexible gastrointestinal endoscopes*”. You can find the guidelines at their website: <http://www.asge.org/>

AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR-CONDITIONING ENGINEERS (ASHRAE)

ASHRAE’s mission is to advance the arts and sciences of heating, ventilating, air conditioning and refrigerating to serve humanity and promote a sustainable world. Pronounced ‘ash-ray.’ Reference Document: Ventilation for Acceptable Indoor Air Quality.

BILL RUTALA, M.D. – DISINFECTION & STERILIZATION

Dr. Rutala is a leading expert on Infection Prevention and Epidemiology. This website provides resources on disinfection and sterilization. <http://disinfectionandsterilization.org/>

MYENDOSITE

A website/e-newsletter by Dr. Muscarella that is dedicated to infection control, instrument reprocessing, aseptic technique and risk management:
<http://discussioninfectioncontrol.com/>

SOCIETY OF GASTROENTEROLOGY NURSES AND ASSOCIATES (SGNA)

SGNA is a professional organization of nurses and associates dedicated to the safe and effective practice of gastroenterology and endoscopy nursing. They provide several widely used standards and practice guidelines, which can be found at:
<http://www.sgna.org/Education/StandardsandGuidelines.aspx>

STERIS UNIVERSITY

Steris is a company that provides healthcare products and services. Steris University offers some free online continuing education credits. <http://university.steris.com/>

UNITED STATES PHARMACOPEIAL CONVENTION (USP)

USP is a scientific nonprofit organization that sets standards for the identity, strength, quality, and purity of medicines, food ingredients, and dietary supplements manufactured, distributed and consumed worldwide. *USP on Compounding* Chapter 797, titled Pharmaceutical compounding – sterile preparations, covers pharmaceutical compounding and is applicable to all persons who prepare compounded sterile preparation (CSPs) and all places where CSPs are prepared.

ACRONYMS AND DEFINITIONS

The following is a list of commonly used acronyms and terms not already listed that an IP should become familiar with. Additional and expanded terms can be found in the document *NHSN Key Terms*, available on NHSN under the section 'supporting materials' for any of the Facility Type focus areas.

Central line-associated blood stream infection (CLABSI): The National Healthcare Safety Network (NHSN) defines a CLABSI as a blood stream infection in a patient that had a central line in place at the time of or within 48-hours before the development of the bloodstream infection. When a patient gets a bloodstream infection after having a central line put in (or, in the case of a newborn, an umbilical catheter is also a central line) and the bloodstream infection is not related to an infection in another part of the body it's considered a CLABSI.

Central line catheter aka Central venous catheter (CVC): A long flexible tube that is inserted near a patient's heart or into one of the large blood vessels near the heart. A central line can be used to administer fluids, antibiotics, or medical treatments such as chemotherapy. Central lines are also sometimes called central lines, central venous lines, central venous catheters and C-lines. It is important to note, it is the location of the line and not the type or name of the line that determines if it is a CVC.

Health care-associated infection (HAI): Infections that are acquired by a patient during the course of treatment for other conditions within a health care setting. For an infection to qualify as an HAI, there must be no evidence that it was present or incubating at the time of hospital admission, except for surgical site infections and ventilator associated events.

Minimum inhibitory concentration (MIC): The smallest concentration of an antibiotic that regularly inhibits growth of a bacterium in the laboratory setting.

Multidrug-resistant organism (MDRO): Bacteria that are not-susceptible to several antibiotic classes (depending on the organism), some individual bacteria examples are MRSA (methicillin resistant staphylococcus aureus) and VRE (vancomycin resistant enterococcus). Group classification examples are CRE (carbapenem-resistant Enterobacteriaceae) or ESBL (extended-spectrum beta-lactamases).

Present on admission (POA): A condition or infection that was present or incubating in a patient upon arrival to a healthcare facility, at time of admission. This is not typically used for defining SSIs or VAEs.

Personal Protective Equipment (PPE): Clothing or devices worn to help isolate or shield a person from direct exposure to a infectious or hazardous material or situation. This includes gowns, gloves, masks, helmets, safety goggles, hearing protectors, face shields, respirators, arm guards, smocks, and safety boots.

Preventable adverse event (PAE): A health care-associated adverse condition or event for which the Medicare program will not provide additional payment to the facility under a policy adopted by the federal Centers for Medicare and Medicaid Services; or an event included in the list of adverse events identified by the National Quality Forum.

Surgical Site Infections (SSI): An infection that develops after surgery.

Surveillance: Select cases, cultures or patients that an IP will follow to determine if the condition warrants reporting, if their condition is health care associated or not, and if transmission based precautions is needed.

Texas Health Care Safety Network (TxHSN): The data warehouse used for storing the Texas required reporting of HAIs, pulled from the NHSN system, and keeping track of health care facilities' reporting status and contact information.

Urinary catheter: A flexible tube that is inserted through the urethra and into the bladder to drain urine from the bladder into a bag or container.

Urinary Tract Infection: The urinary tract includes the kidneys, bladder and the tubes that help carry urine through the urinary tract and out of the body. Most often, infections occur in the bladder and lower urinary tract. Antibiotics are the usual treatment.

Ventilator: Machine that is used to help a patient breathe by giving oxygen through a tube placed in a patient's mouth or nose, or through a hole in the front of the neck.

Ventilator-Associated Event (VAE): Lung infection that develops in a person who is on a ventilator.

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All descriptions were obtained from organizations' websites.

Texas Department of State Health Services does not endorse any organization listed. This list is solely intended as a resource document. Please send any feedback or recommendations to MDROTexas@dshs.texas.gov