



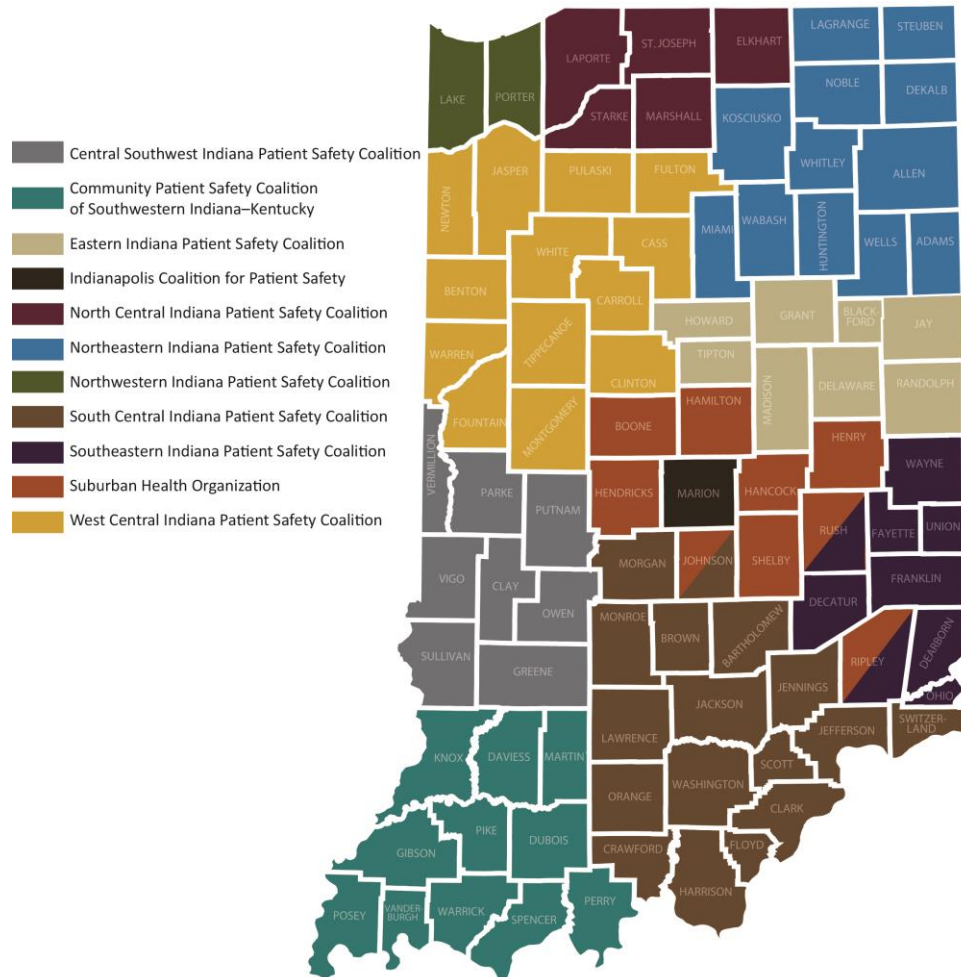
**Indiana Patient
Safety Center**

of the Indiana Hospital Association

Sepsis: Back & to the Future Universal Hygiene for Sepsis Prevention

Oct. 6, 2022

Our Mission



Advancing Health in Indiana

- Engage and inspire health care providers
- Create safe cultures
- Create reliable systems of care
- Prevent patient harm in Indiana

PREVENT PATIENT HARM

To create high reliability organizations who collaborate and engage in continuous improvement to achieve best in class outcomes

IMPROVE COMMUNITY HEALTH

To partner with communities and stakeholders to develop, plan, and coordinate initiatives that span the prevention and care continuum

INCREASE PATIENT AND FAMILY ENGAGEMENT

To engage patients and families in all aspects of their care and seek their input and inclusion in advisory capacities throughout organizations

LEAD A CULTURE OF SAFETY

To create an environment of mutual trust, respect, and transparency among organizations, patients, and families

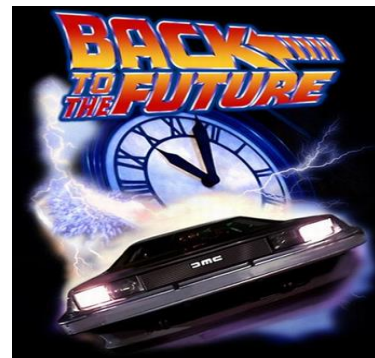
2022 Sepsis: Back and to the Future

IHA 2022 Sepsis Awareness Month Webinars

1-Sept.	3 p.m. ET	Indiana Sepsis State of the State
8-Sept.	3 p.m. ET	Sepsis Pathophysiology & Bundle Compliance
15-Sept.	3 p.m. ET	Sepsis Diagnostic Advances
22-Sept.	3 p.m. ET	Maternal Sepsis
29-Sept.	3 p.m. ET	Sepsis Fluid Management Advances
6-Oct.	3 p.m. ET	Personal Hygiene and Sepsis Prevention



Click on link to access recording for each webinar



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Objectives

1. Describe recommendations and barriers for universal hygiene
2. Describe partnerships to successfully accomplish universal hygiene
3. Discuss implications of universal hygiene recommendations across the continuum of care.

Polling Questions



Connect to Purpose Story



What
hygiene
practices
did you
change?

October is Dental Health Month!



- [Toothbrush education](#)
- The consensus recommendation is for people to brush their teeth for two minutes twice a day with a toothbrush that has soft bristles.
- Replace toothbrushes every three to four months or more often if the bristles are visibly matted or frayed.

Impact of Healthcare Associated Conditions

Harm	Cost per Case	Mortality Rate
CLABSI	\$48,108	18%
Surgical Site Infection	\$28,219	3%
Ventilator Associated Pneumonia	\$47,238	39%
CAUTI	\$13,393	10%
C.Difficile	\$17,260	11%
MRSA	\$17,000	27%
Pressure Ulcer (3+)	\$17,000	7%
VTE	\$17,367	10-15%
Adverse Drug Event	\$5,746	11% (excess anticoag)
Injury from Fall	\$6,694	n/a
All Other HACs	\$17,000	n/a
Readmissions	\$14,394	n/a

Functional Outcomes
Post-Acute Care
Needs

Sepsis costs

Additional Complications: Pneumonia and Sepsis

The death rate from pneumonia in the US has had little improvement since antibiotics became widespread more than half a century ago.¹ Pneumonia is the most common cause of **sepsis and septic shock**, causing 50% of all episodes.

#1

Sepsis

\$24 billion

(\$18,244 per hospitalization)

← **MOST COSTLY CONDITION**

#2

Osteoarthritis

\$17 billion

(\$16,148 per hospitalization)

#3

Childbirth

\$13 billion

(\$3,529 per hospitalization)

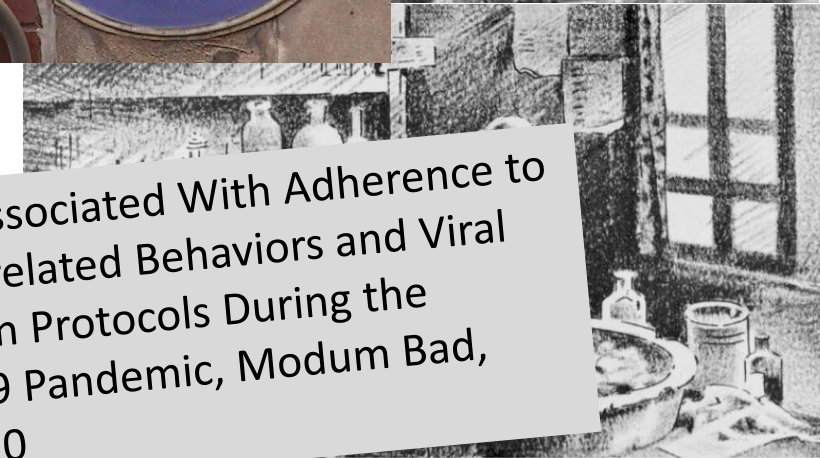
¹Epidemiology and Costs of Sepsis in the United States—An Analysis Based on Timing of Diagnosis and Severity Level* <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6250243/>

Patient & Family Engagement & Informed Consent?

- Although decreased, 3% of all hospitalized patients acquire an HAI (Shiraly et al., 2020)
- 4.8% to 34.5% of patients or caregivers were informed of risk of acquiring nosocomial infection (Landerfelt et al, 2020)

Back to Hygiene Bundle

- Hygiene (1800's)
- Universal Precautions (AIDS CRISIS 1983-85+)
- Standard Precautions (1996)
 - HH, PPE, respiratory/cough etiquette, patient isolation, soiled equipment handling, sharps safety, safe injection practices, sterile instrument safety, environmental infection control & prevention
- Transmission Based Precautions (2012)
 - Limited period of time
- Universal Hygiene & Patient & Family Engagement (evolving)



Factors Associated With Adherence to Hygiene-related Behaviors and Viral Mitigation Protocols During the COVID-19 Pandemic, Modum Bad, June 2020


Universal Hygiene – Conceptual Definition

Universal

- including or covering all or a whole collectively or distributively without limit or exception; especially-- available equitably to all members of a society
- a culture trait characteristic of all normal adult members of a particular society

Hygiene

- a science of the establishment and maintenance of health
- **conditions or practices (as of cleanliness) conducive to health**



Universal Hygiene: Condition or practices of cleanliness that are conducive to health and are equitably available to all members of a society

Scope of Universal Hygiene

Inclusions

- Personal hygiene—a preventive health measure to maintain cleanliness of one’s body and clothing to preserve (or optimize) overall health and well-being
- Environmental hygiene—measures used to improve the basic environmental connections affecting human health



Exclusions

- Cyber hygiene
- Mental hygiene (1921)
- Sleep hygiene?,
- Personal Service hygiene
- Kitchen/process hygiene?
- Herzberg’s Job Satisfaction Motivator and Hygiene Factor Theory
- Animal Hygiene
- Personality Hygiene
- Food hygiene

Universal Hygiene Shared Language

Table 1 Care escalation strategies for donning and doffing procedure

Donning and doffing	Action	Example safety statements
Prior to rounding	Assign roles, including the clinical assessor and the personal protective equipment (PPE) spotter. This sets expectations and provides role clarity.	Both physicians: "When we round today, let's agree that during donning and doffing, that no other tasks will be completed so that we can maintain our focus."
Predonning	Review tasks that need to be completed inside the patient's room before the assessor pauses to don PPE. Signal this with a safety statement.	Assessor: "Please spot me when I'm donning my PPE. Do not hesitate to correct errors to ensure my safety and the safety of our team."
Donning	Employ silence during application of PPE to ensure the assessor focuses on the task and the spotter actively observes.	Assessor: "I have now put on my PPE. Am I safe to enter the patient's room?"
Predoffing	Assessor announces exit from patient's room. This cues the spotter to observe the doffing of PPE and to be alert for lapses to create situational awareness.	Assessor: "All eyes on me. I am leaving the patient's room and I will be removing my PPE."
Doffing	Assessor focuses on the task of doffing while the spotter actively observes. If focus is broken, or an impending error occurs, use a safety statement for correction.	Spotter: "Stop! You are about to touch your face. Please perform hand hygiene before removing your mask".
After patient assessment	Debrief any safety issues and lapses in infection control procedures. This normalizes the shared responsibility for safety.	Spotter: "You were speaking while you were doffing your PPE. I believe this lead to your distraction and subconscious attempt to touch your face. Let's agree that we will remain silent during doffing so that you can focus on removal of PPE while I spot you."

(Goulding, et al, 2020)

Universal Hygiene Operational Definition—scores on adaptable scales

Adherence to social distancing protocols

Supplementary Table S1. Questions measuring degree of adherence to implemented social distancing protocols (SDPs).

Item number	Question
1	I have stayed at home if I have experienced symptoms involving coughing, headaches, mild fever, or any respiratory problems.
2	I have adhered to the guidelines of keeping one-meter distance from peers both indoors and outdoors, with the exception of those in my household.
3	I have adhered to the guidelines of avoiding private social gatherings involving more than 20 peers.
4	I have adhered to the guidelines of avoiding public transportation unless necessary with regards essential activities.
5	I have avoid crowded places unless unavoidable with regards to essential activities such as medical visits.

Adherence to WHO-recommended hygienic behaviors

Supplementary Table S2. Questions measuring degree of adherence to WHO-recommended hygienic behaviors (HB) further implemented by the Norwegian government.

Item number	Question
1	I have covered my mouth with a tissue or my elbow when I have coughed or sneezed with other individuals present.
2	I have regularly and thoroughly washed my hands thoroughly (i.e., for a minimum duration of 20 seconds) with soap or used alcohol-based hand rub outside of my home after touching shared surfaces (e.g., doorknobs); after coughing or sneezing; visits to the toilet; and before eating.
3	I have regularly and thoroughly washed my hands thoroughly (i.e., for a minimum duration of 20 seconds) with soap or used alcohol-based hand rub at home before preparing any food, before eating, and after coughing or sneezing.
4	I have avoided touching my eyes, mouth, and nose when I am outside of my home or when I have not washed my hands.
5	I have handled shared surfaces (e.g., doorknobs) in alternative ways such as touching them with tissues or gloves.
6	I have disinfected shared surfaces and objects that I use frequently at multiple locations such as my phone or computer.
7	I have avoiding hugging or shaking hands with individuals outside of my household.

Five-point Likert scale (0: Never; 1: Rarely; 2: Sometimes; 3: Often; 4: Always); Ebrahimi et al, 2020)

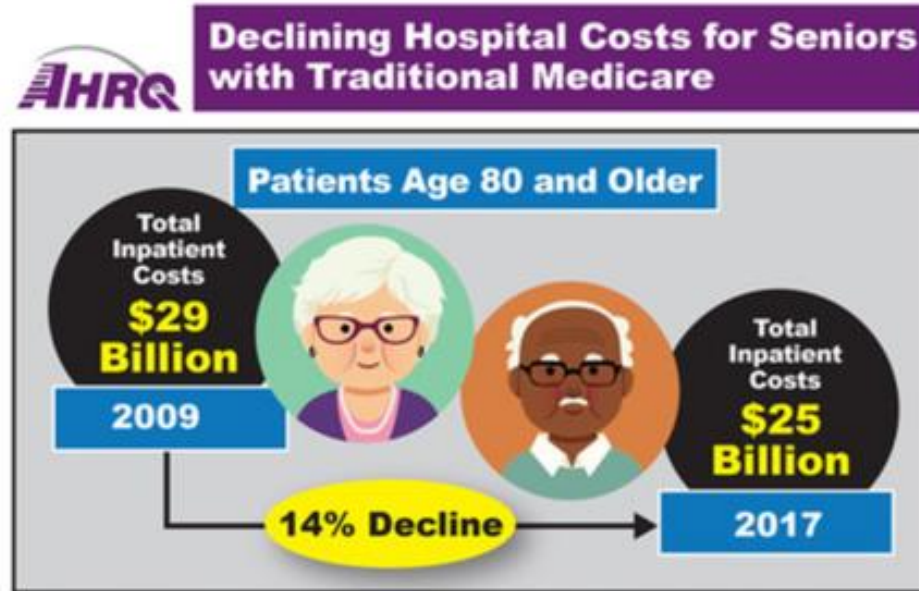
Universal Hygiene & HAI's

Agency For Healthcare
Research and Quality
www.ahrq.gov

AHRQ

January 26, 2021, Issue #748

AHRQ Stats



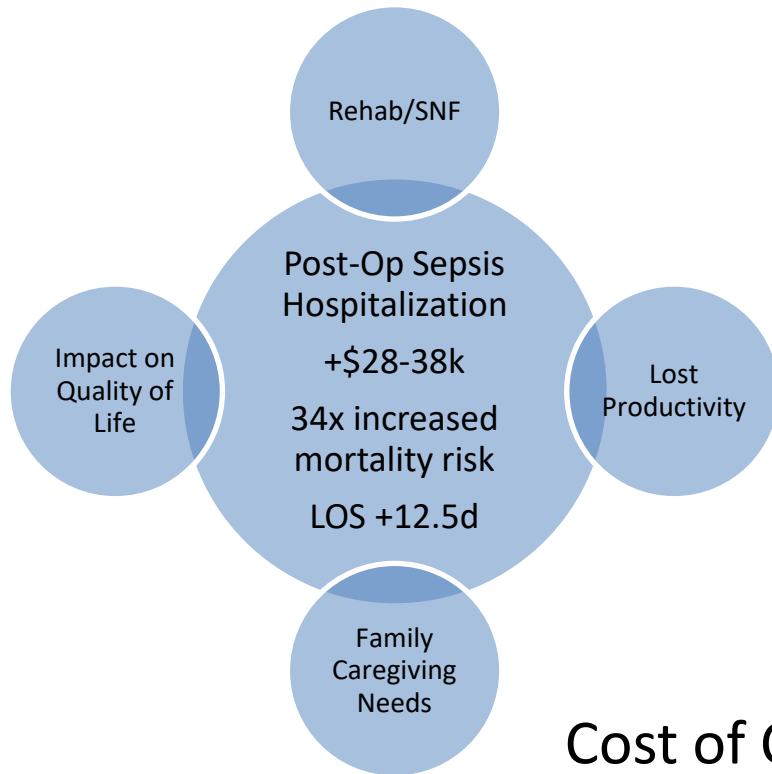
AHRQ, Healthcare Cost and Utilization Project Statistical Brief #262, Medicare Advantage Versus the Traditional Medicare Program: Costs of Inpatient Stays, 2009-2017. <https://www.hcup-us.ahrq.gov/reports/statbriefs/sb262-Medicare-Advantage-Costs-2009-2017.pdf>
HCUP Data Partners can be found at: www.hcup-us.ahrq.gov/partners.jsp

Access more data on this topic in the associated [statistical brief](#).

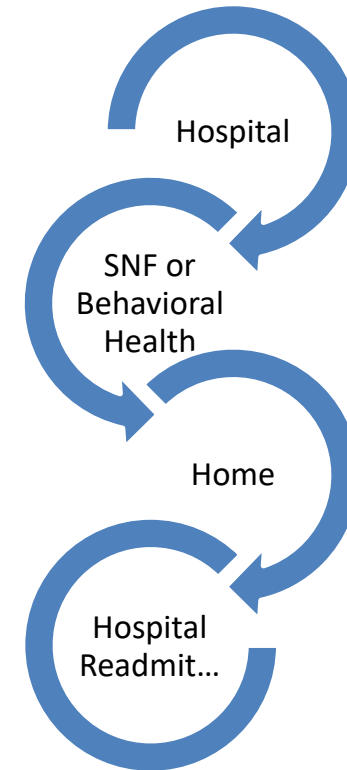
[The Joint Commission Hand Hygiene standards](#)

[HFAP Clean Hands Count Initiative](#)

Community/Individual Infection Impact



Role of Prevention on
Cost of Care, Quality of Life, Social impact?



CDC Picture of American Disease Prevention

Prevention activities are typically categorized by the following three definitions:

- 1. Primary Prevention**—intervening before health effects occur, through measures such as vaccinations, altering risky behaviors (poor eating habits, tobacco use), and banning substances known to be associated with a disease or health condition.
- 2. Secondary Prevention**—screening to identify diseases in the earliest stages, before the onset of signs and symptoms, through measures such as mammography and regular blood pressure testing.
- 3. Tertiary Prevention**—managing disease post diagnosis to slow or stop disease progression through measures such as chemotherapy, rehabilitation, and screening for complications.

Sepsis Prevention Model

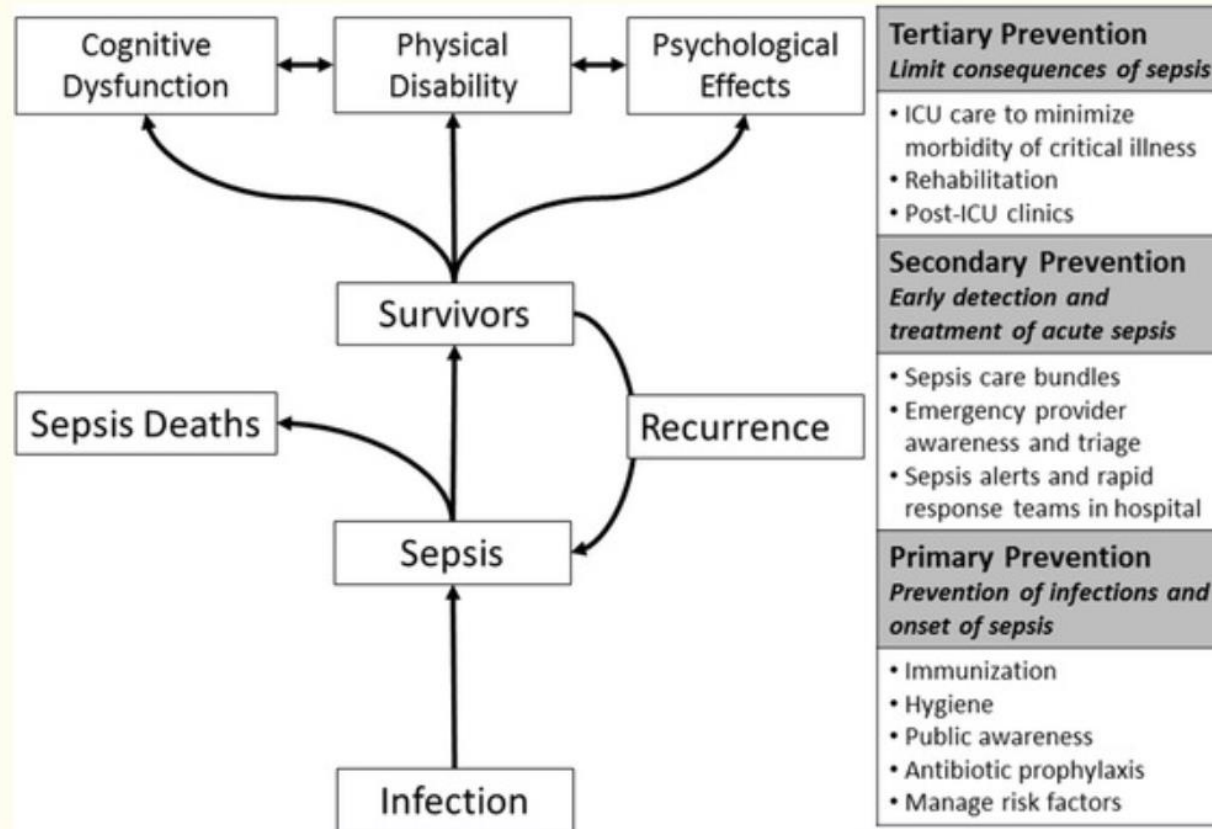


Fig. 1

Preventive strategies along the sepsis chain of events. ICU intensive care unit



Kempker, J., Wang, H., & Martin, G. (2018). Sepsis is a preventable public health problem. *Critical Care*, 22, 116

Population and systems-based approaches for sepsis prevention

Primary Prevention of Infections and Sepsis Onset

Immunization

Hygiene



Public Awareness

Antibiotic Prophylaxis

Manage Risk Factors

Secondary Prevention (Early Detection and Treatment)

Sepsis care bundles

Emergency provider awareness & triage

Sepsis alerts and rapid response teams in hospitals

Tertiary Prevention (limit consequences of sepsis)

ICU care to minimize morbidity of critical illness

Rehabilitation

Post-ICU clinics

Kempker et al. *Critical Care* (2018) 22:116
<https://doi.org/10.1186/s13054-018-2048-3>

Critical Care

COMMENTARY

Open Access

Sepsis is a preventable public health problem

Jordan A. Kempker^{1*}, Henry E. Wang² and Greg S. Martin¹



Abstract

There is a paradigm shift happening for sepsis. Sepsis is no longer solely conceptualized as problem of individual patients treated in emergency departments and intensive care units but also as one that is addressed as public health issue with population- and systems-based solutions. We offer a conceptual framework for sepsis as a public health problem by adapting the traditional model of primary, secondary, and tertiary prevention.

Kempker, J., Wang, H., & Martin, G. (2018). Sepsis is a preventable public health problem. *Critical Care*, 22, 116

Risk factors for sepsis

- *Recent UTI, pneumonia, or operative event*
- *Diabetes*
- *Immunosuppressive therapy (chemo, transplant)*
- *Elective surgery*
- *Chronic renal failure*
- *Alcohol abuse*
- *Splenectomy*
- *Sickle Cell Disease*
- *Non-modifiable factors: age (very old or young), gender (M>F), race (B>W)*

(Kumar et al, 2006; Torres et al, 2004; Englert & Ross, 2015)

APIC Ambulatory Surgery

March 2021: Focus on Interdisciplinary Infection Prevention Team

It Takes a Team

Everyone in ambulatory surgery centers (ASCs) plays a role in **preventing surgical site and other harmful infections.**

Surgical site infections are **infections that can occur after surgery** in the part of the body where the surgery took place.¹



Surgical site infections are—*

- Dangerous**
Each year in the U.S., there are about **300,000 surgical site infections**. Patients with surgical site infections are **2 to 11 times as likely to die** as a result.²
- Costly**
Each year in the U.S., surgical site infections cost between **\$3.5 million and \$1 billion**.²
- Preventable**
Surgical site infections are one of the most common healthcare-associated infections, but **most of them are preventable**.²

* Because ASCs do not yet report surgical site infection data, these statistics are based on U.S. hospital data.

Patients and families should be encouraged to—

- ▶ **ASK** staff if they have washed their hands
- ▶ **BE ACTIVELY INVOLVED** in care by—
 - **Avoiding bringing their own medical equipment** to the ASC, unless granted special permission to do so
 - Always **cleaning their own hands**
- ▶ **CLEARLY SPEAK UP** if they have concerns that staff may not be following safe practices or if they observe a safety issue



Hand hygiene is one of the most important ways to prevent infections. Health care personnel will clean their hands **before and after** patient care.

Other important ways to prevent surgical site and other infections at ASCs are—

Cleaning, Disinfection, and Sterilization



- Follow fully the instructions on **how to use cleaning and disinfection supplies**.
- Follow the manufacturers' and ASC's instructions for **cleaning and disinfecting medical equipment**.
- Get training each year on high-level **disinfection for all the different types of scopes** that are reprocessed.
- Make sure only **highly trained experts** perform high-level disinfection and sterilization.

Environment of Care



- Keep the health care environment **clean and safe**.
- Make **daily rounds** (walk around) in the health care environment to **assure cleanliness and patient safety**.
- **Report any environmental care problems** as soon as possible so they can be fixed.
- **Clean hands** when moving from a dirty to a clean task on the same patient or after touching the patient or any items in the patient's environment.

Safe Injection Practices

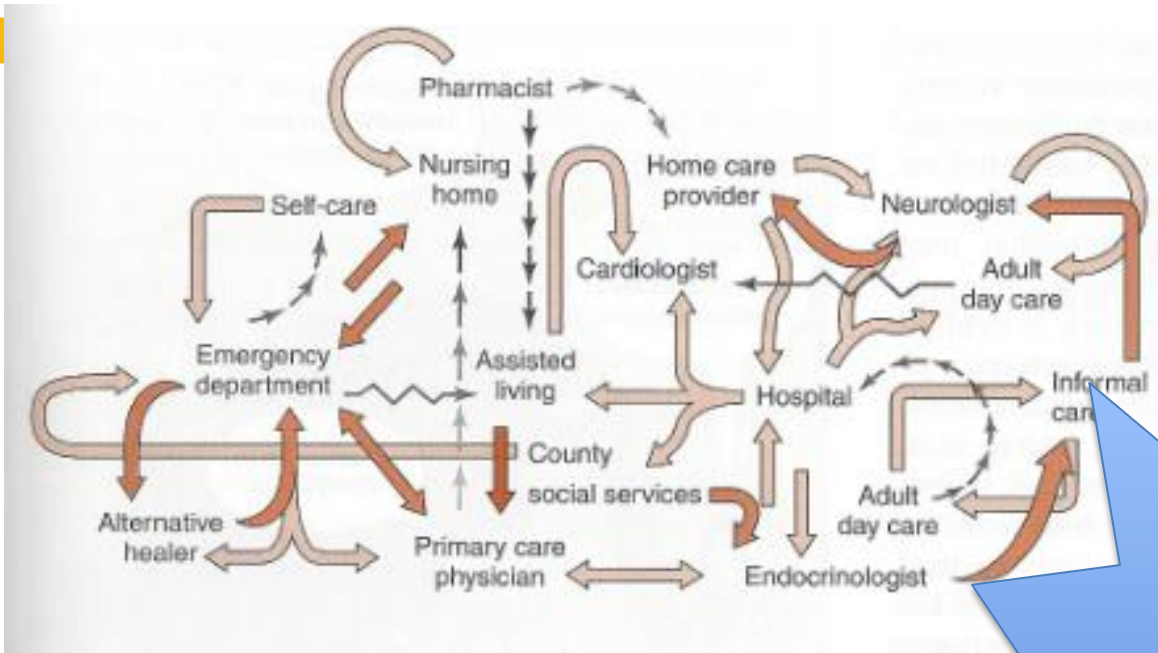


- Clean hands **before handling medications or syringes**.
- **Disinfect the top (rubber septum)** of any medication vial with alcohol before piercing it with a sterile needle.
- Use a sterile needle and syringe **one time on one patient only**.
- Use an intravenous solution bag and tubing for **one patient only**.
- **Prepare medication in clean area**, separate from patient care area and away from used items. If medication is used at the bedside, **throw it out after it is used on one patient**.
- **Use a single-dose vial** of medication whenever possible.
- **Dedicate a multiuse vial** to one patient if medication is drawn up in the patient care area.
- Always use a **new, sterile needle and new, sterile syringe**.

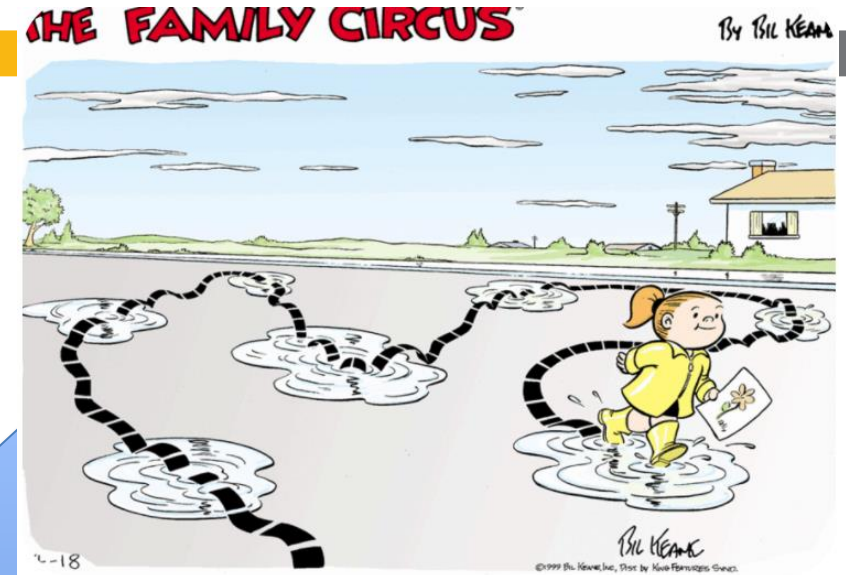
Learn more about infection prevention at ambulatory surgical centers at www.ahrq.gov/haiamburgery.

1. SHEA, IDSA, AHA, et al. Frequently asked questions about surgical site infections: Patient guide. Accessed April 22, 2016. http://www.shea-online.org/Assets/films/patient%20guides/NN_551.pdf
2. Anderson DJ, Podgorny K, Berrios-Torres SI, et al. Strategies to Prevent Surgical Site Infections in Acute Care Hospitals: 2014 Update. Infect Control Hosp Epidemiol. 2014 Sep;35 Suppl 2:566-68. PMID: 25376070. doi:10.1086/60195941700093267.

Healthcare Transitions are Dangerous!



Geriatric patients' continuum of care



Can we message Universal Hygiene repeatedly, consistently across continuum?

Partnering for Prevention

Hand Hygiene

Mobility

Nutrition

Immunization

Oral Hygiene

Address post-
sepsis symptoms

Hydration

Sepsis education

Sepsis source
specific education

Medical
follow-up
1-3days

Vaccine	19-26 years	27-49 years	50-64 years	≥65 years
<u>Influenza inactivated (IIV4)</u> or <u>Influenza recombinant (RIV4)</u> ⓘ	1 dose annually			
<u>Tetanus, diphtheria, pertussis (Tdap or Td)</u> ⓘ	1 dose Tdap each pregnancy; 1 dose Td/Tdap for wound management (see notes)			
	1 dose Tdap, then Td or Tdap booster every 10 years			
<u>Pneumococcal (PCV15, PCV20, PPSV23)</u> ⓘ	1 dose PCV15 followed by PPSV23 OR 1 dose PCV20 (see notes)			1 dose PCV15 followed by PPSV23 OR 1 dose PCV20

Vaccine	19-26 years	27-49 years	50-64 years	≥65 years
Tetanus, diphtheria, pertussis (Tdap or Td) ⓘ	1 dose Tdap each pregnancy; 1 dose Td/Tdap for wound management (see notes)			
	1 dose Tdap, then Td or Tdap booster every 10 years			

Tdap Vaccines

- Can prevent **tetanus, diphtheria, and pertussis**.
- **Adults should receive a booster dose of either Tdap or Td** (a different vaccine that protects against tetanus and diphtheria but not pertussis) **every 10 years**. OR after 5 years in the case of a severe or dirty wound or burn. OR with **each pregnancy**. Children have different recommendations that can be found on the [CDC website](#).
- **Contraindications:** allergy to vaccine, severe reaction to vaccine such as coma or seizure, nervous system problems or seizures, history of Guillain-Barré Syndrome.
- There are two Tdap vaccines used in the United States: **Adacel®** and **Boostrix®**.
- There are two Td vaccines used in the United States: **TENIVAC®** and **TDVAX®**.

Patient & Family Engagement: Sepsis Patient & Caregiver Education



English




Spanish

**SEE IT.
STOP IT.
SURVIVE IT.**

Sepsis Patient
and Family Education



 **Indiana Patient Safety Center**
of the Indiana Hospital Association

www.survivesepsis.com


SEE IT. STOP IT. SURVIVE IT.
I am a sepsis survivor, what now?

What can I do to improve my recovery?

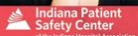
Caregiver Instructions for Patients Recovering from Sepsis



Common Symptoms After Sepsis



SEE IT. STOP IT. SURVIVE IT.

 **Indiana Patient Safety Center**
of the Indiana Hospital Association

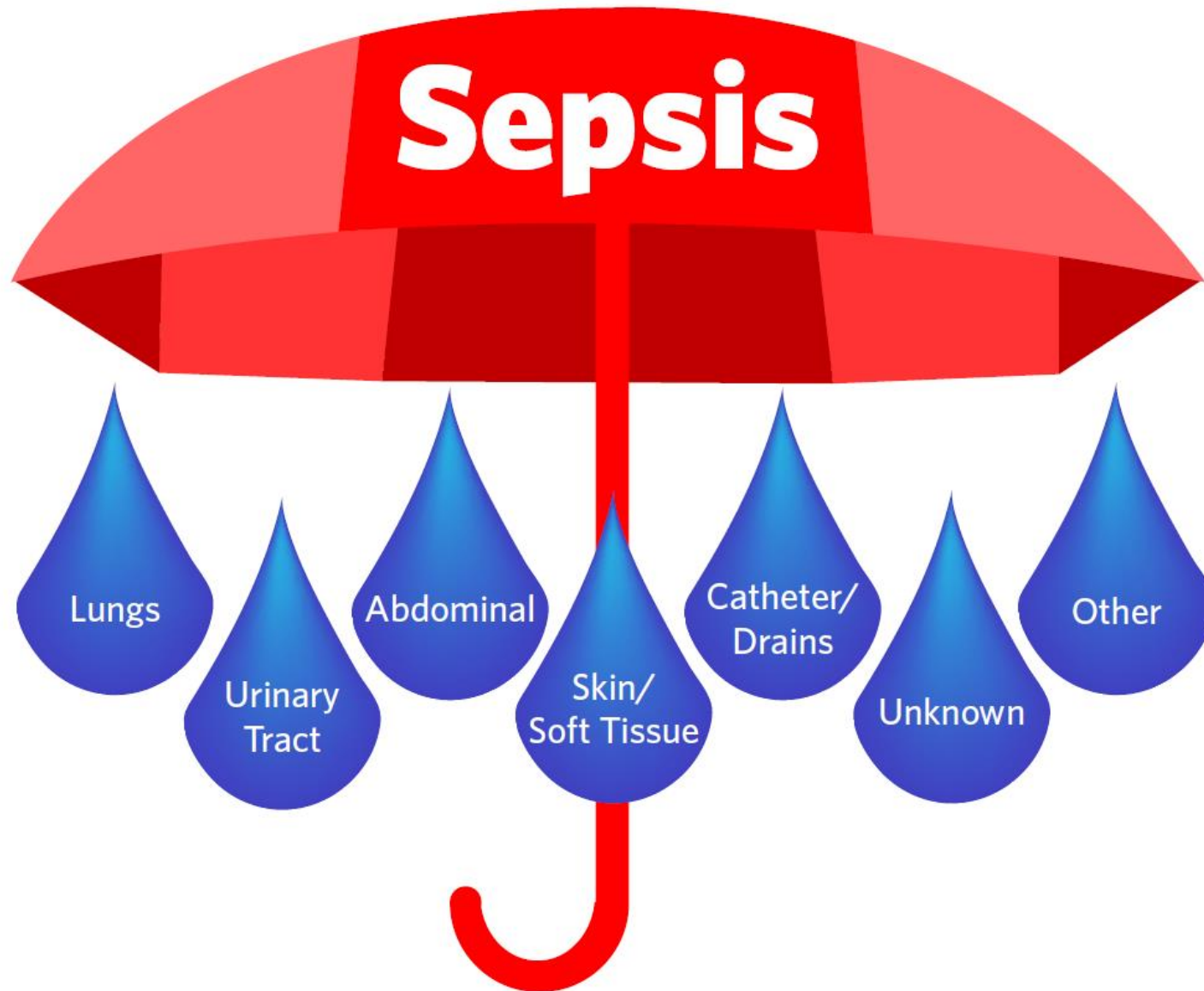
Sepsis Prevention & Recovery

Patient & Caregiver Education

Most common reasons for hospital readmission are another infection such as pneumonia or a urinary infection, or worsened heart failure or chronic obstructive pulmonary disease.

- See your primary care provider within a week after hospital discharge. Confirm with your primary care provider what medications you should be taking after hospitalization.
- Take over the counter and prescription medicine as instructed by your doctor. Antibiotics, antiviral, or antifungal medicine should be continued until instructed to stop, even if feeling better.
- **Practice oral hygiene with toothpaste and mouthwash four times a day to prevent pneumonia (the most common cause of sepsis).**
- Avoid sitting without moving for long periods of time and take short walks every one to two hours to improve blood flow and breathing. Ask for help if you feel weak or unsteady.
- Keep recommended immunizations up to date like flu, pneumonia, shingles, and COVID-19.
- **Wash hands with soap and water when visibly soiled, prior to eating, and after toileting.**

- **Keep cuts clean and covered until healed.**
- Keep well-hydrated to prevent infections and to enhance stability of blood pressure, balance, digestion of medicines, adequate fluids to brain to keep alertness, heart, kidneys, and skin. Drink enough fluid to keep your urine pale yellow. If urine is darker in color, increase intake of fluids. New problems with thinking or confusion may be avoided by drinking plenty of fluids.
- Seek good quality and length of time sleeping. Do not take sleeping medications without consulting your primary care provider.
- Eat healthy foods to maintain strength and continue healing, such as plenty of vegetables, fruits, whole grains, low-fat dairy products, and lean protein. Avoid alcohol, caffeinated beverages, and computer screen time before bed.



Non-Vent Hospital Acquired Pneumonia

2/17/2018 In Hospitals, Pneumonia Is a Lethal Enemy - WSJ

DOW JONES, A NEWS CORP COMPANY
DIA 25219.38 0.00% ▲ Nasdaq 7239.47 -0.23% ▼ U.S. 10Yr 0/32 Yield 2.675% ▼ Crude Oil 41.61 0.44% ▲ Euro 1.2409 -0.78% ▼

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HEALTH
In Hospitals, Pneumonia Is a Lethal Enemy
Pneumonia is the No. 1 hospital-acquired infection in America and hospitals aren't doing enough to fight it. The best weapon: a toothbrush

By Lucette Lagnado
Feb. 17, 2018 7:00 a.m. ET

At a time when the public is concerned with drug-resistant superbugs, researchers have identified another danger of going to the hospital: contracting pneumonia.

Hospital-acquired pneumonia is more pervasive and urgent than most people realize, a new study warns, and hospitals in America aren't adequately addressing prevention. "Given the mortality, hospitals should be doing a lot more," says Dian Baker, lead author of the study, which was published in *Transactions of the American Journal of Infection Control*.

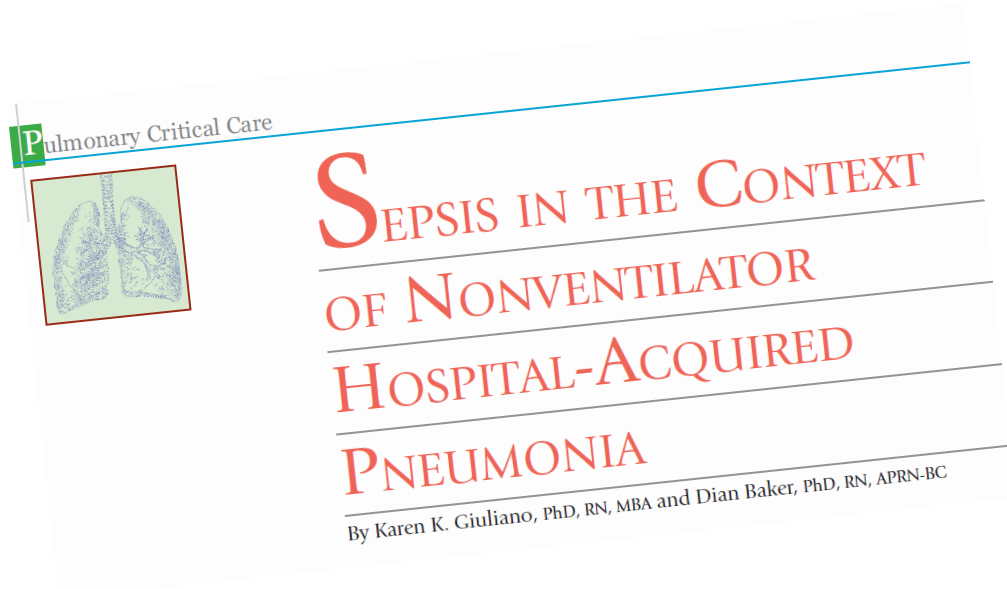
- Nurses: Barbara Quinn & Dr. Diane Baker @ Sutter Health, California
- Pneumonia is #1 hospital acquired infection according to CDC-
- 15-31% death rate from hospital acquired pneumonia
- “They go to the operating room within 20 minutes of brushing teeth”--& gargle
- **Brushing teeth several times per day cut hospital pneumonias by 70% with 50,000 toothbrushes expenditure**



Recorded webinar

(Brooks, J. (2018). Stop It. Non-Ventilator Hospital Acquired Pneumonia Research Update. https://www.ihaconnect.org/Resources/Public/Patient%20Safety/Sepsis/GMT20180918-190048_Sepsis-Awa_2256x1504.mp4;
Lagnado, L. (2018). In hospitals, pneumonia is a lethal enemy. The Wall Street Journal. 2/17/2018)

Nonventilator Hospital Acquired Pneumonia-New Study Jan 2020



- Lit Review:
- *50% of hospital sepsis cases associated with pneumonia*
- Results
- *HCUP Data 2012 with ICD-9 codes of pneumonia & sepsis, excluding POA, excluding VAPs*
- *84% from non-healthcare, 7% from other healthcare facility*
- *36% of patients who developed non-vent hospital acquired pneumonia also developed sepsis-21% in hospital mortality*
- *39% discharged to healthcare facility, 57% to non-healthcare setting*

COVID & Oral Hygiene

Nature Public Health Emergency Collection

Public Health Emergency COVID-19 Initiative

Br Dent J. 2020; 228(12): 971–975.

Published online 2020 Jun 26. doi: [10.1038/s41415-020-1747-8](https://doi.org/10.1038/s41415-020-1747-8)

Could there be a link between oral hygiene and the severity of SARS-CoV-2 infections?

[Victoria Sampson](#),¹ [Nawar Kamona](#),² and [Ariane Sampson](#)³

PMCID: PMC7319209
PMID: [32591714](https://pubmed.ncbi.nlm.nih.gov/32591714/)

Sampson et al (2020);
<https://www.nature.com/articles/s41415-020-1747-8>

They recommend “oral hygiene be maintained, if not improved, during a SARS-CoV-2 infection in order to reduce the bacterial load in the mouth and the potential risk of bacterial superinfection.”

Universal Hygiene Behaviors

The Norwegian COVID-19 Study of Mental Health and Adherence (to Social Distancing & Hygienic Behavior)

WHO Hygienic Behaviors

- Covered mouth with tissue or elbow with sneeze or cough
- Regularly wash hands thoroughly after touching shared surfaces, coughing/sneezing, toileting and before eating
- Wash hands at home before preparing food, eating and after coughing/sneezing
- Avoided touching eyes, mouth and nose when outside home or when I haven't washed hands
- Handled shared surfaces in alternative ways such as touching with tissues or gloves
- Disinfected shared surfaces and objects that I use frequently at multiple locations such as my phone or computer
- Avoided hugging or shaking hands with individual outside of my household

Additional Universal Hygiene behaviors

- Oral Hygiene
- Mask wearing during (pandemic? Flu season?)



Visualize Goals of Universal Hygiene with Appreciative Inquiry

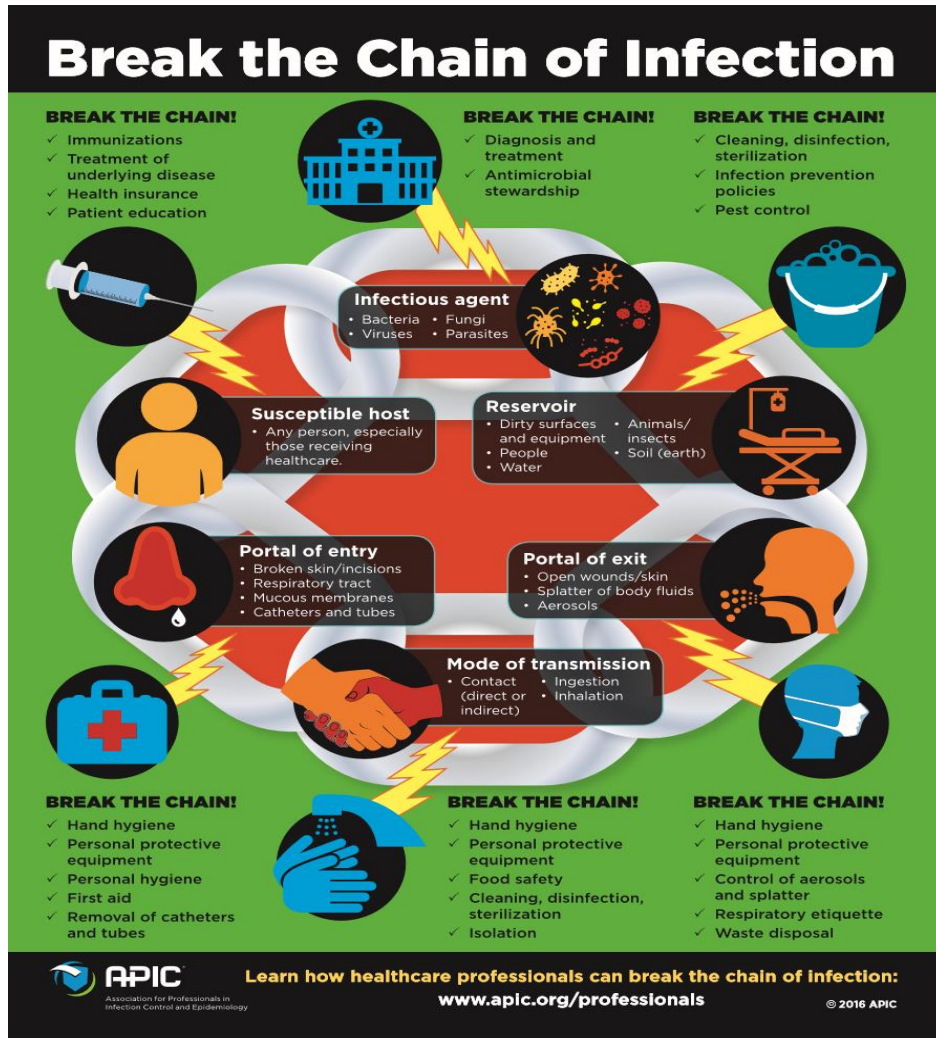


- *Five Core Processes (D's) of Appreciative Inquiry*
 1. Choose the positive as the focus of inquiry (Definition)
 2. Inquire into exceptionally positive moments (Discovery)
 3. Locate themes that appear in stories (Discovery)
 4. Create shared images of a preferred future (Dream)
 5. Innovate ways to create that future (Design & Destiny/Delivery)

Watkins & Mohr, Appreciative Inquiry: Change at
the Speed of Imagination, p. 47;
www.centerforappreciativeinquiry.net

APIC Break the Chain of Infection

APIC = Association for Professionals in Infection Control and Epidemiology



There are six points at which the chain can be broken, and a germ can be stopped from infecting another person:

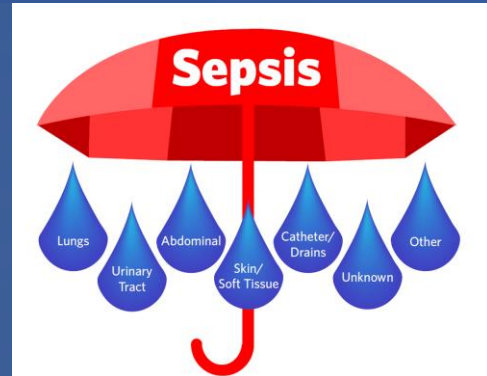
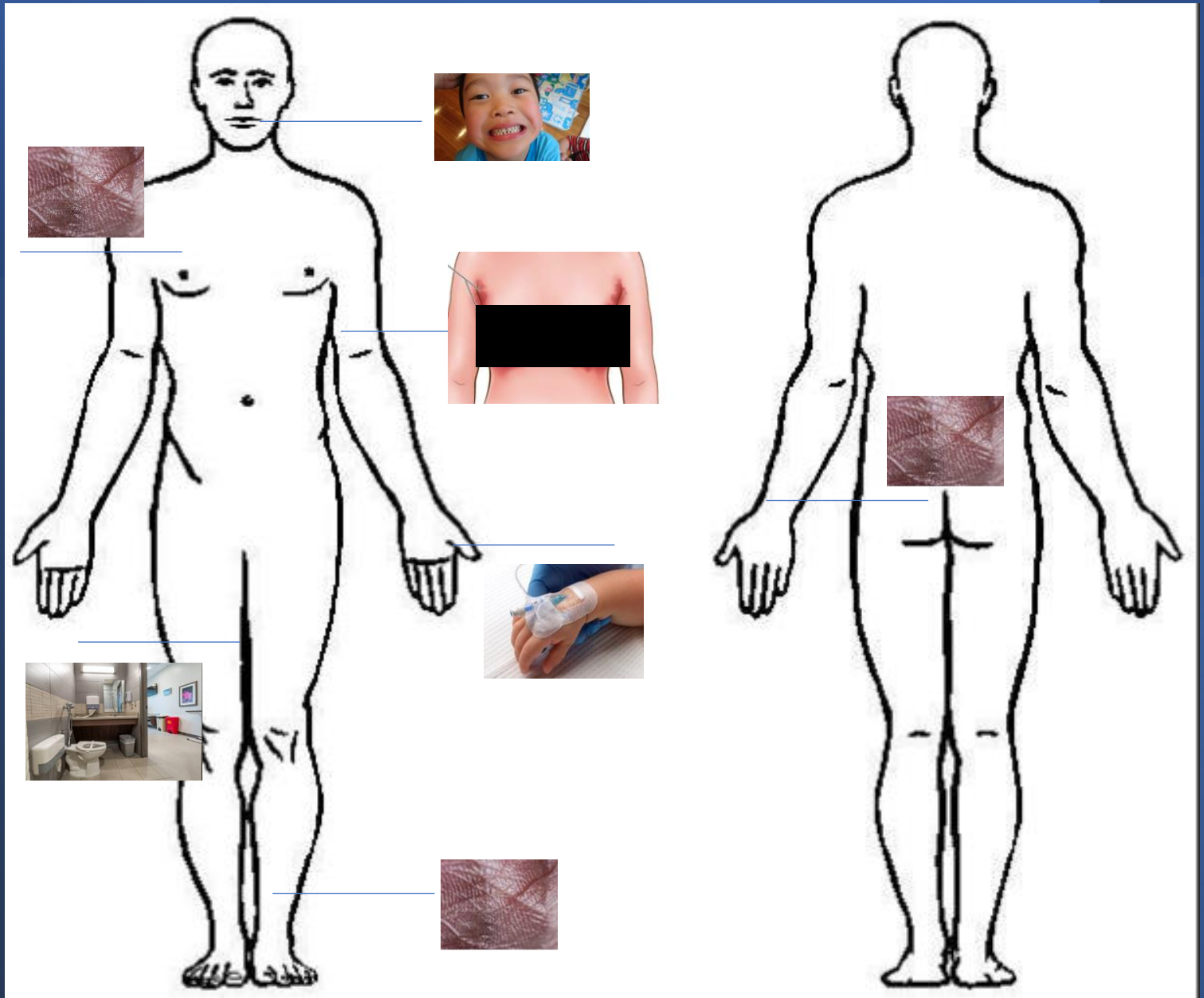
- **Infectious agent** is the pathogen (germ) that causes diseases
- **Reservoir** includes places in the environment where the pathogen lives (this includes people, animals and insects, medical equipment, and soil and water)
- **Portal of exit** is the way the infectious agent leaves the reservoir (through open wounds, aerosols, and splatter of body fluids including coughing, sneezing, and saliva)
- **Mode of transmission** is the way the infectious agent can be passed on (through direct or indirect contact, ingestion, or inhalation)
- **Portal of entry** is the way the infectious agent can enter a new host (through broken skin, the respiratory tract, mucous membranes, and catheters and tubes)
- **Susceptible host** can be any person (the most vulnerable of whom are receiving healthcare, are immunocompromised, or have invasive medical devices including lines, devices, and airways)

BE AN INTERRUPTER!



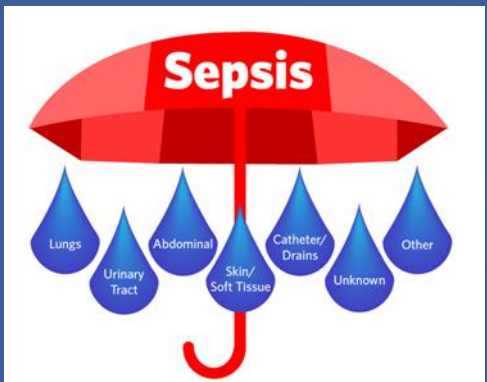
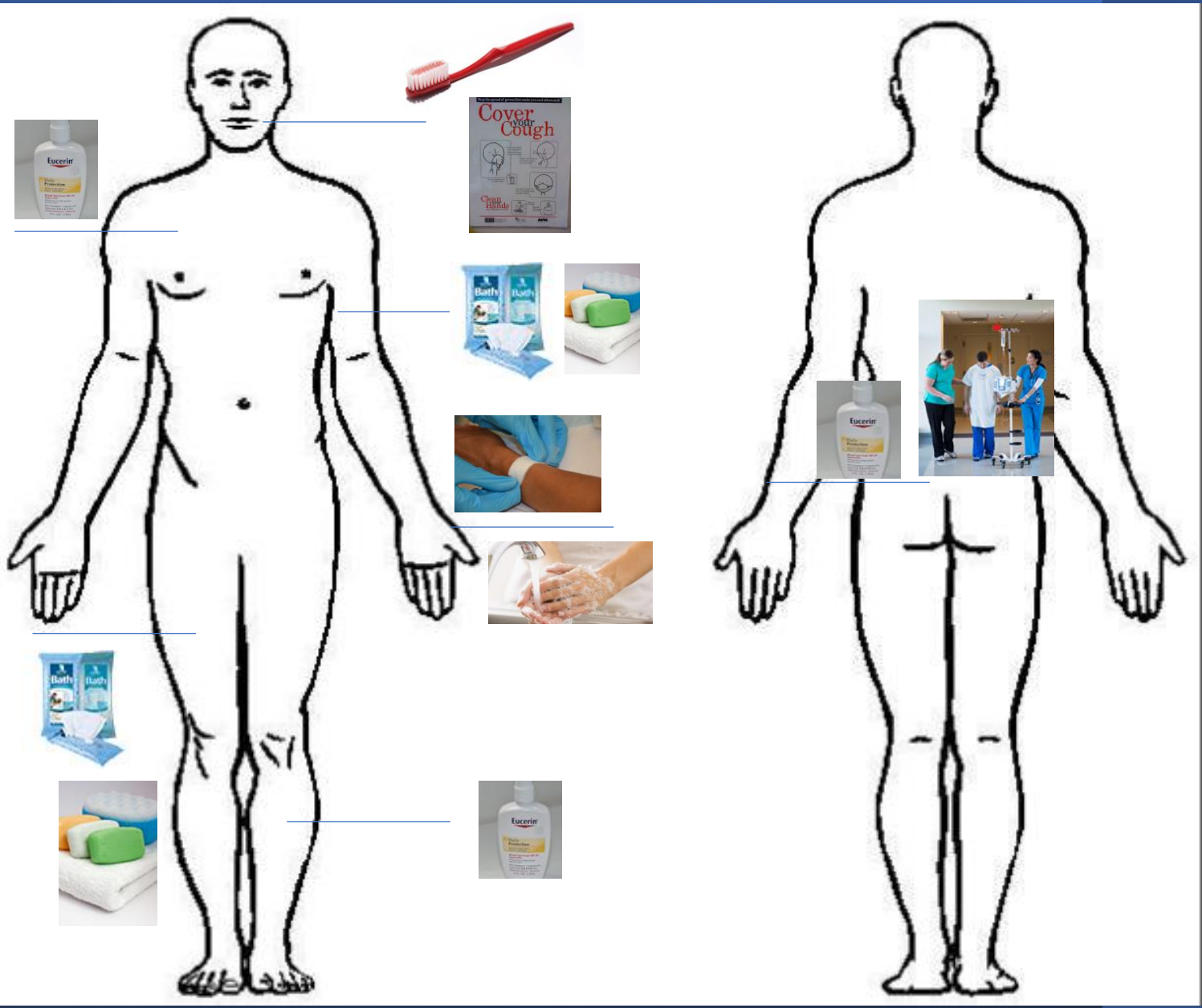
Are there differences in
universal hygiene practices
between the low risk
and complex patient?

Low Risk Patient Ports of Entry

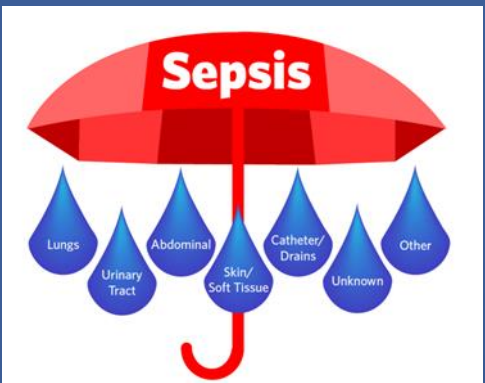
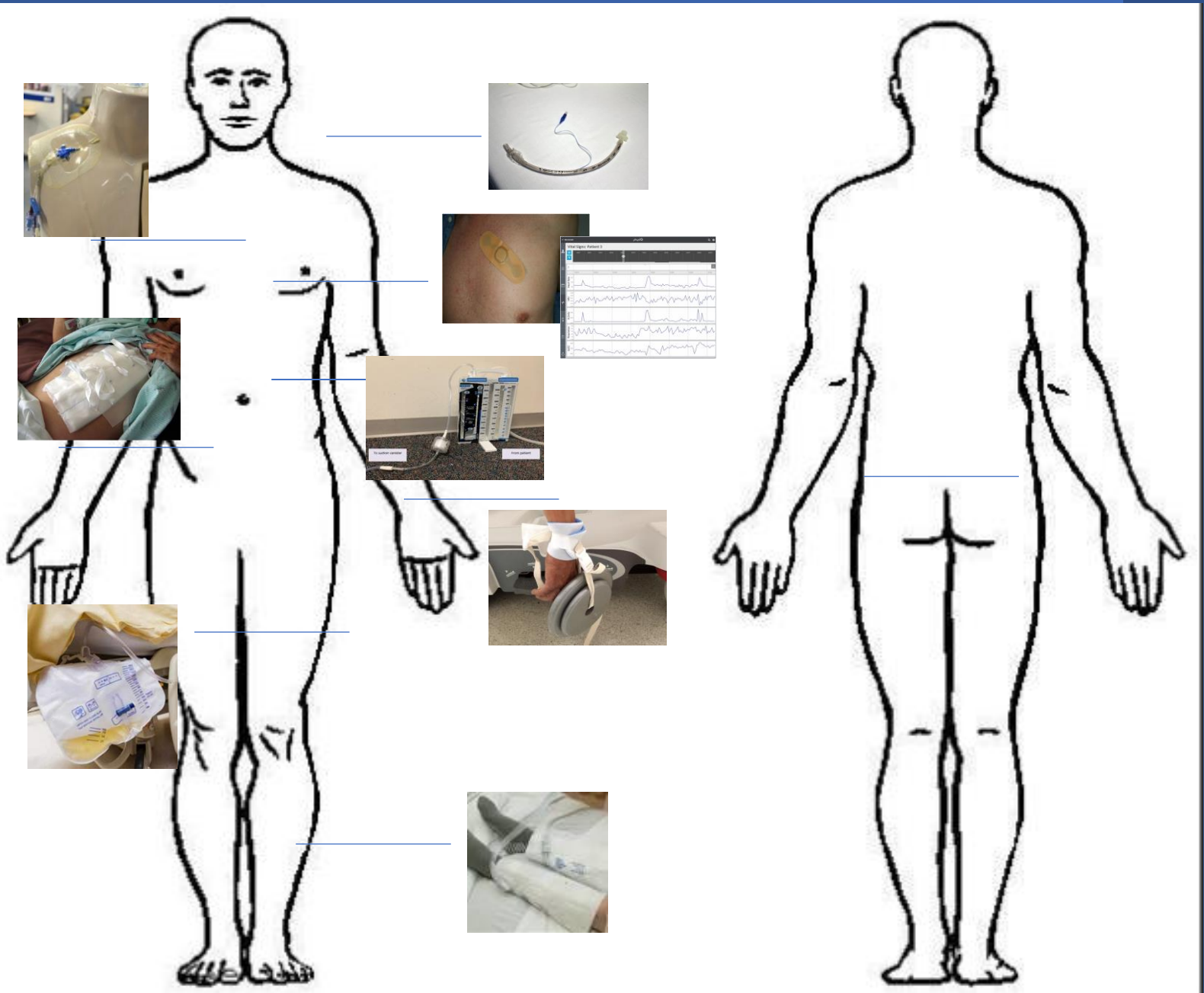


Hygiene Activities

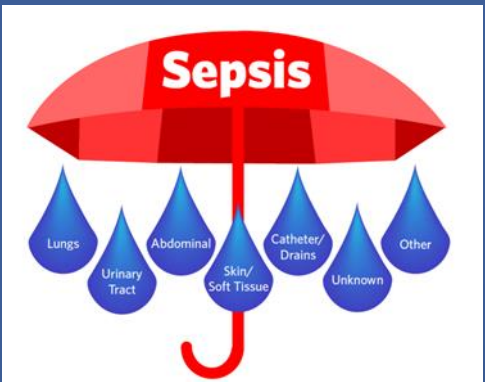
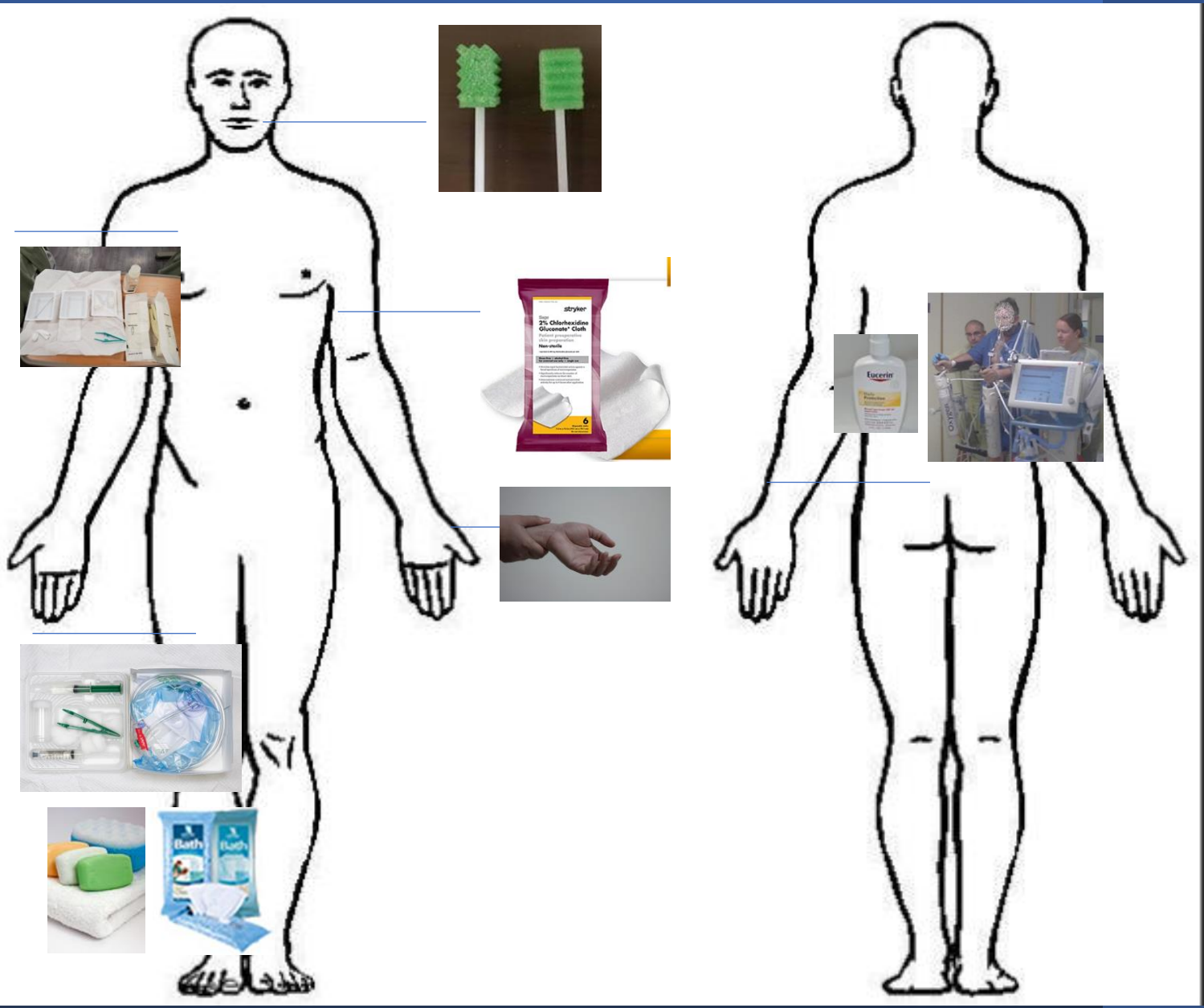
Low Risk Patient



Complex Patient Ports of Entry



Hygiene Activities Complex Patient



Four Moments for Healthcare Facility Visitor Hand Hygiene



Linear approach in one system—alcohol based or handwashing

Knighton et al., 2020

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Call to Action

- Identify what strengths and opportunities exist in your unique setting for Universal Hygiene
- Evaluate how you are empowering ALL staff, patients, family and caregivers as infection preventionists

Resources

- [*CDC HAI Prevention Gap Analyses for Acute Care, LTC, outpatient & Hemodialysis*](#)
- [*CDC HAI Multi-setting Prevention Tools*](#)
- [*AHRQ HAI Prevention Tools & Resources*](#)
- [*The Joint Commission Speak Up Videos & Infographics*](#)
- [*AHRQ Toolkit to Engage High-Risk Patients In Safe Transitions Across Ambulatory Settings*](#)

Polling Questions



Infection Prevention Week

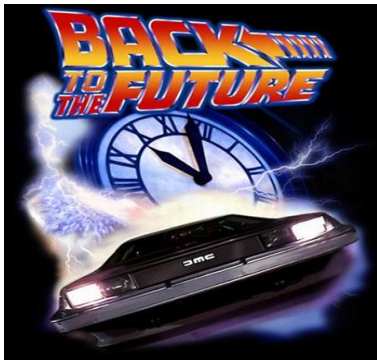
Oct. 16 – 22, 2022



2022 Sepsis: Back and to the Future

IHA 2022 Sepsis Awareness Month Webinars

1-Sept.	3 p.m. ET	Indiana Sepsis State of the State
8-Sept.	3 p.m. ET	Sepsis Pathophysiology & Bundle Compliance
15-Sept.	3 p.m. ET	Sepsis Diagnostic Advances
22-Sept.	3 p.m. ET	Maternal Sepsis
29-Sept.	3 p.m. ET	Sepsis Fluid Management Advances
6-Oct.	3 p.m. ET	Personal Hygiene and Sepsis Prevention



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Click on link to access recording for each webinar

Questions?
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Thank you!

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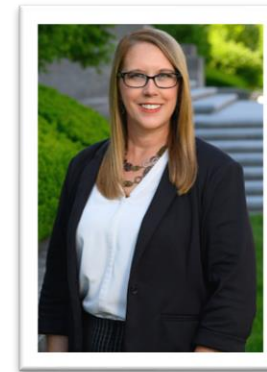


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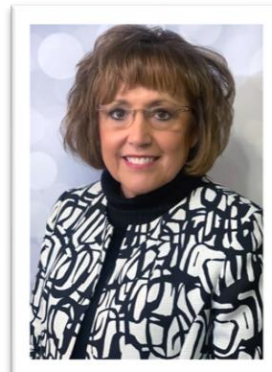


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