

Invasive Group A *Streptococcus*: 'Tis the Season

By: *Melissa Dulcey, DVM, PhD*

Invasive Group A *Streptococcus* can result in severe illness and death.

Group A *Streptococcus* (GAS), also known as *Streptococcus pyogenes*, is a bacterium that if untreated can cause serious illness and death. Although non-invasive GAS infection commonly presents as pharyngitis (“strep throat”), **invasive** infection can result in more serious clinical manifestations including sepsis, pneumonia, streptococcal toxic shock syndrome, necrotizing fasciitis, and death.

[\(Page 2\)](#)

≥ 65

Years of Age

Underlying Medical Conditions

Heart disease Diabetes

Invasive Group A *Streptococcus* Disease

Risk Factors

Skin Breakdown



Congregate Living Settings

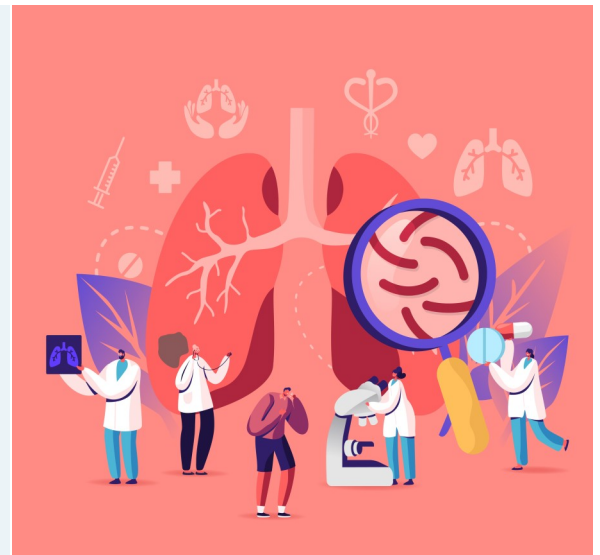
Including Long Term Care Facilities



Emerging Issues Impacting Tuberculosis Care – COVID-19 and Drug Resistance

From the Bureau of Communicable Diseases, Division of TB/STD

TB was the [most common cause of death worldwide](#) from an infectious disease until COVID-19 impacted the world in 2020. Recent data from CDC indicates TB case counts and incidence rates have steadily decreased in the United States since 1992. However, in 2020 the annual rate of decline was substantially greater than in previous years. This is most likely due to factors associated with the COVID-19 pandemic, including a combination of TB underdiagnosis and a true reduction in TB incidence. [\(Page 3\)](#)



2018 Healthcare-Associated Infection Report

From the Division of Healthcare-Associated Infection Prevention

Pennsylvania was one of the first states to recognize the harmful impact that healthcare-associated infections (HAIs) had on patient outcomes and quality of life related to additional medical treatment, loss of time, and financial burden. To provide information to hospitals, the department analyzes HAI data reported to the National Healthcare Safety Network (NHSN), summarizes the findings and releases an annual report that documents progress that Pennsylvania hospitals have made in implementing HAI prevention strategies to encourage statewide reduction of HAIs. [\(Page 4\)](#)



Invasive Group A *Streptococcus*: 'Tis the Season (continued)

By: Melissa Dulcey, DVM, PhD

Invasive GAS infection is determined by isolation of the bacteria from a normally sterile body site (e.g., blood, cerebral spinal fluid, pleural fluid). The CDC estimates that approximately 20,280 cases and 1,840 deaths associated with invasive GAS infection occurred in the United States in 2021. Patients in long-term care facilities or who are postpartum or post-surgical have a higher risk of severe morbidity and mortality from invasive GAS infection. Particular attention should be paid to reducing GAS transmission in these healthcare settings.

Healthcare workers with symptomatic infection OR asymptomatic carriage can transmit the bacteria to patients.

GAS is transmitted by respiratory droplets or direct contact with an infected person. Infection can occur throughout the year with incidence highest during winter and spring. Healthcare workers with asymptomatic carriage can transmit GAS to individuals at high risk for invasive disease. Infection control and prevention strategies including hand hygiene and aseptic technique during wound care are needed to prevent transmission and infection.



Prevent Invasive GAS Infections at Your Facility



Perform adequate and regular **hand hygiene** – it is the most effective way of preventing infection.

Practice diligent **infection control and prevention** techniques to reduce the risk of transmission.



Maintain **aseptic technique** while performing wound care.

Institute **employee sick leave** policies that discourage employees from working while ill.



Invasive GAS is reportable in Pennsylvania.

As a result of its high morbidity and mortality, invasive GAS is reportable in Pennsylvania by laboratories and healthcare providers. A single case in a long-term care facility resident, postsurgical or postpartum patient, merits an epidemiological investigation to prevent further GAS transmission and disease among individuals at high risk for severe outcomes. An investigation might include review of medical charts and records, additional testing, and symptom monitoring of patients, facility residents, and healthcare workers. The Pennsylvania

Department of Health will work with the facility to help identify additional cases and provide recommendations to prevent transmission. Additional information and resources are available in PADOH's [Invasive Group A *Streptococcus* \(iGAS\) Toolkit](#).

Emerging Issues Impacting Tuberculosis Care - COVID-19 and Drug Resistance


(continued)

From the Bureau of Communicable Diseases, Division of TB/STD


TAKE ON TB

Too many people in the U.S. still suffer from tuberculosis (TB).


TB IN THE U.S.



Up to
13 million
people could have
latent TB infection




7,882 people
were diagnosed with
TB disease in 2021



600 people
died of TB-related
causes in 2020

The effects of the COVID-19 pandemic on TB trends in the United States are complex and will likely persist for many years.

To learn more about TB, visit:
www.cdc.gov/tb



Centers for Disease
Control and Prevention
National Center for HIV, Viral
Hepatitis, STD, and TB Prevention

NOVEMBER 2022

[In 2021, TB incidence partially rebounded in the U.S., but remained lower compared with 2019.](#) This might be explained by longer lasting effects of the pandemic, including under-diagnosis and public health resource constraints.

[COVID-19 and TB share some common clinical features.](#) TB should be considered in the differential diagnosis of patients with common signs and symptoms of TB. Patients with chronic respiratory diseases, including TB, are at increased risk of severe COVID-19 illness and death. [Exposure to both can occur simultaneously, and the presence of comorbidities can result in poor outcomes for both diseases.](#)

In addition to COVID-19, [drug-resistant TB](#) continues to be an emerging problem in the United States. Drug-resistant TB is more difficult and expensive to treat and cure. It's spread just like drug-susceptible TB. Drug resistance occurs when a person gets infected with TB that is already resistant or resistance develops during their treatment, stopping their treatment prematurely, or taking their medicine only sporadically. Preventing drug-resistance is a primary goal of the PA Department of Health (DOH) TB Program and can be achieved if all medications are taken as prescribed and the treatment regimen is adequate. If not, drug-resistant organisms can emerge and take over. The [PA DOH provides](#) clinical services, laboratory testing for drug resistance and directly observed therapy (DOT) to assure all TB patients adhere to a prescribed course of therapy and complete treatment with multiple drugs to prevent the emergence of drug resistance. Consultation with medical experts who are knowledgeable and experienced in drug-resistant TB case/contact management is essential.

As long as COVID remains a persistent threat, it will continue to be exceptionally challenging to detect all cases of TB – but it remains vitally important to prevent ongoing transmission of TB and drug-resistant TB by promptly diagnosing the disease and treating it effectively. Suspected and confirmed cases of TB must be reported to the PA DOH within five working days. Together with a public – private healthcare partnership, the spread of TB can be prevented.

Clinicians with questions about TB may contact the TB Program at 717-787-6267 to speak with one of our TB medical consultants – Dr. Edward Zuroweste or Dr. George McSherry. Medical consultations are also provided at no charge by the Global TB Institute at **1-800-4TB-DOCS** (1-800-482-3627).

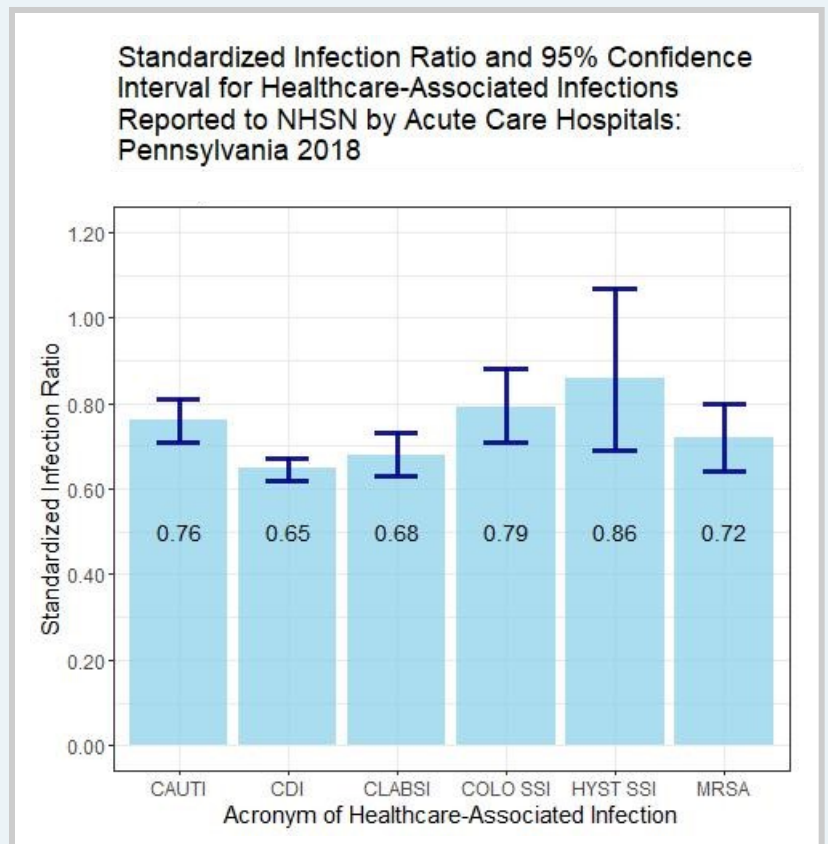
2018 Healthcare-Associated Infection Report (continued)

From the Division of Healthcare-Associated Infection Prevention

This 2018 report is the 11th report to be released by the department and the third to use an interactive online format. These data demonstrate an overall continued decline in HAIs among Pennsylvania acute care, critical access, inpatient rehabilitation, long-term acute care, psychiatric, and children's hospitals for the calendar year 2018. Results are presented for a subset of NHSN HAI types, two device utilization rates, surgical site infections (SSI) following seven types of surgical procedures, and two proxy infection events [Laboratory-Identified Events (LabID)].

Included are:

- Catheter-associated urinary tract infections (CAUTI)
- Indwelling urinary catheter utilization
- Central line-associated bloodstream infections (CLABSI)
- Central line utilization
- Methicillin-resistant *Staphylococcus aureus* blood specimen events (MRSA LabID)
- *Clostridioides difficile* lab events (CDI LabID)
- Surgical site infections for the following procedures:
 - ◊ Abdominal hysterectomies (HYST)
 - ◊ Colon surgeries (COLO)
 - ◊ Cardiac surgeries (CARD)
 - ◊ Coronary bypass with chest incision and donor incisions (CBG with two incisions)
 - ◊ Coronary bypass with chest incision only (CBG with one incision)
 - ◊ Hip prosthesis (HPRO)
 - ◊ Knee prosthesis (KPRO)



The standardized infection ratio (SIR) is a metric that is used to evaluate progress in reducing HAIs across the United States. It compares the number of reported infections with the number of predicted infections based on data from hospitals throughout the United States that was collected in 2015. It adjusts for risk factors (hospital characteristics and patient specific factors only for surgical site infections) that are significantly associated with differences in infection incidence. A SIR with a value less than one indicates that fewer infections occurred than predicted by the 2015 national baseline data. As part of the Healthy People 2020 objectives, the Department of Health and Human Services set SIR goals for the HAIs displayed in the figure. The Department advocates that hospitals attain these HHS goals by 2020. They are as follows:

CAUTI SIR = 0.75

CLABSI SIR = 0.50

HYST SSI SIR = 0.070

CDI SIR = 0.70

COLO SSI SIR = 0.70

MRSA SIR = 0.50

The HHS goals were met (or nearly met) during 2018 for CAUTI and CDI events.

The 2018 HAI Report from the Division of Healthcare-Associated Infection Prevention

is now available to view online: [Reports \(pa.gov\)](#)

**Quarterly
Data Update**

**Antimicrobial Resistant Organisms
Reported in Pennsylvania**

Carbapenemase	Quarter 4 - 2022 (10/1/2022 – 12/31/2022)			
	CRE	CRAB	CRPA	Total by Mechanism
KPC	4	0	0	4
NDM	4	0	0	4
IMP	0	0	0	0
OXA-like	0	0	0	0
VIM	0	0	0	0
Carbapenemase detected by phenotype, no genotype detected	1	7	0	8
Total by Organism	9	7	0	16
		Clinical	Colonized	Total
<i>Candida auris</i>		4	3	7

Abbreviations: CRE=Carbapenem-resistant *Enterobacterales*; CRAB=Carbapenem-resistant *Acinetobacter baumannii*; CRPA=Carbapenem-resistant *Pseudomonas aeruginosa*. Learn more about carbapenemases and CRE at [CRE Technical Information | CRE | HAI | CDC](#)

*Data include all counties in PA except for Philadelphia. The counts were captured through voluntary reporting by health care facilities and laboratories, including the PA Bureau of Laboratories. To view Philadelphia's surveillance data, please visit their website at <https://hip.phila.gov/data-reports-statistics/healthcare-associated-infections>.

References

Centers for Disease Control and Prevention. (2022). Active Bacterial Core surveillance, ABCs Bact Facts Interactive Data Dashboard, Group A Streptococcus: Estimated number of cases and deaths of invasive GAS infections in the US Retrieved November 18, 2022 from <https://www.cdc.gov/abcs/bact-facts-interactive-dashboard.html>

"World TB Day." Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 29 Dec. 2022, <https://www.cdc.gov/tb/worldtbdays/default.htm>.

Pennsylvania Department of Health. 2018 Healthcare-Associated Infection Report. 8 Dec. 2022, www.health.state.pa.us/HAIP/2018report/executive-summary.html.

Bureau of Epidemiology

Division of Healthcare-Associated Infection Prevention
Pennsylvania Department of Health, Health & Welfare Building
625 Forster Street Harrisburg, PA 17120 Phone: 717-787-3350

Contact Us At: RA-DHHAI@pa.gov



[APHL's Top 10 Stories of 2022](#)

These ten stories highlight just a small segment of the work public health laboratories have done over this past year to respond to emergencies and perform routine testing to keep their communities safe and healthy.

The World Anti-Microbial Resistance Congress

is a global conference for stakeholders in the AMR space to meet, brainstorm ideas and formulate initiatives that can effectively tackle antimicrobial resistance. This year, the [World Anti-Microbial Resistance Congress](#), and its joined sister conference, [Disease Prevention & Control Summit](#), will be co-located at the Pennsylvania Convention Center in Philadelphia on September 7th and 8th 2023.

Participants will have full access to both conferences.



We would love to feature your facility or lab as a success story in a future edition of *The Steward*

Please send a brief summary related to preventing antimicrobial resistance or promoting stewardship activities to our resource mailbox:

RA-DHHA@pa.gov

World TB (Tuberculosis) Day—March 24th, 2023

Each year, we recognize World TB Day on March 24. This annual event commemorates the date in 1882 when Dr. Robert Koch announced his discovery of *Mycobacterium tuberculosis*, the bacillus that causes tuberculosis (TB).

World TB Day is a day to educate the public about the impact of TB around the world. CDC, along with our partners and colleagues around the world share successes in TB prevention and control and raise awareness of the challenges that hinder our progress toward the elimination of this devastating disease.

The Infection Control (IC) Plan review team within the DOH Bureau of Epidemiology Division of Healthcare-Associated Infection Prevention is responsible for review and approval of healthcare facility IC plans. The review team has created and posted [multiple resources](#) for facilities to reference regarding IC Plan submission requirements and for facilities to ensure their plan remains up to date. One specific reference found on the [DOH Public Website's HAIP/AS Healthcare Professional Resources page](#) is a [15-minute video](#) "Guide for Submitting an Infection Control Plan to the PA DOH" and an [accompanying slide set](#).



[CDC Project Firstline has a new infographic](#) on Infection Control

During Respiratory Virus Season: <https://www.cdc.gov/infectioncontrol/pdf/projectfirstline/Respiratory-Actions-508.pdf>

Did you know?

As a reminder, any care facility of any type in PA can use the PA Project Firstline (PFL) training request form to request in-person or virtual trainings: <https://forms.health.pa.gov/project-firstline-training-request/>

