



Infection Prevention in Ambulatory Care: Navigating a Patchwork of Practices

Timothy Bowers
MS CIC FAPIC CPHQ
Corporate Director,
EHR Transformation
Change Management

July 21, 2026



Internal

Session Overview



Where care is moving and why it matters



The forces driving patient complexity into non-acute settings



The oversight contrast between acute and ambulatory care



Cleaning and disinfection challenges in outpatient settings



Practical strategies that work within real-world constraints

Learning Objectives

1

Describe key trends driving the shift from acute care to ambulatory and outpatient settings

2

Identify variability in infection prevention expectations, oversight, and resources across ambulatory care environments

3

Apply practical, setting-specific strategies to help reduce transmission in outpatient and non-acute care settings



The Shift from Inpatient to Outpatient Care

A Profound Shift in Where Care Is Delivered

1B

OUTPATIENT VISITS/YEAR



Physician office visits in the U.S. in 2019¹—far exceeding any other care setting.

>60%

SURGERY IN ASC



More than 60% of outpatient surgeries occur in ambulatory surgery centers (ASC) in 2020, compared to 32% just 15 years prior.²

\$1T+

AMBULATORY REVENUE (2022)



U.S. ambulatory health care services revenue exceeds one trillion dollars³ and is growing faster than inpatient⁴.

What Is Driving the Shift?



Population

Adults 65+ account for 40% of hospital bed days while representing 17% of the population.⁵ This group is projected to grow and add pressure to inpatient bed availability.

Rising Comorbidity

Among older U.S. adults, the prevalence of at least one chronic condition reaches 93%.⁶ Complex patients increasingly receive care across multiple ambulatory settings.

Capacity Pressure

Emergency Department visits by elderly patients have risen 24% in recent years⁷. Hospitals operating at or near capacity accelerate the migration of procedures to outpatient venues.

Increasing Complexity of Care: Procedures Are Moving Out of Hospitals



>60%

OF SURGERY NOW OUTPATIENT

More than 65% of surgeries globally are now performed in outpatient settings, up from 19% three decades ago.

560

NEW ASC PROCEDURE CODES⁸

CMS added 547 procedures to the ASC Covered Procedures List for CY 2026 — including cardiac ablations, complex spine, and orthopedics.

12M+

OFFICE-BASED PROCEDURES/YR¹⁰

An estimated 12M+ procedures are performed annually in physician offices, increasing in both volume and clinical complexity.

What Is Moving to Ambulatory Settings

- ▶ Total joint replacements (hip, knee) — now routinely performed in ASCs
- ▶ Spine surgery: ie laminectomy, discectomy (ASC volume grew 193% from 2010–2021)⁹
- ▶ Cardiac ablation and select interventional cardiology procedures
- ▶ Oncology infusions, advanced GI, thyroid, complex ophthalmology
- ▶ Office-based: dermatology, pain management, minor orthopedic/hand, cataracts

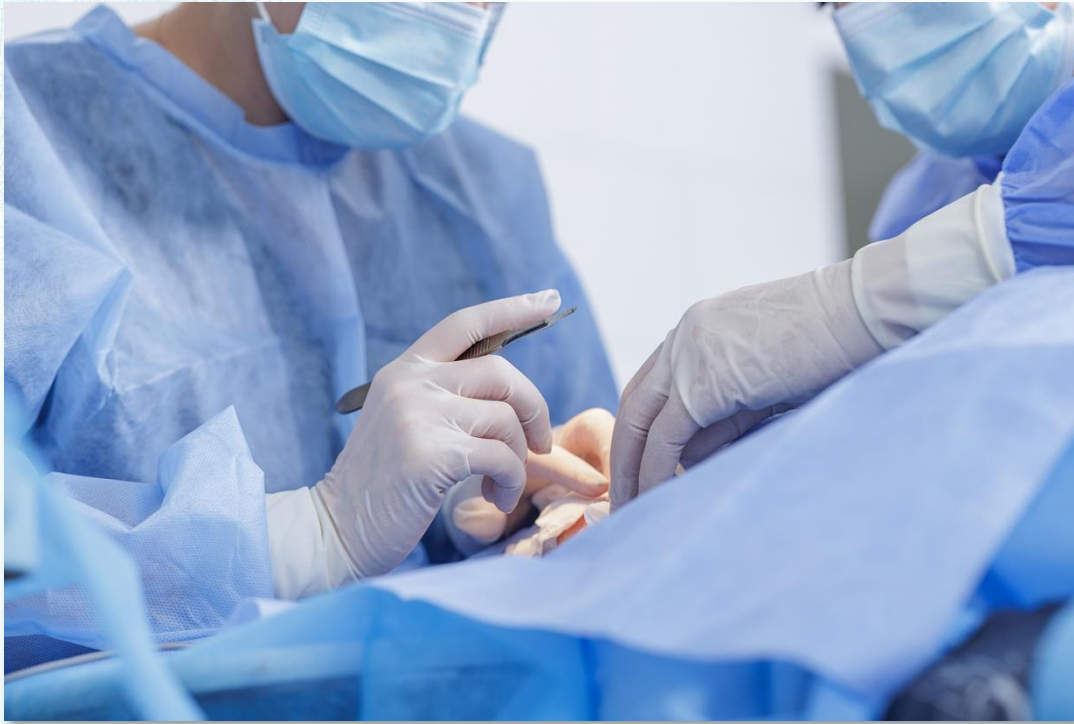
Why This Matters for Infection Prevention

- ▶ Sicker, more compromised patients increase consequences of bioburden and environmental hygiene lapse
- ▶ Outpatient care economic pressure leads to frequent room turnover increasing number of times disinfection occurs
- ▶ Shorter length of stay compresses surveillance window potentially delaying recognition of outcomes due to process breakdowns
- ▶ Non acute settings often operate with fewer regulatory requirements and oversight

Patients in ASCs are Still Susceptible to Infection



The assumption that ambulatory patients are healthier, more resilient, and less susceptible to infection is increasingly disconnected from reality.



- ▶ Patients presenting to ASCs and outpatient clinics often carry multiple chronic conditions and may be immunocompromised
- ▶ Procedures once performed only in acute care, joint replacements, advanced endoscopy, oncology infusions, now occur in ambulatory settings
- ▶ Older patients with higher ASA scores and Charlson Comorbidity Index values are increasingly treated in outpatient surgical programs

Infection Prevention & Control in Ambulatory Settings



Barriers to Effective Infection Prevention in Non-acute Care



Structural and operational barriers often prevent the straightforward adoption of evidence-based practices, including:

- ▶ **Low perceived infection risk**, despite increasing pathogen (or HAI) exposure in outpatient environments
- ▶ **Facilities not designed exclusively for healthcare**, resulting in limited storage space, shared equipment, or repurposed rooms
- ▶ **Rapid workflows** and frequent room turnover, leaving little margin for complex cleaning processes

- ▶ **Fragmented ownership** and contracted services, complicating accountability
- ▶ **Lean staffing models** and variable training, increasing the risk of inconsistency
- ▶ **Disinfection complexity**, such as multiple products, onsite dilution requirements, long or unrealistic contact times, and unclear surface or equipment compatibility

Outbreaks Are Not a Hospital-Only Problem

Physician offices and ASCs have been the setting for outbreaks

- ▶ ~90% of known injection-related outbreaks occurred in outpatient settings (CDC Grand Rounds, 2013)¹¹
- ▶ From 1998–2009: 51 outbreaks — 75,000+ patients notified, 620 confirmed infections with HBV or HCV¹²
- ▶ Most common sources: injection safety violations and equipment cleaning failures

- ▶ Procedures in outpatient settings are often invasive and create real opportunity for infection
- ▶ HAI surveillance in outpatient settings is hampered by brief encounters, inconsistent follow-up, and limited criteria/data collection
- ▶ Many outpatient facilities are not subject to federal or state regulatory oversight for infection control

Where Transmission Happens

INJECTION SAFETY



Syringe reuse and multi-dose vials misused. Linked to HBV, HCV, and bacterial bloodstream infections.

ENVIRONMENTAL SURFACES



Inadequate cleaning between patients, particularly in small or high-volume settings with outsourced EVS and no IP oversight.

Hand Hygiene



Lapses in hand hygiene occur in healthcare settings particularly where little time is allotted between patients or where supplies are not at the point of care.

POINT-OF-CARE TESTING



79% of HBV/HCV outbreaks in LTCFs from 2008–2019 linked to improper cleaning and disinfection from blood glucose monitoring breaches.



Bridging the Oversight Gap

Acute Care vs. Ambulatory: Organizational Differences

CATEGORY	ACUTE CARE HOSPITAL	AMBULATORY / NON-ACUTE SETTINGS
Regulatory Oversight	Regulatory surveys (CMS CoP, TJC, DNV, State surveys)	Inconsistent oversight; many settings lack routine inspections
IP Staffing	Dedicated IP professionals on staff	Dedicated IP resource often missing
HAI Surveillance	Mandatory HAI surveillance & reporting	Limited HAI surveillance; definitions don't translate well
Environmental Services	Structured environmental services teams	Environmental teams frequently outsourced; minimal IP training
Policies & Competencies	IP-informed policies & competencies	Policies often absent or outdated
Education & Resources	Access to IP education & resources	Limited budget for IP learning; small staff; competing priorities

The Policy Gap Is Real and Documented

"Current policies are highly variable, leaving many gaps in patient protection from infectious diseases... only a minority of outpatient facilities are certified by CMS and few are licensed by states or maintain accreditation status."— CDC, Outpatient Settings Policy

Options for Improving Infection Prevention



- ▶ Many outpatient facilities operate without routine oversight to validate minimum safety standards for infection prevention and control
- ▶ Physician offices typically fall outside federal/state healthcare specific routine regulatory inspection criteria
- ▶ Surveillance is challenged by brief patient encounters, poor follow-up systems, and definitions designed for inpatient care

Perception & Prioritization



“Outpatient Care Is Low Risk” — A Dangerous Assumption



The perception that ambulatory settings carry little to no infection risk persists — despite evidence to the contrary.

Myth

1. “Patients go home same day”
2. “We don't do high-risk procedures”
3. “Our cleaner handles it”

Reality

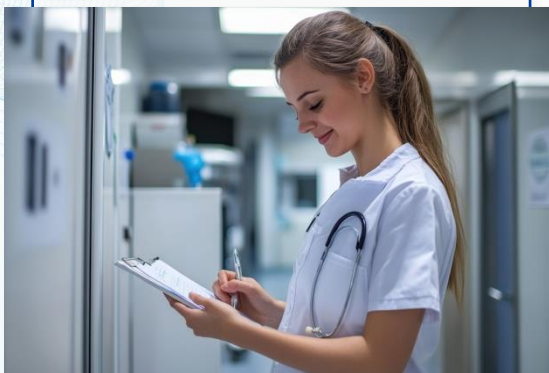
1. Infection risk extends beyond the encounter — surgical site infections and bloodborne pathogen exposures surface days to weeks later and present to a different facility.
2. Injections, infusions, wound care, and point-of-care testing all carry transmission risk when IP practices lapse.
3. Outsourced cleaning staff often lack healthcare-specific IP training and live in a grey area around accountability to clinical standards.

Ambulatory IP: Competing With Everything Else



Small facilities face real resource constraints that shape how — and whether — infection prevention gets prioritized.

SMALL TEAMS



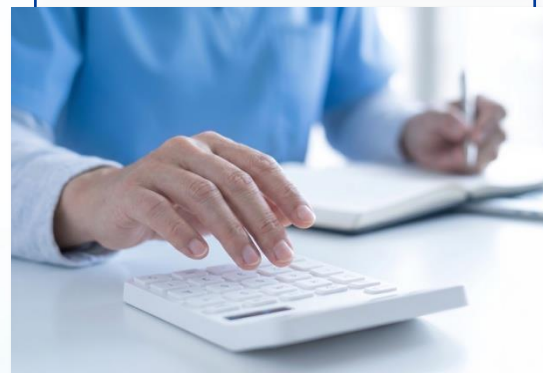
Many ambulatory practices have no dedicated IP professional. IP falls to a clinical staff member with many other responsibilities.

OUTSOURCED CLEANING



Environmental services are frequently contracted out to general cleaning vendors — not healthcare-specialized teams.

SMALLER BUDGETS



Capital and supply budgets are constrained. Product selection is often driven by cost rather than efficacy or IP criteria.

LIMITED TRAINING



Turnover is high. IP competency verification is rarely formalized. Education happens informally, if at all.



Practical Approaches: Making It Easy to Do the Right Thing

Start With an Infection Risk Assessment

You cannot address risk you have not identified. A structured risk assessment is the foundation.



- ▶ Inventory the procedures performed, the populations served, and the equipment used — including reusables and point-of-care devices
- ▶ Identify where IP gaps exist: injection safety, reprocessing, environmental hygiene, hand hygiene, PPE access
- ▶ Assess the regulatory landscape for your specific setting type — ASC, physician office, rehab, or imaging
- ▶ Use CDC's Guide to Infection Prevention for Outpatient Settings as a baseline minimum expectations framework
- ▶ Prioritize based on highest-risk activities, not available bandwidth

Pragmatism starts with first things first

Before protocols, before products — know which patients, procedures, and touchpoints drive risk.

What procedures do we perform?	Invasive procedures , injections, infusions, wound care, scope-based exams, surgical cases all carry higher transmission risk than evaluation-only visits. Start your IP focus where skin or mucous membranes are breached.
Who are our patients?	Immunocompromised, elderly, and high-comorbidity patients are disproportionately represented in ambulatory settings and disproportionately harmed by infection. Patient population shapes your risk tier.
What equipment do we reuse?	Every reusable device is a potential transmission vector if disinfection is inconsistent or undertrained. Identify what you reuse and whether your staff can demonstrate proper reprocessing not just describe it.
When cleaning between patients, who is responsible for what and how are they trained?	Outsourced or informal cleaning arrangements with no healthcare-specific training or accountability are a high-priority gap regardless of how infrequently they seem to matter.
Where do your standard precautions break down?	Hand hygiene and cleaning products not readily available at point of care. PPE not accessible. These are the places where transmission actually happens and where simple fixes have the highest return.

The goal is not a perfect program. It is a right-sized one — built around your highest risks, actionable within your real constraints.

Cleaning Protocols That Work in the Real World



Complexity is the enemy of compliance. The best protocol is one staff will actually follow.

REDUCE DECISION FATIGUE



Use standardized, room-specific cleaning checklists. Staff should not have to decide what to clean — the protocol decides for them.

SIMPLIFY PRODUCT SELECTION



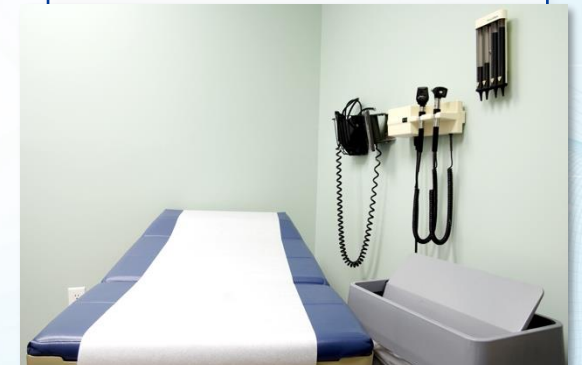
Fewer products = fewer errors. As few disinfectants as appropriate for your surface/equipment and pathogen profile reduces confusion and non-compliance.

DISINFECTION TIME SELECTION



Choose EPA-registered disinfectants with contact times that work with work pace. Long dwell times are rarely honored under real workflow pressure.

DESIGN FOR TURNOVER REALITY



Map your actual room turnover time. Build disinfection into that workflow — not as an add-on, but as a defined step between patients.

Setting the Environment Up for Success



Design your environment and workflows so the right action is also the easiest action.

1	Point-of-Care Supplies:	Hand hygiene products, PPE, and disinfectants should be easy to use and visibly accessible at the point of use
2	Injection Safety Defaults:	One needle, one syringe, one patient. Make single-dose vials the standard. Never access a vial more than once.
3	Cleaning Accountability:	Provide EVS contractors with healthcare-specific expectations in writing. Include IP requirements in contracts and validate competency.
4	Brief, Frequent Education:	Short microlearning beats annual modules. Embed IP reminders into huddles, signage, and onboarding.
5	Peer Observation:	Normalize low-stakes observation and feedback. When staff see peers practicing safely, they are more likely to do the same.

Key Takeaways

Key Takeaways

1

Healthcare is driving increased volume and complex patients/procedures to settings outside acute care

2

Infection risk is increasing in ambulatory settings as the procedure offerings continue to grow and our patient population is sicker

3

Outpatient care was originally designed for lower risk, high turnover patient care with environments not usually designed with infection prevention in mind

4

Infections and outbreaks have been identified in outpatient care settings often due to inadequate hand hygiene, injection safety, and environmental surfaces

Key Takeaways

5

Regulatory visits, mandatory HAI reporting and dedicated infection prevention resources highlight the stark contrast of inpatient and outpatient regulatory environments

6

An infection prevention risk assessment will help guide facilities in prioritizing where to use scarce resources

7

Cleaning and disinfection protocols that match real world scenarios will be easier to execute consistently

8

Setting up for success includes easy accessibility to supplies, brief and frequent education and peer observation

Key References



1. FastStats - <https://www.cdc.gov/nchs/fastats/physician-visits.htm>
2. <https://www.beckersasc.com/asc-news/the-evolution-of-ascs-in-50-years-what-the-future-holds-6-industry-leaders-thoughts/>
3. <https://www.healthdata.org/news-events/newsroom/news-releases/most-comprehensive-study-us-health-care-spending-county-reveals>
4. <https://www.beckershospitalreview.com/finance/20-trends-in-hospital-revenue/>
5. Pallin, Daniel & Espinola, Janice & Camargo, Carlos. (2014). US population aging and demand for inpatient services. Journal of Hospital Medicine. 9. 193-196. 10.1002/jhm.2145.
6. Watson KB, Wiltz JL, Nhim K, Kaufmann RB, Thomas CW, Greenlund KJ. Trends in Multiple Chronic Conditions Among US Adults, By Life Stage, Behavioral Risk Factor Surveillance System, 2013–2023. Prev Chronic Dis 2025;22:240539.
7. Pines JM, Mullins PM, Cooper JK, Feng LB, Roth KE. National trends in emergency department use, care patterns, and quality of care of older adults in the United States. J Am Geriatr Soc. 2013 Jan;61(1):12-7. doi: 10.1111/jgs.12072. PMID: 23311549.
8. <https://www.lugpa.org/cms-finalizes-cy-2026-opps-and-asc-payment-rule> (citing [CMS-1834-FC | CMS](#))
9. Miller A, Cederman M, Park D Growing utilization of ambulatory spine surgery in Medicare patients from 2010–2021 North American Spine Society Journal (NASSJ), 2024; 17
10. Urman RD, Punwani N, Shapiro FE. Office-based surgical and medical procedures: educational gaps. Ochsner J. 2012 Winter;12(4):383-8. PMID: 23267269; PMCID: PMC3527870.
11. Centers for Disease Control and Prevention (CDC). CDC grand rounds: preventing unsafe injection practices in the U.S. health-care system. MMWR Morb Mortal Wkly Rep. 2013 May 31;62(21):423-5. PMID: 23718950; PMCID: PMC4604859.
12. Pa Patient Saf Advis 2011 Jun;8(2):70-6.