Performing an Infection Control Gap Assessment

Healthcare-associated infections (HAI) have long been a major issue for hospitals and other healthcare institutions. This constant problem creates a significant impact on patient outcomes. On average, 1.7 million HAIs are reported each year, with many more likely unreported. Of these, an estimated 1.2 million were avoidable. Approximately 100,000 of those cases result in death, according to data from the Centers for Disease Control.

Effective Infection Control starts with having an effective Infection Prevention (IP) team. Every IP team needs a champion who can work with Environmental Services (EVS) and hospital administration in a collaborative effort to ensure that an effective plan is in place. The IP director must be a clinical expert supported by a capable EVS team adept at applying the latest evidence-based infection prevention measures. Fostered collaboration among healthcare professionals such as the IP group and risk managers helps in addressing these issues.

The IP and EVS groups must then be able to put forth and communicate an effective business case for an infection control plan. A strong gap analysis assessment is a key part of this plan, as is efficacy measurement of the IP plan you are proposing.

What an Effective Gap Assessment and IP Plan Should Contain

An IP plan should provide sufficient detail, but it does not need to be a lengthy document. The plan should have three key points:

- The IP problem you are addressing (gaps)
- The proposed solution
- The estimated cost and overall ROI of that solution

Focus on the Biggest Culprits

While there are many areas to consider, your gap assessment should focus on areas of highest concern and highest possibility of mitigation.

Of the 1.7 million infections that occur each year, about half are lung or blood infections. Pneumonia is very common, particularly post-surgery, where mortality rates are as high as 33 percent. About 30 percent are urinary tract infections, while the remaining 20 percent are surgical wound infections. Methicillin-resistant Staphylococcus aureus (MRSA) infections are particularly problematic with studies showing one in 20 hospital patients either becoming infected or carrying the infection. C. difficile infections, the cause of an estimated 15,000 deaths, is also a substantial cause of infectious disease.

When looking at your organization's gaps, focus on these health concerns, the areas of the hospital in which they most often occur, and the departments that are most at risk. It might be necessary to have representation from various departments to better understand their unique IP process so you can identify areas for improvement.

It's likely that the gaps you uncover through the IP group's work will focus on relatively few areas. By quantifying the risks (both health and financial) of those gaps and deploying solutions that address the majority of them in the most efficient and effective way, you'll be able to lower infection rates with one comprehensive plan.

Identify Solutions with Proven Efficacy and Efficiency

The first step toward a better IP plan is increased awareness. Hospital staff must first be aware of the concerns, so that may monitor them. Lack of compliance with IP protocol is directly linked to infections and death. Once awareness and monitoring happen, mitigation steps can be put in place. This largely resides in having good reprocessing steps and adherence to those policies. The CDC and ECRI both monitor emerging issues and long-held issues and recommend

reprocessing practices. The team must stay apprised of all of these issues and incorporate them into the IP plan.

Once a mitigation plan is in place, your team can be well on the road to full elimination of these problems. You must measure results and have data to show that your mitigation steps are working. For example, do your systems have built in efficacy measures? Can you prove that your IP tools, such as UV disinfectors, deliver measurable doses that show the specific length of time and intensity required to kill specific microorganisms that cause hospital-acquired infections. This is an example of quantifiable results and proof of compliance that you can produce to convince hospital administrators to purchase new equipment.

Your IP plan should include as much supporting data as possible, benchmarking from CDC, FDA, APIC, ECRI and Becker's, and showing your own data regarding why you are proposing to purchase a product or add human resources (FTEs) and how that factors into your overall IP strategy for zero HAI. Most often the IP champion will present this to hospital decision makers like C-suite the chief medical officer, value analysis committees, risk management, or human resources manager.

Evaluate Costs & Calculate ROI

Although HAI are typically reported in terms of patient outcomes, healthcare institutions should also look at a zero HAI goal as a business case. The financial cost of HAI is truly staggering.

A 2017 literature review looked at infection cost studies published between 2005 and 2015. Thirty-seven studies were reviewed, and the researchers determined that the average cost of sepsis per patient amounted to over $30,000 with a mean ICU cost of sepsis at $27,000 per patient. Each incident of a C. diff infection costs between $15-30,000. In another study, the author reviewed nearly 1.7 million admissions from 77 hospitals. HAI reduced net inpatient margins by $286 million – or $5,000 per patient.

Because the majority of HAI are preventable, this message should always be emphasized in your institution's overall business case as a basis for implementing any new product or measure, or hiring new people, to reduce infection.

The business case and the case for return on investment by implementing new infection control measures are clear. Hospitals must keep in mind the total cost

of not effectively dealing with HAI – not only treatment costs, but the cost of lost revenue because beds are occupied by infected patients, as well as the public perception and its overall negative impact on your organization's reputation.

If you need help calculating your overall HAI costs, organizations like the Association for Infection Control and Epidemiology (APIC) provide free cost calculators so that you do not have to manually calculate your facility-specific costs.

Quality Reporting

Quality reporting is another top 10 item on Becker's list. Many institutions fail to have good quality reporting in place, using the "patients over paperwork" mentality. Understandably, hospitals want to focus on patients, and many quality reporting systems are very complex, taking time away from patients. Also, some institutions have so many quality measures that the results become muddled, and staffs are unsure whether their actions are actually improving patient care.

Measuring efficacy helps demonstrate that an investment in prevention will have a positive impact on the organization in many ways – patient safety, reputation, and bottom line. If your preventable HAI rates are not at zero, this gives you the leverage and business case to keep adding products, partners, and people to drive down your rates of infection. The best solutions will have efficacy and ROI built in, so your team can focus on the overall IP picture vs. worrying about each machine doing the work.