

Key Questions for Measuring Cost-Effectiveness

What makes up the direct and indirect costs of HAIs impacting us? *Consider antibiotics, increased length of stay, patient morbidity, etc.*

What are the most frequent HAIs at my facility?

How much do these particular HAIs cost us? *Determine actual cost of those direct and indirect categories: extended length of stay, loss of reimbursements, staff time, and others*

How are our HAI rates affecting my facility's reputation?

Are we penalized by CMS and if so, what is the rate of those penalties and the dollar value of the impact?

How are patient satisfaction scores impacted by those frequent HAIs and how do those scores impact our bottom line?

How much are HAIs costing our facility?

What is the initial cost to purchase the intervention?
Is it a one-time cost or a recurring cost, such as supplies, replacement, training, upgrades, etc.? If recurring, what are the frequency and value of those ongoing costs?

Will we have to close down rooms or units during the installation or implementation of the innovation and if so, how long and what will that cost us? (don't forget missed opportunity here such as empty beds)

Can the intervention be used with patients/staff in the room or does it require vacant spaces, such as at terminal cleaning?

Finally, how do all the interventions you are considering compare in cost and results? Are they compatible?

How much do the interventions cost us?

How do I determine effectiveness?

Does the product actively kill harmful pathogens or does it simply inhibit the growth of odor causing bacteria and mold?

Is the product EPA Registered for Public Health Claims? *Has the end product been tested and does it have an EPA Registration Number?*

What does the scholarly literature say about the efficacy of the intervention? *Is there evidence beyond "bench science" or in vitro studies?*

Are there more "white papers" than journal publications on the efficacy?

What other facilities/systems have invested in this intervention? What do they have to say about the intervention?

Do the published results scale after year one? *That is, does the efficacy persist?*

How well will the intervention work alongside your facility's current HAI prevention strategies? Are they compatible?

How should I compare interventions?

Compare "kill times" and which pathogens are affected. *Make sure these are peer-reviewed studies and results, not just white papers.*

Does the intervention only have research on reduction in colonization or bioburden or does it have peer-reviewed research connecting the intervention to actual reduction in HAIs? *Some interventions may reduce bioburden which in real-world application does not result in reduced HAIs.*

Compare initial investment and ongoing costs.

Determine ease of use and downtime required for application. *Each of these considerations affects not only your budget, but your staff allocations and even workload.*

Costs of implementation, including training or loss of patient census due to requirements of empty rooms.

Request that the company provide you with a formal return on investment, using published, peer review results in HAI reduction. *A company representative should be able to give you data to support the expected outcome at your unique facility.*

- Once you have invested in an intervention, you will want to continue your assessment and evaluation by comparing your HAI data over time and considering all aspects of your infection prevention protocols and how each may impact those results. •