

## ECONOMICS OF IMPLEMENTING THE IRRISEPT® O.R. SYSTEM

### Contributing to Better Patient Outcomes and Decreasing Costs

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Surgical Site Infections (SSIs) have a major impact on hospital's financial performance. Consider the financial implications of the national SSI data at an "average" hospital:

- Annual Number of surgeries: 6,000 (30 million procedures/5,000 hospitals)<sup>1</sup>
- Average SSI rate: 2.6% (780,000 SSIs/30 million procedures)<sup>2</sup>
- Number of SSIs: 6,000 @ 2.6% = 156
- Average cost per SSI: \$30,000<sup>2,3</sup>

» **Annual Cost of SSIs: 156 @ \$30,000 = \$ 4,680,000**  
» **Cost of IrriSept O.R.: 6,000 patients @ \$60 = \$ 360,000**

Using the figures and assumptions above, consider this data on a smaller scale. The cost of using IrriSept O.R. at \$60 on 500 patients is \$30,000. With the average cost of a single SSI at \$30,000, a reduction of just one SSI occurrence could cover the total cost of using the IrriSept O.R. system on approximately 500 patients.

### About the IrriSept O.R. System

IrriSept O.R. is the only FDA-cleared device that delivers a pressurized solution containing Chlorhexidine Gluconate (CHG) for cleansing and debridement. As a final rinse, prior to closure in surgical procedures, IrriSept O.R. has the potential to help reduce SSIs and associated treatment costs. IrriSept O.R. was developed with the goal of becoming the "Standard of Care" and improving patient outcomes.

**Other considerations:** Financial implications are not the only concern for hospitals and patients. There are many other potentially adverse consequences as a result of high SSIs rates:

- Reduced reimbursement<sup>3</sup>
- Higher mortality rates<sup>3</sup>
- Increased re-admissions and overall length of stay<sup>3</sup>
- Additional antibiotic usage
- Potential liability issues
- Potential reputational issues for the facility and surgeon

## High Risk Procedures and High Risk Patients

In these high risk categories, the potential cost/benefit is likely to be even more dramatic. The average cost of a Methicillin-Resistant *Staphylococcus aureus* (MRSA) SSI can reach \$60,000 per occurrence, double the national average of non-MRSA SSIs.<sup>3</sup> The cost of IrriSept O.R. at \$60 on 1,000 patients is \$60,000; a reduction of just one SSI could cover the cost of 1,000 units of the IrriSept O.R. system.

## What can implementing the IrriSept O.R. system save your organization?

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>
Procedure/patient combination	Annual Number of Procedures	Current SSI rate	Number of SSIs <i>(B X C)</i>	Cost per SSI	Total cost of SSIs <i>(D X E)</i>	Cost reduction for 20% reduction in SSIs <i>(F X 20%)</i>	Cost of IrriSept O.R. for all 1,000 procedures <i>(B X \$60)</i>
<b>Hypothetical Example:</b> Total Hip/Diabetic	1,000	10%	100	\$30,000	\$3,000,000	\$600,000	\$60,000
<b>Your numbers here:</b>							

**Please note:** Since IrriSept O.R. is new to the market, we do not yet have studies regarding SSI reduction; however, independent laboratory testing consistently shows that CHG, at the 0.05% concentration in IrriSept O.R., is effective against a broad spectrum of bacteria, fungi and viruses, including MRSA.<sup>4,5</sup> While many other factors affect the rate of SSIs, we believe, based on laboratory testing and individual case reports, that IrriSept O.R. has the potential to reduce the overall rate of SSIs.

<sup>1</sup> Weigelt, J.A., Lipsky, B.A., Tabak, Y.P., et al. (2010). Surgical site infections: Causative pathogens and associated outcomes. *Am J Infect Control*. 38:112-120.

<sup>2</sup> American Health Quality Association (2005). "56 hospitals collaborate to prevent surgical infection: QIO-led program cuts infection rate 27% in a year."

<sup>3</sup> Anderson, D.J., Kaye, K.S., Chen, L.F., et al. (2009). Clinical and financial outcomes due to methicillin resistant *Staphylococcus aureus* surgical site infection: A multi-center matched outcome study. *Plos ONE*. 4(12): 1-7.

<sup>4</sup> Laboratory Testing Records per USP <51>, Antimicrobial Effectiveness Testing, on file at IrriMax Corporation.

<sup>5</sup> Laboratory Testing Records, "Chlorhexidine Gluconate (CHG) Bacterial Study Report," on file at IrriMax Corporation.