



## Financial Impact of EZ-IO® on EMS

Cost is a large challenge for any Emergency Medical Service (EMS) considering the purchase of new equipment.<sup>1</sup> With rising fuel costs, increased payrolls and diminishing funding sources, a responsible manager must evaluate every purchase to measure the short and long-term financial impact it will have on the operation and balance this with the clinical benefits of the product.

### Cost of EZ-IO

By dividing the operation's total medical supplies cost by the number of transports completed in the same period, the manager creates a valuable metric to use when making these decisions.

To aid the EMS manager considering the purchase of the EZ-IO system, Vidacare® has created three examples to illustrate the potential cost of normal use of the product:

**EXAMPLE 1:** In this example, we evaluate the impact on a 12,000 transport-per-year system that is using five units to provide 840 unit hours per week (0.27 unit hour utilization, UHU). We projected the use of one needle per driver per month, a frequency common with progressive services. This equates to five uses per month, which is less than the approximate number of cardiac arrests that a system this size would statistically expect. The impact to the expense line is \$0.48 per transport.

|   |          |
|---|----------|
| Transport                               | 12,000   |
| Number of Units                         | 5        |
| Average UHU                             | 0.27     |
| Med Supplies/transport pre EZ-IO        | \$ 14.00 |
| Critical Calls                          | 35       |
| Cardiac Arrests <sup>2</sup>            | 22       |
| Utilization (needles/unit/month)        | 1        |
| EZ-IO Cost/trans (at above utilization) | \$ 0.48  |
| Pacing/Defib Pad Costs/trans            | \$ 0.70  |

**EXAMPLE 2:** Applying the same logic to a larger system (90,000 transports, 0.29 UHU), we can see that at one needle per driver per month the impact is \$0.46 per transport.

By way of comparison, if an agency routinely applies pacing/defibrillator pads to critical patients the financial impact is about \$0.70 per transport.

|   |          |
|---|----------|
| Transport                               | 90,000   |
| Number of Units                         | 35       |
| Average UHU                             | 0.29     |
| Med Supplies/transport pre EZ-IO        | \$ 14.00 |
| Critical Calls                          | 263      |
| Cardiac Arrests <sup>2</sup>            | 165      |
| Utilization (needles/unit/month)        | 1        |
| EZ-IO Cost/trans (at above utilization) | \$ 0.46  |
| Pacing/Defib Pad Costs/trans            | \$ 0.70  |

**EXAMPLE 3:** By applying this metric to a mid-sized system (30,000 transports, 0.17 UHU) the impact of one needle per driver per month is \$0.77 per transport. The difference here is there are more units proportionately than the other models (0.17 UHU versus 0.29 and 0.27); thus, simulating more usage than the other models.

Cost control is an important responsibility of every EMS manager; however, evaluation of the cost of the EZ-IO System and its benefits to patient care demonstrates it is an investment worth making.

|   |          |
|---|----------|
| Transport                               | 30,000   |
| Number of Units                         | 20       |
| Average UHU                             | 0.17     |
| Med Supplies/transport pre EZ-IO        | \$ 14.00 |
| Critical Calls                          | 88       |
| Cardiac Arrests <sup>2</sup>            | 55       |
| Utilization (needles/unit/month)        | 1        |
| EZ-IO Cost/trans (at above utilization) | \$ 0.77  |
| Pacing/Defib Pad Costs/trans            | \$ 0.70  |

### References

1. Overton, J. (2004, June 10). EMS Financing and Reimbursement. The Future of Emergency Care in the U.S. Health System-Subcommittee on Prehospital EMS- Meeting #1, Washington, D.C.
2. Maio, Ron (2004, June 10). Overview of Current EMS Research. The Future of Emergency Care in the U.S. Health System-Subcommittee on Prehospital EMS- Meeting #1, Washington, D.C.