

Baxter

*There's a place for risk,
but it isn't at the bedside.*

**TAKES RISKS
ON MOUNTAINS.
NOT ON INFUSION PUMPS.**

Sigma Spectrum Infusion System

Every infusion counts



PROTECT TITRATED INFUSIONS

Titration errors during high-risk infusions pose a significant threat to patient safety.⁵ **Just 20 high-alert drugs are associated with an estimated 80% of all medication error–related deaths.**⁶

Recent data has shown that an average of 91% of infusion pump programming actions with high-alert drugs were related to titrations.^{1*} Auto-programming systems apply only to the initial programming of an infusion; subsequent titrations must be programmed manually, leaving them vulnerable to error.¹

Sigma Spectrum Infusion System is the only smart pump with a built-in Dose/Rate Change Error Prevention feature to help clinicians protect high-risk infusions.⁷

- All smart pumps have the traditional upper- and lower-dose limits in the drug library, but only **Sigma Spectrum** intercepts the excessive incremental dose/rate changes⁷
- Single Step Dose/Rate Change (Titration) Alert allows the hospital to define the percentage dose change limit for individual drugs, a feature that is available only on the **Sigma Spectrum** Infusion System⁷



65%

of alerts during titration programming notified clinicians of potential programming errors^{1*}

- Recent data showed **Sigma Spectrum Dose/Rate Change Alert feature accounted for 65% of alerts during titration programming**, notifying the clinician of potential programming errors in which the magnitude of a dose change exceeded the allowable limit^{1*}

* Titration high alert medications. Infusions reported October 2014 - July 2015, 6 months per facility, across 45 facilities.

ACHIEVE HIGH DRUG LIBRARY COMPLIANCE

The drug library is the defining feature of a smart pump, identifying potentially harmful infusion medication errors.⁸ Constant high drug library compliance means that the pump is consistently sending alerts to clinicians to help protect against infusion programming errors.⁸



97%

overall average
drug library
compliance
within 1 month



Sigma Spectrum Infusion System customers have achieved an overall average of **97% drug library compliance within 1 month** of implementation.²

The **Sigma Spectrum** intuitive infusion pump design drives drug library compliance from the start:

- **Sigma Spectrum** automatically defaults to the drug library at power-on⁷
- Continuous quality improvement (CQI) analysis and pump data management capabilities are designed to help ensure the **Sigma Spectrum** drug library supports clinical practice⁷
- **Sigma Spectrum** wirelessly updates the fleet's drug library, ensuring that programming is based on the most up-to-date drug information**

The **Sigma Spectrum** Infusion Pump with Master Drug Library is intended to be used for the controlled administration of fluids. These may include pharmaceutical drugs, blood, blood products and mixtures of required patient therapy. The intended routes of administration consist of the following clinically accepted routes: intravenous, arterial, subcutaneous, epidural or irrigation of fluid space.

** Battery capacity must be greater than 25% when pump is off and not connected to AC power.

EXPECT A HIGH STANDARD OF WORKFLOW EFFICIENCY

Sigma Spectrum Infusion System is designed to deliver efficiency improvements and standard set technology cost savings, factors that may increase clinician satisfaction.

- Standard set technology can yield up to **53% cost savings in IV tubing sets** and up to **30% reduction in IV tubing usage**, and it may reduce the number of setups and teardowns, which can decrease the risk of touch contamination^{9*}

Standard set technology has saved

up to

53%

cost savings in IV tubing sets*



up to

30%

reduction in IV tubing usage



- Efficient, wireless drug library updates with no pump intervention or staff interaction needed, regardless of power mode or infusion status**
- Auto-documentation of infusion history can save nurses time spent on documentation so their focus can be on patient care¹⁰
- **Sigma Spectrum** is the only smart pump with built-in, tagless asset tracking designed to save time and labor costs locating pumps⁷

A human factors simulated-use validation study revealed a **99.1%** overall success rate across all user groups with a 100% task success rate for all primary infusions³

- 100% of the participants stated that they could use the **Sigma Spectrum** Infusion Pump safely and effectively on a daily basis³



99.1%

overall human factors success rate

The **Sigma Spectrum** Infusion Pump is intended to be used in conjunction with legally marketed and compatible intravenous administration sets.

* Data on file. Data provided by three facilities. Baxter makes no guarantee of cost savings

** Battery capacity must be greater than 25% when pump is off and not connected to AC power.

Every infusion counts



THE NUMBERS BEHIND SIGMA SPECTRUM INFUSION SYSTEM



ACHIEVE HIGH DRUG LIBRARY COMPLIANCE

Sigma Spectrum Infusion System customers have achieved an overall average of 97% drug library compliance within 1 month of implementation.²



COUNT ON THE BAXTER COMMITMENT

Delivering quality, expertise, and support to infusion therapy innovation for more than 80 years.⁴



PROTECT TITRATED INFUSIONS

Recent data showed **Sigma Spectrum** Infusion System Dose/Rate Change Alert feature accounted for 65% of alerts during titration programming.¹



EXPECT A HIGH STANDARD OF USABILITY

A human factors simulated-use validation study with **Sigma Spectrum** Infusion System revealed a 99.1% overall success rate across all user groups.³



Every infusion counts

COUNT ON THE BAXTER COMMITMENT

Since 1931, Baxter products have helped people around the world in critical moments of care, when it matters most.⁴ Annually, our Baxter **parenteral products represent more than 1.4 billion infusions delivered worldwide.**^{11*}

Baxter innovation pioneered in the development of safe and efficient infusion therapy products.⁴ From the first commercially prepared IV solutions to the first flexible plastic IV container to the first needleless IV access system, Baxter has been **delivering quality, expertise, and support to infusion therapy innovation for more than 80 years.**⁴



*For the years 2014-2015.

To learn more about the **Sigma Spectrum Infusion System**, visit sigmapumps.com or contact your local representative.

1. Data on file, Baxter Healthcare Corporation. Titration retrospective data, high-alert medications. Infusions reported Oct. 2014-July 2015, 6 months per facility, across 45 facilities. 2. Data on file, Baxter Healthcare Corporation. DERS new implementation compliance data 2015. 3. Interface Analysis Associates. Baxter infusion pump human factors validation study report. 2013. 4. Baxter Corporate Communications. Baxter history. website. <http://www.baxter.com/index.page>. Accessed November 16, 2015. 5. Rothschild, Keohane, Cook, others. A Controlled Trial of Smart Infusion Pumps to Improve Medication Safety in Critically Ill Patients. *Critical Care Medicine*. 2005, Volume 33, number 3. re-published November 2010. 6. Dennison RD. High-alert drugs: strategies for safe I.V. infusions. *Am Nurs Today*. 2006;1(2). <http://www.americannursetoday.com/article.aspx?id=5134>. Accessed July 2015. 7. ECRI Institute. ECRI LVP Smart Pump 2015 Review. 8. Hoh T, Beer I, Krueger P. Ensuring optimal smart pump use through augmented user interface. *Horizons*. Fall 2015. 9. Data on file, Baxter Healthcare Corporation. Total cost of ownership--standard set technology inventory and cost reduction data 2011-2013. 10. Hendrich A, Chow MP, Skierczynski BA, Lu Z. A 36-hospital time and motion study: How do medical-surgical nurses spend their time? *The Permanente Journal*. 2008;12(3):25-34. 11. Data on file, Baxter Healthcare Corporation, Finance. Yearly Worldwide Infusions. 2014.

Please refer to manufacturer's Package Insert for drug products mentioned herein for Full Prescribing Information. **Rx Only.** For the safe and proper use of this device, refer to the appropriate operator's manuals.

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