

**NEW!**

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bringing technology to life

# PharmGuard® Server Infusion Management Software



**Continuous quality improvement through  
evidence-based information management**

*Infusing Confidence  
with every medication delivered*

**medfusion**<sup>TM</sup>

# PharmGuard® Server Infusion Management Software

Promotes continuous quality improvement (CQI) of infusion therapy by capturing and managing infusion data

- ✓ Designed for pharmacy, nursing, biomedical engineering, medication safety officer and medical administrators
- ✓ Securely distributes pump software updates (firmware) and drug libraries to devices connected to the PharmGuard® server software
- ✓ Provides hospital staff the reporting tools to analyze trends, compare against compliance goals, and measure infusion safety to make evidence-based practice decisions

The PharmGuard® server software consists of several components:

**Device Reports:** Reporting tool to measure infusion therapy and make evidence-based practice decisions

**Medical Device Server (MDS):** Data capture software to communicate with your fleet of devices

**PharmGuard® server software databases:** Data repository for device reporting

**PharmGuard® server software web portal:** User website accessible from any computer in your network with proper credentials.

## Device Reports

PharmGuard® server software device reports are categorized by six report types:

### Drug Program Compliance Reports

Track the use of the PharmGuard® medication safety software (drug program library) versus generic, manual programming for confirmation that pharmacy dosing and administrative guidelines are being enforced and patient safety measures are being tracked

### Safety Event Reports

Track soft limit overrides and reprograms, hard limit override attempts and abandons to confirm accurate safety limits are in place to help reduce medication errors

### Drug Program Utilization Reports

Analyze drug program utilization within drug libraries and each profile

### Device Event Reports

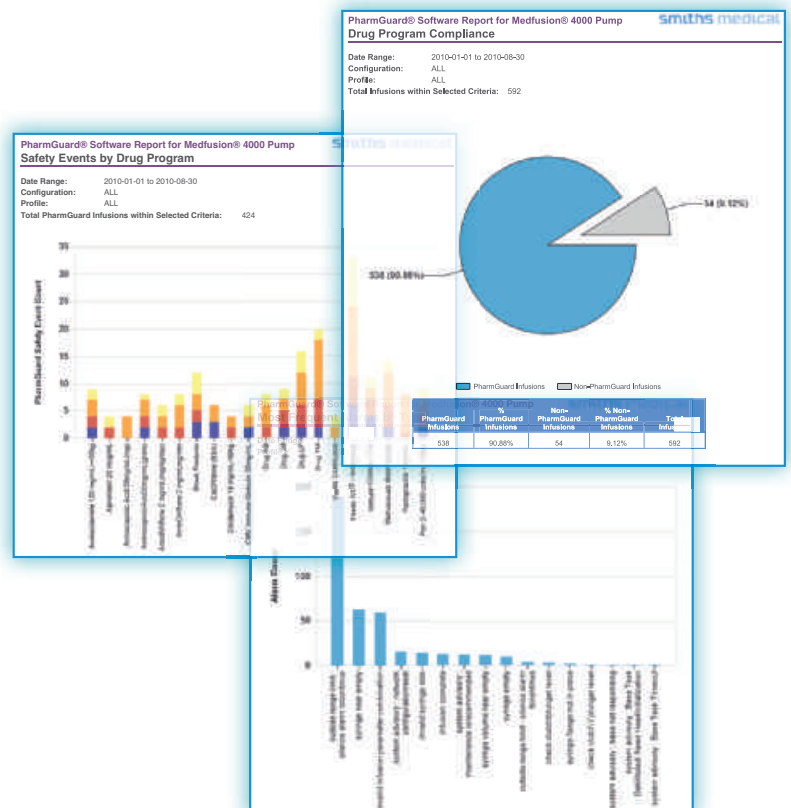
Capture the event history so clinicians can trace infusions, clinical events and medication errors that were averted

### Alarm Event Reports

Help determine how quickly alarms are addressed, identify if safety limits need adjusting, or if a pump needs to be serviced

### Clinical Engineering Reports

Assist in tracking pump location and status to identify preventative maintenance or connectivity issues and confirm firmware library compliance



# Solutions for Your Entire Infusion Management Team



## Pharmacy Management

- Track enforcement of pharmacy dosing guidelines
- Review actual drug usage, and determine medication safety by reviewing dosing overrides by drug program
- Establish smart pump investment usage and peace of mind knowing safety limits are in place to help reduce medication errors

## Nursing Management

- Track and analyze data at the unit level to promote compliance with the use of smart pumps and usage of PharmGuard® medication safety software (DERS software)
- Improve clinical practice by monitoring generic, non PharmGuard® software infusions and tracking dosing overrides, alerts, and drug program abandons
- Spot trends and act upon the data to help prevent medication safety errors
- Measure how quickly nurses are responding to alarms and if alarm fatigue is occurring

## Biomedical Engineering Management

- Access the preventative maintenance schedule and any pumps that are coming due for maintenance
- Track battery status, location and detailed usage history of all pumps
- Monitor fleet of pumps for any faults and identify any maintenance required
- Track pump location

## Medication Safety Management

- Track and analyze drug programs that are prone to excessive dosing limits
- Investigate the events that led up to near-misses or safety events, and those events that occurred immediately afterward
- Report near-misses caught by the PharmGuard® medication safety software, and review with medication safety committee

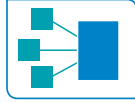
Evidence-based reporting to help make more informed clinical practice decisions

# PharmGuard® Server Software Specifications

## Server Configurations

PharmGuard® server software components can be configured on a single or a multi-tier server configuration based on your hospital needs and server architecture.

### Single Server



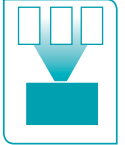
With the single server configuration, all PharmGuard® server software components are installed on one server to provide simplicity of installation, configuration and administration. A single connection point is provided to all devices by one medical device server with PharmGuard® server software.

### Multi-Server



The multi-server option provides increased flexibility, scalability, and performance distributing PharmGuard® server software components over separate physical or virtual servers on your network.

### Virtual Server



Both configuration options can be installed in a virtual server environment to save on hardware and software acquisition costs. The virtual environment can be either a Microsoft® Server 2008 Hyper-V® or VMWare® ESX 4.X or higher environment.

## Technology Support

### Device Network

- Wired Ethernet or wireless 802.11 b/g
- WPA (TKIP) / WPA2 (AES/CCMP) Personal (PSK) & Enterprise (EAP: TLS, TTLS, PEAP-MSCHAPv2, GTC, LEAP)
- Dynamic or Static IP address support
- NTP time synchronization

### Clients (PharmGuard® Server Software Web Portal)

- Windows® operating system with Microsoft® Internet Explorer® v8.0 or higher

### PharmGuard® Server Software

- Install on hospital-selected vendor-independent hardware
- Microsoft® Windows Server® 2008/2008 R2 (native or virtualized)
- Microsoft® SQL Server® 2008/2008 R2 Standard or Enterprise edition
- Microsoft® Internet Information Server (IIS)
- Requires Microsoft®.NET Framework v3.5
- Supports VMWare® ESX 4.X, and Microsoft® Windows Server® 2008 Hyper-V®
- Transactions: XML/SOAP via secure sockets using SSL

## Minimum System Requirements

### Single Server Configuration

Hardware:	Software:
<b>Combined web, database, and medical device application server with:</b> <ul style="list-style-type: none"> <li>• One (1) 4 Core Intel® Xeon® class 2.4 GHz or greater processor (virtual server = 4 processors)</li> <li>• 16GB of RAM or better</li> <li>• 146GB+ HDD or better for operating system and application</li> <li>• 450GB+ for device event data storage</li> </ul>	<ul style="list-style-type: none"> <li>• Microsoft® Windows Server® 2008/2008 R2</li> <li>• Microsoft® Internet Information Server (IIS)</li> <li>• Microsoft® SQL Server® 2008/2008 R2</li> <li>• Microsoft®.NET Framework v3.5</li> </ul>

### Multi-Server Configuration

Hardware:	Software:
<b>Separate database server with:</b> <ul style="list-style-type: none"> <li>• One (1) 4 Core Intel® Xeon® class 2.4 GHz or greater processor (virtual server = 4 processors)</li> <li>• 16 GB RAM or better</li> <li>• 450GB+ HDD or larger for data storage (minimum)</li> </ul>	<ul style="list-style-type: none"> <li>• Microsoft® SQL Server® 2008/2008 R2</li> <li>• Microsoft®.NET Framework v3.5</li> </ul>
<b>Separate web server with:</b> <ul style="list-style-type: none"> <li>• One (1) 2 Core Intel® Xeon® class 2.4GHz or greater processor (virtual server = 2 processors)</li> <li>• 4 GB RAM or better</li> <li>• 146GB+ HDD or larger for web server</li> </ul>	<ul style="list-style-type: none"> <li>• Microsoft® Windows Server® 2008/2008 R2</li> <li>• Microsoft® Internet Information Server (IIS)</li> <li>• Microsoft®.NET Framework v3.5</li> </ul>
<b>Separate medical device application server (MDS) with:</b> <ul style="list-style-type: none"> <li>• One (1) 2 Core Intel® Xeon® class 2.4GHz or greater processor (virtual server = 2 processors)</li> <li>• 4 GB RAM or better</li> <li>• 146GB+ HDD or larger for medical device application server</li> </ul>	<ul style="list-style-type: none"> <li>• Microsoft® Windows Server® 2008/2008 R2</li> <li>• Microsoft®.NET Framework v3.5</li> </ul>



SureLink™ software from Smiths Medical provides remote support for PharmGuard® server software

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