

With the help of Greencastle, Main Line Health System uses a smart approach to Smart Pump implementation

Offering a full complement of medical, surgical, obstetric, pediatric, psychiatric, and emergency services, Main Line Health System is one of the most comprehensive healthcare resources in suburban Philadelphia. The system includes the premier facilities and healthcare professionals of Lankenau, Bryn Mawr, and Paoli Hospitals, as well as Bryn Mawr Rehabilitative Hospital.

For Main Line Health System, the overriding goal is “keeping our communities healthy.” To that end, the system invests in new technologies and processes to improve patient care and safety. A recent example: Smart Pumps designed to help ensure IV infusion flow rates and dosages are programmed within safe, acceptable ranges.

Recognizing that technology alone doesn’t reduce errors or enhance safety, Main Line Health System administrators posed two challenges for the Smart Pump implementation:

- To establish a single, standardized set of infusion parameters and practices across the entire health system and
- To address all of the associated change management issues—ensuring high rates of staff compliance and, ultimately, measurable results.

To ensure that the new Smart Pumps would effect real change, hospital administrators enlisted GreencastleAssociates Consulting to coordinate the implementation.

Getting it ‘Right’

As the implementation coordinator, Greencastle managed all of the process improvements, organizational changes, and project work. That included coordinating activities across every impacted area of the health system and its hospitals— as well as managing the Smart Pump vendor.

To support this critical project, Greencastle Associates used a proprietary best practices model called The 5 Rights of Implementation. Following that model, Greencastle promptly established a project management office (PMO) to integrate work efforts, issues, and communications at the project and enterprise levels.

Greencastle’s PMO helped to ensure the Right Focus, Team, Energy, Workflow, and Impact. Specifically, Greencastle built the Right Team and Right Focus by establishing accountability and ownership through the project reporting and work team structures. They ensured the Right Workflow by identifying and bridging the gaps between clinical policy and practice— as well as adjusting processes to obtain the full safety and economic benefits of the technology. They also conducted “lessons learned” sessions after each rollout—allowing for ongoing improvements to the project and device application.

To ensure the Right Energy and the Right Impact, Greencastle successfully tackled the change management and communications requirements. The PMO maintained clear, frequent, multi-vehicle communications that engaged all stakeholders. Greencastle also executed targeted communication and change management efforts. Among the nurses, they nurtured project “evangelists” who built enthusiasm for the tool with their peers. They worked with key physician groups to ensure their buy-in and compliance with the new technology. And, last but not least, Greencastle created a structure and venues for the participation of senior leaders at Main Line Health System.

Delivering Results

By leveraging the 5 Rights of Implementation model and years of experience managing large, complex projects, Greencastle facilitated an on-time roll-out of Smart Pumps at all Main Line Health System campuses. And they did it without interfering with the delivery of patient care. Indeed, the new Smart Pumps have already delivered some enviable results for Main Line Health System:

Thanks to an effective module management process, the system has been able to eliminate \$343,000 in pump rental costs.

Main Line Health System estimates annual cost savings of more than \$5.1 million associated with preventable infusion errors.

- All IV infusion practices were improved, and nearly 90% of staff members were trained on the updated policies and procedures before the “Go Live” date.
- Employees continue to embrace this new technology; more than 90% of all infusions use the Smart Pump safety guard rails.
- Greencastle helped slash “non-productive” clinician time budgeted for the implementation by \$124,000.
- Main Line Health System was able to apply usage data within two weeks of the first hospital’s “Go Live” date.

With Greencastle’s help, the Smart Pump team was able to address the challenges in the areas of standardization and change management. In fact, executives at Main Line Health System now tout the Smart Pump project as the The 5 Rights of Implementation “gold standard” for implementation of clinical technologies.

The 5 Rights of Implementation

The 5 Rights of Implementation is Greencastle’s best practices model. Using this model, Greencastle helps to ensure that projects are efficient and effective—and that they deliver the intended benefits. Components include:

Right Focus. Greencastle helps key stakeholders to focus all actions on the decisive points of the project. That includes properly organizing the project and then directing planned and actual project activity toward achievement of the goals.

Right Team. Any large initiative involves many stakeholders who are affected by and involved in the project. But, to be successful, the project team must include the right combination of people to identify the best alternatives and complete the work. Greencastle helps assess team members’ capabilities and aligns them for maximum effectiveness.

Right Energy. Creating innovative solutions and driving them to completion requires strong sponsorship and an enthusiastic team. Greencastle provides the framework and tools to help maintain the message and momentum—from project start to finish.

Right Workflow. In any large project, changes are inevitable. Greencastle helps ensure that such changes ultimately improve—not impede—the progress of the project.

Right Impact. To engage stakeholders, Greencastle helps develop and implement change management and communication plans. Through well-timed, coordinated training, users are more likely to feel capable and comfortable with new processes and technologies. In addition, after a “Go Live” date,

Greencastle managed workgroup deliverables to:

- Create a standardized drug library and configuration for use with the Smart Pump and develop a process to investigate, approve, and roll out future changes to the library
- Identify and implement changes to the current policies, procedures, and processes—and ensure that staff were trained
- Develop the quality improvement processes to collect, analyze, and report pump usage data
- Convert to new disposables and sets for maximum compatibility with the new pumps
- Perform a failure mode effect and analysis (FMEA) on the new device
- Swap out all infusion, syringe, PCA pump devices, and IV poles at each hospital
- Develop a module management process to ensure the availability of clean pumps while minimizing the need for rentals and reducing the risk of infections
- Identify future applications for the new pump



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