The Plum A+® for Inpatient Oncology: A Clinical Perspective

An interview with Leslie Pollart, Director, Oncology Clinical Services
Bethesda Hospital, Boynton Beach, FL

This Clinical Perspective is underwritten by Hospira.
Leslie Pollart's comments were taken from an interview conducted by representatives of Hospira.
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Bethesda Memorial Hospital

Bethesda Memorial Hospital provides high-quality, personalized patient care to the residents of South Palm Beach County. Bethesda Memorial Hospital, Bethesda Health City, and other Bethesda affiliates are all part of the Bethesda Healthcare System.

Introduction

Bethesda Hospital, a 164-census-bed facility in Boynton Beach, Florida, recently converted 17 of its basic Plum® pumps to Plum A+ devices in units with specialized clinical needs. According to Leslie Pollart, Director of the hospital's 25-bed oncology unit, "the whole hospital uses Hospira I.V. pumps, and our goal in upgrading our pumps in oncology was to stick with Hospira because we've been extremely pleased over the years with their products and their people."

Pollart's staff enthusiastically favors the Plum A+ device because of its advanced clinical capabilities, accuracy, and user-friendly, time-saving features. Features important to oncology clinicians include electronic drug labeling, the volume entry via the keypad, delivery of two drugs simultaneously via one pump, and the lightweight, compact size of the Plum A+. Pollart speaks positively about the dedication of her Hospira sales representative throughout the process of selecting and implementing the Plum A+ devices. Bethesda is currently evaluating a housewide conversion to Clave® sets. The oncology unit is one of the evaluation sites, and Pollart reports that her staff is extremely pleased to be using the Plum A+ pumps with Clave sets.

Electronic Drug Labeling

To Pollart, Electronic Drug Labeling is one of the most important features of the Plum A+. "We give a lot of chemotherapeutics and other medications, often two continuous therapeutics at once," she says. "Using the bar code wand and the drug library booklet, the user can electronically label the drug or drugs being infused. The screen on the pump tells you exactly what substance is infusing on line A or B. Our patients have to travel throughout the building for various tests, and the labeling allows everyone who interacts with the patient to be able to look at the pump screen and know exactly what's infusing, ensuring greater patient safety."

Dose Calculations

Bethesda's oncology unit has monitoring capabilities. Some patients are on medications that are titrated according to weight, such as dopamine. According to Pollart, "The Dose Calculation feature on the Plum A+ allows us to enter certain data about the patient and the medication using a calculator key pad. Hourly rate is then calculated for the user, so the Plum A+ really makes it convenient—it acts almost like a calculator for the nurse. It's another safety feature that I think is very user-friendly."

Concurrent Flow Feature

Using the Concurrent Flow feature of the Plum A+, two compatible drugs can be infused continuously at the same time. "That has also been very helpful for the nurses," says Pollart, "especially with many of our chemotherapeutic infusions. We often give two drugs that are compatible simultaneously such as cisplatinol and 5FU. In the past we would have to stack two pumps on a pole, minimizing the patient's mobility, autonomy, and sense of control." She also feels the use of one pump gives the patient a psychological boost that is therapeutically beneficial. "The more pumps that are stacked up on the pole, the sicker they envision themselves to be. When they see just one pump, patients notice—it makes a difference to them," she says.

Delay Start Programming

The Plum A+ offers a number of time-saving features, including Delay Start Programming. For example, a clinician on rounds can spike a piggyback medication at 6:00 p.m. that may not be due to infuse until 8:00 p.m. "That's been really helpful," says Pollart, "especially on the night shift when a medication ordered for 2:00 a.m. can interfere with a patient's rest."

Plum A+® and Clave® Sets

Subsequent to the conversion, Bethesda Hospital began to consider a housewide conversion to the Clave needleless system. Currently Pollart's oncology unit is one of the trial sites for the Clave evaluation. "Many on the staff are extremely pleased with it," she says, emphasizing that the Clave is superior because it does not require the use of a needle at all. "It has a luer-lock adapter tip, so the clinician can draw up the medication as if she were giving a push or a flush and literally just screw the syringe on to the Clave ports. You don't need to add any additional equipment to the end of the hub of the syringe in order to be needle-free."

Increasing compliance is another key benefit of the design of the Clave. In Pollart's words, "the more user-friendly the system is, the more likely the staff will be compliant. In fact, the Clave is designed to guarantee compliance by the clinician—because you can't stick a needle in the diaphragm." She points out that nurses were only about 33 to 40 percent compliant with her facility's previous needle-free system.

She also suggests that the hospital could save costs while increasing compliance. "We worked out a cost analysis and it shows that with our previous system, if compliance was 100 percent, we'd actually be spending more money than with Clave because we would have to buy so many more separate integral pieces. The Clave is just one valve and your syringes don't really need to change as long as they're compatible with the Clave. So if you look behind the numbers it will save us money."

The Conversion Process

During the process of converting from the basic Plum® to the Plum A+, Pollart had to prove to hospital management that patient acuity in oncology and some of the special needs of cancer patients required additional features that the current Plum did not provide. "Unfortunately, oncology grew out of the medical-surgical arena, but we are a bit different than the rest of the hospital," she recalls. "Just as in the intensive care unit setting, we also needed the drug calculation capability and labeling. I think the safety is what sold it to my administration. We often hear about chemotherapy issues and safety concerns across the country and our chemotherapy patient volume is increasing.

"Concurrent flow was another key selling point. Being able to use one pump instead of two freed up more of our basic Plum devices for use in the rest of the hospital."

Implementation

Bethesda's implementation of the Plum A+ pumps was very successful in Pollart's estimation, particularly due to the role of the Hospira sales representative, Jan Pachelbel. "She was available to us almost 24-hours-a-day. Jan conducted in-services as early or late as I needed them, because here we do 12-hour shifts. We also set up the pumps in a room for about two weeks before the actual conversion, just to allow staff to look at them, get familiar with them, and Jan was here to answer their questions. We did pilot them before we purchased them, which I also think helped increase staff buy-in before we converted—it was a team decision."

Summary

In Leslie Pollart's view, "We've been very pleased with the success of our conversion to the Plum A+. Our staff has gotten very familiar with the pumps, they value the time-saving features of the device, and the benefits of increased safety to our patients. We use Hospira all the way."

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