

# Pharmacy Purchasing & Products

March 2007  
Vol. 4 No. 3  
[www.pppmag.com](http://www.pppmag.com)



## Product Spotlight

By Christopher Kutza, PharmD

# Baxa Rapid-Fill Automated Syringe Filler

ADVOCATE LUTHERAN GENERAL HOSPITAL, IN PARK RIDGE, Illinois, is a community teaching hospital registered for 600-plus beds. Our extensive services include a NICU, rehabilitation, and a level one trauma center.

We began using the Baxa Rapid-Fill Automated Syringe Filler in the summer of 2006, in order to increase the efficiency of the staff member who prepares our unit of use syringes, thereby freeing her to perform other tasks of equal importance. Prior to implementing the Rapid-Fill, our technician used a Baxa Repeater Pump to perform a mostly manual process to fill, cap, and label individual syringes. Because we dispense about 600 such syringes a week, this duty accounted for a significant amount – about four to five hours – of her workday. She was devoting half her day to this time- and labor-intensive task, and the Rapid-Fill offered a solution to increasing her productivity, allowing her to focus her attention on other worthwhile tasks.

### How the Rapid-Fill Works

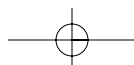
Our Rapid-Fill is stationed in a laminar airflow hood within our cleanroom. To begin the filling process, we load a strip of

syringes into the Rapid-Fill, and then, using the device's onboard computer, we program the number of syringes to be filled, the volume of medication to be drawn into the syringes, and all of the label information for the batch. We then hang, spike, and attach the appropriate bulk bags to the device, using Rapid-Fill-specific tubing.

Once we initiate the fill sequence, the Rapid-Fill draws the syringe strip around a syringe drum, and, one at a time, removes the syringe cap, fills the syringe with the desired ingredients, re-caps the syringe, prints the syringe's label, and cuts the filled, labeled syringe from the strip. Filled syringes are then dropped into a collection bag. Once the process begins, our technician is free to walk away; she only has to be present to reload the syringe strips (if we are preparing a batch of more than 200 syringes) or change the collection bag.

### Quality Assurance

Just as we do with other products prepared in our cleanroom, we perform certain quality assurance measures for the syringes prepared by the Rapid-Fill. On a monthly basis, we perform sterility





## Product Spotlight

tests on a representative sample of filled syringes. We have yet to find compromised sterility in our filled syringes, and furthermore, we base our beyond-use dating for those syringes on the results from the sterility tests. In addition, we perform basic maintenance to ensure the accuracy of the machine, and we clean it regularly, per USP <797>'s requirements.

### Operational Improvements

Since implementing the Rapid-Fill, our technician has been able to complete a four-hour task in roughly a half hour; the device can prepare approximately 100 syringes in just eight minutes. In terms of operational improvements, the amount of saved time is significant. Consequently, our technician is now able to package oral liquids and prepare other batched IVs while the Rapid-Fill prepares syringes. Furthermore, she is able to better plan for her workweek, and pharmacy administration is able to redirect her time to other projects when necessary. We hope to expand our use of the Rapid-Fill to include 1-g and 2-g IV antibi-

Since implementing the **Rapid-Fill**, our technician has been able to complete a four-hour task in roughly a half hour.

otic syringes, totaling 50,000 to 60,000 doses per year.

In addition, our hospital is in the process of evaluating bar coded, unit dose packaging equipment, in an effort to establish the infrastructure necessary to begin bar coded medication administration. The Rapid-Fill is able to apply bar codes to syringes, making it a valuable asset

to that future initiative. And, because the Rapid-Fill frees our syringe-filling technician to perform other tasks, we will be able to apply her efforts to bar coded, unit dose packaging when the time comes. ■

*Currently the pharmacy manager at Advocate Lutheran General Hospital, where he also completed his pharmacy practice residency, Christopher Kutza, PharmD, received his doctorate from the University of Illinois, Chicago. After completing his residency, Kutza worked at Lutheran as a staff pharmacist and, later, as a clinical pharmacist. He assumed his current position in September 2005.*



**For more information, visit  
www.baxa.com  
or call 800-567-BAXA (2292).**