

# Thresholds' Medicine On-Time System: Multi-medication Blister Packs

By **Thresholds, Inc., Chicago, Illinois**

Winner: Chairman's award, 2005 Negley Awards for Excellence in Risk Management

Lola Nakomis, 42, manages schizophrenia at Base House, a Thresholds residential program in Chicago's Northern suburbs. Each day Nakomis must take up to ten different medications (for her mental illness and associated physical illnesses) at different times of the day. Her case manager at the group home supervises while Nakomis self-administers her medicines. Just two years ago, this medication monitoring service involved handling Nakomis' various medications, putting the different pills in a daily pillbox, and watching to make sure that Nakomis takes the right medicines at the proper time. The monitoring process was open to daily human error: Nakomis could take too much medicine if the case manager's handwritten medication file incorrectly logged the dosage. Or, if Nakomis or her case manager was not paying attention, Nakomis could take her pills at the wrong time.

Handling a complex medication regime can be challenging for anyone; but for someone managing serious mental illness, especially someone who may also be dealing with associated physical illnesses that are common to the population (i.e. diabetes, hypertension), it can be even more difficult. Moreover, with the case manager involved in the daily monitoring process, Thresholds was open to much risk and liability if an error was made by a Thresholds employee.

Today, Thresholds' Medicine On-Time System has changed that. Not only has the system simplified the medication regime for members (*not called "patients" at Thresholds*) like Nakomis, but it has also reduced the likelihood of error and minimized the agency's risk in the medication process.

The Medicine On-Time System is a new method of dispensing medicine and organizing the medication regime. A handful of local pharmacies have partnered with Thresholds to execute the one-of-a-kind project. A key pharmacy partner, C & M Pharmacy LLC, along with Thresholds, developed this system by adapting existing blister packing material available to all pharmacists. In late 2000, the partners took what was available and applied it to Thresholds, adding procedures and new ways of enhancing members' interaction with their pharmacist to create an entirely unique system that has been specially applied to people with psychiatric illness for the first time.

With the Medicine On-Time System, medications are no longer distributed to Thresholds members in separate,

traditional dark plastic bottles. Instead, the participating pharmacies pack members' medications in punch-out blister cards (see example included with submission) that can accommodate several pills. Members no longer have to organize different bottles or several blister packs; each Medicine On-Time card accommodates several different pills on each one, and the daily pills are individually blistered by day of the month. In other words, for each day of the month, there is an individual blister for the day's medication. If any of the prescriptions change or if a new medicine is added to the individual's regime, the pharmacy repackages the unused pills and delivers a new blister pack within 24-hours or as soon as they are needed. Medicine On-Time cards are delivered (free-of-charge) to the members each month on a 28-day cycle or as dictated by the needs of the member.

Each card is framed with a specific color, representing when the medicine should be taken (yellow=morning; white=afternoon; orange=evening; blue=bedtime; red=orders with a stop date, such as antibiotics; and green "as needed"). Additionally, each card is not only labeled with the member's name, drug name, and the other usual markings, but the Thresholds pharmacy also indicates side effects, drug interaction information, and a description of what each pill looks like on every card. And, for the convenience of the member, drug information is printed on each individual blister, which can be easily detached with perforations for "on-the-go" times, like vacations and while on a job. Having this information on each card (and each blister) assures that the dosing instructions are always handy and both the member and the case manager can review the relevant information whenever necessary.

About 650 people, representing most of the members in Thresholds' supervised residential program, utilize the Medication On-Time System. Nearly all of them report that the Medicine On-Time System is easy to understand and improves the medication regime, thus improving medication adherence. Most important, however, the system minimizes human error, thus minimizing liability risk for Thresholds. Case managers no longer have to transcribe what drugs a member is taking into a medication log to help keep track of them. Instead, the burden is with the Medicine On-Time pharmacy to organize and disseminate the information. While the case manager must still review each card to make sure it is correct, the Medicine On-Time system takes the case manager out of

the “equation.” The Medicine On-Time System directly links the member with the pharmacy. Participating pharmacies produce Medication Administration Records (MARs) for the members and staffers, which include the medicines that are taken, the prescribing physicians, and pass times. The MAR is delivered whenever the medication cards are sent to the members. It is also delivered to the Thresholds Medical Director and each prescribing physician via fax so each care provider has full, relevant information at hand at all times.

By packing the medicines together on one card, it eliminates the need for multiple bottles. Thus, errors are further minimized by simplifying the medication regime. It is also worth noting that because the Medicine On-Time cards are re-done when there are changes to the medication regime, the pharmacy will get back unused medication. This prevents “old” medicines from confusing the new medication regime. It also eliminates the chance that “old” pills will be kept, eliminating potential abuse of use by others and preventing stockpiling of potentially dangerous medicines.

As you see, Medicine On-Time minimizes error on several levels, even at the dispensing pharmacy. The complex packaging has encouraged the pharmacy to develop its own system to assure the accuracy of its drug dispensing. The process of entering medication orders, as well as filling and dispensing within the pharmacy is based on a triple check system. Orders are entered into a database by a pharmacist or technician, then they are checked by a different pharmacist. The filling process begins with a senior technician pulling the medication bottles from supply, selecting the appropriate medication and its strength. A second technician then checks to make sure the right bottles were pulled and fills the orders into the Medicine On-Time cards. Finally, another pharmacist checks the final units before they are delivered to Thresholds.

The medicines are delivered to members’ homes by the pharmacies. This service is not only convenient, but again, it simplifies the process and minimizes liability by taking the case manager further away from managing the medication regime. Instead of picking up medicines for members who are home-bound, keeping track of what needs to be refilled and when, and making sure the medications are in the hands of the members who need them, the Thresholds staffers can now rely upon the Medication On-Time pharmacies. Again, a greater burden is placed with the pharmacy, rather than with Thresholds.

The Medicine On-Time pharmacies have taken on much greater responsibility than what is normally expected.

The average consumer has little face time with their pharmacist and few pharmacies take such individualized, specialized care of their clientele. The Medicine On-Time pharmacies, starting with our first partner, C & M Pharmacy LLC, demonstrate a compassionate, new model of care for this population.

Aside from the actual medication distribution system, Medicine On-Time has an educational component that further shows the pharmacies’ commitment to compassionate care. Participating Medicine On-Time pharmacies make frequent visits to Thresholds residential programs. The pharmacists meet the members and spend personal time introducing the medication system. They also make themselves available to answer questions and help members understand their medicines. This high level of care has helped to enhance medication adherence and minimized errors in the system when everyone has a clear understanding of what’s happening.

The Medicine On-Time system has been so successful, all Thresholds members who need supervision of the self-administration of medication now utilize it. This success has been noted by Thresholds’ Risk Management department, which has seen some decrease in medication errors. A sample of 17 residential programs showed that prior to system implementation in 2003, those residences incurred 22 medication errors in a year’s time. A year later, in 2004, those 17 programs only had 11 errors, a significant reduction.

Furthermore, there has been near universal support, gleaned from anecdotal evidence. The Clinical Coordinator of Thresholds programs in McHenry, Illinois, Bob Helfand, says that working with the Medication On-Time System “has been a dream. We started with just six of our members on the system, and we now have all 30 of them using it. Despite being more than 35 miles away, the [Medication On-Time] pharmacy has fast turnaround times, our main concern.” Prior to the new system, Helfand said they had big problems with their local pharmacy that would not coordinate with the psychiatrists. “The Meds On-Time pharmacy is proactive. They work with the docs. It’s taken things out of our hands, thankfully.”

Other clinicians at Thresholds echo Helfand’s praises. The South Suburban Housing Team Leader Lashondra Pointer said her members now prefer the new system. She cites individual stories at her group home: “We have one member with Parkinson’s. Shaking so much, the new packing is so much easier for her. Her roommate loves it too. She often forgets the names of her medications, and with Meds On-Time, the information is printed on each blister.”

The Medicine On-Time System can be replicated by other organizations like Thresholds. The key is finding partnering pharmacies who can work with the agency to develop appropriate dispensing and administrative procedures for the population. Thresholds has found that larger pharmacies, like Walgreen's here in Chicago, operate on economies of scale that make it difficult for them to adapt their dispensing system to the needs of one psychiatric care agency. Because Thresholds' partner C & M Pharmacy LLC is a local neighborhood firm, its small size allows some flexibility. C & M Pharmacy LLC is able to adapt its existing system to Thresholds' needs and they have been able to work collaboratively in developing a individualized system that ideally fits the agency's particular concerns.

On the pharmacy's side, the Medication On-Time System can seem burdensome. Indeed, crafting a system to the particular needs of one agency can be time consuming. However, Thresholds is a big place and the large number of members served at the agency makes it worthwhile for the pharmacy partners. Smaller agencies may want to consider joining together to develop a similar medication dispensing system.

Thresholds did not have to make a monetary investment to execute this project. Rather, the Medication On-Time System was established by developing close relations with pharmacy partners. In a competitive market environment, the pharmacies that Thresholds uses were eager to develop closer relations. Thresholds' Medication On-Time System is being developed formally as a Best Practice of Thresholds. ❖

### **About the Organization:**

*Thresholds, one of the nation's largest psychiatric rehabilitation centers, creates the opportunity for people with mental illness to live with dignity and independence. Thresholds provides a comprehensive program of psychiatric care, educational development, housing, and vocational training and placement to meet its holistic approach to treatment. The agency annually serves more than 5,000 people with severe and persistent mental illness in Chicago and the neighboring Northern Suburbs.*

*Founded in 1959 as a small, volunteer led social program, Thresholds has since expanded to meet the comprehensive needs of its membership. The agency now manages more than 30 program locations and 75 housing developments in the Chicagoland area.*

*Thresholds is recognized for excellence by the American Psychiatric Association and the U.S. Department of Labor. More than 40 agencies nationwide have specifically based their programs on the Thresholds model of rehabilitation. Hundreds of others (in the U.S. and abroad) have reviewed its programs and adopted parts of them.*