

## Unique Considerations for Specialized Patient Populations for Pharmacies Utilizing Appointment-Based Care Models: Part 2

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[Part 1](#) of this two-part article provided an overview of the appointment-based model (ABM) for community pharmacies and described

how the model increases operational efficiency, freeing up resources for pharmacy staff to perform numerous clinical services. Also discussed were ways in which the ABM can reveal non-adherence in patients, and few specialized populations for whom pharmacists may be situated to help overcome unique challenges in appropriate medication use.

There is a reasonable body of research around many of the diverse causes for medication non-adherence. There is much less data around the effectiveness of various interventions. Lastly, there is even less research on determining which segments of the patient population are most receptive to interventions and therefore more likely to change behaviors to yield a positive outcome. This is an exciting new area to explore in that busy community pharmacies must focus their efforts on patients for whom they can yield the greatest positive impact, improving quality and maximizing their return on resource investment.

Previous research in medication non-adherence demonstrated that patients who were new to a chronic therapy medication class, across several different chronic conditions, were more likely to discontinue their medication than patients who had prior experience to that same chronic medication class.

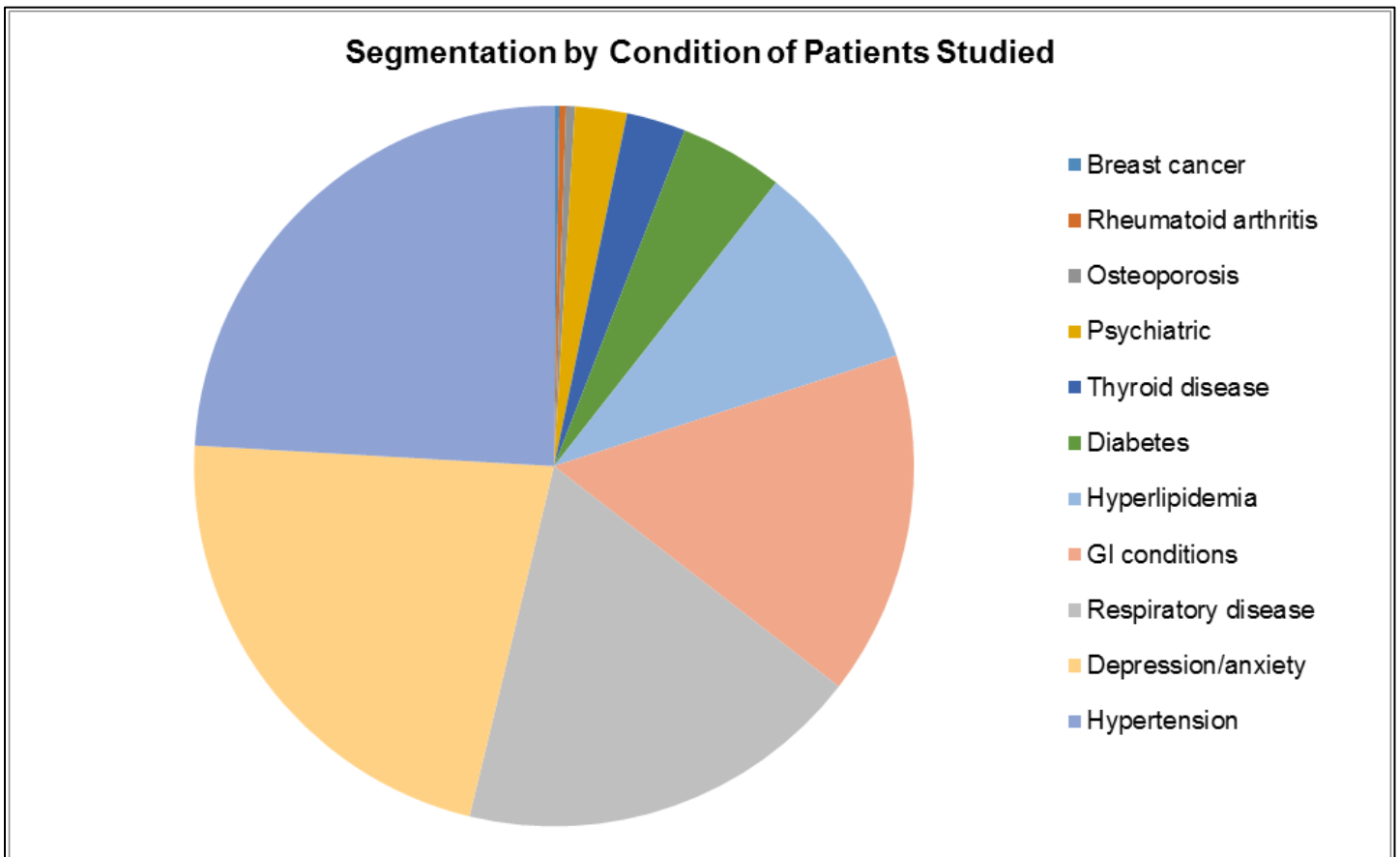
Omnicell has taken these findings a step further, researching adherence impact when patients have their initial exposure to chronic therapy, i.e., when patients have their very **first** encounter with a medication for their **first** chronic condition, or Initial Exposure to Chronic Therapy (IECT). For this unique patient population, IECT patients, the many barriers to adherence come to a point, leading to a multifactorial view of potential non-adherence. Lack of understanding of the medication or condition, the asymptomatic nature of certain chronic conditions upon diagnosis (e.g. hypercholesterolemia, hypertension), unexpected medication side effects, patient denial of their condition, and of the need for lifelong commitment to treatment, are but a few of the most significant barriers.

The premise of this original research was based on a theory that a patient's behavior towards their chronic condition and medication are largely formed early in their treatment. Patients' acceptance, or lack thereof, and

subsequent medication and treatment adherence becomes ingrained or “hard-wired” after this initial encounter and this shapes their future behavior, establishing that patient’s pattern of medication adherence.

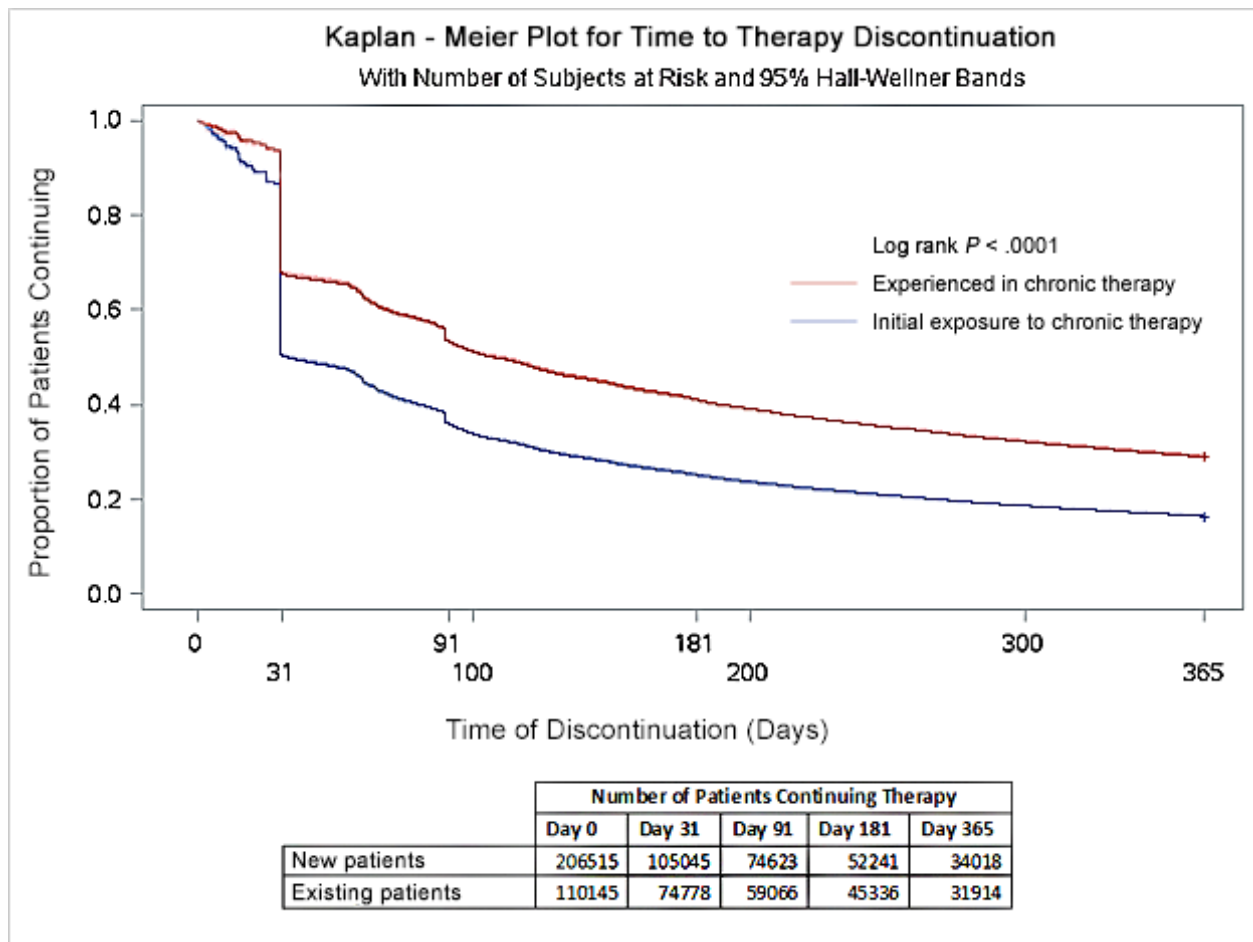
By studying a random sample of de-identified patient data across nine different chronic conditions – osteoporosis, breast cancer, hyperlipidemia, depression and anxiety, diabetes, hypertension, psychiatric conditions (other than depression), respiratory disease, rheumatoid arthritis, gastrointestinal conditions, and thyroid disease. The distribution of patients among these chronic diseases is depicted in the following graph.

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Initial exposure to chronic therapy was studied for 28 months, including a total of 206,515 patients. Initial exposure to chronic therapy was defined as not having received any medication for the nine chronic conditions within the previous 12 months. Patients’ prescription behavior was monitored for a subsequent 12 months after the first dispensing date.

Across all nine chronic conditions, the aggregate medication discontinuation rate for IECT patients was 53% higher than patients who had previous experience with a medication in any of the nine conditions. Below is a graphical representation of the data:



Hypertension was the most common first chronic disease encountered by the patients that were studied. The disease’s prevalence, as well as its largely benign manifestations – patients are largely asymptomatic, particularly at the time of diagnosis – makes it a particularly attractive chronic disease state for pharmacies to target with regard to IECT patient. Additionally, many community pharmacies are equipped with blood pressure cuffs, allowing quick and convenient monitoring of disease control, which may reinforce the benefits of medication adherence or the risks of non-adherent medication behavior.

Poor medication adherence has been identified as a major factor contributing to uncontrolled hypertension.<sup>1</sup> There are several reasons why non-adherence may be such an important factor in this specific disease state. There are no immediate physical symptoms experienced by patients as a result of missing a dose of medication. In contrast to this are patients being treated for conditions such as epilepsy or asthma where non-adherence manifests as symptomatic disease and noticeable discomfort. Although short-term effects of uncontrolled hypertension are

difficult to notice, the long-term effects of uncontrolled hypertension are significant with stroke, myocardial infarction, and kidney failure being major contributors to morbidity and mortality of patients with hypertension. Additionally, many antihypertensive medications have adverse effects that may bother patients, leading to a dislike of taking the medication and eventual non-adherence or non-persistence. For instance, the incidence of a dry, nonproductive cough related to ACE inhibitor use has been reported to be as high as 39 percent in some studies.<sup>2</sup> This dry cough usually occurs within the first few months of beginning treatment.<sup>3</sup> Although it generally resolves on its own, the cough may be bothersome enough that patients stop taking the medication. Incorrect administration of diuretics (i.e., taking them at night) can lead to nighttime awakenings and poor quality sleep. Beta-blockers are associated with a small but significant incidence of reported fatigue, as well as sexual dysfunction.<sup>4</sup> Calcium channel blockers and other vasodilators can cause headache, dizziness or lightheadedness in 10 to 20 percent of patients.<sup>5</sup> Verapamil is unique among antihypertensive agents in that it causes constipation in over 25 percent of patients.<sup>6</sup>

Other, non-medication related behavioral barriers, such as patient denial of their condition or fear of mortality need to be identified, recognized, and ultimately addressed. The role of non-traditional pharmacy skills in motivational interviewing can be in asset in patient empathy and encouragement.

Facilitated by the ABM, pharmacies have untapped opportunities to intervene with this patient population. Pharmacists are in an ideal position to educate patients on potential adverse effects and suggest ways to manage them. Through educating the patient on their disease state and side effects they may experience with their medication, as well as periodic follow-up in subsequent pharmacy visits, medication adherence can be improved. This yields improved clinical outcomes for the patient and significant direct economic benefits to the pharmacy. In addition to the direct benefits of improved medication adherence, there are also incidental benefits of engaging with this population:

- The pharmacy has an opportunity to make a positive first impression. Given the nature of historical patient loyalty to a pharmacy, spending a little additional time to introduce the patient to your pharmacy team, your pharmacy, and store services and your store brand will pay long-term dividends.
- Pharmacists can establish an early pharmacist-patient relationship to an “atypical” patient demographic; typical IECT patients are 10 to 15 years younger than the typical multi-medication pharmacy patient. The IECT patient may not yet have a pharmacy and could be making the decision on where their family will be getting their future medication and pharmacy services. Especially with supermarket or mass merchant pharmacy clients, this demographic may be more in line with the typical front-store customer. This provides pharmacy the opportunity to introduce the patient to additional store services such as nutritional counseling and frequent shopper programs.

We've explored unique aspects involved in providing pharmacy services to patients newly diagnosed with hypertension as their first chronic disease. The utilization of analytics to reveal other specialized patient populations affords pharmacy new opportunities to efficiently incorporate patient care services into their workflow. The appointment-based model enables pharmacy to effectively manage their resources in order to meet the ever-changing and growing needs of the patient population. ■

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