

## Finding the right technology to help patients stick to their regimen

If you're looking for ways to improve medication adherence among your patients, the answer may be right at your fingertips. A study published in the January 2018 *Journal of Medical Internet Research mHealth and uHealth* suggests that text messaging reminders can boost refill rates more than 14%.<sup>1</sup> The results build upon research published in the January 2016 *JAMA Internal Medicine* suggesting that text messaging nearly doubles the odds of medication adherence.<sup>2</sup>

But text messaging isn't the only way to use technology to help patients stick to their medications. Other studies have shown that apps can improve medication adherence for people who have diabetes<sup>3</sup> and that interactive voice response technology can promote medication adherence overall.<sup>4</sup> The trick is to find the right kind of technology for your patients—the kind they'll actually use.

### Addressing challenges

Technology for medication adherence has to be tailored to your patients' needs and abilities, and the first step is to determine their barriers to adherence, said Matthew Lengel, PharmD, MS, RPh, clinical pharmacy manager at Johns Hopkins Home Care Group's John G. Bartlett Specialty Practice in Baltimore.

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"It depends largely on their motivation to take their medications. Nonadherence is also affected by many other factors, such as medication side effects, denial of their condition, feeling better and feeling like it's not needed, or comorbid conditions like depression. Additionally, some patients have a hard time getting [to the pharmacy] for their medications, navigating the health system, or handling insurance," Lengel said.

Next, find out how comfortable the patient is with technology, said Sam-

uel Houmes, PharmD, BCACP, clinical coordinator at Johns Hopkins Home Care Group.

"There's a bell curve. Some patients have an excellent understanding of [things like smartphones, apps, and websites], will use it, and have better outcomes. Others don't have the time or know how to use it," Houmes said, adding that patients who have a good grasp of their condition aren't necessarily tech-savvy. "Remember that health literacy and technology literacy are two separate forms of literacy."

### It doesn't need to be fancy

Text messaging and apps that remind patients to take their medications and websites that allow patients to log their medication use are great, but for some patients, low-tech is best, said Tripp Logan, PharmD, pharmacist at L&S Pharmacy and partner at MedHere Today Consulting in Charleston, MO.

"In our area, which is rural, a lot of patients don't have access to texts. Their cell phones have limited minutes, and broadband is not always an option," Logan said. "We use medication edu-

cation videos that reinforce how to take medication, and we'll send them out to patients if we need to."

Recalling the success he had with it at his first postresidency job site, Houmes said that medication synchronization programs can be a boon to adherence. "Most of our patient population was on Medicare or Medicaid, and certain patients had to make a lot of trips, and some medications would sit because the patient couldn't afford round-trip gas costs.

Medication synchronization and putting it all in one pick-up all at once helped them," Houmes said.

Compliance packaging, while an investment on the pharmacy's end, can be helpful for patients who take multiple medications, especially those who are older, Logan said.

"If you look at the aging population and those in assisted living, many can't manage their medications on their own. Compliance can reduce the number of mistaken doses taken because they can actually look and see whether the medications have been taken already."

Logan added that compliance packaging can also help frequent travelers, who can take just enough medication for a trip, and children who split residences between parents who share custody.

Yet nothing beats the personal touch, Logan said. "The phone is my favorite because the communication goes both ways. We monitor patients who have chronic illness and assign staff to reach out to them. We've used robocalls, but we've found that having a personal connection to someone in the pharmacy is superior to that."

### References

1. JMIR Mhealth Uhealth. 2018;6(1):e30
2. JAMA Intern Med. 2016;176(3):340-9
3. Int J Med Inform. 2012;81(9):594-604
4. BMJ Open. 2018;8(2):e018974

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