



## Pharmacogenomics: A Tool to Help Facilities Become Leaders in Opioid Stewardship

Opioid stewardship – the commitment to coordinated interventions to give the right opioid to the right patient based on the right indications and tests – is an ongoing challenge and a top priority for facilities nationwide. One relatively new tool that can play a valuable role in keeping residents safe, avoiding complications, and reducing the chances of the side effects of opioid use or dependency while effectively addressing pain is pharmacogenomics.

With this type of testing, providers and prescribers can predict how individuals might metabolize various medications and what doses might be most efficacious – taking some of the guesswork out of helping residents achieve optimal pain relief quickly and safely.

### Data that Informs

Pharmacogenomics, the study of how an individual's genes affect their response to medications, presents an opportunity to identify vulnerable individuals for whom standard treatment and/or prevention approaches are insufficient. By reviewing an individual's genetic markers against scientific knowledge, prescribers can use those pharmacogenomic test results to identify opportunities to optimize prescriptions based on a resident's genes.

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– Houda Hachad, PharmD,  
Vice President of Clinical  
Operations at SinguLab

"You can focus on problematic medications and better understand each individual. When you have this information, you can zoom in to provide personalized care with specific knowledge, including risks and ways to diminish them," said Houda Hachad, PharmD, Vice President of Clinical Operations at SinguLab.

She added, "Pharmacogenomic testing offers the healthcare team information about the residents they wouldn't otherwise know." This is significant, she suggested, as having as much information as possible can help prevent or mitigate problems, leading to successful stewardship interventions.

## Promoting Appropriate Use of Opioids

By bringing in pharmacogenomics, Dr. Hachad said, “We have clinical, evidence-based guidance to rely on,” said Dr. Hachad. “You can build a better stewardship program because you are able to not only identify the population at risk and prioritize patients for testing, but you are also able to mitigate the risk with test results to optimize opioid prescribing and appropriate use.”

This includes:

- Identifying the medications most or least likely to help each resident manage pain and those with the greatest risk of side effects
- Selecting the best possible dose
- Understanding when to switch individuals to other agents that they can metabolize better than their original prescription
- Knowing which individuals are non-responders to specific opioids and not getting relief from their pain, which may cause them to forgo treatment altogether and lead to poor outcomes such as worsening quality of life and loss of appetite

She added, “We can also use pharmacogenomics to determine who is seeking medications too quickly or not at all. At the same time, this tool can help us consider more specific nonopioid interventions that might manage pain more effectively and safely.” All of these options and factors feed into a successful opioid stewardship program.

## Better Outcomes, Numbers, and Referrals

At least for now, it likely won't be practical to perform pharmacogenomic testing on every resident as part of opioid stewardship. Dr. Hachad suggested, “We can target patients who have had an issue in the past with pain medications and those with current issues. The more you know about a patient's ability to respond to opioids, the more likely your intervention will be successful.”

With this approach, pharmacogenomics can be a key component of an opioid stewardship program and result in greater resident and staff satisfaction, fewer survey issues, and more referrals. When pain is managed effectively over time and opioid side effects and complications are reduced, everyone benefits. At the same time, a successful focus on opioid stewardship and pain management demonstrates a facility's active commitment to providing quality care, keeping residents safe, and enhancing their health and well-being.