



Genomics and precision health

Looking into the future

Inevitably, your patients will ask about precision health. Equally inevitable, you will become part of a team applying the results of precision medicine. Let's get ready.

AT THE JUNE 2021 American Nurses Association (ANA) Membership Assembly, we discussed an important topic that many of us know little about: genomics and precision health. Although currently many tests are performed using different applications of the technology on patients, little information exists to help us understand what it's all about or how nurses use it. ANA takes a forward-looking position, preparing the nursing profession to participate in genomics and precision clinical practice because of its tremendous impact on healthcare quality, safety, and cost.

What I learned

Genomics is the science of understanding the genetic information in our cells and how that information influences everything in our daily lives. *Precision medicine* is the process of using each individual's genetic information to prevent disease or better inform medical care to treat problems after they arise. Precision medicine, which at its core is about matching the right drugs and treatments to the right people, has begun to make a difference in the treatment of some cancers. Researchers are changing how they classify tumors. The genetics of some breast cancers, for example, may be more like stomach tumors than other breast cancers. With precision medicine, cancers that are genetically alike are treated similarly. Imagine the perfect diet for you or the perfect drug for your disease, not just the regimen ordered for everyone else.

ANA has five education recommendations to help prepare nurses for the genomics and precision health future: 1. develop curriculum to educate nurses in nursing school, 2. develop continuing education programs for nurses already in practice, 3. enhance advanced nursing practice education and graduate degree specialization, 4. develop standards for mini-

mum competencies in nursing, and 5. add genomics and precision health to the ANA *Nursing: Scope and Standards of Practice*.

If your organization already practices precision medicine, you may know more than most of your colleagues. If your organization uses big data or artificial intelligence to inform patient care decisions, you're likely learning important lessons about precision medicine's decision support systems.

What you should do

If your organization practices precision medicine in any setting, learn what you can from your colleagues working in those areas. If a department in your facility offers interprofessional education programs related to precision medicine, genomics, or the use of artificial intelligence, sign up and learn how nursing works with other professionals to leverage this emerging science. Expand your knowledge by enrolling in nursing continuing education courses on these topics and reading journal articles to understand new developments.

Nursing is the most trusted profession with the highest patient interaction. Inevitably, your patients will ask about precision health. Equally inevitable, you will become part of a team applying the results of precision medicine. Let's get ready.

Precision health is here to stay and will only become more prominent as we manage patient health in significant, individualized ways. To learn more about ANA's genetics and personalized medicine resources, visit nursingworld.org/practice-policy/nursing-excellence/ethics/genetics/.

Lillie Gelinas, MSN, RN, CPPS, FAAN
Editor-in-Chief