The significance of the role of the nurse leader in using and leading change in today’s fast-paced, dynamic, and often chaotic health care environments cannot be understated. The American Organization of Nurse Executives (AONE) identify seven information management and technology competencies the nurse leader must demonstrate (AONE, 2015). Westra and Delaney (2008) document 92 competencies nurse leaders must demonstrate in three informatics domains: computer skills (N = 24), informatics knowledge (N = 40), and informatics skills (N = 28). Furthermore, to ensure that informatics practices are used correctly and ethically to enhance the patient, family and community’s experience of care, reduce the costs associated with care, and improve outcomes for all (IHI, 2007) nurse leaders must adopt an interdisciplinary approach, reaching out to all disciplines, including the patient and family (IECP, 2011; WHO, 2010).

Medication Optimization

Technologies range from the more complex, fully integrated devices that use information and communication technologies to inform and remind stakeholders at multiple decision and action points throughout the patient care process to the simpler, standalone devices with more limited functionality.

- Drug information: standalone or add-on app.
- Reminder devices
- Dispenser devices
- Logging regimen feedback

Remote Patient Monitoring

Remote patient monitoring (RPM) is currently growing rapidly, bringing convenience and simplifying care for patients and health care professionals. In the future, not only is remote patient monitoring expected to expand in terms of adoption, but also in terms of the variety of applications and offerings. An increase in the use of general broadband technology and the “wiredness” of homes, hospitals, and other care settings will facilitate the growth of RPM.

- Patient interaction with telehealth device (glucometer, vital signs, physical and emotional well being)
- Collect and transmit patient data remotely
- Send alert

The U.S. is undergoing a huge shift not to an aging population, but an old population. This transformation carries with it great challenges for an already overburdened and stressed healthcare system. Healthcare informatics offers great opportunities and great barriers to improving care of the older adult.

Smart Phone Apps

- AMERICA IS AGING
  - By 2030, the U.S. population aged 50 or over will increase to 152 million. In this time, the number of adults aged 65-74 will nearly double from 21.7 million in 2010 to 38.6 million in 2030.
  - 1 in 5 people will be 65 or older in 2020.
  - 1 in 8 people will be 65 or older in 2040.

As the population continues to age the number of people who will benefit from assistive technologies in a variety of settings (home, work, recreation, transportation) will continue to increase.

- Smart wheelchair
- Large button phones
- Voice recognition software

Future Impact

Nurse leaders must coach and mentor all staff to accept assertive and involved patients and families across the care continuum, and to also be open and willing to accept new and innovative technologies to engage with them as true partners in care. In addition, nurse leaders must ensure that informatics policies and procedures at all levels of the organization are re-evaluated at a minimum of yearly to ensure they are current, ethical and legal as technological innovations quickly emerge and influence current practices.