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## Intrinsic capacity in older hospitalized adults: Implications for nursing practice

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### Case study

My husband's parents and aunt recently moved in with us. I lovingly refer to them as The White Hairs. It's an adventure and joy living with them. They are all older than 65 years and yet have such different levels of function. They are a perfect illustration for intrinsic capacity and how we vary in our aging trajectories. Consider Wilbur, a 69-year-old gentleman who has never let life slow him down. With an 8th grade education, he is a slow reader but has a mind for engineering and is always tinkering with machines, tools, and various projects. A motorcycle accident as a teenager left him with screws in his ankle. He limps if he does too much, but will happily use the push lawn mower to help out a neighbor in need. Lilly is 77 and has always valued her independence. She loves to read and watch BBC mysteries. She will sit on the couch for long periods of time but rarely declines an opportunity to get out and about. The best her hip felt in the last decade was when she walked around Las Vegas playing slots. Her cat, Raphael, is the light of her life. Grace, 67, likes her solitude. She spends the majority of her time in a chair either watching television, playing games on the tablet, or taking care of paperwork. Her room is on the first floor, so she doesn't use stairs and rarely has far to go for anything she needs. Sometimes Grace will call Wilbur's cell phone to alert him of something he must bring to her. Grace gets around the grocery store once a week, but a daily walk to the mailbox is too much. Her son and God are the lights of her life and she loves to talk about both any chance she gets. All three are vulnerable to functional and cognitive decline in the event of a hospitalization. But because of the variability in their intrinsic capacity, Grace is especially vulnerable to further decline into frailty, disability and even death. - Leanne Boehm

### The continuum of intrinsic capacity

The World Health Organization (WHO) defines intrinsic capacity as the composite of all the physical and mental capacities of an individual.<sup>1</sup> Intrinsic capacity is largely the result of the cumulative impact of biological underpinnings, behaviors and exposures in a person's lifetime. The shift from a disease-based model of aging to one of intrinsic capacity has major ramifications for public health and the delivery of health care.<sup>1,2</sup> Good health in older age is not just the absence of disease. Indeed, a person's physical and mental status are

better predictors of wellbeing than disease status. Older adults demonstrate great variability and diversity in their levels of intrinsic capacity.<sup>1</sup> We can all relate to stories of the elite 90-year-old marathon runner versus the frail 70-year-old chair-bound individual. Thus, at one end of the continuum is an individual with a high degree of intrinsic capacity with great resources and resiliency to internal and external stressors, such as a myocardial infarction with hospitalization. At the other end of the continuum is a person with frailty, a syndrome characterized by reduced strength, endurance, and physiologic function, reflecting greatly diminished intrinsic capacity.<sup>3</sup> Given this diversity in trajectories of aging, we need to guard against ageism and stereotypes at either end of the intrinsic capacity spectrum. There is no typical older person so we cannot think of all older adults as 'frail'; nor can we ignore the realities of aging trajectories. Per WHO, '70 is not yet the new 60'.<sup>1</sup>

## Implications for acute care nursing

The shift in focus from disease to intrinsic capacity has major implications for nursing practice. Importantly, nurses are pivotal to the care delivery and outcomes of hospitalized older adults. Three foci of the hospitalized older adult's stay will be addressed: a) assessment, b) planning and implementing hospital-based care, and c) planning and implementing transition of care post-hospital discharge.

### Assessment

Hospital nurses often meet patients for the first time during the hospitalization, a particularly vulnerable and stressful time in a person's life. By focusing on intrinsic capacity, i.e., a composite of the person's biological, emotional, cognitive, social and physical status, we can better know the patient, his/her abilities and better plan with the patient and family for care that addresses all spheres. Kagan, in an earlier Geriatric Nursing column, encouraged framing the knowledge of the person within a model of care that includes an 'inventory of advantages'.<sup>4</sup> Person-centered care is gaining increasing importance in the delivery of care. Expanding our assessment beyond the disease paradigm of a problem list allows us to focus on the person, his/her goals, desires, and strengths in achieving those goals.<sup>4</sup>

There is no one single assessment tool to determine intrinsic capacity and most nursing admission forms already include the domains of health literacy, activities of daily living, global cognitive function, social support resources and a review of systems. Hospitals, similar to many health care settings, function under significant financial constraints. Thus, nurses need to have an admission form that quickly and reliably guides the data collection, determines level of intrinsic capacity and stratifies risk. Frailty indicates the lowest level of intrinsic capacity and the greatest level of risk to the adverse consequences of hospitalization not only to the disease but to the hospital processes of care. Frailty is not an inevitable consequence of aging, but is prevalent among community-residing older adults as well as hospitalized older adults. Characterized by reduced strength, endurance, and physiologic function, frailty occurs in 10% of older adults residing in the community and up to 64% of hospitalized older adults.<sup>5-7</sup> A simple tool, the FRAIL Scale,<sup>8</sup> can be incorporated at the time of admission and guide the interdisciplinary plan of care. The FRAIL Scale consists of five items: Fatigue, Resistance (ability to climb one flight of stairs), Ambulation (ability to

walk one block), Illness (greater than 5 diseases), and Loss of Weight (>5%). A person scoring 1–2 is considered pre-frail and those scoring 3 or more are considered frail.

### Planning and implementing care

Identifying the older adult's intrinsic capacity and functional and cognitive abilities early in the hospital stay is essential to plan and implement interventions that maintain his/her intrinsic capacity and function. Even older adults with underlying frailty can benefit from targeted interventions. Regrettably, a number of our practices and protocols actually inhibit function. Concern for patient safety and aiming for zero rates of patient injury can paradoxically result in harmful practices.<sup>9</sup> For example, we promote immobility and use of bed alarms to prevent falls.<sup>10</sup> In critical care, we sedate and physically restrain patients to minimize self-extubation.<sup>11</sup> Immobilization has severe, cascading, deleterious effects and we have known of this for decades.<sup>12</sup> Nurses have a key role in the coordination of resources necessary to prevent further loss of function and decline in intrinsic capacity. Promotion of physical activity and nutrition are two essential strategies to enhance intrinsic capacity and delay the progress of frailty. How this is accomplished will vary greatly depending upon the individual patients' pre-existing physical, emotional and cognitive states as well as the demands and stressors of their diseases.

No one discipline can adequately provide best practices for older hospitalized patients. Application of an integrated care model is essential to the quality and safety of care throughout hospitalization. Integrated care models contain a number of features.<sup>13,14</sup> An effective integrated care model includes multidisciplinary case management in which nursing, medicine, social work, pharmacists, and therapists all provide input into the plan of care. Coordination of healthcare services is necessary within the hospital setting as well as for transition of care. For example, the critical care ABCDEF Bundle (Assess, prevent, manage pain; Both spontaneous awakening trials and spontaneous breathing trials; Choice of analgesia and sedation; Delirium: assess, prevent and manage; Early mobility and exercise; Family engagement and empowerment) requires the coordination of multiple disciplines to achieve each component of the bundle.<sup>15</sup> Organizational culture and structures that support effective collaborative work across the continuum of care enhance the success of integrated care models. Information technology in the form of decision tools, standardized assessment and care planning instruments, and integrated data systems can support nurses' decision making and be of significant benefit to the quality of care delivery for older hospitalized patients. Critical care and emergency department environments are especially challenging to coordinate and implement multidisciplinary integrated care. Nevertheless, observational studies have shown that there are hospitals and units where nurses successfully screen and implement an aggressive, coordinated management program to enhance or at least maintain, older adults' intrinsic capacity.<sup>16</sup>

### Transition

The transition from hospital to home is critical for older adults; it provides an opportunity to regain cognitive and functional loss from the acute care episode, but also represents the prospect for further functional and cognitive decline.<sup>17,18</sup> The majority of older hospitalized patients in the US are discharged home; many receive post-acute care services, such as

skilled nursing care (21%) or home health services (17%).<sup>17–19</sup> Unfortunately, many older adults are readmitted soon after discharge and as a consequence the Centers of Medicare & Medicaid Services now hold hospitals accountable for their readmission rates; readmissions rates are posted publicly and hospitals that underperform suffer significant financial penalties.<sup>20</sup> Nurses are crucial in the discharge planning process. By focusing on the intrinsic capacity of the older adult, understanding his/her goals and values, the nurse can assist in the discharge process. Activities include a) initiating the specific plan of care with the patient and family early in the hospitalization, b) teaching the patient and family essential skills and knowledge for self-management of disease states, c) establishing appropriate referrals to post-discharge health care services, such as home health care and outpatient services, d) verifying needed equipment and resources in the home to maintain function, and e) ensuring the communication of the plan of care to all stakeholders.

## Conclusion

As our population continues to age and hospitals are faced with increasing financial constraints, nurses will remain at the forefront in identifying, monitoring, implementing and coordinating care that best serves acutely ill older adults. We know that effective interventions are multidisciplinary and span inpatient to home settings. Nevertheless, we have an immediate need to determine how best to accomplish high quality inpatient and transitional care that maintains intrinsic capacity and prevents or addresses frailty. Nurses are an essential team member at the unit and hospital level in determining best strategies to provide targeted resources in an effective and efficient manner. Raise your voice and be heard.

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