

## **Geriatric aspects of post-operative disability**

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Hospitals are experiencing increasing numbers of admissions of elderly people for both acute and elective surgery. Seniors 70 years and older account for 20% of patients in general surgery wards and up to 50% in specialized wards (urology, orthopaedics). Because of their polymorbidity, polymedication and their complex health condition, clinicians find difficult to assess their health status, multiple health risks and to establish reliable post-operative prognosis at Emergency department. For patients and caregivers, prognostic information is needed to inform decisions concerning clinical management (operation type, post-operative care), discharge plan, and follow-up. This may be particularly important in old age. For example, in older patients with limited life expectancy, multiple pathologies and disabilities, and elevated risk of rapid deterioration in health and functional status, the goal of care may be to plan programs of advanced care. Older patients with good life expectancies should receive the standard level of care, including preventive, aggressive diagnostic and therapeutic interventions.

Early identification of potentially manageable deleterious risks factors that are known to influence both short and long term post-operative outcomes of elderly patients e.g. mortality, morbidity, functional status is of great importance. Knowledge of these risks factors enable physician to start multi-component peri- and postoperative intervention targeted according to the risk stratification. Several instruments have been developed to capture geriatric conditions which are commonly missed by traditional disease oriented medicine. Prognostic index for estimating mortality in hospitalized elderly patients based on a standardized Comprehensive Geriatric Assessment (CGA), which is the most accurate and sensitive diagnostic tool for evaluating and monitoring elderly patients for clinical decision-making purposes. Comprehensive geriatric assessment performed at the time of admission or earlier in elective surgery is recommended to detect highly prevalent geriatric syndromes as falls, dizziness, impaired mobility, urinary incontinence, cognitive impairment, pressure ulcer. Although heterogeneous, geriatric syndromes share many common features, multiple underlying factors, multiple organ systems involvements and impaired quality of life. Presence of global impairment of physiological reserves involving multiple organ systems is often described as geriatric frailty syndrome. The clinical correlate of frailty manifests as increased vulnerability, impaired capability to withstand intrinsic and environmental stressors and, limited capacity to maintain physiological and psychosocial homeostasis. Geriatric frailty - found in 20-30 % of elderly over 75 years - was reported to be associated with long-term adverse health-related outcomes, e.g., loss of self-sufficiency, disability, mortality, hospitalisation and institutional placement. Clinical phenotype of frailty manifests as multi-system pathologies with low physical activity, global weakness with low muscle strength, fatigability/exhaustion, overall slowness particularly of gait and loss of weight. These above mentioned clinical symptoms could be explained by (or related to) diagnoses as sarcopenia, osteopenia, non-specific balance disorders, nutritional problems and overall deconditioning. In patients with recognized geriatric syndromes, individualized multi-component intervention has been shown to minimize immediate and long-term postoperative risks as delirium, decubitus ulcers, deconditioning, disability and long-term care placement.