The Mission of the Cochrane Nursing Care Field (CNCF) is to improve health outcomes through increasing the use of the Cochrane Library and supporting Cochrane's role by providing an evidence base for nurses and related healthcare professionals involved in delivering, leading or researching nursing care. The CNCF produces ‘Cochrane Corner’ columns (summaries of recent nursing-care-relevant Cochrane Reviews) that are regularly published in collaborating nursing-care-related journals. Information on the processes this Field has developed can be accessed at: http://cncf.cochrane.org/evidence-transfer-program-reviewsummaries

Cochrane Nursing Care Field – Cochrane Review Summary

Prepared for the

International Journal of Nursing Practice (IJNP)

TITLE: Comprehensive geriatric assessment for older people admitted to a surgical service

Cochrane Corner Writer:
Maria Matarese, MSN, RN, and Marina Palombi, MSN, RN
CECRI Evidence-based practice group for Nursing Scholarship: A Joanna Briggs Institute Affiliated Group
Email: m.matarese@unicampus.it, marina.p67@gmail.com.

A member of the Cochrane Nursing Care (CNC)
1. **BACKGROUND**

The aging of the population is one of the most significant events of the 21st century; it represents a success for the society, but also a political, economic, and health challenge (United Nations Population Fund and HelpAge International, 2012). One of the consequences of the population ageing is the increasing demand of surgical treatments in older people. In fact, it is estimated that over half of the surgical interventions are performed on people aged 65 and over, and this rate is expected to increase in the next years. Compared to younger individuals, older people experience greater post-operative complications, increased length of hospitalization and need of institutionalization after discharge. To improve quality of life and health outcomes in surgical older patients, it was proposed to extend the use of Comprehensive Geriatric Assessment (CGA) in surgical healthcare settings. The CGA is a multidisciplinary coordinated process extensively used worldwide in geriatrics settings to identify medical, psychosocial, and functional problems of older people in order to develop a coordinated care plan to improve older people health (Rubenstein, 1991).

A recent review showed that the application of CGA in medical inpatients improves health outcomes, including reduction of mortality and favoring discharge at home (Ellis et al., 2017). In order to determine whether the CGA is also effective in older people admitted to surgery units, a systematic review of the literature was carried out (Eamer, Taheri, Chen, Daviduck, Chambers, Shi, and Khadaroo, 2018). This review is particularly relevant to nurses as they are actively involved in the patient assessment and planning of care in surgical hospital units.

2. **OBJECTIVE**

The aim of this review was to assess the effectiveness of a CGA intervention compared to standard care on the postoperative outcomes in older people admitted to hospital surgical units.

3. **INTERVENTION/METHODS**

The review was conducted following the guidelines of the Cochrane Handbook for Systematic Reviews of Interventions. Medline, Embase, PsycINFO, and CINAHL databases were consulted as well as the registries of clinical studies of the World
Health Organization and the National Institutes of Health. The search was limited to randomized clinical trials (RCT) published from inception to January 2017, without language limits. Studies comparing CGA performed by a geriatrician, geriatric nurse or another physician on surgical patients aged 65 and over, admitted in all surgical specialty, compared with standard surgical care were included. The primary outcomes were mortality and discharge to another institution and the secondary ones were length of stay, re-admission rate, total cost and post-operative complications.

The articles included were assessed for methodological quality by two reviewers independently using the Cochrane Risk of bias’s tool. Owing to the different use of CGA, a meta-analysis was performed only for studies with low and moderate heterogeneity, while highly heterogeneous studies were not included in the meta-analysis but only a narrative discussion was performed. The evidence was classified as high, moderate, low and very low, based on the five GRADE criteria (limits in the study quality, consistency of effects, imprecision of results, strength of the association between intervention and outcome, and publication bias.

4. RESULTS

Eight RCTs met the inclusion criteria, with six studies conducted in Europe and two in North America, comprising in total 1843 patients. Seven studies were performed on patients undergoing hip fracture surgery and one on cancer surgery patients. The CGA was performed in two studies before and in six after surgical treatment. In one study the preoperative CGA was performed by a geriatric nurse with post-intervention medical consultation, while in the other studies different professionals or multidisciplinary teams performed the CGA. The results indicated that CGA:

- can reduce mortality in older patients with hip fracture (5 studies-moderate evidence);
- can reduce discharge to settings other than the ones from which patients with fracture come from (5 studies-high evidence).

Moreover, the review showed that CGA:

- can reduce the length of stay (4 studies-moderate evidence);
- does not influence or has a limited influence on the re-admissions rate (3 studies-moderate evidence);
- can reduce total costs (1 study-moderate evidence);
- does not influence or has a limited influence on the main postoperative complications and on delirium (2 and 3 studies-low evidence).
5. CONCLUSIONS

The reviewers were not able to draw definitive conclusions on the effectiveness of the CGA in older patient undergoing surgery. There is evidence to support the effect of CGA interventions only for patients aged 65 and older admitted to orthopedic units as most of the studies (7 out of 8) were conducted in such specialty; high to moderate evidence supports the reduction of post-treatment mortality and discharge at home in older patients treated for hip fracture. There is no evidence to support its effectiveness on other outcomes, such as reduction of post-operative complications or hospital re-admissions. Further, well-designed RTCs are needed to verify the effectiveness of this practice in other surgical treatments and for other outcomes.

6. IMPLICATIONS FOR PRACTICE

Based on current evidence, nurses working in orthopedic units and treating elderly patients with hip fracture are encouraged to learn and use, in collaboration with the healthcare team, the CGA that can help them identify and treat medical, functioning and social problems that can have a negative impact on the survival and discharge of older patient undergoing hip fracture surgery. In fact, elderly patients hospitalized for hip fracture are often frailer than surgical adult patients due to multimorbidity and multiple prescriptions, which often are at the origin of the femur fracture. Such elderly people have more complex care needs than younger patients or than older patients admitted for elective treatment in surgical units; therefore, specific assessment and interventions are required. We look forward to other studies showing the effectiveness of the CGA in other surgical specialties so to suggest the extension of its use in contexts other than orthopedic units or hip fracture patients.

REFERENCES
