PERIOPERATIVE CARE OF THE ELDERLY and ASSESSMENT OF FRAILTY

8% of the population in the UK are over the age of 75. 23% of surgical procedures in the UK are performed on patients in this age group. There is an age-related decline in physiological reserve, which is compounded by chronic and current illness, cognitive decline, frailty and polypharmacy. They are at relatively higher risk of mortality and morbidity after surgery. Multidisciplinary care improves outcomes for elderly surgical patients and should be individualised to suit each patient. The AAGBI strongly supports an expanded role for senior geriatricians in coordinating peri-operative care for the elderly. Discussion with a geriatrician should be considered in each case. Elderly patients should be assumed to have the mental capacity to make decisions about their treatment. Good communication is essential. If they lack that capacity, proxy information should be sought to determine what treatment, if any, is in the patient's best interests.

It is insufficient to undertake comprehensive assessment of the older surgical patient without also attempting to optimise and improve their preoperative health status. The benefits must be balanced against the risks of delaying surgery to achieve these. Pre-optimisation should focus on reducing the risk of postoperative complications, namely, organ/system specific disease, malnutrition, post-operative cognitive decline or delirium (POCD/POC)

Frailty is a medical syndrome with multiple causes and contributors, characterised by reduced strength, endurance and physiologic function. This increases the individual's vulnerability for developing increased dependency and/or death.

Geriatric patients often have comorbid conditions that may lead to increased risk of post-operative mortality and morbidity. They have decreased physiological reserves across multiple organ systems, arising from the cumulative comorbid conditions, including biomedical, psychological, and social factors. Frail elderly surgical patients are more likely to suffer post-operative complications (pneumonia, delirium, UTIs), prolonged length of stay, discharge to nursing homes or long-term care facilities and higher mortality rates than fit patients. There is a high risk of not returning to their pre-operative level of functioning, hence requiring further increased levels of social support and medical care.

Standard conventional pre-operative risk stratification models have substantial limitations when used in the elderly. There is evidence to show that the multidimensional frailty score based on *comprehensive geriatric assessment* is more useful and accurate in predicting outcomes in this group of patients undergoing surgery than conventional methods. Consideration of a consultation or discussion with a Geriatrician should be considered for frail patients undergoing major surgery, in the pre-operative period.

Different frailty instruments are available to diagnose and assess severity of frailty such as

1. Frailty Phenotype – presence of frailty if ≥3 of the following exist:
    a) Unintentional weight loss (>4kg in prior year)
    b) Self-reported exhaustion
    c) Weakness (grip strength)
    d) Slow walking speed
    e) Low physical activity

2. Frailty Index (deficit accumulation model)
3. **Edmonton Frail Scale (see table below)** – assessment of severity of frailty for use by non-geriatricians (app available). This 17-point assessment tool is beneficial in the pre-assessment setting.
4. Frailty evaluation tools - Rockwood Clinical Frailty Scale, Gait Speed Test, PRISMA-7 scale.

EDMONTON FRAIL SCALE

Frailty Domain	Item	Score 0	Score 1	Score 2
Cognition	Imagine this pre-drawn circle is a clock. I would like you to place the numbers in the correct positions then place the hands to indicate the time of "ten past eleven".	No errors	Minor spacing errors	Other errors
General health status	In the past year, how many times have you been admitted to a hospital?	0	1-2	≥ 2
	In general, how would you describe your health?	Excellent Very good Good	Fair	Poor
Functional independence	With how many of the following activities do you require help? Meal preparation Shopping Transportation Telephone Housekeeping Laundry Managing money Taking medications	0-1	2-4	5-8
Social support	When you need help, can you count on someone who is willing and able to meet your needs?	Always	Sometimes	Never
Medication use	Do you use five or more different prescription medications on a regular basis?	No	Yes	
	At times, do you forget to take your prescription medications?	No	Yes	
Nutrition	Have you recently lost weight such that your clothes have become looser?	No	Yes	
Mood	Do you often feel sad or depressed?	No	Yes	
Continence	Do you have a problem with losing control of urine when you don't want to?	No	Yes	

Functional performance	Please sit in this chair with your back and arms resting. Then, when I say "Go", please stand up and walk at a safe and comfortable pace to the mark on the floor (approx. 3m away), return to the chair, and sit down.	0-10 s	11-20 s	One of: > 20 s Patient unwilling Requires assistance
Totals	Final score is the sum of column totals			

Total = ……/17

Scoring

0-5	**Not frail**
6-7	Vulnerable
8-9	Mild frailty
10-11	Moderate frailty
12-17	Severe frailty

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