

Frailty and respiratory disease in primary care

Primary care should seek to identify and provide proactive support to older people living with frailty. An extended consultation should be considered that should ideally include the patient's usual carer to enable a comprehensive review, confirmation of current diagnoses, and review of all medications. Appropriateness of self-administered medication should be considered if dexterity or cognitive issues are present. Patients should have a clear, concise management plan that is available to and understood by all those providing care. Exercise, including pulmonary rehabilitation, should be encouraged where appropriate.

Background

Frailty is a health state in which a person's body systems gradually lose their in-built reserves.¹ An individual can be considered to be frail if they exhibit three or more of the five frailty markers:²

- Slow walking speed
- Impaired grip strength
- Declining physical activity levels
- Exhaustion
- Unintended weight loss.

Around 10% of those over 65 years of age – a chronological cut-off often used to define the transition from middle aged to elderly – are thought to be living with frailty, a figure that rises to up to half of those aged >85 years.³ The frail elderly patient is more likely to be poorly nourished, have reduced mobility, be receiving multiple medications, be depressed, have impaired cognition and be functionally dependent on others to meet their daily physical needs.

Frailty impairs an individual's ability to cope with apparently minor health-related events. As a result, minor illness in frail elderly patients may progress into serious threats to their overall health and wellbeing. These vulnerabilities extend to the medications they take. Frail elderly patients are more susceptible to the side effects of medicines. People with respiratory conditions who are frail are at increased risk of exacerbations of their condition and frailty contributes to the increased risk associated with COVID-19 infection among those with chronic obstructive pulmonary disease.⁴

Caring for the frail elderly patient

While a proportion of frail elderly patients will receive care on a specialist Frailty Unit or a Geriatric Medicine Ward, many will be cared for in the community setting, either in nursing homes or perhaps even in their own home. The ongoing respiratory health care of these patients therefore comes under the purview of their primary care team and specifically their primary care physician (PCP).

Evaluating frailty in the elderly patient

Not all elderly patients are frail. However, for those that are a holistic approach is necessary to understand the full range of their medical needs and ensure all treatments and interventions remain harmonised so patients remain symptomatically controlled with the best quality of life that can be achieved for them.

Repeated falls and incontinence are red flags for the possibility of frailty in elderly patients as are delirium or dementia and prolonged immobility. Under the NHS Long Term Plan patients with frailty presenting in the emergency room must be identified within 30 minutes of arrival so that the frailty team can be alerted. However, in the community setting, frailty may remain unrecognised until a medical event or even crisis occurs and intervention from the PCP is required.

Consider frailty among elderly patients with respiratory disease, especially those with multiple chronic physical and mental health problems and those with poor compliance with respiratory medication. When frailty is suspected it should be evaluated as it will impact on all subsequent clinical decision making and the involvement of or referral to other medical specialties. This may require an extended consultation and should ideally include the patient's usual carer. The NICE Guideline NG56 (Multimorbidity: clinical assessment and management)⁵ recommends the following for the assessment of frailty in the community setting:

- An informal assessment of gait speed (for example, time taken to answer the door, time taken to walk from the waiting room)
- Self-reported health status (this is, 'how would you rate your health status on a scale from 0 to 100?', with scores of 6 or less indicating frailty)
- A formal assessment of gait speed, with more than 5 seconds to walk 4 metres indicating frailty
- The PRISMA-7 questionnaire, with scores of 3 and above indicating frailty.

Frailty in the elderly is often accompanied by loneliness, social isolation, depression and poverty. Social security benefits for which the patient is eligible may not have been claimed. Enlist

the support of family members, social services and local charities such as Age Concern in seeking to address these problems. Consider social prescribing and referral to a local link worker.

Home visits, which have become much less frequent during the COVID-19 pandemic, are particularly valuable in assessing the problems of the frail elderly.

Respiratory care for the frail elderly patient

When caring for the frail elderly patient with respiratory issues it is essential that we do everything necessary to optimise the care of all their medical needs, not just their respiratory issues. We also need to bear in mind the possibility of patient harm through overdiagnosis and overtreatment. Patients with multiple comorbid conditions are more at risk of non-adherence to prescribed treatments and more at risk of drug interactions if they do take all their prescribed medicines. So how do we approach a holistic evaluation of the frail elderly patient presenting with respiratory issues?

1. Review the full clinical picture.

- a. Start by conducting a comprehensive review that considers the patient as a whole, beyond the specific condition that has prompted their presentation. Consider both physical and psychosocial aspects – especially the presence or absence of family or community support. Review the list of medications and whether or not they are being used.
- b. Determine, following a review, which condition(s) or complaint(s) are the primary concern for management. Be sure to take into consideration the patient's priorities or, if they are unable to communicate those, the wishes they may have expressed to their family members.

2. Confirm the respiratory diagnosis/diagnoses

- a. Older patients with an asthma diagnosis may actually have, or have developed, chronic obstructive pulmonary disease (COPD). Confirming the diagnosis is, of course, critical in ensuring the patient receives the appropriate medication and, conversely, does not receive medications that are unlikely to improve their condition.
- b. Confirming a diagnosis of asthma with or without COPD may be more challenging in the frail elderly patient who is unable to undergo spirometry or even undertake a peak flow effectively. If there are no sufficiently recent test results to support a differential diagnosis then the clinical picture and clinical judgement should be used. For example, asthma is not associated with recurrent or persistent purulent sputum – if this is present, the patient may have bronchiectasis. If the patient has needed repeated course of antibiotic for respiratory infections then

a suspicion for COPD may be raised.

- c. Looking beyond the respiratory system for causes of respiratory symptoms may also be informative. Breathlessness may be cardiac in origin. Dysfunctional breathing (breathing pattern disorder) – usually related to anxiety – can be an important contributor to respiratory symptoms, can lead to overestimation of the severity of asthma and consequent overtreatment.
- #### 3. Review medication and stop what you can – eliminate medications that are unnecessary.
- The potential for harm from medication is higher in patients with multimorbidity, especially in frail elderly patients who may be particularly susceptible to side effects.
- a. A core part of the NICE Guidelines NG56 (Multimorbidity: clinical assessment and management) is to rationalise treatment in frail patients and consider medication concordance. Reducing treatment burden may include:
 - i. Stopping treatment of limited benefit
 - ii. Reducing the dose of considering alternatives for treatments with a higher risk of adverse events
 - iii. Considering non-pharmacological treatments as possible alternatives to some medications
 - b. It is important to consider the indication and expected benefit from each medication prescribed. For example, does a frail, elderly and largely immobile patient who is not breathless need regular bronchodilation which in the case of an anticholinergic may also be causing side effects such as dry mouth and constipation? An even more difficult question is whether to continue with treatments that are aimed at providing a prognostic benefit for patients with frailty and limited life expectancy. An example of this might be statin therapy. On this topic the wishes of the patient either directly expressed or expressed through their family members should be sought and considered.
 - c. A particular challenge for frail elderly patients with COPD is to identify those who have been started on an inhaler containing high-dose inhaled corticosteroids (ICS) and who may be safely weaned off this component of their treatment. Patients with a history of asthma with documented significant reversibility of airways obstruction and intermittent or continuing eosinophilia (usually more than 300 cells/microlitre and not less than 100) on blood counts are those most likely to derive benefit from ICS. However, many patients with COPD on high-dose ICS do not even meet the earlier guideline criteria for starting these agents, and current guidance has evolved towards using them less and relying more on long-acting bronchodilators alone or in combination.⁶ High-dose ICS have

the disadvantage of increasing pneumonia risk and may have other adverse effects.

- i. Begin by reviewing the individual's criteria for ICS therapy as part of their COPD treatment regimen against the latest clinical guidelines.
- ii. For patients not meeting the criteria for ICS therapy undertake a monitored step down of ICS therapy.⁷
- d. For inhaled medications consider the suitability of the inhaler device in terms of dexterity issues if the patient is self-administering. Inspiratory capacity should also be considered when selecting a device or evaluating whether a current device is appropriate.
- e. Cognitive issues may also impact on the ability of the patient to adhere to their prescribed regimen as well as to successfully use their inhaler device. Ensure a written management plan is available and that anyone caring for the individual is aware of the plan and how to correctly deliver any inhaled medications.

Medication rationalization is a complex and challenging area. A useful and practical resource is the Canadian website <https://www.deprescribing.org>, developed by Dr Barbara Farrell and Dr Cara Tannenbaum. This site provides tools to help patients and providers participate in deprescribing, information about ongoing and completed deprescribing initiatives and research projects in Canada, and links to people around the world who are interested in deprescribing.

4. Consider pulmonary rehabilitation (PR) for the frail elderly patient. A study conducted in 2016 found that among patients aged 70 years and over referred for PR, 1 in 4 met criteria for frailty.⁸ The study found that compliance was a challenge for frail patients compared with non-frail patients, largely due to COPD exacerbations and hospital admission, those who did engage fully with their prescribed PR fared better in terms of overall health status and exercise tolerance than the overall study cohort. So, frailty in itself is not a reason to rule out PR. Always encourage simple home exercise programs appropriate for the level of disability – age and frailty should be no bar to trying to maintain and improve strength and fitness.

Conclusion

The primary care clinician is critical in providing continuity of care based on a knowledge and understanding of the whole person for the frail elderly patient receiving care in the community and to coordinate care from multiple services. As part of this, re-evaluating and rationalising care directed towards respiratory conditions and symptoms has the potential to reduce the overall burden of care and ensure patients receive the package of care that is most appropriate and beneficial for them.

Patients with COPD and co-existing frailty should be identified as high risk with regard to COVID-19 infection and a proactive review of their condition carried out.

PCRS position

- Primary care practitioners should seek to identify and provide proactive support to older people living with frailty in the community
- Conduct a comprehensive review that includes confirmation of the diagnosis/diagnoses of the patient to identify comorbid conditions as well as establish patient's priorities for their care. Ideally include the patient's usual carer in this process. Assess and seek to optimise nutrition and social support.
- Review all the respiratory medications the patient is currently taking, considering the goals of treatment, likely benefits and likely side effects. In particular:
 - o Consider whether regular bronchodilation is necessary and appropriate for the frail patient without breathlessness who is largely immobile
 - o Re-evaluate the clinical indication for high-dose ICS and consider a dose reduction or cessation if appropriate
 - o Consider any dexterity or cognitive issues for patients self-administering their medication and inspiratory capacity
 - o Ensure a clear, concise management plan is in place and that anyone caring for the individual is aware of the plan and is able to administer any inhaled medications correctly
- Consideration should be given to the potential for pulmonary rehabilitation given that this intervention has been shown to improve lung function and reduce frailty. Always encourage exercise.

References

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