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ELDER CARE

A Resource for Interprofessional Providers

Dialysis in the Older Adult – Practical Considerations

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The number of persons aged 65 years and older with end-stage renal disease (ESRD) is increasing and is expected to grow further in the coming years. Simultaneously, the percentage of older adults being treated for ESRD with renal replacement therapy (RRT, which includes peritoneal dialysis or hemodialysis performed in the home or a dialysis center) is also increasing, though African-Americans tend to be referred for dialysis later than others, often because they receive care later in the course of ESRD.

Despite the increased use of RRT, mortality rates of older adults receiving RRT are higher than in younger individuals on RRT for a variety of reasons, including medical comorbidities, limited life expectancy, frailty, and poor functional status. These factors all pose challenges in decision-making about if and when to institute RRT, how best to provide it, and, once begun, whether there is a point at which it should be discontinued.

The decision to initiate (or stop) dialysis in older adults requires a lot of planning and informed decision-making. The general issues that need to be assessed are listed in Table 1. The overall approach to initiating RRT is outlined in the algorithm on the next page.

Benefits and Challenges of RRT in Older Adults

RRT offers a survival advantage to older adults with ESRD who have minimal co-morbidities and good functional status. These individuals also report improvement in quality of life from social stimulus at dialysis centers. In addition, it helps alleviate symptoms associated with ESRD. Despite the aforementioned benefits, there are also challenges to providing RRT to older adults (Table 2).

Table 2. Challenges of RRT in Older Adults

- The need to be present at the dialysis center on a regular basis (for hemodialysis) or manage the dialysis procedure (for home peritoneal dialysis).
- Higher complication rates from hemodialysis in comparison to rates in younger persons, including hypotension, gastrointestinal bleeding, and pain.
- Dialysis fistulas have lower survival rates in older adults (39%) than in younger patients (68%).
- While RRT prolongs life in older adults with ESRD, survival rates while receiving RRT are lower than in younger adults on RRT.
- Progressive decline in emotional, functional, cognitive and physical wellbeing, resulting in higher rates of disability and nursing home placement.
- Higher rates of depression.

Various tools can be used to assess a patient’s cognitive, functional, emotional, and physical status and quality of life (Table 3). For patients with ESRD in whom the evaluation still leaves uncertainty about the desirability of RRT, a trial of RRT can be instituted (see algorithm).

Table 3. Tools for Assessing Older Adults Prior to RRT

Cognitive Status	<ul style="list-style-type: none"> • Mini-Cog • Mini-Mental State Exam (MMSE) • Montreal Cognitive Assessment (MoCA)
Functional Status	<ul style="list-style-type: none"> • Physical Self Maintenance Scale • Vulnerable Elders-13 Survey
Emotional Status	<ul style="list-style-type: none"> • Beck Depression Inventory-II • Geriatric Depression Scale (GDS) • Patient Health Questionnaire-9 (PHQ-9)
Physical Status	<ul style="list-style-type: none"> • Comprehensive Geriatric Assessment • Fried Frailty Index
Quality of Life	<ul style="list-style-type: none"> • 36-Item Short Form Health Survey (SF-36) • Kidney Disease Quality of Life (KDQOL-36) • Schedule for Evaluation of Individual Quality of Life (SEIQOL)

Table 1. Factors to Consider Before Initiating RRT in Older Adults

- Patient preferences and values
- Life expectancy
- Patient’s general health, nutritional status, and serious medical conditions (e.g., advanced cancer or dementia)
- Patient’s physical, functional, emotional, and cognitive status

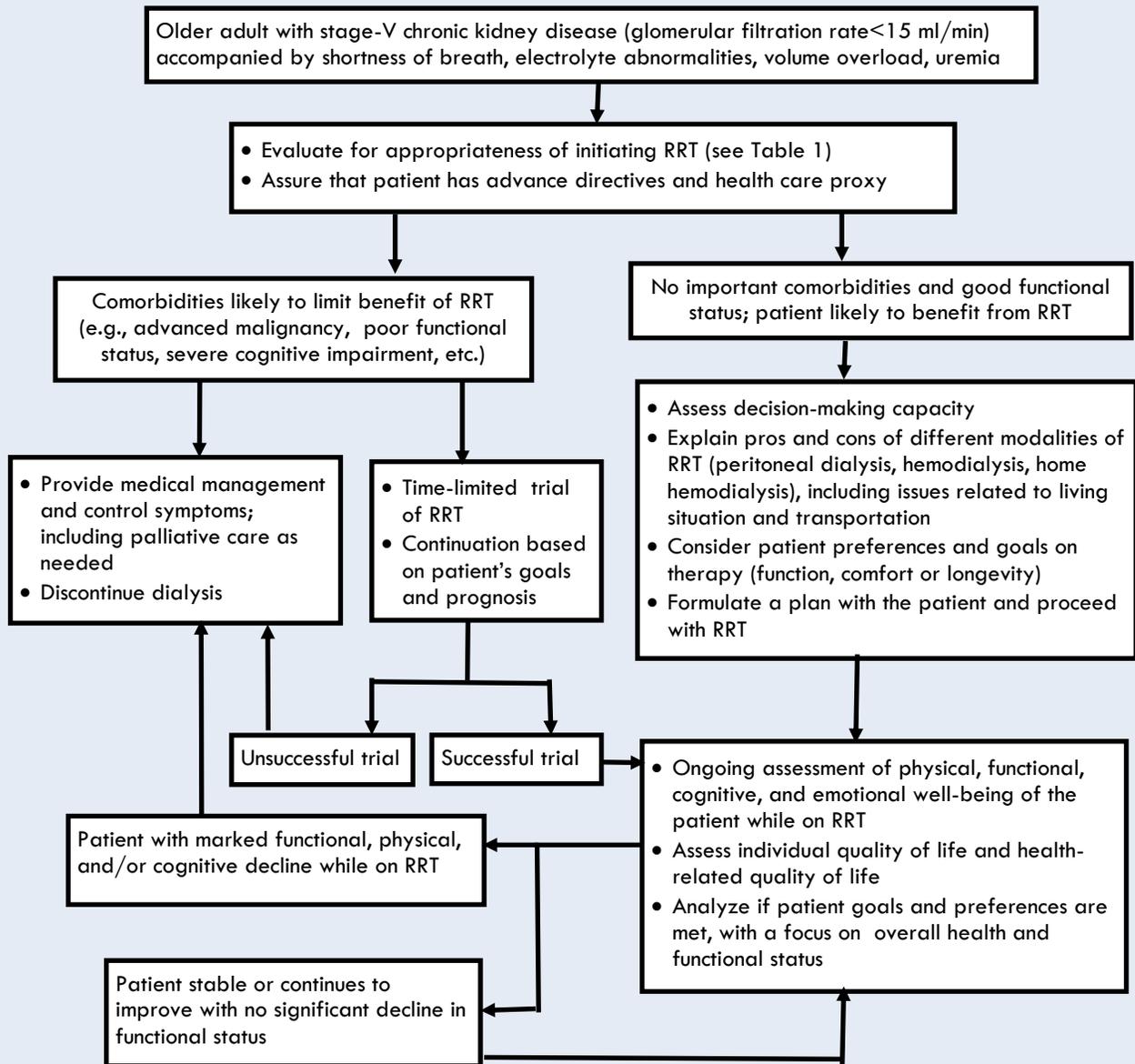
TIPS FOR DEALING WITH RRT IN OLDER ADULTS

- Decision about initiating RRT in older adults should take into consideration their biological age and life expectancy, along with their cognitive, functional, emotional, and physical well-being and presence of comorbidities and frailty.
- When deciding about initiating RRT, also focus on promoting shared decision making, patient values and preferences, and symptom burden alleviation.
- Patients already on RRT should have periodic assessment of falls, frailty, nutritional status, depression, and changes in cognition and quality of life.

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Algorithm for Initiation and Management of Renal Replacement Therapy (RRT) in Older Adults



References and Resources:

- American Society of Nephrology. Geriatric Nephrology. <https://www.asn-online.org/kidneydisease/geriatrics>
- Berger JR, Jaikaransingh V, Hedayati SS. End-stage kidney disease in the elderly: approach to dialysis initiation, choosing modality, and predicting outcomes. *Adv Chronic Kidney Dis.* 2016;23:36-43.
- Singh P, Germain MJ, Cohen L, Unruh M. The elderly patient on dialysis: geriatric considerations. *Nephrol Dial Transplant.* 2014; 29:990-6.

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