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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

Dialysis-associated outcomes are more variable in older adults and they are at an increased risk for poor outcomes. Physiological changes of aging; comorbid conditions; and the presence of geriatric syndromes, especially frailty impact morbidity and mortality in elderly ESRD patients. In some patients, an incremental dialysis approach (starting with 1-2 dialysis sessions/week) helps preserve renal function, which is a strong predictor of survival at one year of dialysis. Despite the aforementioned benefits, there are also challenges to providing RRT to older adults (Table 2).

**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
- Geriatric syndromes

**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"> <li>• Mini-Cog</li> <li>• Mini-Mental State Exam (MMSE)</li> <li>• Montreal Cognitive Assessment (MoCA)</li> </ul>
Functional Status	<ul style="list-style-type: none"> <li>• Physical Self Maintenance Scale</li> <li>• Vulnerable Elders-13 Survey</li> </ul>
Emotional Status	<ul style="list-style-type: none"> <li>• Beck Depression Inventory-II</li> <li>• Geriatric Depression Scale (GDS)</li> <li>• Patient Health Questionnaire-9 (PHQ-9)</li> </ul>
Physical Status	<ul style="list-style-type: none"> <li>• Comprehensive Geriatric Assessment</li> <li>• Fried Frailty Index</li> <li>• Modified Charlson Score, Cohen Prognostic Model, Couchoud et al. clinical score, DOPPS, VES-13</li> </ul>
Quality of Life	<ul style="list-style-type: none"> <li>• 36-Item Short Form Health Survey (SF-36)</li> <li>• Kidney Disease Quality of Life (KDQOL-36)</li> <li>• Schedule for Evaluation of Individual Quality of Life (SEIQOL)</li> </ul>

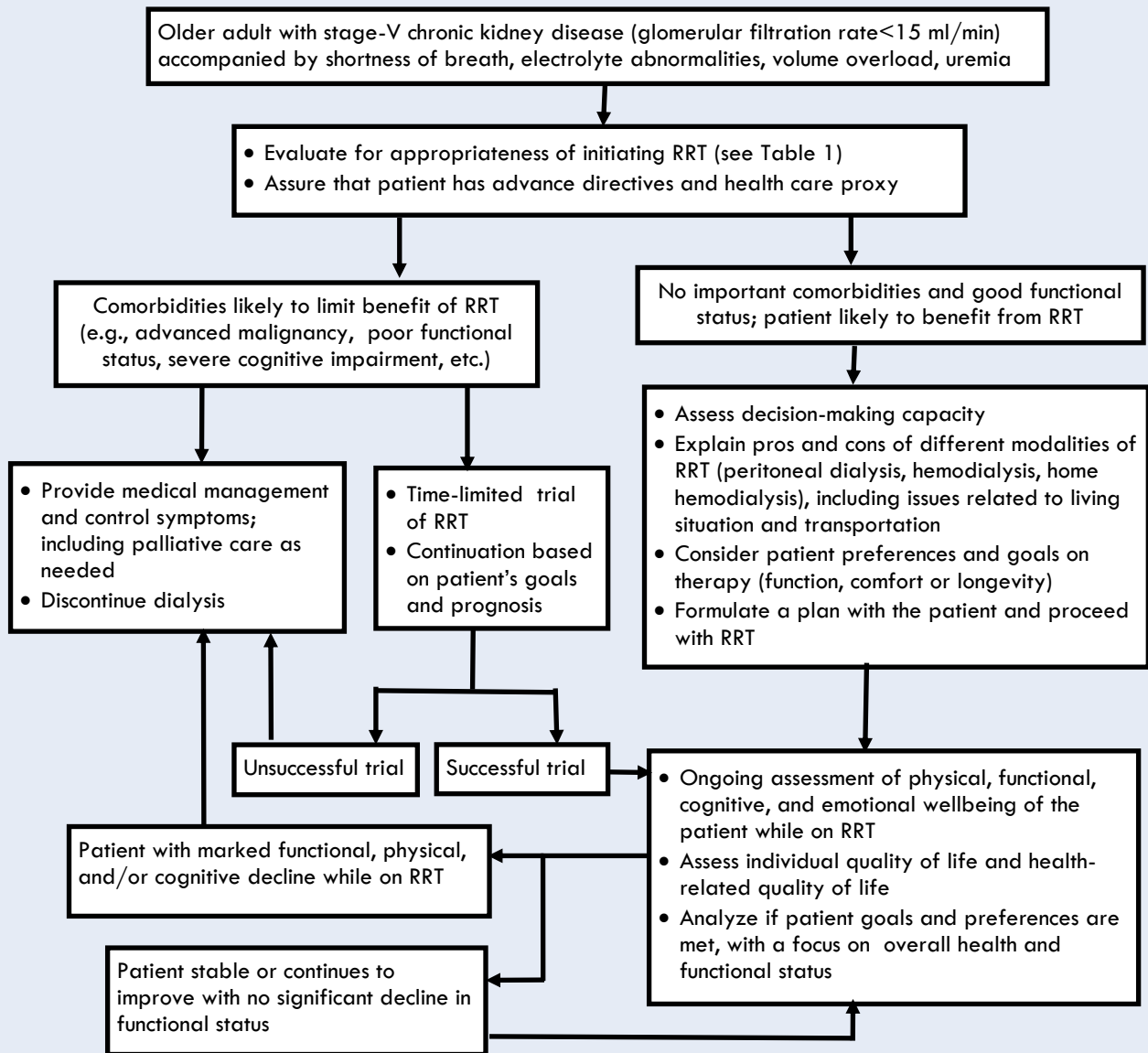
#### TIPS FOR DEALING WITH RRT IN OLDER ADULTS

- 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/education/distancelearning/curricula/geriatrics/>
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