enhanced monitoring of a group at high risk of adverse outcomes. Although young adults must have an opportunity to meet their care providers alone, many will continue to desire and need involvement of parents or significant others in their care. This is a normal part of development, is associated with better outcomes, and should be encouraged.[895]

Multidisciplinary young adult clinics including youth workers, social workers, pharmacists, and psychologists in addition to physicians and nurses may be beneficial.[900] Peer-support programs have also shown promise.[904]

5.4 Timing the initiation of dialysis

Practice Point 5.4.1: Initiate dialysis based on a composite assessment of a person's symptoms, signs, QoL, preferences, level of GFR, and laboratory abnormalities.

Practice Point 5.4.2: Initiate dialysis if the presence of one or more of the following situations is evident (Table 41). This often but not invariably occurs in the GFR range between 5 and 10 ml/min per 1.73 m^2.

Practice Point 5.4.3: Consider planning for preemptive kidney transplantation and/or dialysis access in adults when the GFR is <15–20 ml/min per 1.73 m^2 or risk of KRT is >40% over 2 years.

These statements are worded very precisely to highlight the need to plan proactively for complex activities related to initiation of KRT. Also, there is a need to address symptoms and to avoid the institution of dialysis therapy at an arbitrary number representing the degree of residual kidney function. Given the risks and benefits of KRT, as well as the potential imprecision of measurements, people with CKD need to be treated according to symptoms and signs, not simply based on laboratory values. Data from the Initiating Dialysis Early and Late (IDEAL) RCT show no survival advantage to early start dialysis (i.e., at higher levels of GFR).[905] Thus, the statement as written should help the healthcare provider to balance symptoms with laboratory values in decision-making.

Secondary analyses of the IDEAL study showed no significant difference in QoL or healthcare–related cost between early and late start dialysis groups.[905,906] Moreover, subgroup analysis of the IDEAL study revealed no benefits on cardiac outcome in the early-start dialysis group.[907] Since the IDEAL study, there were a number of large sample size observational studies with an advanced statistical technique to reduce possible confounding factors and biases encountered in previous observational studies.[908–910] The overall results were consistent with the IDEAL study and showed no benefits of early-start dialysis compared with late-start dialysis in regard to mortality and hospitalization risk (Table 42[905–909]).

Factors such as availability of resources, reasons for starting dialysis, timing of dialysis initiation, patient education and preparedness, dialysis modality and access, as well as varied "country-specific" factors significantly affect a person's experiences and outcomes. As the burden of kidney failure has increased globally, there has also been a growing recognition of the importance of patient involvement in determining the goals of care and decisions regarding treatment. It is important to move away from a "one-size-fits-all" approach to dialysis and provide more individualized or personalized care.

The availability of resources for formal multidisciplinary teams, educational materials, and access to specialized counseling for diet, advance directives, access planning, and preemptive transplantation varies around the world. These statements are proposed so that "best practices" can be documented or aspired to. The need for education, planning, and appropriate expertise for the management of this patient group is internationally relevant. The methods, frequency, and tools with which this can be accomplished will be region specific.

There is a need to focus on regular symptom assessment as part of the CKD review in those with lower eGFR values. Individual assessment and availability of resources will dictate specific timing of therapies. Healthcare providers should be aware of the impact of early dialysis start on QoL before recommending this strategy to people with CKD.

Recognition that the planning of smooth transition to either dialysis or transplantation from advanced CKD requires alignment of multiple different resources and activities, as such the planning for these will be situation specific. It is important to recognize that there is variability in the availability of vascular access services or peritoneal dialysis catheter insertion for those who choose hemodialysis or peritoneal dialysis, respectively, and access to preemptive transplantation. The complexity of the decision-making and different teams and resources required to effectively transition people often requires time, and thus the recommendation to begin "planning of KRT" is intentionally advised at a conservative time point.

Special considerations

Pediatric considerations.

Practice Point 5.4.4: In children, in addition to the adult indications for dialysis, poor growth refractory to optimized nutrition, growth hormone, and medical management is an indication for initiating KRT.

Table 41 | Indications for the initiation of dialysis

Symptoms or signs attributable to kidney failure (e.g., neurological signs and symptoms attributable to uremia, pericarditis, anorexia, medically resistant acid-based or electrolyte abnormalities, intractable pruritus, serositis, and acid-base or electrolyte abnormalities)
Inability to control volume status or blood pressure
Progressive deterioration in nutritional status refractory to dietary intervention, or cognitive impairment