GUIDANCE FOR PRIMARY CARE: KIDNEY REPLACEMENT THERAPIES AND CONSERVATIVE KIDNEY MANAGEMENT

ISN INTERNATIONAL SOCIETY OF NEPHROLOGY

- As individuals reach kidney failure, much of the kidney-specific care is delivered by nephrologists.
- However, primary care continues to play a critical role both in ensuring comprehensive primary care continues, and in shared-decision making.
- Many individuals ask their primary care physician, who often know them best, for advice on kidney replacement therapies (KRT) and conservative kidney management.
- Understanding the options will help you to guide and support them to make this decision.

Determining an individual's risk of progression to kidney failure

Use the Kidney Failure Risk Equation to determine 2 and 5 year probability of treated kidney failure (dialysis or transplantation) for an individual with CKD stage 3 to 5.

https://www.kidneyfailurerisk.com

The kidney failure risk equation, along with clinical considerations, can be used to determine: the need for a nephrology referral (where available); the timing of multidisciplinary care; the timing of modality education; and, the timing of preparation for kidney replacement therapy.

KEY MESSAGES TO COMMUNICATE

Adapt messaging based on treatment burden (time, travel, and caregiver needs), clinical fit, local policies, and what is available and affordable.

TRANSPLANT

- In suitable individuals, kidney transplantation, especially pre-emptive or from living donors, may offer the best rates of survival and quality of life. Waitlist times vary by location.
- Transplant requires ongoing follow-up and adherence to immunosuppressive therapy.
- Not all individuals needing KRT will be medically fit enough for this major surgery.

DIALYSIS (Hemodialysis or Peritoneal Dialysis)

"Given evidence suggesting only small differences in outcomes between home and in-center dialysis, modality choice should be preference-sensitive, informed, and individualized based on perceived quality of life, life goals, and symptom burden." (KDIGO 2023)

Hemodialysis (HD)

- Requires a specialized machine to 'clean' the blood.
- Performed several times per week for a variable number of hours so more dialysis can be delivered.
- Requires vascular access (catheter, arteriovenous fistula or graft) to circulate blood from the individual through the machine and back. Early referral allows time for access planning.
- Can be delivered **at home** or **in-centre**
  - If in centre, general travel away from home can be more difficult.
  - If at home, delivered by individuals or their caregivers, following training.

Peritoneal Dialysis (PD)

- Is done at home by individuals or their caregivers, following training.
- Involves the exchange of dialysis fluid through a catheter placed in the abdominal peritoneal cavity.
- Performed either manually 2-4 times a day or by an automated machine overnight.

CONSERVATIVE KIDNEY MANAGEMENT

- This is not "no treatment," but active management focused on symptom control and quality of life. It may be an informed choice—often by older or frail individuals who cannot or do not wish to start dialysis or transplantation—or the default when access barriers exist.

KIDNEY REPLACEMENT THERAPIES AND CONSERVATIVE MANAGEMENT IN PRIMARY CARE

PRIMARY CARE TEAM ROLE SUPPORTING NEPHROLOGY

ONGOING PRIMARY CARE TEAM ROLE

- Monitor and manage comorbidities (hypertension, diabetes, CVD).
- Try to maintain guideline directed medical therapies (e.g. RAASi, SGLT2i). These can continue to be prescribed but not initiated in individuals with eGFR < 20 mL/min.
- Advise on holistic care including assessment of social care needs and frailty management.
- Monitor for mental health issues.
- Promote and provide guidance on health lifestyle (diet, weight, physical activity).
  - Dietary advice should be individualised, particularly in more advanced CKD.

PREPARING FOR ESKD

Primary Care Team Role:

- Engage in shared decision-making with the individual.

Nephrology Team Role:

- Educate individuals about options, perform clinical evaluation and engage in shared-decision making.
- Optimise slowing of CKD progression.
- Counsel on lifestyle adaptations.
- Start transplant work-up or ensure timely creation of dialysis access. Plan training for home dialysis if chosen.
- Explore financial aid options and assist with applications (or multidisciplinary team with social workers may do this).

DIALYSIS INITIATION AND MANAGEMENT

Primary Care Team Role:

- Be alert to:
  - Specific dialysis complications: fluid overload, septicaemia, peritonitis.
  - Advanced CKD symptoms: fatigue, pruritus.
  - Sudden clinical deterioration or quickening of kidney function decline before dialysis start and liaise with nephrology.

Nephrology Team Role:

- Obtain informed written consent for dialysis (if applicable).
- Aim for an optimal planned dialysis start as an outpatient.
- Initiate dialysis and adjust treatment based on individual needs.
- Monitor and manage dialysis treatment, including adjusting fluid removal, and managing hyperkalemia, iron deficiency and anaemia.
- Dialysis is not determined by a specific eGFR level but is typically below 15 ml/min based on symptoms, inability to keep in fluid balance or worsening nutritional status (KDIGO dialysis initiation) and/or biochemical derangements e.g, ureamia, acidosis and hyperkalaemia.

TRANSPLANT

Primary Care Team Role:

- Oversee long-term health after transplantation.
- Monitor for risks related to immunosuppression, monitor for infections.

Nephrology Team Role:

- Manage all post-transplant follow-up including monitoring transplant function and adjusting immunosuppression.
- Manage any complications (including rejection).

CONSERVATIVE KIDNEY MANAGEMENT

Primary Care Team Role:

- Symptom management, palliative care and quality of life.

Nephrology Team Role:

- The nephrology team and/or palliative care team will be closely involved in management.

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