



This document is up to date as of 29th March 2020 and we will update it in line with new information that arises from the evidence as well as expert opinion from our members. Please contact us at RenalNutrition@bda.uk.com if you have any information to share that might be useful for others.

Renal Nutrition Group (RNG) of the British Dietetic Association guidance on management of renal nutrition and dietetic services during the COVID-19 pandemic

Authors:

Fiona Willingham
Clinical Lead Renal Dietitian
University Hospitals of Derby and Burton NHS Foundation Trust

Harriet Williams
Area Head of Dietetics
Betsi Cadwaladr University Health Board

Bruno Mafrci
Lead Renal Dietitian
Nottingham University Hospitals NHS Trust

Approved by the Renal Nutrition Group Committee

Introduction

The COVID-19 pandemic has led to unprecedented challenges to the delivery of renal dietetic services. This will require significant planning and possible restructuring of dietetic services to ensure that we are able to provide a safe and effective service during this time.

The purpose of this guidance is to maximise the safety of patients accessing renal services and renal dietetic staff. This document has been developed by members from the Renal Nutrition Group (RNG) of the British Dietetic Association (BDA).

This guideline is for:

- health and care practitioners
- health and care staff involved in planning and delivering renal dietetic services

The recommendations bring together:

- existing national and international guidance and policies
- advice from specialists working in the NHS from across the UK. These include people with expertise and experience of treating patients for the specific health conditions covered by the guidance during the current COVID-19 pandemic.

The RNG recognises that many renal units and dietetic departments in the UK are adopting a dynamic approach to the situation and management plans may change on a daily basis. In addition, the RNG recognises the high level of heterogeneity of staffing and delivery of renal dietetic services in the UK, which makes it challenging to create specific guidance which satisfies the individual needs of each renal dietetic service.

We recommend that this guideline is used in conjunction with the RNG section of the BDA website, where we request RNG members share any locally developed information and practical resources as a way of offering support to colleagues nationally.

1. Leadership and service delivery planning

Most renal units across the UK are making provisions for the likelihood of less frequent dialysis, although this will be assessed on an individual basis according to capacity. This will place significant pressure on all multidisciplinary team (MDT) members and has implications for renal dietitians.

The RNG strongly recommends that planning for changes to dialysis schedules occurs in collaboration with renal dietitians.

In order to maintain safety of staff, the RNG recommend:

- Enabling home working where possible in accordance with local NHS policy (for example telephone clinics, remote renal replacement therapy reviews)

2. Service provision when workforce is reduced

The renal dietetic workforce is likely to be reduced for various reasons, due to staff self-isolation, or staff re-deployment to other areas such as critical care or parenteral nutrition.

The RNG recommend:

- Agreeing local criteria for prioritisation of both new and review patients requiring dietetic input, including timeframes for intervention, dependent on local capacity
- Ensuring that healthcare professionals who need to self-isolate but are well can continue to support the service by:
 - enabling telephone or video consultations with patients where possible, for example telephone clinics and renal replacement therapy reviews
 - enabling telephone or video attendance at multidisciplinary team meetings
 - identifying patients who are suitable for remote monitoring and follow up, and those who are vulnerable and need support
 - writing or updating patient-facing documentation, prioritising that relating to COVID-19
 - updating local guidance for renal dietetic provision, prioritising that related to COVID-19

3. Communicating with Patients

The RNG recommend:

- Minimised face-to-face contact by:
 - offering telephone or video consultations to all outpatients. This may include working from home according to local NHS policy

- avoiding all non-essential follow up such as 6 monthly routine reviews for dialysis patients
- avoiding face to face contact with patients unless in exceptional circumstances (for example renal inpatients who are artificially fed), to reduce footfall on dialysis units, satellite units and renal inpatient wards
- where patients are unable to communicate via telephone or videoconference, attempts should be made to provide intervention via an advocate for the patient, before considering direct face to face contact with the patient

4. Communicating with the MDT

We acknowledge that remote review of patients hold limitations and can make ascertaining the true clinical picture challenging. It is therefore imperative that renal dietitians and renal dietetic assistants continue to communicate with the renal MDT regarding the management of all renal patients.

Decisions regarding this should be made as per local guidance, but could include:

- Attendance at morning handover rather than ward rounds
- Remote dialysis review meetings or MDT meetings rather than walk round reviews
- Virtual MDT meetings

5. Nutritional management

5.1 Changes to dialysis schedules

For patients whose dialysis or treatment schedule is not affected, the RNG recommend:

- that they continue to be managed according to appropriate local, national and international nutritional guidelines
- face to face contact should be avoided where possible
- remote review of patients should be considered, unless this may compromise patient care

NICE guidance (2020) states that dialysis units should develop individualised plans for patients so that their dialysis schedule can be reduced safely if that becomes necessary, to enable the on-going operational delivery of dialysis in the unit or at home if there are constraints because of widespread COVID-19.

Less frequent dialysis will lead to reduced removal of potassium and fluid on a weekly basis, with longer gaps for the build-up of these between dialysis sessions. For patients whose dialysis schedule is reduced, the following guidance should be considered, to minimise risk of potential complications associated with hyperkalaemia and fluid overload.

We acknowledge that this anxious and challenging time for patients is likely to lead many to feelings of being overwhelmed. Furthermore, practical issues with food

supply may arise. Renal dietitians should be careful to assess the patient's ability to receive dietary advice and focus strongly on prioritisation of crucial dietary guidance, whilst using a pragmatic approach.

All nutritional guidance should be supported with appropriate written or pictorial information in accordance with local policy or guidelines. The Renal Nutrition Group has examples of patient information which can be utilised as required.

Potassium

The RNG recommends:

- Pre-dialysis serum potassium levels should be managed according to local policy, but in the absence of this suggest that levels should ideally be ≤ 5.5 mmol/l, and no higher than 6.0mmol/l
- The frequency of monitoring for pre-dialysis serum potassium levels should be increased according to local policy
- Non-dietary causes of high serum potassium should be considered and treatment provided according to local policy
- Dietary advice should be provided to those patients with pre-dialysis serum potassium levels ≥ 5.5 mmol/l, aiming to reduce dietary potassium intake to 50-70mmol per day, or no more than 1mmol/kgIBW/day where possible
- Local policies should address the prescription of potassium binders to allow the frequency of dialysis to be reduced, and the potential for their use should be explored on an individual patient basis
- Consider reducing potassium contribution from protein foods by advising patients to reduce their dietary protein intake as detailed below

Fluid

The RNG recommends:

- Local policies should address the use of fluid restriction to allow the frequency of dialysis to be reduced.
- Inter-dialytic fluid weight gain (IDWG) should be < 2.5 kg or $< 5\%$ of dry weight, in accordance with local policy
- Dietary advice should be provided on reducing fluid intake to no more than 500-750ml/d in anuric patients, or 500mls plus daily urine output, in accordance with local policy
- Individual patient education should include discussing the potential consequences of non-compliance with a fluid restriction

- Dietary advice should be provided on the importance of reducing dietary salt intake to no more than 5g per day
- Close communication with the medical and nursing team regarding fluid management targets and fluid allowances

Protein

The RNG suggests:

- Consider advising patients to reduce dietary protein intake to 0.8-1g/kg/d, particularly in patients who are complaining of uraemic symptoms. The potential benefits and risks of protein restriction should be considered on an individual basis, dependent on current nutritional status and risk of protein energy wasting.
- Close monitoring of nutritional status, and adjustment of recommendations for dietary protein intake as necessary

5.2 Maintaining Nutritional Status

The RNG suggests:

- Nutritional assessment and care planning is conducted in accordance with appropriate local, national and international guidelines
- Close monitoring of nutritional intake and changes to nutritional status, and adjustment of nutritional care plans as necessary

5.3 Delayed start to dialysis for new incident dialysis patients

For new incident dialysis patients who encounter a delayed start to dialysis treatment, the RNG recommend that the following guidance for nutritional advice and monitoring is considered.

Moderate protein

The RNG suggests:

- Consider advising patients to reduce dietary protein intake to 0.8-1g/kg/d, particularly in patients who are complaining of uraemic symptoms. The potential benefits and risks of protein restriction should be considered on an individual basis, dependent on current nutritional status and risk of protein energy wasting
- Close monitoring of nutritional status, and adjustment of recommendations for dietary protein intake as necessary

Potassium

The RNG recommends:

- Pre-dialysis serum potassium levels should be maintained within acceptable limits according to local policy

- The frequency of monitoring for serum potassium levels should be increased according to individual patient need and local policy
- Non-dietary causes of high serum potassium should be considered and treatment provided according to local policy
- Dietary advice should be provided to those patients with raised serum potassium levels, aiming to reduce dietary potassium intake to 50-70mmol per day, or no more than 1mmol/kgIBW/day where possible
- Local policies should address the prescription of potassium binders to allow the initiation of dialysis to be delayed, and the potential for their use should be explored on an individual patient basis

Fluid

The RNG recommends:

- Local policies should address the use of fluid restriction in patients presenting with fluid overload, to allow delayed start to dialysis treatment
- Individual patient education should include discussing the potential consequences of non-compliance with a fluid restriction
- Dietary advice should be provided on the importance of reducing dietary salt intake to no more than 5g per day
- Close communication with the medical team regarding fluid management targets and fluid allowances

5.4 Critical Illness

For renal patients who become critically ill and require critical care, the RNG recommend following appropriate guidance, e.g. Critical Care Specialist Group guidelines

5.5 Acute Kidney Injury

The incidence of Acute Kidney injury (AKI) in hospitalised patients with COVID 19 is relatively low (29%), in comparison to severe lung injury which requires mechanical ventilation (71%) (Malha *et al* 2020). For patients who develop AKI, either with or without pre-existing kidney disease, the RNG recommend following appropriate national and international guidelines for nutritional management. For more information visit:

<https://www.thinkkidneys.nhs.uk/aki/wp-content/uploads/sites/2/2017/12/Think-Kidneys-Nutrition-Guide-final.pdf>

6. Additional Guidance

The RNG recommend that all renal dietitians keep up to date with guidance from other societies regarding professional practice during this time and medical and nutritional management of renal patients either with or without COVID-19, and health and wellbeing advice.

Additional guidance is available from a variety of sources, some of which include:

- National Institute of Health and Care Excellence
- Renal Association
- Kidney Care UK
- British Dietetic Association
- Renal Nutrition Group section of the BDA website
- Think Kidneys
- Public Health England

7. References

Malha L, Mueller FB, Pecker MS, Mann SJ, August P, Feig PU (2020). COVID-19 and the Renin-Angiotensin System, *Kidney International Reports* doi: <https://doi.org/10.1016/j.ekir.2020.03.024>.

NICE (2020). COVID-19 Rapid Guideline: Dialysis Service Delivery. Available at <https://www.nice.org.uk/guidance/ng160>