

UK survey of renal unit practices and experiences of the COVID-19 pandemic

■ COVID-19 ■ survey ■ renal care

As many of you have been following the regular updates from the Association of Nephrology Nurses (ANN UK) published in this journal, you will be aware that there has been a great deal of change and learning during the COVID-19 outbreak. ANN UK has been working to support members through these very trying and difficult times by communicating through the journal and sharing new policies and access to webinars. Effects on the psychological wellbeing of the workforce during the COVID-19 pandemic crisis are now well documented across the UK and worldwide (Gavin et al, 2020; Zaka et al, 2020), highlighting the stresses and fears that many experienced.

ANN UK was keen to capture the experience and learning of the nursing workforce. An online survey was developed and distributed to lead nurses across different renal units to capture practices during the initial phases of the pandemic.

Dr Helen Hurst

The University of Manchester, Manchester
Academic Health Science Centre, Manchester NHS
Foundation Trust
Email: info@ann-uk.org

Dr Sarah Ramsey

The University of Manchester, Manchester
Academic Health Science Centre, Manchester NHS
Foundation Trust

Karen Jenkins

Kent Kidney Care Centre, East Kent Hospitals
University NHS Foundation Trust

Professor Paula Ormandy

School of Health and Society, University of Salford

This article highlights changes in practice, with a focus on the challenges encountered during the COVID-19 pandemic, lessons learned and considerations for preparation for the future.

Methods

An online survey was developed with the support of lead nurses drawn from the ANN UK active WhatsApp group, a simple audit to capture changes in practice during the COVID-19 pandemic across renal units in the UK, with particular emphasis on the experiences of nurses at this time. The survey consisted of 41 questions, the majority of which were multiple-choice, with the opportunity to expand or add contextual qualitative text or provide examples. The survey examined topics such as continuation of services (out-patients, support services, etc), redeployment and training of staff, sickness and impact on services, use of and access to personal protective equipment (PPE), patient care and provision of support across services, in particular, intensive/critical care units.

The link to the online survey was distributed and promoted to all lead nurses via email, WhatsApp and a website between 28 June and 29 July 2020, and then completed by themselves or a designated senior nurse. The target sample included both adult and paediatric units (n=88). All responses were anonymised prior to analysis.

Results

The survey received 58 responses and represented 50 renal units (57%) from across the UK (39 from England, five from Ireland, four from Scotland and two from Wales). Four responses were anonymous and four sent from different departments within previously included Trusts, such as acute kidney injury (AKI) or satellite units. All 58 responses provided detailed information and were used to inform the results and findings.

The opening question to the survey asked respondents whether they felt their units were adequately prepared before being required to treat COVID-19-positive patients. Encouragingly, 64% felt adequately prepared but commented on the constant challenges of changing advice, both nationally and within their own organisations at the start of the pandemic. Issues identified as most challenging included the impact on services, managing the workforce, impact on patient care, screening and management of COVID-19 and lessons learned.

Service impacts

Changes to service delivery were inevitable, as attempts were made to reduce face-to-face consultations across both primary and secondary care, minimising patient visits to hospital. Over 90% of respondents reported a reduction in face-to-face clinics, with 81% introducing telephone consultations and 45% telemedicine and video consultations. It was apparent that not all Trusts were sufficiently agile to make the change to video consultation; this is something that many have subsequently been investing in for the future.

The survey also asked specific questions about peritoneal dialysis (PD), with 21% of respondents noting that PD numbers had increased during the pandemic. It was reported that, in some areas, PD numbers increased during the pandemic in an attempt to manage patients in their own homes, away from the hospital setting. This added strength to the work undertaken regionally to increase the uptake of home therapies, with a recent review by Brown and Perl (2020) emphasising the necessity for this. While concern had been expressed at the start of the pandemic regarding delivery of PD supplies to patients' homes, only 10% of survey respondents encountered difficulties in this area.

Some 12% of the respondents in this survey provided acute PD in intensive care units (ICU) to support the growing demand of acute kidney injury (AKI) cases related to COVID-19 requiring renal replacement therapy. According to survey respondents, of the clinicians responsible for PD tube insertion, 50% were surgeons, 41% were medical staff and 7% were nurses. Most surgical insertions performed were carried out by transplant surgeons. Transplant surgery stopped in many centres during the COVID-19 outbreak, and is only just fully back up and running. Lack of a transplant service impacted on dialysis provision; the subsequent increased requirement for dialysis may have also influenced the increase in PD availability in an attempt to reduce demand on haemodialysis (HD) services. An additional influencing factor was

that home therapies would benefit those requiring dialysis by reducing the need to visit hospital. This has again raised the need to increase access to home therapies, including PD.

Workforce

The COVID-19 pandemic hugely impacted the nursing workforce, including factors such as redeployment, development of new knowledge and skills and pressures caused by sickness and absence.

Some 45% of respondents from nurse-led clinics were redeployed to other areas within renal to support either services caring for patients with COVID-19 or dialysis areas. Some renal units reported that staff were moved out to areas of increased activity, such as HD and critical care/intensive care units. However, 69% of respondents reported that staff from other areas were moved into renal units to provide support. This included clinical nurse specialists such as anaemia nurses, but also nurses from non-renal areas, including surgical wards and endoscopy. This was a common experience across hospital sites, with new teams created and many nurses finding themselves in unfamiliar surroundings during a very stressful time. Additionally, 76% of respondents noted that their renal centres were asked to provide increased support to ICU/CCU due to both the high volume of patients and increased incidence of AKI. Many Trusts undertook a skills review in preparation for COVID-19, identifying members of nursing staff with critical care or renal knowledge and skills so as to place them in the most suitable roles. Additional training was provided to support staff during role transition.

Respondents were asked whether nursing staff were required to work across both COVID-19-positive and non-COVID-19-positive areas, with 59% replying that specific staff were designated to COVID-19 areas only. However, variation was identified, with some staff allocated to COVID-19-positive areas for full or part shifts, while others were allocated to COVID-19-positive or non-COVID-19-positive areas for the duration of the crisis. This included dialysis units and inpatient ward areas.

Pressure on the nursing workforce was increased by a rise in sickness and shielding absence levels amongst colleagues. Respondents were asked for the percentage of staff in their unit who recorded a COVID-19-related episode of sickness, with responses varying widely from 0–80%; the majority ranged between 30–50% members of staff having a period of absence relating to COVID-19. The responses to this question were very varied, with many respondents being uncertain of the specific numbers. Each Trust will have a record of sickness

episodes, but depending on the accuracy of the monitoring, exact numbers of COVID-19 cases may not be known, especially those occurring early on in the pandemic. The introduction of antibody testing has provided insight into the number of those infected, with one respondent to the survey highlighting that 48% of dialysis staff had tested positive for COVID-19 antibodies.

Some 93% of survey respondents described increased levels of anxiety and fear among staff.

This is in line with previous publications considering the effect of the pandemic on healthcare workers worldwide, which have highlighted the impact on the mental health of staff and the subsequent need for psychological support (Gavin et al, 2020; Zaka et al, 2020). Many qualitative responses were provided to the follow-up question: 'What did you observe and how did you manage this?', providing insight into the feelings generated by the pandemic. Observations from nurses included:

'Some were terrified'

'Anger, increased conflict and frictions between colleagues'

'Staff tiredness, unusually quiet, needing more reassurance and support'

'Increased anxiety, mainly due to the media and what was going on in their own lives rather than work'

'It felt like an uphill struggle'

'Seeing patients so ill was tough, seeing patients die and not being escalated to ITU.'

While no one was prepared for the overwhelming feelings of fear and anxiety encountered in either themselves or others, many respondents were pleasantly surprised by the level of resilience demonstrated:

'Staff supported each other ... [they] discussed [their] anxieties together so [they] didn't feel alone'

'The whole team feels very proud of our resilience during the pandemic, we found strength in each other'

'The best in people surfaced during this difficult time'

'As an MDT, we all pulled together.'

Such a sense of teamwork and 'pulling together' for a common cause was felt strongly by respondents. Additionally, many commented on the support provided by their employing organisation, with 79% feeling that the level of support provided had been adequate. Examples of measures implemented that respondents felt to be supportive included regular meetings for briefing and updates, access to free car parking (95% of respondents), free tea and coffee (72%) and free meals (59%). Additional changing facilities were provided in 29% of units that responded. Many other supportive measures were described by respondents, including access to counselling services, free groceries, gift bags and welfare packs, arrangements for NHS staff to access supermarkets and a variety of NHS staff discounts.

Despite the majority of respondents feeling well supported, several expressed concerns regarding the inequality of support provision across their organisations, particularly those in dialysis units:

'The corporate team did not understand the impact of COVID-19 on dialysis'

'Some areas were treated differently and didn't feel equal.'

Other respondents described the support offered by their organisations as a token gesture of limited value.

Impact on patient care

Respondents noted the ways in which patients were updated regarding changes to care provision; these included advice from staff (95%), update letters (67%), written leaflets (60%) and telephone calls from renal teams (41%). Other units used Twitter or Zoom to communicate with patients and their carers. Current support services continued in some units, including dietetics (91%), psychology (53%) and social work (40%). Indeed, 47% noted that additional support services were put in place for patients, including psychological and social support, assistance with transport, support with meal provision or food bank referral and referral to other support agencies.

Patients using services responded to the pandemic in a variety of ways. Many patients expressed a high level of anxiety regarding attending hospital appointments, while others felt safe to attend for dialysis and appreciated the opportunity to leave their home. Patients awaiting transplant were affected as surgery was put on hold; for others, reductions in the number of haemodialysis sessions led to loss of control of



50% of the nurses surveyed revealed that patients were only swabbed for COVID-19 if symptoms were present

fluid gains and increased morbidity. As with staff, patients showed resilience in the face of difficulty:

'I have learnt that our renal patients are capable of coping with many challenges, even COVID-19.'

Respondents reported that patients expressed gratitude and appreciation for the care they received during the pandemic, along with acknowledgement and support for the difficult circumstances in which staff were working. However, many expressed concerns regarding the care provided to patients due to workforce limitations, particularly at the beginning of the pandemic:

'The nursing care was affected'

'Staff felt they were not giving exemplary care'

'[There are] fears that we have lost the human touch that we all enjoy in patient care.'

Patients' relatives and carers were also affected by changes implemented as a result of the pandemic. Some 90% of respondents noted that visitors were no longer permitted on units, exceptions being for patients at the end of life and for paediatric patients who were permitted to attend with one parent. The difficulties of caring for patients within the limit of such restrictions were noted by respondents:

'I tried to provide the support and care that a relative would to my patients, as, for some, they saw only us for 8 weeks'

'I think that next time we should allow at least one visitor/next of kin. I feel that some patients would have got home sooner if they had seen their loved ones.'

Screening and management of COVID-19

Variability of responses was noted regarding screening of patients for COVID-19: 34% reported routine screening including swabs, 50% reported that patients were only swabbed if symptoms were present; 41% stated patients were screened before each dialysis session. 'Screening' was implemented in a variety of ways, including clinical questions, temperature checks or COVID-19 swabs. Respondents were not questioned regarding availability of swabs for screening, though difficulty accessing these was widely acknowledged at the start of the pandemic. Respondents who commented on this noted that swabs were introduced more routinely as time progressed.

Practice varied across sites in relation to the organisation of dialysis units. Some 53% of units provided completely segregated areas for COVID-19-positive patients, while 16% of units were partially segregated, while 57% of respondents made alterations to their units, particularly in terms of entry and exits to the unit. Some 66% made no changes to dialysis spaces; 12% reported spaces between dialysis machines being altered in COVID-19 positive areas. Some 93% stated patients were provided with masks to wear during dialysis. Highlighted as an issue early in the pandemic, patient transport was the topic of a further question, with 79% of respondents noting that patients were provided with masks for use during transport to and from dialysis.

Throughout the course of the pandemic, accessibility of PPE became both a national concern and the subject of controversy. Free-text responses expressed the frustration felt by many regarding provision of PPE at the start of the pandemic, though this was felt to improve, with one respondent noting that 'consistent PPE, screening and cohorting has had massive effects'. In dialysis units, 73% of respondents stated that surgical masks, eye protection, plastic aprons and gloves were available for use to care for non-COVID-19 patients. The use of PPE for COVID-19 positive patients varied and was noted to have changed during the pandemic in line with Government guidance. Some 36% of respondents had access to FFP3 masks and surgical gowns, along with aprons, gloves and eye protection. No respondents reported a complete lack of PPE for COVID-19 patients, while one noted that no PPE was provided for use with non-COVID-19 patients. While free-text responses stressed the importance of PPE provision in terms of maintaining staff wellbeing, others also noted the difficulty inherent in working

in 'full' PPE, particularly for an extended period of time:

'Working in full PPE was incredibly stressful and [it was difficult to think straight, hear conversations or have good vision due to fogged visors and glasses.'

Reports of the effects of PPE use in dialysis areas are now becoming available (Gray et al, 2020; Medjeral-Thomas et al, 2020). One study from North West England, where Public Health England guidelines were initially followed, with changes later made in line with the Renal Association, demonstrated cases of COVID-19 in healthcare staff, recommending caution and the need—as per European guidelines—for more protective PPE (Gray et al, 2020). This is supported by a recent publication from the London North West group (Medjeral-Thomas et al, 2020), which examined the management and outcomes of a cohort of dialysis patients. It is important to note that this group devised and followed their own guidelines for PPE and used full PPE with FFP3 for dialysis patients isolated with COVID-19, and no staff in these areas contracted COVID-19. The group's guidance on management of COVID-19 in haemodialysis is now available, recommending that 'the provision of comprehensive PPE, including FFP3 masks, eye shields and full body gowns, is essential for protecting healthcare staff in clinical areas with known cases from COVID-19 transmission' (Medjeral-Thomas et al, 2020).

Respondents from renal wards described a variation in segregation of COVID-19 patients, with a surprisingly high 38% of respondents having a mixed COVID-19-positive/non-COVID-19 ward and 40% establishing a separate COVID-19-positive renal ward. In a smaller number of cases, COVID-19-positive patients were transferred from renal areas to general COVID-19-positive wards.

Summary

While no working environment will ever be the same and life has changed so much for everyone, there is now a certain sense of 'getting back to business,' bringing with it further challenge and change. The survey asked for comments on lessons learned and considerations for the future. Overall, respondents expressed awareness of the need to be prepared for similar situations by incorporating lessons learned into routine practice.

Respondents highlighted the importance of clear communication, being consistent in the messages provided, honesty towards staff and providing reassurance. Learning was identified around the benefits of using information technology (IT),

which might otherwise not have been explored. This included virtual clinics (either by phone or online); online local, regional, national and international team meetings; patient forums; and education sessions delivered through video technology: 'all [of which] have led to much better communication/teamwork across a large renal network and more patient involvement being possible'. Though further evaluation of the use of virtual clinics is required, it is likely that increased utilisation of IT within the clinical environment will continue.

Though both positive and negative aspects of staff redeployment were expressed by respondents, several responses outlined the feeling that continuation of staff rotation and maintenance of skills for up-skilled staff would be productive. Additionally, new staffing models introduced during the pandemic have raised considerations and reflections regarding the workforce of the future:

'Support for staff in dialysis from dental was incredible and provides optimising for workforce transformation with new roles (i.e. nurse associates, advanced practitioners and physician associates).'

Additionally, increased communication between renal teams, both locally and nationally, was identified as a positive aspect of the experience; this included the importance of collaboration and sharing good practice and learning across regional networks. There is no doubt that PPE was an issue, particularly initially, as the evidence base expands it is anticipated that clearer guidance and standards will be available for future use. **JKC**

References

- Brown EA, Perl J. Increasing peritoneal dialysis use in response to the COVID-19 pandemic: will it go viral? *J Am Soc Nephrol.* 2020; 31(9):1928–1930. <https://doi.org/10.1681/ASN.2020050729>
- Gavin B, Hayden J, Adamis D, McNicholas F. Caring for the psychological well-being of healthcare professionals in the Covid-19 pandemic crisis. *Ir Med J.* 2020; 113(4):51
- Gray S, Clough T, Mcgee Y, Murphy T, and Poulikakos D. Increased risk of COVID-19 in haemodialysis healthcare workers in a tertiary centre in the North West of England. *J Hosp Infect.* 2020 [pub ahead of publication]. <https://dx.doi.org/10.1016%2Fj.jhin.2020.07.030>
- Medjeral-Thomas NR, Thomson T, Ashby D, Muthusamy A, Nevin M, Duncan N, Loucaidou M. Cohort study of outpatient hemodialysis management strategies for COVID-19 in North-West London. *Kidney Int Rep.* 2020. <https://doi.org/10.1016/j.ekir.2020.08.022>
- Zaka A, Shamloo SE, Fiorente P, Tafuri A. COVID-19 pandemic as a watershed moment: A call for systematic psychological health care for frontline medical staff *J Health Psychol.* 2020; 25(7):883–887. <https://doi.org/10.1177/1359105320925148>