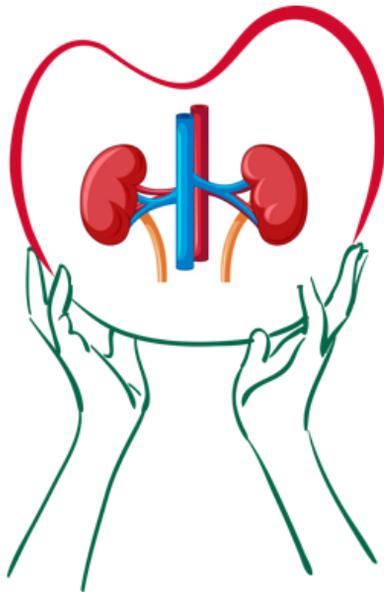




# THE PROFILE OF NEPHROLOGY NURSING



The Fundamental Roles of Nephrology  
Nurses caring for Individuals with Kidney  
Disease, and their Families

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## ACKNOWLEDGEMENT

*Dear Reader,*

*One of the educational objectives during 2018 of the European Dialysis and Transplant Nurses Association/European Renal Care Association (EDTNA/ERCA) is focused on the Role of the Nephrology Nurse.*

*Nephrology Nurses continue to be at the forefront of care delivery, in a variety of settings and are highly valued by patients, other healthcare professionals and healthcare services.*



*The aim of this Educational Booklet is to reach all renal healthcare professionals caring for Chronic Kidney Disease patients, offering them the chance to learn and increase the awareness of the Role of the Nephrology Nurses.*

*The Authors have put a lot of time and expertise in the development of their individual sections. Together with our Reviewers, monitored, assessed and reviewed this booklet, consolidating the content and streamlining formatting.*

*On behalf of the Executive Committee please accept our deepest appreciation. This Project has been achieved thanks to All of You and we are sure that those reading this publication will recognise ur committment to improving the awareness of the importance of the Role of the Nephrology Nurses.*

*I hope you will enjoy reading it and if you have any comments or questions, please don't hesitate to contact us for further discussions.*

A handwritten signature in blue ink, which appears to be 'Edita Noruisiene'.

*Edita Noruisiene  
EDTNA/ERCA President*

# 1. Nephrology Nursing in Context

The fundamental role of any nurse, who is to care for individuals and their families who face challenges with their health and well-being, has been well documented. Nurses continue to be at the forefront of care delivery, in a variety of settings and are highly valued by patients, other health professionals and health services.

Nephrology Nursing is concerned with the care of individuals who have kidney disease, both Chronic Kidney Disease (CKD) and Acute Kidney Injury (AKI). CKD affects between 11% - 13% of the world population<sup>1</sup>. AKI affects 1 in 5 adults during a hospital episode of care<sup>2</sup>.

The significant global increases in non-communicable diseases such as Diabetes, Obesity and Hypertension have all contributed to an increasing prevalence of CKD and End Stage Renal Disease (ESRD). Furthermore, these diseases combined cause a significant cardiovascular risk, which is the leading cause of mortality in CKD<sup>3</sup>.

Many CKD and AKI patients present with multiple co-morbidities and will require the specialist care of an entire multidisciplinary team. This includes nephrologists, nurses, dieticians or nutritionists, social workers and psychologists. However, many healthcare systems do not offer these specialist resources, and it is often the nephrology nurse who is required to act as care coordinator and advocate to ensure patients and their families get access to the services, information and education that they require<sup>4</sup>.



Nephrology nurses can now measure and demonstrate with evidence, their significant contribution to value added healthcare through improvements in patient wellbeing, clinical outcomes, improved services and reduced cost!

To respond with proactive solutions to these increasing and complex demands for patient care and service improvement, nephrology nursing has seen a noticeable shift in the development of roles and responsibilities in order to ensure that services are patient centred, fit for purpose and of the highest quality. Nephrology nurses can now measure and demonstrate with evidence, their significant contribution to value added healthcare through improvements in patient wellbeing, clinical outcomes, improved services and reduced cost.

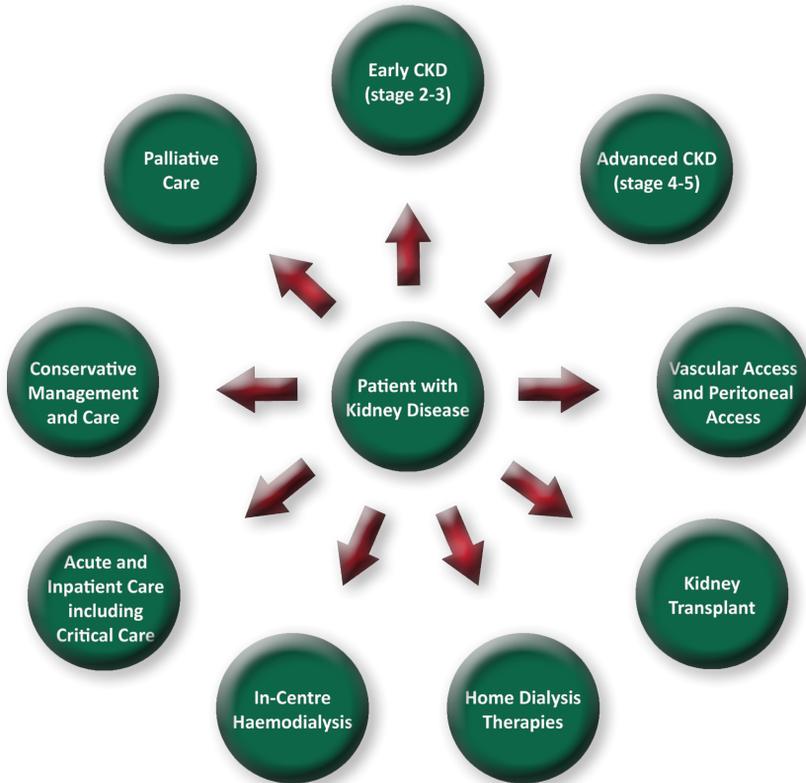
The global shift from care delivered through disease management interventions to broader approaches including prevention, health promotion, care coordination, and psychological support of patients and families has also required more creative and innovative methods to meet patient's needs<sup>5</sup>. Nephrology nursing is at the forefront of this development.

The Profile of Nephrology Nursing therefore has developed to such an extent that it is almost an umbrella term for a number of selected specialties, all related but each clinical domain providing intervention and support at various stages of the patients' CKD journey. This can be described as a continuum of care. It does not mean that all patients will pass through each clinical domain, but many may experience at least two or three at specific CKD stages<sup>6</sup>.

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## 2. Where do Nephrology Nurses work?

Whilst different organisations may configure their services differently, the delivery of consistent and high quality nephrology care may be provided along the entire kidney disease continuum, from community to hospital settings (figure 1).



*Fig 1. The Wide Variety of Settings and Services within the Continuum of Kidney Care. Each of these domains requires different care approaches, therefore different knowledge, and skill sets.*

### 2.1 Early CKD (stage 2-3)

**Role Profile** - The focus is on raising awareness of kidney disease, early detection and delaying the progression of CKD utilising a variety of pharmacological, dietary and health behaviour and life style interventions.



Patients with early CKD will usually be managed in primary care by General Practitioners and Primary care nurses. The large population with this early stage of CKD means that upskilling of generalist nurses is a useful strategy to effectively manage the demand. Some service providers are now seeing the benefits of nephrology nurses or nurse practitioners working within this arena supporting and educating non-renal healthcare providers to recognize patients with, or at risk of CKD and emphasizing the importance of following recommended management plans<sup>7,8</sup>.

**Examples of Role Titles** - *Renal Community Nurse, Renal Primary Care Nurse, Nurse Practitioner, Patient and Community Educator.*

**Location** - *Primary Care settings, Community settings, Nephrology Clinics.*

## 2.2 Advanced CKD (stage 4-5)

**Role Profile** - The two focus points at this stage are managing the signs, symptoms and complications of advanced CKD (collaboratively with the multidisciplinary team), and education about treatment options for End Stage Renal Disease (ESRD). The nurse must be highly skilled at assessing individual patient's signs, symptoms, needs and suitability for different kidney replacement modalities, using a patient centred approach as they progress towards ESRD<sup>9</sup>.



**Advanced CKD  
(stage 4-5)**

The nurse should be able to speak authoritatively about the various treatments using a philosophy of promoting self-management and shared decision making<sup>10</sup>. This role requires advanced underpinning knowledge of treatment modalities and the expertise and confidence to discuss with, and support patients who choose not to have treatment at all.

**Examples of Role Titles** - *Clinical Nurse Specialist, Nurse Practitioner, Pre-dialysis educator, Renal Patient Care Coordinator.*

**Locations** - *Nephrology and Advanced CKD Clinics, Pre-Dialysis Clinics, Community settings including patients own home.*

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## 2.3 Vascular Access and Peritoneal Access

**Role Profile** - Through the progression of advanced CKD care patients may choose to prepare for haemodialysis (HD) or Peritoneal Dialysis (PD). Specialist Access teams or Access coordinators can facilitate a smooth and efficient transition to this stage and timely insertion of appropriate access<sup>11</sup>. Access nurses provide a critical role in coordinating care between vascular surgeons, nephrologists and nephrology nurses in both PD and HD<sup>12</sup>.



**Vascular Access  
and Peritoneal  
Access**

Access nurses often manage a large caseload of patients with established vascular access, managing surveillance programs, follow-up and timely interventions for patients who have poor functioning access<sup>13</sup>. Nurse practitioners may develop roles where they actually insert central venous catheters<sup>14</sup>. The access role may also include the ability to diagnose fistula complications and requires expertise in using and understanding specialist equipment such as transonic and ultrasound devices.

**Examples of Role Titles** - *Vascular and/or PD Access Nurse Specialist. Vascular and/or PD Access Co-coordinator*

**Locations** - *Access nurses work across a variety of nephrology settings*

## 2.4 Kidney Transplant

**Role Profile** - Patients with ESRF may undergo transplantation from a living or a deceased donor. Care provision requires an expert level of knowledge and skills to provide education and undertake a comprehensive assessment and preparation of both donors and recipients. Nephrology nurses in this field must have advanced knowledge of ethical clinical practice and decision-making, immunology and the immunosuppressive medications<sup>15</sup>.



**Kidney  
Transplant**

Following transplantation, patients need to be carefully monitored for signs of complications such as infection or rejection and therefore expert skills in patient assessment, intervention and coordination with the multidisciplinary team are essential. In addition, specialist skills in communication, psychological support for both recipients and live donors are essential when dealing with organ rejection or donor complications<sup>16</sup>.

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**Examples of Role Titles** - *Transplant Staff nurse, Charge nurse. Kidney Transplant Coordinator, Kidney Transplant Nurse Specialist, Organ Procurement Coordinator.*

**Location** - *Transplant surgical wards, Transplant clinics, ICU's, Centers and Clinics for follow up.*

## 2.5 Home Dialysis Therapies

**Role Profile** - Supporting patients and their carers to undertake either Peritoneal Dialysis (PD) or Home Haemodialysis (HHD) requires an advanced level of knowledge, expertise in using the equipment, applications and technology and good education and training skills<sup>17</sup>.



### Home Dialysis Therapies

Advanced communication skills and emotional intelligence are needed to build up a relationship with both the patient and the caregiver based on trust and authoritative specialist knowledge to ensure both feel confident, avoid burnout and are safe. On completion of patient training nurses provide follow-up with home and clinic visits, detecting and managing complications, ensuring ongoing high quality care and effective self-management. They must have expert advanced health assessment skills so that they can identify any health problems or complications. The nurse is the first port of call and coordinator of care if there are any concerns or complications and they may be on call to provide 24-hour support<sup>18</sup>.

Nurses working within this field enjoy a wide variety of experiences in supporting their patients to adapt to challenges of a life involving dialysis at home. The nurse and patient are partners in care and undertake shared decision making regarding treatment.

**Examples of Role Titles** - *Staff nurse, Charge Nurse, PD Nurse Specialist, HHD Nurse Specialist, Home Therapies Manager.*

**Locations** - *Home therapies Training centers, Patients homes.*

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## 2.6 In-Centre Haemodialysis

**Role Profile** - The majority of patients with ESRD will be treated with haemodialysis (HD), three times weekly as an outpatient. Patients often have multiple co-morbidities such as diabetes, cardio vascular-disease and hypertension. Most have to adhere to strict diet and fluid restrictions. Skills in supporting patients in behaviour change and advanced knowledge in suitable dietary and fluid alternatives to decrease complications is essential to optimize health outcomes<sup>19</sup>.



Haemodialysis clinics are high technology environments offering HD and/or haemodiafiltration (HDF). Nurses must have advanced skills in operating complicated equipment safely and efficiently. However, the nephrology nurse is a critical leader of the healthcare team in this environment by ensuring that all care is focused on patients, and not just on the machines<sup>20</sup>.

Nephrology nurses in HD are fortunate to be able to see patients regularly and therefore to continuously assess the patients' health, wellbeing, and quality of life. They ensure that the dialysis prescription and its implementation is maximizing the quality of life and health-outcomes for uraemia, anaemia, electrolyte imbalances, fluid overload, mineral bone disease and blood pressure<sup>21</sup>. Nephrology nurses in haemodialysis must have advanced assessment and education skills to be able to carefully plan, deliver and evaluate best care<sup>22</sup>.

In addition, advanced knowledge in infection control and careful surveillance of patients and the clinical environment is important to protect patients and staff. Nurses may care for several patients requiring skills in workload prioritization and delegation of non-nursing tasks to other members of the team such as dialysis assistants or renal technicians.

**Examples of Role Titles** - *Registered Nurse, Staff Nurse, Charge Nurse, Unit Manager, Clinical or Nephrology Nurse Specialist, Advanced Nurse Practitioner.*

**Locations** - *Hospital dialysis units, Outpatient Haemodialysis Clinics, Minimal Care Centers.*

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## 2.7 Acute and Inpatient Care including Critical Care

**Role Profile** - Patients with CKD have many comorbidities resulting in frequent hospital admissions and it is important that these patients' specific needs are addressed through expert nursing, clear care planning and coordination. Alternatively, patients may present with AKI as a result of damage to the kidney before or during hospitalization.



Acute and  
Inpatient Care  
including  
Critical Care

Some organizations have dedicated nephrology wards, which ensure that highly skilled nephrology nurses can provide 24-hour care, whilst in other settings patients may be cared for on general wards by generalist nurses. It is also in this setting that patients may present newly diagnosed with late CKD or ESRD or need preparations for starting long-term dialysis therapy<sup>23</sup>.

Nephrology nurses need to work collaboratively with all members of the multi-disciplinary team to ensure that the care and any dialysis treatment plan meets the overall goals of care. Within the intensive care setting, nurses deliver renal replacement therapy using modalities such as Continuous Renal Replacement Therapy (CRRT). If patients require standard dialysis (either PD or HD), nephrology nurses will usually deliver the treatment<sup>24</sup>. Acute nephrology nurses must be proficient in using advanced applications in machines and coordinating with intensivist doctors and nephrologists to ensure very precise treatment parameters for patients who may be hemodynamically unstable due to their multiple disorders.

The nephrology nurse must be able to coordinate often complicated discharge planning to ensure ongoing care either at home or in the dialysis clinic is well-planned. Working in this environment can be fast paced and unpredictable and requires advanced clinical expertise to respond to the demands.

**Examples of Role Titles** - *Staff nurses and Charge Nurses, Acute Care Coordinator, Clinical and Nephrology Nurse Specialist.*

**Locations** - *In-patient wards, Acute Dialysis Units, High Dependency Units, Emergency Departments and Critical Care (ICU).*

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## 2.8 Conservative Management and Care

**Role Profile** - For some patients who are elderly or who have significant comorbidities the prospect of a life with dialysis or a transplant is unacceptable<sup>25</sup>. This decision can be taken in the Advanced CKD stage, or when decide to withdraw from dialysis. Patients and families may be very sure about their decision, or alternatively may wish to discuss the pros and cons at length with an expert practitioner, sometimes changing their minds.



### Conservative Management and Care

It is therefore imperative that nurses working in this domain have strong shared decision making skills<sup>26</sup>. In collaboration with the Multidisciplinary team, nephrology nurses may develop comprehensive care plans focusing on symptom management and enhancing quality of life where possible<sup>27</sup>.

Additional advanced skills may include nurse prescribing, symptom control, pain management, counselling and psychological support.

**Examples of Role Titles** - *Staff nurses and charge nurses who have completed specialist training, Clinical or Nephrology Nurse Specialist, Nephrology Community Nurse.*

**Locations** - *Hospitals, Nephrology Centres, Outpatient Dialysis Clinics, Community.*

## 2.9 Palliative Care

**Role Profile** - Palliative care is both end of life care and symptom management, depending on the health care system. Specialist palliative care teams may be involved in supporting or coordinating this care. However, many patients may have been cared for under nephrology for many years and it is important to the patients and their families that the nephrology team continues to support them ensuring a dignified and peaceful death. Nephrology nurses need high-level skills in assessing patients for pain and general comfort and working with them to complete their wishes<sup>28</sup>. Excellent communication skills and emotional intelligence are important to care for both patients and families through bereavement.



### Palliative Care

**Examples of Role Titles** - All levels of nurses, Clinical or Nephrology Nurse Specialist with education in Palliative Care, Care coordinator.

**Locations** - Hospitals, Nephrology Centres, Outpatient Dialysis Clinics, Community.

### 3. Leadership Roles within Nephrology Nursing

All of the above services require the presence of proficient and experienced nephrology nurse leaders to ensure that services are delivered to the required standards and that patients and nurse's best interest is represented within the wider context of the establishment.

Highly visible and senior leadership roles in both management and education demonstrate the value of nursing in the organization<sup>29</sup>.

#### 3.1 Management

**Role Profile** - The successful development of high quality nephrology services requires highly competent operational and strategic nurse managers. Nurse Managers with this speciality are responsible for ensuring that their teams of nurses have the necessary resources to carry out their roles and duties to the highest standards.

At a clinical level, nurse leaders are responsible for workforce planning, managing and working within budgets, creating policy and standards, ensuring resources for delivering education, training and development, performance management of staff, forecasting and planning for service development and growth<sup>30</sup>.

Nephrology Nurse Leaders should be experienced practitioners who have also achieved additional postgraduate qualifications in management, leadership or other related subjects.

Nurse leaders at director level should also be proactive in seeking representation on committees and at board level to ensure that nursing can make a valuable contribution to policy, planning and capacity building.

**Examples of Role Titles** - *Unit Manager, Clinical Nurse Specialists, Assistant Director of Nursing, Director of Nursing.*

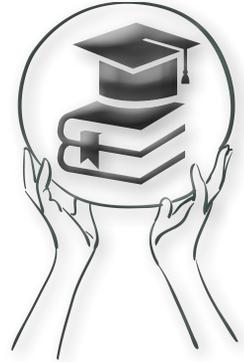
**Locations** - *Hospitals, Nephrology Centres, Outpatient Dialysis Clinics, Community, Health Authority.*

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## 3.2 Nephrology Nurse Educators and Researchers

**Role Profile** - The continued development of the role of the nephrology nurse is not possible without consistent and high quality education, training, and development. Specialist courses are available in many countries, from post graduate diplomas to masters and including online options.

The level of nurses' education has a direct impact on patient outcomes<sup>31</sup>. Nephrology nurses must strive to continue to learn and develop throughout their career and to apply that learning into practice to provide best care<sup>32</sup>. Nephrology nurse education should be designed, planned and delivered by experts in nephrology who have achieved additional qualifications including research, education and training at masters level or a PhD.



Nurse educators should be highly enthusiastic and motivated to encourage other nurses to pursue a lifelong career within this exciting speciality and support their development to reach their professional goals and ambitions<sup>33</sup>.

Research nurse positions are also common in nephrology and often have similar skill bases to educators but are more concerned with determining gold standard practice.

**Examples of Role Titles** - *Clinical Educator, Practice Development Specialist, Lecturer/Practitioner, Lecturer, Researcher.*

**Locations** - *All Nephrology Clinical Services, Hospital Training Centres, Universities.*

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## 4. Summary

Nursing as a profession continues to face many challenges. The shortage of nurses globally and concurrent reductions in spending on health services or prevention of disease has resulted in conflicting demands for both patients and healthcare professionals. Despite this and within these constraints however, nephrology nurses and their colleagues have continued to drive significant change and improvements to services and standards to provide the highest quality of care for patients with kidney disease.

The improvement in quality of care and clinical options for patients is significant. Nephrology nurses must recognize their own part in this and reflect on the impact of their individual roles and its contribution to the development of best practice. Working in nephrology provides a sound foundation for nurses to experience a wide variety of clinical care opportunities and to develop their knowledge and skills in many conditions such as diabetes, cardiovascular disease, rare diseases and genetics, to name a few.

The many distinct clinical departments under the umbrella of nephrology such as dialysis, transplantation, CKD and AKI means nurses have access to rich and valuable learning opportunities that enable the specialty to grow nurses who are highly knowledgeable, skilled and motivated. Anecdotally, many nurses who commence a career in nephrology stay and never leave.

*Within the EDTNA/ERCA, this is particularly evident through the continued Membership, over many years of expert nephrology nurses, who through the Association have continued to drive better care for patients through education of nephrology nurses.*

*The passion, drive and striving for excellence will ensure that nephrology nursing is recognized as shining example of what nurses can achieve if they try and will.*

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