

The scope of practice of the haemodialysis Enrolled Nurse in New South Wales

Shelley Tranter, Fidy Westgarth, Geordie White

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Abstract

Aim: With changes to workforce patterns and models of care delivery there has been a renewed interest in the enrolled nurse and enrolled nurse positions have been introduced into a number of New South Wales (NSW) haemodialysis units. The authors sought to identify i) the prevalence of enrolled nurses in NSW haemodialysis units who have undertaken formal dialysis training and the courses which provided them with their formal training and ii) the scope of practice of enrolled nurses working in haemodialysis units in NSW.

Methods: A survey was conducted in 2009 of all haemodialysis nursing unit managers in NSW who employed enrolled nurses.

Results: Responses were received from all 39 haemodialysis units in NSW which employed enrolled nurses (response rate = 100%). There were 96 enrolled nurses working in NSW haemodialysis units and twelve (13%) held a diploma in dialysis. In 56% of units the enrolled nurses were given a case management or primary nursing role. Review of scope of practice identified that in 100% of the 39 haemodialysis units enrolled nurses performed native access cannulation and 59% of units allowed them to connect patients with a haemodialysis central venous catheter to the dialysis machine. There was considerable variation in governance of enrolled nurse practices across different locations.

Conclusion: Enrolled nurses employed in haemodialysis units in NSW experience considerable variation in their scope of practice between the different units. The scope of practice of the haemodialysis enrolled nurse should be examined in more detail and policy established to support advanced practice. Specialist courses to support advanced skills and knowledge are required for NSW enrolled nurses to care for patients requiring haemodialysis treatments.

Key Words

haemodialysis, education, enrolled nurse, scope of practice

as supplied by Rural and Metropolitan Health Services shows that the number of nurses in the NSW public sector workforce is 43,246 and the number of ENs is 6,253 or 14% of the nursing workforce (DORS, June 2010).

In July 2009 there was a major change to the education model for ENs in NSW with a move to a pre-service course. Previously, ENs were educated in an apprentice model whereby they were employed by their Area Health Service for 12 months and attended lectures at Technical and Further Education (TAFE) for 15 weeks. In the new model EN education continues to be provided by TAFE NSW and clinical experience is gained from clinical placements in a variety of health facilities as well as in clinical simulation laboratories. These changes bring NSW in line with other Australian States and Territories and provide a more supportive learning environment for the students as they are no longer relied on as part of the nursing workforce.

Impetus for this study arose from a survey undertaken throughout NSW in 2008 which explored the education opportunities for RNs and ENs in renal care (Tranter, Westgarth, Kemp & Macneil, 2010). It was noted from the 2008 nursing survey that 46 of the 382 respondents (12%) were ENs and 53% of these ENs were interested in undertaking further studies in renal specialty courses. Developing the role of ENs in renal nursing is important for workforce planning, yet there were limited courses

Introduction

In New South Wales (NSW) there are three levels of nursing: registered nurses (RNs), enrolled nurses (ENs) and assistants in nursing (AINs). When the study outlined in this paper was conducted ENs were further distinguished as being either medication endorsed (EEN) or not. Recent changes to National Law have resulted in no endorsement for medicine administration by ENs, as all ENs practising in Australia will as part of their education program have undertaken the relevant units of study enabling them to administer

medications safely (Nursing & Midwifery Board Australia, 2010). The EN provides nursing care, working under the direction and supervision of the RN. The supervision may be direct or indirect according to the nature of the work delegated to the EN (Nurses and Midwives Board, NSW, 2010).

With changes to workforce patterns and models of care delivery there has been a renewed interest in the EN position and ENs have been introduced into a number of acute health care facilities. The NSW Department of Health Reporting System (DOHRS) nursing information

Author Details: Shelley Tranter, RN, DN, Renal Cert, MCN, is a Nephrology Clinical Nurse Consultant, St George Hospital, Sydney. Fidy Westgarth, BSc, MPH, Grad Dip QI in Healthcare is the Network Manager, Renal Services Network, Agency for Clinical Innovation NSW and Geordie White, Endorsed Enrolled Nurse, St George Hospital Vascular/urology surgical ward.

Correspondence to: Dr Shelley Tranter, 4 West Dialysis St George Hospital, Gray St KOGARAH NSW 2217
Shelley.tranter@sesiahs.health.nsw.gov.au

The scope of practice of the haemodialysis Enrolled Nurse in New South Wales

available for ENs to study further in their chosen specialty at that time. The survey reported here sought to clarify information gathered from the initial education survey with an emphasis on EN education.

In addition to the prevalence of formal qualifications held by ENs, further data was sought through the survey to identify a presumed disparity of the scope of practice of the EN in haemodialysis units. A profession's scope of practice is the full spectrum of roles, functions, responsibilities, activities and decision-making capacity which individuals within the profession are educated, competent and authorised to perform (ANMC, 2007). Determining the scope of practice of the EN has been an ongoing issue in Australia. Most State and Territory health authorities (outside NSW) have conducted studies to confirm the role and function of the EN; for example the Department of Human Services, Victoria (2008) and The Nursing Board of Tasmania, (2009). Reports emanating from these studies highlight the value of the EN as a member of the nursing team and stress the importance of the development of strategies to support their scope of practice.

The scope of practice of the EN is influenced by many factors including geographical location, organisational policy and management practices, RN and EN relationships and the lack of differentiation between RN and EN roles (Gibson & Heartfield, 2005). A Queensland study conducted in two acute medical wards revealed that similarities exist in the activities undertaken by the EN and RN supporting the contention that role boundaries are no longer clearly delineated (Chaboyer *et al*, 2008).

The EN is functioning in a variety of roles considered to be extended or advanced. This has been described in acute care facilities (Milson-Hawke & Higgins, 2004),

in operating theatres (Sutherland-Fraser, 2007) and in the role of afterhours clinical support in an acute surgical area (Blay & Donoghue, 2007). Anecdotally within the industry it is believed that an increasing number of ENs are practising in advanced roles but this has not been captured in the literature.

There has been little examination of the scope of practice of ENs in renal nursing. Chow, Lau and Gibb (2008) report on the design, implementation and evaluation of an educational program for ENs practising in haemodialysis facilities in a renal service in NSW. Their program was developed in response to a shortage of skilled RN dialysis nurses at the health service and resulted in ENs developing the skills to join the dialysis nursing team. The Southern Queensland Renal Clinical Network (2010) has published a guide to assist units in implementing the Enrolled Nurse Advanced Practice (ENAP) position. The package provides a framework which is consistent with the Queensland Nursing Council Scope of Practice Decision Making Framework (2005). The ENAP undergoes supported specialist renal training and attains renal specific competency. Organisational policy is required to support the role and function of the ENAP within the renal specialty.

With changes to the education as well as a move to employ more ENs in the nursing team, it is timely to review what ENs are actually doing in haemodialysis areas and what educational resources are required to support their scope of practice. A survey was undertaken in 2009 which aimed to i) measure the prevalence of ENs who have undertaken formal dialysis training and the courses which provide them with their formal training and ii) identify the scope of practice for ENs working in haemodialysis units in NSW and the clinical governance processes regulating the scope of practice.

Method

The NSW Dialysis Capacity Audit conducted by Greater Metropolitan Clinical Taskforce, Renal Services Network earlier in 2009 had identified that ENs were employed in 39 of the 65 haemodialysis units across NSW which is 61% of all NSW units (Westgarth & Snelling, 2009). As this comprehensive audit provided the most up to date information about the employment of ENs in NSW haemodialysis units there was no need to send the survey to all NSW haemodialysis units.

The NSW Renal Enrolled Nurse Survey was developed by the authors and was piloted on two nurse unit managers (NUMs) from the list of participating units. The survey was distributed electronically in August 2009 to NUMs of the 39 dialysis units, seeking a faxed or emailed response from the NUMs. After two weeks any non-responders were followed up with a personal phone call in order to achieve a high response rate. The NSW Renal Enrolled Nurse Survey questions can be found at the end of this paper.

Institutional approval, in lieu of human ethics committee approval, was received for this project. Responding to the survey implied voluntary consent. All responses were de-identified prior to analysis of data.

Results

The survey response rate was 100%, i.e. responses were received from all 39 haemodialysis units across NSW which employed ENs. There were 96 ENs working in NSW haemodialysis units in 2009. Of these, 59% worked part-time and 41% worked full-time.

Regarding their educational background and preparation for haemodialysis, 12 of the 96 ENs (13%) held a TAFE diploma in dialysis. However, this course was no longer operating at the time of the survey. The remaining ENs had received "in house" training to perform the required haemodialysis skills.

The scope of practice of the haemodialysis Enrolled Nurse in New South Wales

In 22 of 39 Units (56%) the ENs held a primary nursing or case management role. This means they are allocated a number of patients for whom they supervise dialysis management and general well being. The number of the 39 dialysis units that using a primary nursing model of care was not captured in the survey.

Scope of Practice:

The survey contained questions regarding the clinical practice of ENs and asked whether the ENs required the RN to actually assist with the procedure or directly supervise the EN. In response to questions regarding specific clinical practices conducted in haemodialysis units:

- 100% of units permitted their ENs to perform graft or native vascular access cannulation; however in 10% of these units the ENs were required to have assistance/supervision.
- A question was asked regarding the ENs' use of the buttonhole cannulation technique. Of the 37 units which used buttonhole technique, 59% permitted their ENs to use buttonhole. However 23% of these units required the ENs to do so under supervision or with assistance from an RN.
- 59% (N=23) of all the units with ENs allowed ENs to connect haemodialysis central venous catheters (CVCs). Of these, 17% required their ENs to have assistance. Of the units permitting ENs to connect and disconnect CVCs, 12 were supported by area policy, 7 relied on unit policy only and four relied on a combination of hospital and unit policy.
- In 59% of the units ENs were permitted to disconnect the patient with a CVC from the machine. 17% of these units required ENs to have assistance.
- In 72% of the units ENs were performing CVC dressings. 14% of these units required their ENs to have assistance.
- In 87% of units ENs were permitted to give iron infusions. Of these units, 41% required ENs to have assistance.
- In 95% of units, ENs administered erythropoietin replacement therapies. Of these units, 30% required their ENs to have assistance.
- In all units, ENs administered Heparin. Of these, 23% required ENs to have assistance.
- 87% of units allowed ENs to administer other anticoagulants such as Fragmin and Clexane. Of these 26% required their ENs to have assistance.
- All units permitted their ENs to administer Lignocaine however 23% required their ENs to have assistance.

Table 1: Variation in Scope of Practice for Haemodialysis ENs

Survey Question:	Total	Percent of Units	No. of Units (Assistance required)**	% (Assistance required)
1. Number of NSW dialysis units which employ ENs	39	61% of NSW units		
2. Units where ENs have a Primary Nursing role	22	56% of 39 units		
Units where ENs perform the following tasks:				
4. AV fistula and AV vein graft cannulation	39	100%	4	10%
5. Buttonhole cannulation technique	22	59%	5	23%
6. Connection of a CVC (vascath) to the machine	23	59%	4	17%
7. Disconnection of a CVC (vascath) from the machine	23	59%	4	17%
8. CVC (vascath) dressings	28	72%	4	14%
Units where ENs perform administration of medications:				
9a. Iron	34	87%	14	41%
9b. ERT	37	95%	11	30%
9c. Heparin	39	100%	9	23%
9d. Other anticoagulants e.g. Fragmin/Clexane	34	87%	9	26%
9e. Lignocaine	39	100%	9	23%

** Locations where policy requires ENs to be assisted when undertaking these activities

The scope of practice of the haemodialysis Enrolled Nurse in New South Wales

Table 1 provides a comparison of these variations in scope of practice.

The survey also identified considerable variation in governance of EN practices across different locations:

- In 79% of the units ENs adhered to renal unit/department policies and protocols;
- In 51% of the units ENs adhered to local hospital policies and protocol;
- In 64% of the units ENs adhered to area health service policies and protocol;
- One unit responded that they had no policies and protocols for ENs to adhere to.

Discussion

There were 96 ENs working in NSW haemodialysis units in 2009. The Australian and New Zealand Dialysis Workforce Survey conducted in 2008 reports 188 enrolled nurses across Australia (Bennett, McNeill & Polaschek, 2009). More than half of the Australian haemodialysis EN workforce is employed in NSW.

The NSW Renal Enrolled Nurse Survey (2010) has identified that the scope of practice of ENs working in haemodialysis units in NSW varies from unit to unit. In units where the ENs undertook skilled specialised tasks advanced for ENs, the policy and protocols governing their practice were usually determined by the dialysis unit without any hospital or area policy governing these practices. One unit claimed that they had no policies or protocol defining the scope of practice of ENs. These results are consistent with the findings of Gibson and Heartfield (2005) who suggested that there are many varied factors which impinge on the scope of practice of the EN including geographical location and organisational

policy. This finding also supports the work conducted by The Southern Queensland Renal Clinical Network (2009) which has developed a framework ensuring standardised education and organisational policy is developed to support the role and function of the ENAP within the renal specialty.

ENs are a relatively new addition to the dialysis nursing workforce (Chow, Lau and Gibb, 2008). The survey findings reveal that similarities exist in the activities undertaken by the EN and RN. Consequently the role of the RN in the dialysis context may alter. Chaboyer *et al* (2008) suggest tensions can arise when role boundaries are not clearly delineated. Therefore, the relationship between the roles of RNs and ENs in haemodialysis will need to be defined.

It appears from the survey that ENs have frequently been introduced into dialysis units in NSW without a clear understanding of their role nor of the supports they need. Renal services such as that described by Chow *et al* (2008) have provided a systematic and supported process for the introduction of the EN role into their haemodialysis units. As we move toward increasing the presence of ENs in dialysis care in NSW, the current ad hoc processes around policy for ENs would benefit from being replaced by agreed standards.

Tranter *et al*, (2010) identified in the NSW Renal Nursing Education Survey that there are a number of ENs who wish to pursue further studies. Twelve of the 96 ENs (13%) held a TAFE diploma in dialysis. This course was conducted as a pilot in conjunction with a dialysis equipment company and is no longer available. The remaining ENs had received "in house" training to perform the required haemodialysis skills.

Variations in workforce profiles have economic implications for managers of

dialysis services who are challenged to balance cost and quality. With the need for a larger renal workforce to manage growing demand for dialysis in the future, in the context of relative shortage of nurses, the number of ENs may need to increase and these ENs will need educational support and skills training.

A limitation of the NSW Renal Enrolled Nurse Survey 2009 has been identified regarding the administration of medications by ENs with or without supervision. The result should be interpreted with caution, as all ENs must be supervised by an RN at all times. The supervision can be direct or indirect. In addition all medications must be checked by two nurses – so no EN is completely unsupervised.

The report from the survey was submitted to the NSW Department of Health Nursing and Midwifery Office (NaMO) in 2010 with the recommendation that utilisation of ENs in haemodialysis units be investigated, and a program put in place to support not only their educational needs but clarification of their clinical scope of practice. NaMO is currently developing a project to look at the scope of practice of ENs in NSW and specialty or advanced practice EN roles will be addressed in this project.

The information gained from this survey provided guidance for curriculum development for the TAFE Advanced Diploma in Renal Care which commenced through Meadowbank campus in mid 2010. Scholarships are available from NaMO for ENs employed in the NSW Public Health System undertaking this course. In addition, the survey report has been circulated to all haemodialysis units in NSW to increase understanding and uptake of EN employment in haemodialysis units.

Conclusion

The survey has identified that there is a need to support haemodialysis ENs with appropriate education to advance their skills and knowledge in this specialty. This survey has also identified considerable variation in scope of practice for ENs working in NSW haemodialysis units.

The challenge of building an effective nursing workforce to meet the increasing demand for dialysis services is a significant issue for haemodialysis units. Over the past decade, a change to the role of ENs has established them as a suitable, cost effective workforce option for haemodialysis. This survey has identified that in a number of haemodialysis units there are shortfalls in the way that ENs have been introduced into the unit and the development of structured programs to support their scope of practice should be considered.

A study into the application of the role and function of the EN is required for NSW. In addition, the scope of practice of the EN in haemodialysis units should be examined to generate a structured framework to support the enhanced role of the EN. Some of this work has been undertaken by other state health authorities and it would be beneficial to share knowledge to establish a national framework. Further study of the impact of ENs in haemodialysis units is required with an emphasis on the clinical outcomes from the use of ENs in nursing teams; and the relationships between the ENs and RNs and who make up those nursing teams.

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The scope of practice of the haemodialysis Enrolled Nurse in New South Wales

NSW Renal Enrolled Nurse Survey questions

(Survey preamble not included)

SURVEY QUESTIONS (where options are provided, please identify the correct answer):

Name of Unit: _____ AHS: _____

1. How many EENs are employed in this hæmodialysis unit? Part-time = Full-time =

2. Do EENs have a primary nursing or case management role in this unit? 1. Yes 2. No

3. How many of these EENs have had any formal training in this role?

Name/s and location of any formal courses: _____

Please review the following list of tasks, and identify those performed by EENs in this unit:

Do the EENs in this unit have approval to perform	No	Yes – with assistance	Yes – without assistance
4. AV fistula and AV vein graft cannulation			
5. Buttonhole cannulation technique			
6. Connection of a CVC (vascath) to the machine			
7. Disconnection of a CVC (vascath) from the machine			
8. CVC (vascath) dressings			
9. Administration of medications:			
9a. Iron			
9b. ERT			
9c. Heparin			
9d. Other anticoagulants e.g. Fragmin/Clexane			
9e. Lignocaine			

10. What best describes the governance of EEN practice in this hæmodialysis unit?

- a. EENs adhere to Renal Unit/Department policies and protocol
- b. EENs adhere to local hospital policies and protocol
- c. EENs adhere to Area Health Service policies and protocol
- d. There are no policies and protocols for EENs to adhere to
- e. Other (please specify?)

Any Other Comments?
