



Impact of the Reference Nurse Programme on self-care behaviours in patients with vascular access

Soraia Dinis, RN, Fresenius Medical Care, NephroCare Coimbra, Portugal

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Introduction

- Dialysis patients and health professionals recognise that the vascular access is the lifeline of the patient.
- 15 to 20% of all hospitalisations of dialysis patients are related to problems with vascular access, which increases morbidity, mortality and costs.
- Guidelines recommend patient education programmes as a strategy to give them the skills to take care of their vascular access.

Objective

To assess the impact of the Reference Nurse Programme (RNP) on the patients' self-care behaviour with arteriovenous fistula in haemodialysis.



Methods (1/2)

- **Quantitative, retrospective, and descriptive study.**

Inclusion criteria

- Patients with arteriovenous fistula;
- Signed informed consent form;
- No mental disorder, disorientation, or inability to answer questions;
- No hospitalizations or in vacation during the assessment period;
- Clinic stay with arteriovenous fistula, one year after implementation of RNP.

N=173
patients
(May 2015)

N=99 patients
(according to
inclusion criteria in
May 2015)

25 DROPOUTS
(change VA, left
the clinic,...)

N=64 patients

(May 2016)

Gender (M/F) 64.1/35.5

Age (average) 67.97

Time on dialysis (months) 76.38

Methods (2/2)

Scale of assessment of self-care behaviours with arteriovenous fistula (ASBHD-AVF) in haemodialysis before and one year after implementing the RNP.

2 subscales:

- Management of signs and symptoms: items 1, 3, 6, 11,13 and 16;

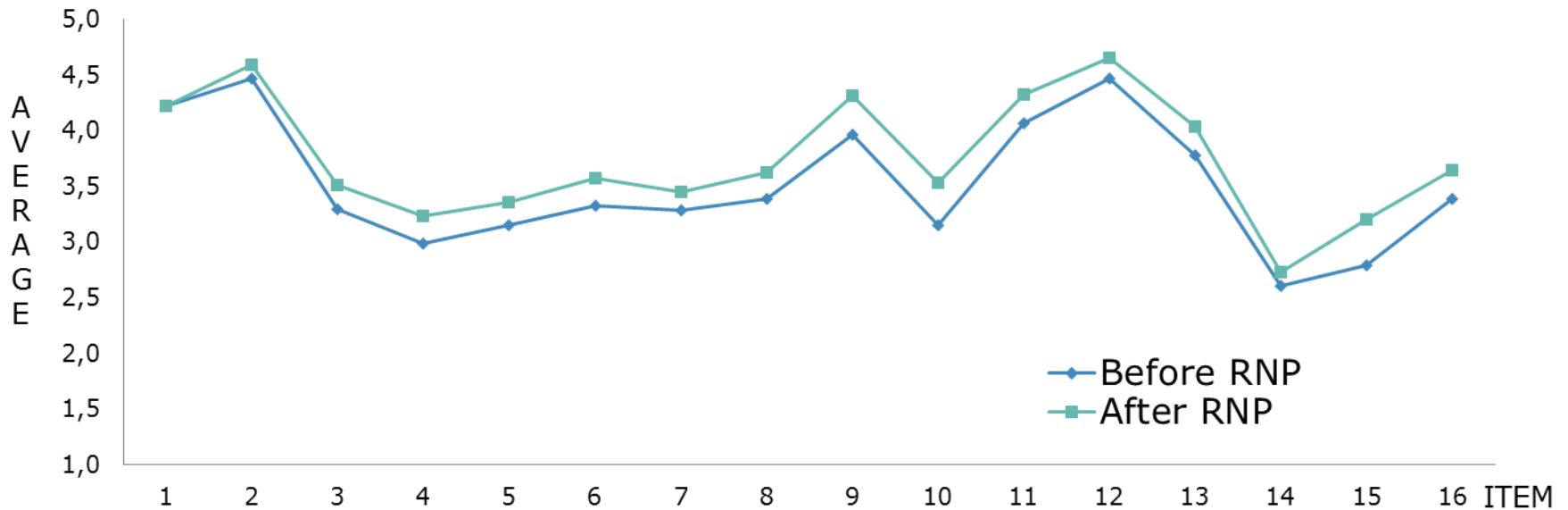
- Prevention of complications: items 2, 4, 5, 7, 8, 9, 10, 12, 14 and 15.

	Never	Rarely	Sometimes	Oftentimes	Always
1 – I notice the nurse when I have cramps during hemodialysis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2 – I do compression of stings sites with the fingers (hemostasis)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3 – I notice the nurse when I get a headache and chest during hemodialysis.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4 – I put ointment when hematoma (bruising/ bruising) occurs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5 – I feel the thrill (noise/jitter) at the site of the fistula twice a day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6 – I do compression in the site of the fistula stings with the fingers at home if bleeding.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7 – I check every day if the hand of the fistula arm cools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8 – Observe signs of redness and swelling at the stings sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9 – I protect the fistula arm from scratches, cuts and wounds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10 – I check every day if the color of the hand from the fistula arm changes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11 – I protect the fistula arm from bumps and shocks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12 – I allow blood sampling in the fistula arm*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13 – I notice the nurse if the hand of the fistula arm start to hurt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14 – I avoid getting into places with different temperatures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15 – I'm going immediately to hospital clinical/case the fistula site has not thrill (noise/jitter)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16 – I notice nurses if the hand of the fistula arm appear with wounds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Reversed item

Author: SOUSA (2015)

Results



Before RNP	4.22	4.47	3.30	2.98	3.16	3.33	3.28	3.39	3.97	3.16	4.06	4.47	3.78	2.61	2.80	3.39
After RNP	4.22	4.59	3.52	3.23	3.36	3.58	3.45	3.63	4.31	3.53	4.33	4.66	4.03	2.73	3.20	3.64
<i>p</i>	0.116	<u>0.047</u>	<u>0.000</u>	0.214	0.138	<u>0.000</u>	0.384	0.654	<u>0.000</u>	0.570	<u>0.001</u>	0.130	<u>0.032</u>	0.124	<u>0.000</u>	<u>0.008</u>

Total score (average)	
Before RNP	After RNP
56.4	60

• Management of signs and symptoms:

	1	3	6	11	13	16
Before RNP	4,22	3,30	3,33	4,06	3,78	3,39
After RNP	4,22	3,52	3,58	4,33	4,03	3,64
<i>p</i>	0.116	<u>0.000</u>	<u>0.000</u>	<u>0.001</u>	<u>0.032</u>	<u>0.008</u>

• Prevention of complications:

	2	4	5	7	8	9	10	12	14	15
Before RNP	4,47	2,98	3,16	3,28	3,39	3,97	3,16	4,47	2,61	2,80
After RNP	4,59	3,23	3,36	3,45	3,63	4,31	3,53	4,66	2,73	3,20
<i>p</i>	<u>0.047</u>	0.214	0.138	0.384	0.654	<u>0.000</u>	0.570	0.130	0.124	<u>0.000</u>

Conclusions

- **The results obtained allow us to conclude that RNP had a very positive impact on self-care behaviours regarding arteriovenous fistula: results sensitive to nursing care;**
- **In the subscale concerning the management of signs and symptoms, remarkable results were obtained;**
- **In the subscale concerning the prevention of complications, the improvement was not so evident;**
- **RNP helps us to identify the major needs of the patients, allowing to develop adequate educational strategies and promoting self-care for arteriovenous fistula.**

Conclusions

- In the future, our focus should be the prevention of complications, allowing us to provide the best care based on evidence.



**Thank You Very Much
for Your Attention!**

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Ana Martins

**RN
Fresenius Medical Care, NephroCare Coimbra
Coimbra – Portugal**

Nuno Gomes

**Head Nurse
Fresenius Medical Care, NephroCare Coimbra
Coimbra – Portugal**

Rui Camisa

**RN
Fresenius Medical Care, NephroCare Coimbra
Coimbra – Portugal**

Alexandra Seabra

**Training & Development Manager
Fresenius Medical Care , NephroCare Portugal
Portugal**

João Fazendeiro Matos

**Country Nursing Director
Fresenius Medical Care, NephroCare Portugal
Porto - Portugal**

References

- SOUSA, C., APÓSTOLO, J., FIGUEIREDO, M., MARTINS, M., & DIAS, V. (2014). **Interventions to promote self-care of people with arteriovenous fistula.** *Journal of Clinical Nursing*, 23(13-14), 1796–1802. doi:10.1111/jocn.12207
- SOUSA, C., APÓSTOLO, J., FIGUEIREDO, M., DIAS, V., TELES, P., & MARTINS, M. (2015). **Construction and validation of a scale of assessment of self-care behaviors with arteriovenous fistula in hemodialysis.** *Hemodialysis International*, 19(2), 306–313. doi:10.1111/hdi.12249
- MARUJO, P. (2016). **O Autocuidado à Fístula Arteriovenosa da Pessoa com Doença Renal Crónica Terminal em Hemodiálise.** *Relatório de Estágio do Mestrado em Enfermagem, Área de Especialização de Enfermagem Médico-Cirúrgica Vertente Nefrológica.* Lisbon. Available in <https://comum.rcaap.pt/bitstream/10400.26/18148/1/Autocuidado%20da%20Pessoa%20em%20Hemodialise%20Comportamentos%20com%20a%20Fi%CC%81stula%20Arteriovenosa%20%28Patricia%20Marujo%29.pdf>
- ORDEM DOS ENFERMEIROS (2016). **Guia Orientador de Boa Prática - Cuidados à pessoa com doença renal crónica terminal em hemodiálise.** *Cadernos OE*, Série 1 N^o9. ISBN:978-989-8444-36-3, available in http://www.ordemenfermeiros.pt/publicacoes/Documents/GOBPHemodialise_VF_site.pdf