



The advanced practice nurse as a facilitator for the implementation of vascular access guideline recommendations. An exploratory quasi-experimental study (The EPAH Project)

Sandra Pol-Castañeda, Miguel Ángel Rodríguez-Calero, Carlos Javier Villafáfila-Gomila, Ian Blanco-Mavillard, Concepción Zaforteza-Lallemand, Francisco Ferrer-Cruz, Joan Ernest de Pedro-Gómez



Introduction:

Health professionals find multiple barriers to the implementation of clinical guidelines (CG) into practice. This study aims to address the impact of advanced practice nurses (APN) as facilitators for the implementation of vascular access-related recommendations.

Methods:

A prospective quasi-experimental study was carried out in 10 hospital wards: 5 intervention units (IU) and 5 control units (CI) of 3 hospitals in the Balearic Islands Health Service (Spain). The intervention consisted of an educational program for APNs to deploy actions such as education, modeling, and feedback regarding a bundle of 7 recommendations. Vascular access-related outcomes and process indicators were addressed by in situ evaluations once a month, for 1 year (September 2018 to 2019). The sample was composed of all patients admitted to the studied wards on the day of the evaluation. A descriptive analysis was carried out, as well as association tests and a multiple lineal regression to assess the effect of the intervention. This study was approved by the Balearic Islands Health Research Ethics Committee (IB3662/18PI)

TABLE 1. Compliance with the recommendations for the care of peripheral catheters

	Baseline (pre-intervention)			12 months (post-intervention)			Within-group pre-post difference	
	APHN	Control	p value	APHN	Control	p value	APHN (p value)	Control (p value)
Catheters inserted in the correct location	84%	78%	0.28	78%	73%	0.36	-6% (0.26)	-6% (0.27)
Catheters inserted, with the orifice visible	67%	58%	0.19	90%	71%	<0.001	23% (<0.05)	13% (0.19)
Catheters in use	85%	92%	0.12	89%	83%	0.22	4% (0.41)	-9% (0.12)
Duration of insertion	66%	53%	0.07	60%	47%	0.06	-5% (0.43)	-6% (0.07)
Type of attachment	67%	57%	0.14	88%	69%	<0,001	21% (<0.05)	13% (0.14)
Condition of the dressing	60%	59%	0,87	75%	67%	0.22	15% (<0.05)	9% 0.87)
Catheter record	61%	37%	<0,005	85%	33%	<0.001	24% (<0.05)	-4% (<0.05)

APHN: Advanced practice hospitalisation nurse

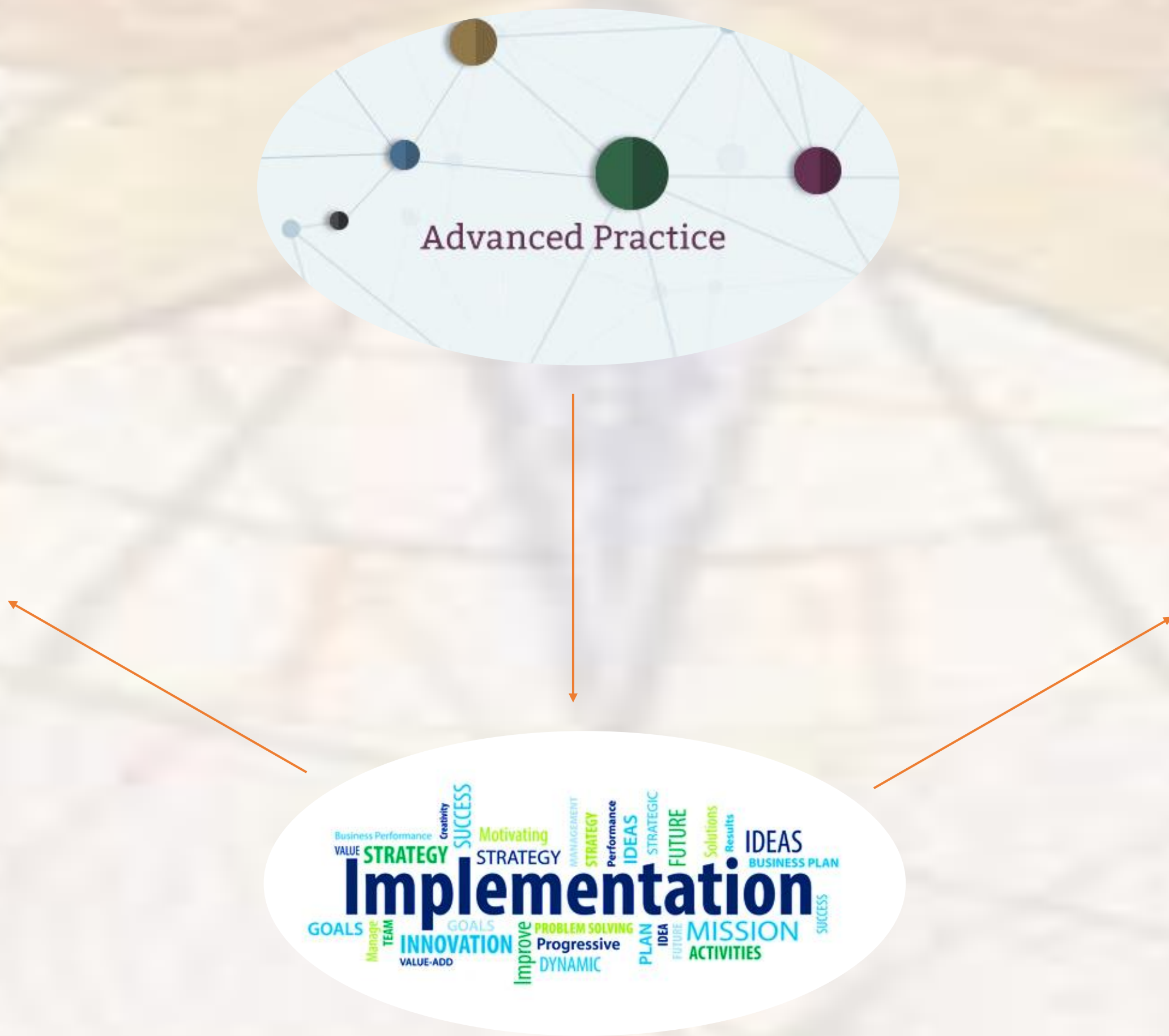
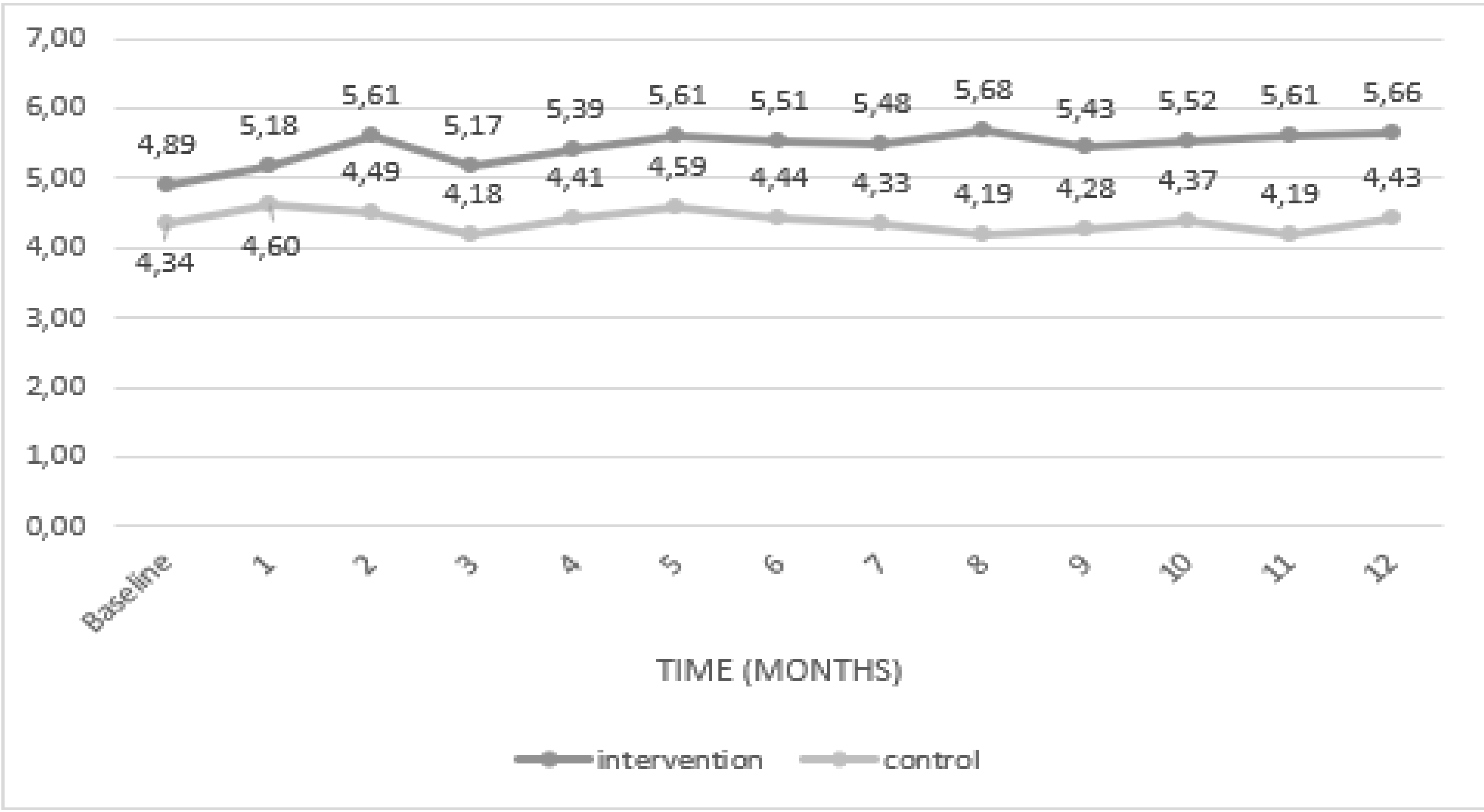


Figure 1. Mean compliance to guideline recommendations



Discussion & conclusion:

The educational intervention for APNs resulted in a relevant improvement of vascular access-related clinical indicators and a significant reduction of adverse events.