



UNIVERSAL LOVE

Compassionate, skilled veterinary nurses play a vital role on the veterinary team as patient advocates.



MEET THE AUTHOR

Kenichiro Yagi, MS, RVT, VTS (ECC, SAJM)
Park Innovation Laboratory, College of Veterinary Medicine, Cornell University

A Global Perspective on Veterinary Nursing

All around the world, members of the veterinary nurse profession are increasingly connected by shared concerns, challenges, and successes. There are also some differences, particularly in credentialing. Generally, however, there is one shared goal—elevating the profession—that unites those who are passionate about their work. Many veterinary nurses and organizations across the globe seek to work collaboratively in standardizing credentialing and addressing the challenges facing veterinary nurses.

Ken has spent nearly 20 years in practice. He obtained his VTS certification in emergency and critical care, as well as small animal internal medicine, and earned his master's degree in Veterinary Science. He served as ICU Manager and Blood Bank Manager at Adobe Animal Hospital until 2018, and is now Program Director for the RECOVER CPR Initiative and simulation lab manager of the Park Veterinary Innovation Laboratory at Cornell University. He co-chairs the Veterinary Nurse Initiative and serves as a board member of the Veterinary Emergency and Critical Care Society, the Academy of Veterinary Emergency and Critical Care Technicians, and the Veterinary Innovation Council.

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INTERNATIONAL VETERINARY NURSES AND TECHNICIAN ASSOCIATION

Founded in 1991, the International Veterinary Nurses and Technician Association (IVNTA) aims to increase global cooperation among national veterinary technician and nurse organizations. The IVNTA has largely focused on gathering information regarding the state of the profession and created opportunities in sharing this information so progress can be better made in each respective country.

CURRENT STATE OF THE PROFESSION

When asked about the current state of the profession from a global perspective, Virginia Thomas, secretary general to the IVNTA, commented that “veterinary nurses and technicians are now in a phase of maturation and professionalization as countries worldwide are instigating compulsory or voluntary registration of the profession as national associations gain more credibility and authority.” The permanent member countries of IVNTA are Australia, Canada, Ireland, New Zealand, the United Kingdom, and the United States; affiliate member countries include Japan, Malta, Nepal, Norway, Pakistan, Spain, and Turkey.

In the numerous countries where the veterinary nursing and technology role within veterinary medicine has been defined or developed, qualifications involve obtaining a diploma or degree by following and completing an educational curriculum. In addition, veterinary nurses or technicians in some states and countries must pass a standardized examination to obtain certification or licensure. Credentialing of veterinary nurses can be described by 3 different categories:

- 1. No credentialing**—the state, province, or country has no regulatory oversight
- 2. Voluntary credentialing**—private organizations have created voluntary credentials that are not required to practice
- 3. Compulsory credentialing**—a governmental agency requires credentials to be obtained in order to practice as a veterinary nurse or technician

Of IVNTA member countries, the United Kingdom and Ireland are countries that have standardized national compulsory credentialing in order to obtain the title Registered Veterinary Nurse, though other countries are working toward establishing standardized credentials.



UNITED WE STAND The IVNTA meeting in 2019 was hosted at the VNCA Annual Conference in Australia. From left to right: Helen Power (VNCA, Australia), Luanne Corles (NZVNA, New Zealand), Carolyn Cartwright (RVTTTC, Canada), Virginia Thomas (IVNTA), Ken Yagi (NAVTA, United States).

CHALLENGES IN THE PROFESSION

An international panel at the 2017 Ireland Veterinary Nurses Association Conference, which addressed the profession from different perspectives around the world, discussed the challenges facing the profession: low wages, high attrition, shortage of experienced staff (including shortage of credentialed staff in countries where this is not a legal requirement), underutilization, lack of opportunity for specialization, and barriers to legal recognition of veterinary nurses and technicians. These challenges are consistent with the findings of the demographics survey conducted by the National Association of Veterinary Technicians in America (NAVTA) in 2016.

Despite the challenges faced by the profession around the world, progress is being made.

“The overall state of the VN profession is that we are in some ways behind human nursing (if you’re going to make that comparison), but in many ways, we are making faster leaps and bounds to catch up to them,” says Nimisha Patel, student council advisor to the British Veterinary Nursing Association. “A lot of people in the public still do not recognize who we are and what we do for animals, and so a lot more public awareness campaigning is needed. This is usually achieved through our Vet Nurse Awareness Month, but also throughout the year through client education and public education.”

INITIATIVES AROUND THE WORLD

Various efforts are being made by national associations

**Semintra® (telmisartan oral solution) 10 mg/mL**

For oral use in cats only
Angiotensin II Receptor Blocker

Brief Summary: Before using SEMINTRA, please consult the product insert, a summary of which follows:

Caution: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

Description: SEMINTRA (telmisartan oral solution) is a clear, colorless to yellowish viscous solution containing 10 mg/mL telmisartan.

Indication and Usage: SEMINTRA is indicated for the control of systemic hypertension in cats. The initial dose of SEMINTRA is 1.5 mg/kg (0.68 mg/lb) orally twice daily for 14 days, followed by 2 mg/kg (0.91 mg/lb) orally once daily. The dose may be reduced by 0.5 mg/kg (0.23 mg/lb) increments to a minimum of 0.5 mg/kg (0.23 mg/lb) orally once daily to manage SEMINTRA-induced hypotension. SEMINTRA can be administered directly into the mouth, or next to or on top of a small amount of food. Do not mix into food.

SEMINTRA should be administered using the dosing syringe provided in the package. The dosing syringe fits onto the bottle and has 0.1 mL incremental marks. The dose should be rounded to the nearest 0.1 mL. After administration close the bottle tightly with the cap. Rinse the dosing syringe with water and let air dry.

If the cat vomits within 30 minutes of dosing, the cat may be re-dosed.

Information for Cat Owners: Adverse reactions can occur with use of SEMINTRA. The most common adverse reactions reported during the field studies included vomiting, diarrhea, lethargy, weight loss, anemia, and dehydration.

Contraindications: Do not use in cats with a hypersensitivity to telmisartan.

Human Warnings: Not for human use. Keep out of reach of children.

SEMINTRA is an angiotensin II antagonist/angiotensin receptor blocker (ARB). Pregnant women should avoid contact with SEMINTRA because substances that act on the renin-angiotensin-aldosterone system (RAAS) such as angiotensin receptor blockers (ARBs) can cause fetal and neonatal morbidity and death during pregnancy in humans.

Precautions: SEMINTRA can cause mild anemia or non-regenerative anemia. Cats should be monitored for anemia when initiating treatment with SEMINTRA.

SEMINTRA may cause inappetence and weight loss in some cats. Cats should be monitored for weight loss when initiating treatment with SEMINTRA. Use with caution in cats with a history of vomiting, inappetence, or weight loss.

SEMINTRA has not been evaluated in cats with systolic blood pressure >200 mmHg.

The safe use of SEMINTRA in cats with hepatic disease has not been evaluated. SEMINTRA is metabolized by the liver.

The safe use of SEMINTRA has not been evaluated in cats less than 9 months of age, or in cats that are pregnant, lactating, or intended for breeding. See **Human Warnings**.

The safe use with other anti-hypertensive medications has not been evaluated.

Adverse Reactions: The safety of SEMINTRA was evaluated in a 28-day field study in 192 cats. Adverse reactions that occurred include vomiting 46 (24.0%), diarrhea 18 (9.4%), lethargy 13 (6.8%), weight loss 13 (6.8%), decreased appetite/inappetence 13 (6.8%), non-regenerative anemia 11 (5.7%), dehydration 10 (5.2%), retinal lesions (target organ damage) 4 (2.1%).

The long-term safety of SEMINTRA was evaluated in an open-label, 5-month field effectiveness and safety study in 107 cats that received at least one dose of SEMINTRA. Adverse reactions that occurred in this study are weight loss 37 (34.6%), vomiting 32 (29.9%), dehydration 18 (16.8%), non-regenerative anemia 17 (15.8%), anorexia 14 (13.1%), diarrhea 12 (11.2%), lethargy 12 (11.2%), decreased appetite/inappetence 11 (10.3%), heart murmur 10 (9.3%), death, euthanasia, found dead 9 (8.4%), cough 8 (7.5%), and retinal lesions (target organ damage) 6 (5.6%).

Nine cats died or were euthanized during the study. Three cats had progressive chronic kidney disease that may have been affected by telmisartan treatment, concurrent disease, or inadequate control of hypertension. The other six cats died of causes unrelated to treatment (e.g. neoplasia).

To report suspected adverse drug events, for technical assistance, or to obtain a copy of the Safety Data Sheet (SDS), contact Boehringer Ingelheim Vetmedica, Inc. at 1-866-638-2226. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or at <http://www.fda.gov/AnimalVeterinary/SafetyHealth>.

Effectiveness: Effectiveness was demonstrated in a 28-day multi-center, controlled, randomized and masked field study in client-owned cats with hypertension, and in an open-label 5-month field study.

28-Day Field Study

In a 28-day study, 288 cats with hypertension (systolic blood pressure [SBP] 160-200 mmHg) were enrolled in the study and randomized to treatment with SEMINTRA (telmisartan oral solution) (n=192) or vehicle control (n=96). The study population included cats with hypertension associated with chronic kidney disease or controlled hyperthyroidism, or idiopathic hypertension. The per protocol population for effectiveness was 141 SEMINTRA treated cats and 79 control cats. SEMINTRA was administered orally at 1.5 mg/kg twice daily for 14 days, then 2 mg/kg once daily until study end; the vehicle control was administered at a mL/kg volume equivalent to SEMINTRA. The two primary variables for effectiveness were comparison of the SEMINTRA and control group mean SBP (mSBP) from baseline to Day 14, and a decrease in mSBP >20 mmHg in the SEMINTRA group from baseline to Day 28. Cats with SBP >180 mmHg at Days 14 or 28 were rescued and removed from the study. There was a statistically significant difference between the mSBP for the SEMINTRA group compared to the control group at Day 14 (p=0.0005). At Day 14 the SEMINTRA group mSBP decreased by 23.2 mmHg, and the control group mSBP decreased by 7.3 mmHg. At Day 28, the SEMINTRA group mSBP decreased 23.9 mmHg compared to baseline.

5-Month Field Study

One hundred-seven cats from the SEMINTRA group that had successfully completed the 28-day study were enrolled in a 5-month open-label study. At the beginning of the 5-month study most cats were administered SEMINTRA at 2 mg/kg once daily. Cats that experienced hypotension (defined as SBP <120 mmHg) at 2 mg/kg once daily could have the SEMINTRA dose reduced to 1 mg/kg once daily. Cats that experienced hypotension at 1 mg/kg once daily could have the SEMINTRA dose reduced again to 0.5 mg/kg once daily. Cats were evaluated for SBP, target organ damage (TOD; primarily assessed by retinal photographs), clinical pathology and adverse reactions. SBP was measured on Days 28, 56, 98, 140 and 182 and retinal photographs and clinical pathology were collected on Days 28, 98 and 182. Seventy-three (68.2%) cats completed the study (Day 182), 8 cats were removed for hypertension (SBP >180 mmHg), 2 cats were removed for hypotension, 10 cats were removed by the owner or for owner non-compliance, 8 cats were removed for new or worsening TOD, and 6 cats were removed for adverse reactions unrelated to TOD. Twenty-six cats had dose reductions to 1 mg/kg once daily to manage hypotension. Of these 26 cats, 10 had an additional dose reduction to 0.5 mg/kg once daily.

NADA 141-501, Approved by FDA

Manufactured for:

Boehringer Ingelheim Vetmedica, Inc.
St. Joseph, MO 64506, U.S.A.

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Reference: Package Insert 449201-00 Revised 03/2018

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to help resolve and overcome professional challenges.

In Australia, the Australian Veterinary Nurses and Technicians Registration Scheme has been developed by the Veterinary Nurses Council of Australia (VNCA). It raises the minimum standards and brings consistency to education, improves standards of practice, brings professional recognition, provides better animal health and welfare, safeguards public health, and better aligns with international standards.

The Registered Veterinary Technologists and Technicians of Canada, in addition to strengthening the Registered Veterinary Technician profession through advocacy, has established the National RVT Career Ladder Task Force to “develop a national document identifying a broad pathway for long-term RVT career progression specifically identifying skills, experience, and personal contribution”.

In the UK, the VN Futures project is a joint initiative between the Royal College of Veterinary Surgeons and the British Veterinary Nursing Association that aims to take charge of the profession's future. It has set 6 goals: create a sustainable workforce, develop structured and rewarding career paths, support wellbeing, take a proactive role in one's health, maximize the nurses' potential, and define a clarified and bolstered role for the veterinary nurse.

In the US, NAVTA launched the National Credential Initiative in 2015, which was renamed the Veterinary Nurse Initiative (VNI) in May of 2017. The goals of the VNI include standardizing credential requirements, defining scope of practice, and establishing title protection under the title “Registered Veterinary Nurse.”

THE GREAT PROFESSION

Regardless of the country we reside in and the paths that are being taken to combat challenges, there is one commonality: The profession of veterinary nursing and technology is considered a career and way of life in which compassionate, educated, skillful individuals play a vital role in the veterinary team to provide nursing care and serve as patient advocates to lead an animal to healing. With groups of professional associations coming together to share ideas and resources through connections such as the IVNTA, there will only be success in our future. **TVN**