

The Case for Veterinary Midlevel Professionals

Kenichiro Yagi, BS, RVT, VTS (ECC, SAIM)

Ken practices at Adobe Animal Hospital as an ICU and Blood Bank Manager. He is an active educator, lecturing internationally, providing practical instruction, and authoring texts, chapters, and articles on transfusion medicine, respiratory care, and critical care nursing. He serves on the boards of the Veterinary Emergency and Critical Care Society and the Academy of Veterinary Emergency and Critical Care Technicians, on the Veterinary Innovation Council, and as the NAVTA State Representative Chairperson. He is a graduate student in veterinary medicine and surgery through the University of Missouri. Ken invites all veterinary technicians to ask "Why?" to understand the "What" and "How" of our field and to constantly pursue new goals as veterinary professionals.

Kenichiro Yagi, BS, RVT, VTS (ECC, SAIM)

Adobe Animal Hospital
Los Altos, California



Mandy Fults, BS, LVT, CVPP, VTS (Clinical Practice — Canine/Feline)

Comanche Trail Veterinary Center
Liberty Hill, Texas



Mandy Fults, BS, LVT, CVPP, VTS (Clinical Practice — Canine/Feline)

Mandy is a veterinary technician with more than 15 years of experience. She is currently employed with Comanche Trail Veterinary Center in Liberty Hill, Texas, as the clinical care coordinator. She earned her veterinary technology degree in 2001 and her bachelor of science degree in agriculture economics from Texas A&M University. Currently, she is pursuing a master's degree in veterinary biomedical science with small animal endocrinology as her primary interest through the University of Missouri.



In 2009, Kogan and Stewart initiated a discussion within the veterinary medical community bringing forth the concept of *veterinary professional associates*, midtier professionals similar to physician's assistants (PAs).¹ The article evaluated the need for such a role through discussion of societal needs for more veterinarians and described the motivations, developmental history, intended role,

responsibilities, limitations, benefits, and certification process of PAs.

In the recent years, the veterinary technician (VT) profession has reached a new height, with 13 veterinary technician specialist (VTS) academies officially recognized by the National Association of Veterinary Technicians in America (NAVTA) and the entire field working toward a unified credentialing title. More than 850 credentialed

More than 850 credentialed veterinary technician specialists have become certified through a rigorous application and examination process.



shutterstock.com/Billion Photos

VTSs have become certified through a rigorous application and examination process, with the majority practicing within the United States. Additionally, programs such as the biomedical sciences master's program in veterinary medicine and surgery at the University of Missouri, which is offered to veterinarians, veterinary technologists, and VTSs, have emerged. The University of Missouri program is the first of its kind to target credentialed technicians and provide an advanced educational pathway geared toward career advancement opportunities.

In 2016, 6667 highly competitive candidates applied for admission to US and international Association of American Veterinary Medical Colleges member institutions, with only 4227 accepted as first-year veterinary students.² If this trend continues, more than 2000 highly qualified candidates will be denied a path to a doctorate degree in veterinary medicine each year. While many might reapply the subsequent year, establishment of a midlevel veterinary professional (MLVP) position would provide an alternate career path in veterinary medicine, leading to the entry of bright minds into the field in a different form. Could these individuals be MLVP candidates, and should this role exist? If so, how might it be established?

THE MIDLEVEL PROFESSIONAL

Two professions are established in the human medicine system as midlevel professions: the physician's assistant (PA) and the nurse practitioner (NP). These roles have an established education and certification system that allows for the legal practice of medicine on a limited scale. Both roles help fill a societal need brought on by increasing demands for medical care unable to be met by the number of physicians entering the field.

The potential supply of medical professionals to meet this demand was seen during World War II, when Dr. Eugene Stead realized that an intermediate role might be possible through employment of soldiers who had gone through a 2-year medical training program to become medics in combat.¹ By the end of the Vietnam War, a large number of medical corpsmen had returned to the United States, providing a large pool of medically inclined, highly trained individuals without the ability to practice as physicians. This supply, along with an ever-increasing demand for doctors, served as a trigger for the establishment of the PA role.¹

The NPs followed a similar path of providing healthcare professionals to meet the public's demands for primary

• **TECHPOINT** •

NPs are allowed to practice autonomously in most states, while PAs practice under the physician's license.

care providers in the 1960s. Loretta Ford and Henry Silver established the first NP training program in 1965, which then led to the emergence of similar programs nationwide.³ While there was strong opposition to the establishment of the profession from both nursing and physician communities, NPs were able to document increased availability of primary care, satisfaction of both nurses and physicians in collaborating, and equal competency and patient outcomes when compared with physicians through a series of published articles and studies. Overall, the NP profession was able to provide cost-effective and more widely available healthcare while functioning in an autonomous manner.³

Ensuring Quality of Knowledge

While initial efforts in establishing the PA and NP professions involved voluntary certifications and titles that led to various credentials and scopes of practice, minimum requirements of education were eventually standardized. Ensuring the quality of knowledge through proper curriculum development, accreditation standards, continuing medical education (CME) requirements, and national certification through standardized examination played a large role in acceptance of the professions. For example, the PA role requires formal education through a program accredited by the Accreditation Review Commission on Education for the Physician Assistant, passing of the PANCE exam administered by the National Commission on Certification of Physician Assistants,

100 hours of CME every 2 years, and recertification through a written examination every 6 years.

The PA role was established through involvement of professional groups and stakeholders who would potentially be affected by the role in the planning process, to allow for defining of boundaries of authorized function. The establishment of MLVPs would likewise require strict regulation and quality control. This would need to be a collaborative effort throughout the profession to outline a strategic plan of action.

Nurse Practitioner and Physician's Assistant Roles

Eventually, both the PA and NP roles were established as healthcare professionals licensed to practice medicine, with the ability to perform physical examinations, diagnose and treat illnesses, order and interpret tests, counsel on preventive healthcare, assist in surgery, and write prescriptions (in almost all states). Autonomy is

Timeline of Veterinary Technicians in Comparison to Human

Veterinary Technician



Animal technicians established (1960)



First journal published: *The Journal for Animal Health Technicians* (1976)



NAVTA formed (1981)

1950

1960

1970

1980



First PA program established (1965)

First NP program established (1965)



First PA journal published: *Physician's Associate* (1971)

First NP continuing education symposium held (1975)



Physician's Assistant/Nurse Practitioner

• **TECHPOINT** •

PAs are largely seen as generalists that perform primary care, whereas NPs are certified in a specific population focus, such as acute care, gerontology, pediatrics, and others.

given in medical decision making, and both professions include roles in education, research, and administrative services in addition to primary care. The types of duties vary based on needs of the physician, abilities of the PA or NP, and the work setting.

Although both PAs and NPs can diagnose, treat, and prescribe, there are some significant differences between the two professions. PAs are largely seen as generalists that perform primary care, whereas NPs are certified in a specific population focus, such as acute care, gerontology, pediatrics, and others. NPs are allowed to practice autonomously in most states, while PAs practice under the physician's license.

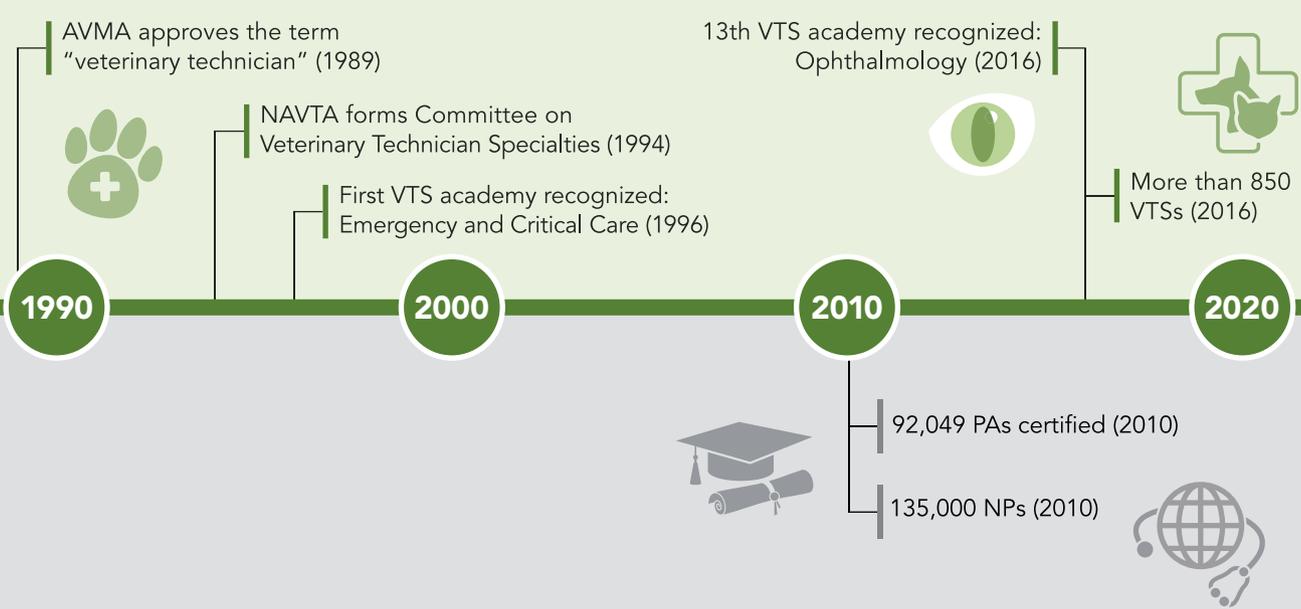
Benefits of the Midlevel Profession

Regardless of the role, the establishment of an intermediate role has shown many benefits in human medicine, including greater efficiency and overall accessibility to healthcare. From a financial standpoint, physicians were able to work 1 week less a year, yet the number of available office visits grew and net income increased by 18%.¹ PAs, for example, cost \$0.28 for each \$1 brought into the practice.¹ Patient satisfaction is improved because of reduced waiting times and even a preference to see PAs over physicians in various settings. In a study, incorporation of NPs to inpatient care teams was observed to increase revenue, reduce length of hospital stays, and standardize quality of care,⁴ while another study observed the employment of one NP per two physicians to decrease patient costs without compromising quality of care.⁵ Although creating an efficient PA or NP and physician team takes commitment, the benefits easily outweigh the costs, allowing for clear division of labor and leading to an efficient and effective team.

Implications for Veterinary Medicine

So where does this leave us in veterinary medicine? Incorporating MLVPs into practice could bring the same benefits PAs and NPs have brought to human medicine by providing better access to veterinary care without compromising client satisfaction and patient care. The potential for financial benefits by increasing a practice's net income and alleviating the veterinarian's workload are also critical factors in the longevity of the field of veterinary

Midlevel Professionals



Incorporating MLVPs into practice could bring the same benefits PAs and NPs have brought to human medicine by providing better access to veterinary care without compromising client satisfaction and patient care.

medicine. Nevertheless, the mention of a MLVP sparks debate both in support for and opposition to the concept.

NEEDS ASSESSMENT

The first element of successful establishment of an MLVP is demand. Is there a demand in veterinary medicine?

In 2009, when the Kogan and Stewart article was originally published, the National Veterinary Medical Service Act of 2003 and the Veterinary Workforce Expansion Act of 2007 had been implemented to attempt to fill a shortage of veterinarians. Along with the perceived shortage, veterinary medicine was the 9th fastest growing field, expected to show 35% growth over the next few years. However, in 2013, the AVMA Workforce Advisory Group produced a report indicating a 12.5% excess, instead of a shortage, of veterinarians, and the excess was expected to remain between 11% and 14% through 2025. Interestingly, despite the excess of veterinarians, the average veterinarian was found to be working more than 40 hours a week. The discrepancy was largely attributed to the trend in increased practice hours and the inability for practices to staff more veterinarians to better distribute hours because of their size. Of the employed veterinarians surveyed, 38% indicated their practices were operating at full capacity, with their entire workday being occupied with work.⁶ In other words, the supply of veterinarians has increased, but demands on each individual have risen.

Maldistribution

Despite a general oversupply of veterinarians, maldistribution of veterinarians regionally and in certain sectors is a continuing issue in veterinary medicine, with 198 areas designated as “shortage areas” within the United States.⁶ In 2008, it was reported that approximately 500 rural US counties, with more than 5,000 head of cattle, lacked a veterinarian. A survey of large animal breeders in a specific county revealed that 84% performed their own veterinary work on a routine basis because of a lack of available large animal veterinarians in the area. Efforts to help offset the shortage of rural area veterinarians have been implemented and include multiple incentives, such as tuition relief for veterinary students, state support for providing treatment vans, scholarships to students who express an interest in large animal medicine, and even modifying laws to allow VTs to function in a greater capacity. Livestock owners and local farmers have set forward some proposals, one of which suggests a future program “for legislative consideration to increase the legal activities and capabilities of veterinary technicians similar to those used by Nurse Practitioners and Physician Associates.”⁷

The establishment of MLVPs in the area of production and large animal medicine is a possible solution to alleviate some of the demand within rural communities. The Academy of Veterinary Technicians in Clinical Practice, established in 2013, has 4 recognized VTs in production medicine, and the Academy of Internal Medicine for Veterinary Technicians, established in 2006, has 7 recognized VTs in large animal medicine. Future VTs in this field of study are an invaluable asset in large animal medicine, some of which may consider roles as MLVPs.

Veterinarian Burnout

The overtime hours veterinarians work could be alleviated through the existence of MLVPs, as their employment would be more affordable and realistic for smaller practices than hiring more veterinarians to lessen the load.

Current trends in establishing an effective work–life balance to prevent career burnout is of value to most millennial veterinarians.⁸ With the continued growth of veterinary medicine, including extended hours of daily operation, a business model formulated with an MLVP to provide professional support can reduce attending veterinarians’ workload, allowing more time for case management and reducing overall weekly work hours. Another benefit in lifestyle enhancement is minimizing or even eliminating the challenge of having to find a relief veterinarian in the case of unexpected or planned events, such as family emergencies or a day off for a local event with the family. Otherwise, the absence of the

• **TECHPOINT** •

The establishment of MLVPs in the area of production and large animal medicine is a possible solution to alleviate some of the demand within rural communities.

veterinarian can result in rescheduling of appointments or lead to closing the doors for the day(s), depending on practice size and available associates to cover the additional workload.

With suicide rates being higher among veterinarians compared with other professionals, along with contributing factors such as work-related stressors (e.g., long hours worked, work overload),⁹ MLVPs should be a tremendous benefit. MLVPs could also give veterinarians the flexibility of spending their time and focus on aspects of their work that is important to them. Fulfillment in the job is another factor in career longevity.

Economic Growth

Further economic growth in veterinary medicine is necessary to alleviate crippling issues, including repayment of rising student debt for both veterinarians and VTs, that deter qualified individuals from entering or staying in a career in veterinary medicine. Employment of MLVPs can reduce the cost of veterinary care by allowing individuals earning a lower salary to increase the volume of cases seen through delegation. Financial gain for the practice can allow options to better compensate the entire team.

The addition of an MLVP to the staff is thought to increase practice revenue by improving the efficiency of veterinarians by freeing them from tasks that can be performed by MLVPs. One example of this advantage would be MLVPs performing wellness examinations while the veterinarian performs surgeries, reducing the revenue lost by blocking off examination time. The concept is similar to VTs bringing value to a practice by freeing veterinarians from tasks they would have to perform should VTs be absent. The AVMA Biennial Economic Survey of 2008 indicated that employing credentialed VTs

(i.e., those with a higher degree of education and training) resulted in an increase in annual revenue by \$93,311 per credentialed VT compared with practices employing non-credentialed equivalents.¹⁰ A second layer of tasks delegated by the veterinarian to qualified individuals can be added through establishment of MLVPs.

Real examples of practices unable to meet demands despite employing VTs exist. Dr. Brian Stuckey, a practice owner in Texas, states there are needs unmet by VTs even though he uses his credentialed VTs to the maximum allowable by law. He sees an immediate need for individuals who can perform wellness care in his hospital to enable the veterinarians to concentrate on more complex cases.^a In such practices, the shortage can be met by another veterinarian, though that increases operation cost compared with MLVPs, and this cost will be passed on to pet owners. In addition, veterinarians who are providing services that could be performed by an MLVP are reducing their potential and preventing full realization of their education and training.

Veterinary Technician Scope of Practice

From the perspective of VTs, the one misconception to dispel is that VTs are already performing the roles of MLVPs—this would be in violation of legislation. For example, performing a skin scraping and determining the patient to have demodicosis would constitute making a diagnosis, as would determining an abnormality in blood work and relating it to specific organ dysfunction. Lancing a cat's abscess or creating an incision for esophagostomy tube placement with a surgical blade can be considered surgery. Obtaining a medical history and recommending blood work is prescribing. Emergency examination of a puppy that had a seizure and measuring blood glucose is prescribing a diagnostic. Many simple tasks that veterinarians trust VTs to perform could be interpreted as practicing without a license.

The goal of establishing MLVPs is to help streamline daily operations by focusing on basic-level veterinary medicine. This establishment would be of benefit to VTs and veterinary assistants, where many routine questions and modifications to therapy could be approved without the need to consult the veterinarian. For example, prescribing parasiticides after fecal examinations, authorizing refills of potentially nephrotoxic medications after confirming no signs of renal dysfunction, or ordering adjustments in analgesics for an inpatient might all be performed without the need for the veterinarian's intervention, providing swifter turnaround and relief for patients and clients. This would be a major advantage for practices in which veterinarians are

^aBrian Stuckey, DVM. Personal communication. 2016.

Despite the excess of veterinarians, the average veterinarian was found to be working more than 40 hours a week.

high in demand for minute-to-minute decision making, alleviating some workload.

Another strong potential for the usefulness of MLVPs in practice is in the area of anesthesia. Often, the model of veterinary surgery consists of a VT administering anesthesia and monitoring the patient while the veterinarian performs the surgery. In the event that complications arise, the VT requires the veterinarian's approval for interventions to stabilize the patient. Veterinarians are required to split their attention between the patient's status regarding anesthesia and completing the surgical procedure safely. While this is achievable without obvious consequences most of the time, an educated, trained, and experienced veterinary professional dedicated to the maintenance of life and anesthesia would prove invaluable in critical cases. This role can currently be accomplished by another veterinarian, although an MLVP focusing in the field of anesthesia is likely more cost-effective in smaller operations.

A collaborative veterinarian-MLVP approach would increase accessibility to veterinary care, alleviate veterinarian burnout, promote growth in the veterinary economy, and create professionals that are trained and approved for higher-level care than VTs currently are.

WHERE DO WE GO FROM HERE?

Establishment of a midlevel profession in veterinary medicine is a topic of ongoing discussion in the field. The potential benefits to veterinarians, VTs, veterinary assistants, patients, and pet owners are many. However, questions still remain: is the demand high enough, is the benefit to the public is great enough, and is the present day the right time to encourage the change?

Similar to the processes NPs and PAs went through to become established, related concerns and opposition are likely to surface. However, continued discussion among allied veterinary professional groups to understand the role and scope of MLVPs, collection of more data on the potential benefits of MLVPs, and documented support from intended beneficiaries are anticipated to ease any initial opposition.

References

1. Kogan LR, Stewart SM. Veterinary professional associates: does the profession's foresight include a mid-tier professional similar to physician assistants? *J Vet Med Educ* 2009;36:220-225.
2. Annual Data Report 2015-2016 [Internet]. Washington, DC: Association of American Veterinary Medical Colleges; 2016 February:1-27. Available from: <http://www.aavmc.org/About-AAVMC/Public-Data.aspx>. Accessed June 16, 2016.
3. O'Brien JM. How nurse practitioners obtained provider status: lessons for pharmacists. *Am J Health Syst Pharm* 2003;60:2301-2307.
4. Kapu AN, Kleinpell R, Pilon B. Quality and financial impact of adding nurse practitioners to inpatient care teams. *J Nurs Adm* 2014;44(2):87-96.
5. Kralewski J, Dowd B, Curoe A, et al. The role of nurse practitioners in primary healthcare. *Am J Manag Care* 2015;21(6):e366-371.
6. AVMA Workforce Advisory Group. Implications of the 2013 US Veterinary Workforce Study and Recommendations for Future Actions. 2013. https://www.avma.org/KB/Resources/Reports/Documents/WAG-report_Workforce-Implicatn-Recommend_2013.pdf. Accessed June 16, 2016.
7. Moran DD. Production-animal veterinarian shortage: a rural case study of West Virginia. *Online J Rural Res Policy* 2010;5(7).
8. Boston S. The end of "suck it up"? drandyroark.com/the-end-of-suck-it-up/. Accessed June 2016.
9. Bartram DJ, Baldwin DS. Veterinary surgeons and suicide: a structured review of possible influences on increased risk. *Vet Rec* 2010;166:388-397.
10. American Veterinary Medicine Association. Contribution of veterinary technicians to veterinary business revenue, 2007. *JAVMA* 2010;236(8):846.

NAVTA National Credentialing and Veterinary Nurse Update

Heather Prendergast, RVT, CVPM
Kenichiro Yagi, BS, RVT, VTS (ECC, SAIM)

What do your clients understand about your position as a veterinary technician? How do you explain your role in their pets' care?

The National Association of Veterinary Technicians in America (NAVTA) has spent the year researching options and opportunities that will help drive the professional standards for credentialed veterinary technicians. Currently, credentialed veterinary technicians may be referred to as RVT, CVT, LVT, or LVMT, depending on the state in which they practice. This causes great confusion among veterinary consumers and even within the veterinary profession.

NAVTA's goal is to create one standard title for credentialed veterinary technicians, a uniform credentialing process (for entry and maintenance), and title protection in every state. At present, a majority of survey respondents favor the term *veterinary nurse* (for full survey results, visit navta.net and click "2016 Demographic Survey Results"). Those who favor the term *veterinary technician* have identified two objections:

1. "We do more than nurses."
2. "The nurses will never allow us."

"We Do More Than Nurses."

At first glance, this can appear to be true. Veterinary technicians administer anesthesia, monitor surgical recovery, provide nursing care to patients, perform dental prophylaxis, and more; however, when the specialized functions nurses serve are taken into account, the similarities of the two professions outweigh the differences. Look at veterinary medicine moving forward, and how many areas are becoming specialized in veterinary medicine.

One could also place the educational requirements of veterinary technicians and nurses next to each other and find more similarities than not.

Ask yourself: *What do your veterinary clients understand about your position as a veterinary technician? How do you explain your role in their pets' care to them?*

"The Nurses Will Never Allow Us."

This used to be the presumed answer; however, preliminary results and discussions show that reality is much different than we might have thought. Nurse title protection exists in a majority of US states, but the status of these protections causes no conflict in 14 of those states; an additional 12 states have no title protection.

NAVTA has learned that many professionals in the human medical profession do not know/understand the role of the credentialed veterinary technician/nurse, nor are they aware of the educational requirements and board examinations needed to earn and use the title. Providing information on the educational and credentialing process has gained the support of nursing professionals.

What Does This Process Look Like?

NAVTA will spend the remainder of 2016 working through processes with the American Veterinary Medical Association (AVMA), AVMA Committee on Veterinary Technician Education and Activities (CVTEA), American Association of Veterinary State Boards (AAVSB), and Association of Veterinary Technician Educators (AVTE), along with other veterinary stakeholders; they will also continue building relationships with nursing associations. Recommending that the same title be used in every state with uniform requirements affects many entities, and all processes and procedures must be considered, allowing the right strategy to be developed and implemented. Currently, informational webinars are being developed for state veterinary technician associations to answer questions and guide the processes on a state-by-state basis.

For the most current information, FAQs, and an e-mail address to submit your questions, please visit navta.net/?page=VeterinaryNurse.