# Certification in ABVP
# Shelter Medicine Practice

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# Certification in ABVP - Shelter Medicine Practice

**Qualifications for certification will be in accordance with other ABVP practice categories except as otherwise noted:**

1) Prior to applying for certification in Shelter Medicine Practice, a veterinarian must:

   A) Have graduated from a college or school of veterinary medicine accredited by the AVMA; or possess a certificate issued by the Educational Commission for Foreign Veterinary Graduates (ECFVG); or be legally qualified to practice veterinary medicine in some state, province, territory, or possession of the United States, Canada, or other country.

   B) All candidates must submit an application including:

      (1) Photocopy of Veterinary Diploma

      (2) *Curriculum vitae*

      (3) Synopsis of Veterinary Practice since graduation

      (4) Self-report job experience form (Appendix A)

      (5) Continuing Education documentation that supports knowledge relevant to Shelter Medicine

         (a) Practitioner Path- 90 hours accumulated during the five years prior to certification

         (b) Residency Path -100 hours (up to 70% may be journal club)

         (c) Not more than 10% of the continuing education may be in practice management

      (6) Letter from resident supervisor (Residents only)

      (7) Evaluation by three references

         (a) Candidates must demonstrate unquestionable moral character and ethical professional behavior as testified by three colleagues, one of whom must be a certified diplomate of a Recognized Veterinary Specialty Organization

      (8) Manuscripts

         (a) Practitioner = 2 case reports [or] 1 case report + 1 publication

         (b) Residents = 1 case report + 1 publication

         (c) Note: manuscript requirements differ slightly from other ABVP RVS categories:

(d) Two ABVP-format case reports submitted as part of the application. These case reports should represent different topics in Shelter Medicine Practice. Both individual animal and population level cases are acceptable. When two case reports are submitted, at least one MUST focus on a population of animals. For individual animal cases, the case must have population implications and the impact of the case on the management of the population of animals, of which the individual animal is a member, must be discussed. Case reports should follow the format described in the ABVP Applicant Handbook and should allow the ABVP Credentials Committee to evaluate an applicant's ability to recognize problems, formulate differential diagnoses, and develop and implement appropriate diagnostic, therapeutic or preventive/control plans. The manuscripts should reflect the applicant's professional expertise and demonstrate his or her ability to use medical principles in the diagnosis and treatment of shelter animals and populations. The case reports should represent the applicant's ability to communicate medical observations and data in an organized and appropriate manner and must be in accordance with the guidelines published in the ABVP Applicant Handbook.

Note: Refer to the Applicant handbook for detailed guidelines for case reports. Samples are available online. In addition to the guidelines in the handbook, the following should be adhered to:

- Remember than anonymity is required—You must not include your name, hospital or shelter name, location, or any identifying information at any point in the manuscript.
- Introduction – Must highlight any significant differences, challenges, or considerations that may exist regarding the management and outcome of the case in a shelter-housed animal/population compared to that of a client owned animal housed in a typical home environment.
- Clinical Report- Must include basic information regarding the shelter's intake, housing and population as well as other aspects pertinent to the case presented. You must state your role in the management of the case (e.g. staff veterinarian, consultant, etc), including when you became involved and which aspects of the case were within and outside your control.
    - Cases in which you were involved in a very limited or peripheral extent, or as a consultant with minimal input and/or follow-up, are not appropriate.
- For population cases, your report must include relevant baseline and follow up information/data in tabular form
- Discussion – Must include your analysis of all aspects of case management, including physical and behavioral health, quality of life, outcomes, and implications for the population and the shelter (e.g. infectious disease risks, public health implications, resource allocation, etc.).
    - Include pertinent statistics for population level cases.
    - Discuss, if applicable, any limitations in case management that were the result of the applicant's role (e.g. consultant, part-time staff, etc).
    - Discuss the implications and applications for management of similar cases in other types of shelter settings.

(e) OR, one ABVP-format case report as described above (individual or population case acceptable) and one approved first author manuscript describing a new contribution to Shelter Medicine Practice. The manuscript must satisfy standard ABVP requirements for publications. It must have been published within the 5 years prior to the application date in a peer reviewed biomedical journal. Published manuscripts may describe clinical research, a series of cases, a case report, or other new or novel contribution of knowledge, including new applications of existing knowledge. Publication of a manuscript is not sufficient for approval; the publication must be submitted with the application and is subject to approval by the ABVP Credentials Committee. The process of publishing a manuscript offers applicants an opportunity to practice professional communication, to respond to the review of peers in an organized and professional manner, to accommodate the requests of editors, and to become familiar with the process of communicating new information to the profession.

2) Practitioner Path

A) Practitioners must have completed at least 5 years of clinical practice experience before application and at least 6 years of clinical practice experience before examination. Five of the six years of clinical practice experience must be Shelter Medicine focused. Examples of qualifying Shelter Medicine focused clinical experience include:

(1) Fulltime employment (eg: 35-40 hours/week) in an animal shelter or animal shelters for 5 years or equivalent (eg: half-time for 10 years)

(2) A specialty internship in Shelter Medicine will count as 1 year of qualifying experience

(3) A specialty fellowship in Shelter Medicine will count as qualifying experience for the duration of the fellowship or up to 2 years

(4) Employment as a Shelter Medicine consultant or outreach veterinarian where the candidate spends the majority of his/her full time effort working with animals shelters or related Shelter Medicine cases

(5) Employment as a faculty member teaching Shelter Medicine to veterinary students, where the faculty member is in regular consultation with animal shelters

B) There are additional specific credentialing requirements for practitioner path candidates in order to ensure experience in critical areas of Shelter Animal Practice. For an overview of the professional knowledge and skills required for Shelter Medicine Practice specialists, refer to Appendix C. For a detailed description of the specific additional credentialing requirements for practitioners, see Appendix D. Practitioners are required to submit a "Practitioner Portfolio" to document these requirements. A Practitioner Portfolio checklist along with the required documentation may be found in Appendix E. As for residents, the shelter population case log will be used. The population case log is found in Appendix E.

3) Residency Path

A) Residents must be enrolled in a residency program of at least two years in length approved in advance by the ABVP Residency Committee or the Council of Regents.

(1) The residency program should be preceded by one year of qualifying experience, clinical internship or active veterinary practice. Residents may apply for the certifying exam in the 2nd year of their residency program.

B) There are additional specific credentialing requirements for residency path candidates in order to ensure experience in critical areas of Shelter Animal Practice. For an overview of the professional knowledge and skills required for Shelter Medicine Practice specialists, refer to Appendix C. For a detailed description of the specific additional credentialing requirements for residents, see Appendix D.

C) In addition to the standard ABVP case log (for individual animals), the procedure log, the mortality log, and the CE/presentation log, Shelter Medicine residents are required to submit population case logs, telephone/email shelter consultation logs, and Shelter Medicine residency summary forms semiannually. Copies of all forms are found in Appendix E.

4) Certifying examination in accordance with other ABVP RVS categories:

A) After the application has been accepted, candidates must complete and pass the certifying examination.

B) The examination will be given once annually, usually on a weekend in November, on a date and at a site determined by the ABVP Council of Regents.

C) A recommended reading list to help guide candidates during preparation will be available on the ABVP website (Appendix F).

D) All examination requirements must be completed within three years after the candidate is first accepted by the ABVP. This means that the candidate will have a maximum of three attempts to pass all parts of the examination. If the candidate chooses not to sit for an examination in a given year, that year is forfeited.

E) There will be two separate examinations.

F) Specialty Examination: a 2-part exam that primarily tests knowledge of information applicable to established disciplines within Shelter Medicine Practice. The specialty examination will consist of approximately 300 questions. The candidate should possess a strong basic and preclinical science background that applies to Shelter Medicine Practice.

G) Practical Examination: tests the ability to recognize, analyze, and/or solve clinical problems by various methods, primarily visual in nature. The practical examination will consist of approximately 100 questions.

H) Candidates must achieve a minimum passing score on both exams. Passing score will be determined after examinations have been scored and will be set each year after reasonable consideration of statistical analyses including mean and standard deviation, frequency distribution of raw scores, and outliers. A candidate must repeat any examination not passed. Candidates must have successfully completed both exams by the third consecutive year following acceptance as a candidate for examination.

I) Examination Blueprint: Data from the validated job task analysis was used to develop an examination blueprint (Appendix G). Exam items will be coded by category to ensure that areas are covered in accordance with the examination blueprint.

# Appendices

## Appendix A

### Self-Report Job Experience Form

AMERICAN BOARD OF VETERINARY PRACTITIONERS

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615.250.7794 p • 800.697.3583 toll free
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abvp.com

**Shelter Medicine**

*-Self-Report Job Experience Form*

ID# _____

Name: _____
(Last) (First) (Middle)

In addition to the information specified in the Applicant Handbook regarding each of your practice situations, this form needs to be completed. It will provide an estimate of the clinical cases you have seen and specific diagnostic, therapeutic, and surgical procedures you have personally performed. Your *Curriculum Vitae* will be unacceptable without this form.

In section I, indicate how frequently you have seen specific conditions within the practices where you've worked. In section II, indicate how frequently you use specified modalities of investigation and therapy. **Please estimate the frequencies as a cumulative total for all practice experiences.**

| **Section I: How frequently have you recognized and managed the following conditions during the lifetime of your practice experience?** | Never | Yearly | Quarterly | Monthly | Weekly | Daily |
|---|---|---|---|---|---|---|
| **Infectious Diseases** | | | | | | |
| Babesiosis | | | | | | |
| Bacterial Gastrointestinal Disease (Salmonella, Campylobacter, etc.) | | | | | | |
| Bartonellosis | | | | | | |
| Brucellosis | | | | | | |
| Dermatophytosis | | | | | | |
| Intestinal Parasites (roundworms, whipworms, tapeworms, etc.) | | | | | | |
| Heartworm Disease | | | | | | |
| Leptospirosis | | | | | | |
| Protozoal Gastrointestinal Disease (giardia, tritrichomonas, etc) | | | | | | |
| Streptococcus zooepidemicus | | | | | | |
| Rabies | | | | | | |
| Avian, Psittacosis | | | | | | |
| Canine Coronavirus | | | | | | |
| Canine Distemper Virus | | | | | | |
| Canine Influenza Virus | | | | | | |
| Canine Kennel Cough Complex | | | | | | |
| Canine Viral Papillomatosis | | | | | | |
| Canine Parvovirus Virus | | | | | | |
| Feline Chlamydophila | | | | | | |
| Feline Immunodeficiency Virus | | | | | | |

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|---|---|---|---|---|---|---|
| Feline Infectious Peritonitis | | | | | | |
| Feline Leukemia Virus | | | | | | |
| Feline Panleukopenia | | | | | | |
| Feline Upper Respiratory Disease | | | | | | |
| Rabbits, Pasteurellosis | | | | | | |
| **Ectoparasites** | | | | | | |
| Fleas | | | | | | |
| Lice | | | | | | |
| Mites (Cheyletiella, Notoedres, Demodex, Sarcoptes, Otodectes, etc) | | | | | | |
| Ticks | | | | | | |
| **Common Medical Conditions** | | | | | | |
| Allergies/Atopy | | | | | | |
| Bite wound infections | | | | | | |
| Bladder Stones | | | | | | |
| Cardiac Disease | | | | | | |
| Congenital Anomaly | | | | | | |
| Conjunctivitis | | | | | | |
| Corneal Edema/Ulcer | | | | | | |
| Diarrhea/Enteritis/Gastroenteritis | | | | | | |
| Dystocia | | | | | | |
| Endocrine Disease (hypothyroid, hyperthyroid, diabetes, etc.) | | | | | | |
| Hip Dysplasia/Degenerative Joint Disease | | | | | | |
| Mastitis | | | | | | |
| Metabolic Disease | | | | | | |
| Neoplasia | | | | | | |
| Orthopedic Injuries | | | | | | |
| Otitis Externa | | | | | | |
| Otitis Media | | | | | | |
| Periodontal Disease (gingivitis, stomatitis, etc.) | | | | | | |
| Pneumonia | | | | | | |
| Pyoderma | | | | | | |
| Severe Trauma/Shock | | | | | | |
| Soft Tissue Injury | | | | | | |
| Toxicity | | | | | | |
| Urethral Obstruction | | | | | | |
| Urinary Tract Infection | | | | | | |
| **Cruelty/Abuse/Neglect** | | | | | | |
| Animal Hoarding | | | | | | |
| Blunt Force Trauma | | | | | | |
| Dogfighting | | | | | | |
| Drowning | | | | | | |
| Embedded Collar | | | | | | |
| Frostbite | | | | | | |
| Gunshot/Stabbing | | | | | | |
| Heatstroke | | | | | | |
| Overworking/Overdriving | | | | | | |
| Refusal/Delay of Health Care | | | | | | |
| Severe matting/overgrown nails/hooves | | | | | | |
| Sexual Assault | | | | | | |
| Starvation/Malnutrition | | | | | | |
| Strangulation/Asphyxiation | | | | | | |
| Thermal/Chemical Burns | | | | | | |

| **Behavior** | | | | | | |
|---|---|---|---|---|---|---|
| Aggression towards animals of the same species | | | | | | |
| Aggression towards animals of another species | | | | | | |
| Aggression towards people | | | | | | |
| Barrier Aggression | | | | | | |
| Destructive/Unruly Behavior | | | | | | |
| Food Aggression/Resource Guarding | | | | | | |
| Inappropriate Elimination | | | | | | |
| Kennel Stress/Fear/Anxiety | | | | | | |
| Repetitive Behavior/Stereotypy | | | | | | |
| Separation Anxiety | | | | | | |

**In the spaces below, please list any additional conditions that you feel are important aspects of your Shelter Medicine practice and indicate their frequency.**

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| **Section II: Over the lifetime of your practice experience, how frequently have you employed the following in the management of your cases?** | Never | Yearly | Quarterly | Monthly | Weekly | Daily |
|---|---|---|---|---|---|---|
| **Medical** | | | | | | |
| Anesthesia/Anesthetics | | | | | | |
| Bacterial Culture | | | | | | |
| Blood Chemistry | | | | | | |
| Canine/Feline Respiratory Disease Panel | | | | | | |
| Canine/Feline Diarrhea Panel | | | | | | |
| CBC | | | | | | |
| Cytology | | | | | | |
| Dental Prophylaxis | | | | | | |
| Determine Medical Adoptability | | | | | | |
| Endocrine Testing (Thyroid, Adrenal, Diabetes, etc.) | | | | | | |
| Fecal Analysis | | | | | | |
| Fluid Therapy/Fluid Additives | | | | | | |
| Forensic Examination and Reporting | | | | | | |
| Full Necropsy with Histopathology at referral laboratory | | | | | | |
| Fungal Culture/Trichogram | | | | | | |
| Gross Necropsy In-house | | | | | | |
| Heartworm Testing (antigen, antibody) | | | | | | |
| Histology | | | | | | |
| Immunization | | | | | | |
| Pain Management | | | | | | |
| Parasite Control | | | | | | |
| Parvoviral Testing | | | | | | |

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|---|---|---|---|---|---|---|
| Prepare Evidence or Serve as Expert Witness on Animal Cruelty Case | | | | | | |
| Radiology | | | | | | |
| Reproductive Hormone Assays | | | | | | |
| Retroviral Testing (FELV, FIV, IFA, Western Blot, etc.) | | | | | | |
| Skin Scrape | | | | | | |
| Titer Testing/Serology | | | | | | |
| Urinalysis | | | | | | |
| **Behavior** | | | | | | |
| Behavioral Assessment for Rehoming | | | | | | |
| Behavioral Monitoring/Quality of Life Assessment | | | | | | |
| Diagnose Problem Behaviors | | | | | | |
| Prescribe/Provide Treatment/Behavior Modification | | | | | | |
| **Population Health** | | | | | | |
| Biosecurity Assessment | | | | | | |
| Calculate Adoption Driven Capacity | | | | | | |
| Calculate Required Holding Capacity | | | | | | |
| Monitor Average Length of Stay | | | | | | |
| Monitor Capacity for Care | | | | | | |
| Perform Behavioral Health Rounds | | | | | | |
| Perform Medical Rounds | | | | | | |
| Perform Pathway Planning Rounds | | | | | | |
| Perform Risk Assessments for Animals Potentially Exposed to Infectious Disease | | | | | | |
| Track and Analyze Disease Surveillance Data | | | | | | |
| Track and Analyze Stress Surveillance Data | | | | | | |
| **Surgery** | | | | | | |
| Pediatric (<5 months) Dog Spay | | | | | | |
| Pediatric (<5 months) Dog Neuter | | | | | | |
| Pediatric (<5 months) Cat Spay | | | | | | |
| Pediatric (<5 months) Cat Neuter | | | | | | |
| Dog (5+ months) Spay | | | | | | |
| Dog (5+ months) Neuter | | | | | | |
| Cat (5+ months) Spay | | | | | | |
| Cat (5+ months) Neuter | | | | | | |
| Feral Cat Trap/Neuter/Return | | | | | | |
| Rabbit Spay | | | | | | |
| Rabbit Neuter | | | | | | |
| Other Small Mammal Spay | | | | | | |
| Other Small Mammal Neuter | | | | | | |
| Cryptorchid | | | | | | |
| Pyometra | | | | | | |
| Entropion Repair | | | | | | |
| Enucleation | | | | | | |
| Prolapsed Gland of the Nictitating Membrane Replacement | | | | | | |
| Biopsy/Mass Removal/Mastectomy | | | | | | |
| Wound Debridement and Repair | | | | | | |

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|---|---|---|---|---|---|---|
| Fracture Fixation | | | | | | |
| Limb Amputation | | | | | | |
| Other Orthopedic Procedures | | | | | | |
| Umbilical Hernia Repair | | | | | | |
| Inguinal Hernia Repair | | | | | | |
| Salivary Mucocele | | | | | | |
| Cystotomy | | | | | | |
| Splenectomy | | | | | | |
| GI Foreign Body Removal/Resection/Anastomosis | | | | | | |
| Abdominal Exploratory | | | | | | |
| Dental Extraction | | | | | | |

| **In the spaces below, please list any additional modalities of investigation and therapy that you feel are important aspects of your Shelter Medicine practice and indicate their frequency.** | Never | Yearly | Quarterly | Monthly | Weekly | Daily |
|---|---|---|---|---|---|---|
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| **Section III: Over the lifetime of your practice experience, how frequently have you been involved in the following protocol development, outreach, and consulting activities?** | Never | Yearly | Quarterly | Monthly | Weekly | Daily |
|---|---|---|---|---|---|---|
| **Shelter Animal Care Protocols (Develop, Revise, or Implement)** | | | | | | |
| Selection Criteria | | | | | | |
| Asilomar Mapping Protocols | | | | | | |
| Adoption Counseling Protocols | | | | | | |
| Biosecurity Protocols ( quarantine, isolation, animal/human traffic patterns) | | | | | | |
| Anesthesia Protocols | | | | | | |
| Animal Transport Protocols | | | | | | |
| Behavior Assessment Protocols | | | | | | |
| Behavioral Enrichment/Stress Management Protocols | | | | | | |
| Behavior Modification Protocols | | | | | | |
| Condition Specific Medical Treatment Protocols | | | | | | |
| Euthanasia Protocols | | | | | | |
| Foster Care Protocols | | | | | | |
| Intake Protocols | | | | | | |
| Spay/Neuter Protocols | | | | | | |
| Immunization Protocols | | | | | | |
| Infectious Disease Control Protocols | | | | | | |
| Outbreak Management Protocols | | | | | | |
| Parasite Control Protocols | | | | | | |
| Animal Identification Protocols – in shelter/at release | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Animal Identification Protocols – spay-neuter | | | | | | |
| Microchip Scanning Protocols | | | | | | |
| Pest Control Protocols | | | | | | |
| Safe Capture/Handling Protocols | | | | | | |
| Sanitation and Disinfection Protocols | | | | | | |
| Species/Age Specific Animal Husbandry (housing environment, nutrition, etc.) | | | | | | |
| Staff Safety Protocols | | | | | | |
| Staff/Volunteer Training Protocols | | | | | | |
| Orphan/Injured Animal Protocols (cats, dogs, wildlife, etc.) | | | | | | |
| Management of Feral and Free Roaming Animal Protocols | | | | | | |
| **Outreach** | | | | | | |
| Collaborate with External Organizations Regarding Animal or Public Health | | | | | | |
| Contribute to Research in Shelter Medicine | | | | | | |
| Disaster Preparedness/Disaster Response | | | | | | |
| Educate Public on Responsible Pet Ownership/Shelter Medicine | | | | | | |
| Educate Shelter Technicians and Other Professionals (CE, seminars, etc.) | | | | | | |
| Educate Veterinary Students (veterinary college, shelter externship, etc.) | | | | | | |
| Educate Veterinarians (CE, internship, residency, etc.) | | | | | | |
| Participate in Vaccination Clinics | | | | | | |
| Provide Input for Development of Animal Related Community Policies | | | | | | |
| Relinquishment Prevention Programs | | | | | | |
| **Consultation** | | | | | | |
| Behavioral Health and Mental Wellbeing | | | | | | |
| Cruelty Investigation | | | | | | |
| Facility Design and Environment | | | | | | |
| Humane Euthanasia | | | | | | |
| Management of Specific Infectious Diseases | | | | | | |
| Medical Health and Physical Wellbeing | | | | | | |
| Population Management | | | | | | |
| Public Health | | | | | | |
| Sanitation | | | | | | |
| Shelter Animal Spay/Neuter | | | | | | |
| Shelter Management and Record Keeping | | | | | | |

| **In the spaces below, please list any additional protocols, outreach, or consultations that you feel are important aspects of your Shelter Medicine practice and indicate their frequency.** | Never | Yearly | Quarterly | Monthly | Weekly | Daily |
|---|---|---|---|---|---|---|
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# Appendix B

Job Task Analysis Using "Developing a Curriculum" (DACUM) Method

# DACUM Research Chart for Shelter Medicine Specialist

**DACUM Panel**

Richard "Rick" Bachman, DVM
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Claudia J. Baldwin, DVM, MS, DACVIM
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**DACUM Panel, cont.**

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**Coordinator**

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**DACUM Facilitators**

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**Sponsored by**

Association of Shelter Veterinarians

MERIAL

**Produced by**

CENTER ON EDUCATION AND TRAINING FOR EMPLOYMENT
COLLEGE OF EDUCATION
THE OHIO STATE UNIVERSITY
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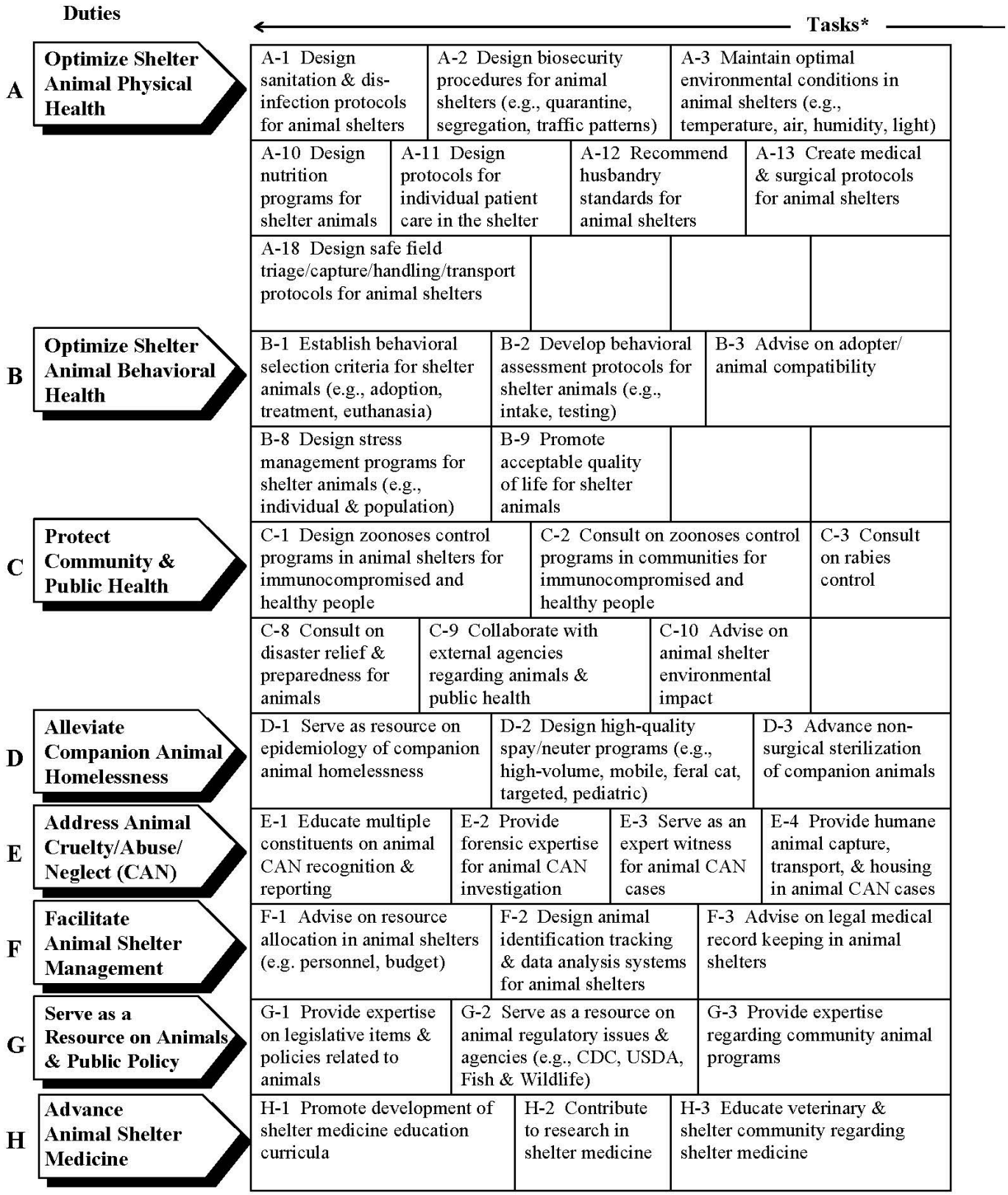
**January 17-18, 2007**

**DACUM Research Chart for Shelter Medicine Specialist**


Duties
Tasks*
A
Optimize Shelter Animal Physical Health
A-1 Design sanitation & dis-infection protocols for animal shelters
A-2 Design biosecurity procedures for animal shelters (e.g., quarantine, segregation, traffic patterns)
A-3 Maintain optimal environmental conditions in animal shelters (e.g., temperature, air, humidity, light)
A-10 Design nutrition programs for shelter animals
A-11 Design protocols for individual patient care in the shelter
A-12 Recommend husbandry standards for animal shelters
A-13 Create medical & surgical protocols for animal shelters
A-18 Design safe field triage/capture/handling/transport protocols for animal shelters
B
Optimize Shelter Animal Behavioral Health
B-1 Establish behavioral selection criteria for shelter animals (e.g., adoption, treatment, euthanasia)
B-2 Develop behavioral assessment protocols for shelter animals (e.g., intake, testing)
B-3 Advise on adopter/ animal compatibility
B-8 Design stress management programs for shelter animals (e.g., individual & population)
B-9 Promote acceptable quality of life for shelter animals
C
Protect Community & Public Health
C-1 Design zoonoses control programs in animal shelters for immunocompromised and healthy people
C-2 Consult on zoonoses control programs in communities for immunocompromised and healthy people
C-3 Consult on rabies control
C-8 Consult on disaster relief & preparedness for animals
C-9 Collaborate with external agencies regarding animals & public health
C-10 Advise on animal shelter environmental impact
D
Alleviate Companion Animal Homelessness
D-1 Serve as resource on epidemiology of companion animal homelessness
D-2 Design high-quality spay/neuter programs (e.g., high-volume, mobile, feral cat, targeted, pediatric)
D-3 Advance non-surgical sterilization of companion animals
E
Address Animal Cruelty/Abuse/ Neglect (CAN)
E-1 Educate multiple constituents on animal CAN recognition & reporting
E-2 Provide forensic expertise for animal CAN investigation
E-3 Serve as an expert witness for animal CAN cases
E-4 Provide humane animal capture, transport, & housing in animal CAN cases
F
Facilitate Animal Shelter Management
F-1 Advise on resource allocation in animal shelters (e.g. personnel, budget)
F-2 Design animal identification tracking & data analysis systems for animal shelters
F-3 Advise on legal medical record keeping in animal shelters
G
Serve as a Resource on Animals & Public Policy
G-1 Provide expertise on legislative items & policies related to animals
G-2 Serve as a resource on animal regulatory issues & agencies (e.g., CDC, USDA, Fish & Wildlife)
G-3 Provide expertise regarding community animal programs
H
Advance Animal Shelter Medicine
H-1 Promote development of shelter medicine education curricula
H-2 Contribute to research in shelter medicine
H-3 Educate veterinary & shelter community regarding shelter medicine

| | | | | | | |
|---|---|---|---|---|---|---|
| A-4 Consult on facility/ housing design & management | A-5 Design vaccination protocols for shelter animals | A-6 Design infectious disease protocols for shelter animals (e.g., parasitic, bacterial, viral) | A-7 Diagnose disease outbreaks in shelter animals | A-8 Manage disease outbreaks in shelter animals | A-9 Design disease surveillance programs in animal shelters | |
| A-14 Advise on population management/density in animal shelters | A-15 Develop medical record-keeping systems for animal shelters | A-16 Advise on medical selection criteria within animal shelters (e.g., adoption, treatment, foster) | A-17 Design euthanasia protocols for animal shelters (e.g., technical training, body disposal) | | | |
| | | | | | | |
| B-4 Advise on diagnosis, prognosis, and treatment of common behavioral problems for shelter animals | B-5 Design preventive behavioral programs for shelter animals (e.g., environmental enrichment & socialization) | B-6 Provide recommendations for companion animal training | B-7 Develop protocols for safe animal handling | | | |
| | | | | | | |
| C-4 Provide recommendations for dog bite prevention | C-5 Advise on dangerous animal issues (e.g., wildlife, exotics, domestic) | C-6 Participate in emerging, reportable & foreign animal disease surveillance | C-7 Consult on animal cruelty, abuse, and neglect | | | |
| | | | | | | |
| D-4 Advise on humane education programs | D-5 Provide for companion animal surrender intervention programs | D-6 Design animal-owner reunification programs | D-7 Design shelter animal transfer programs | | | |
| E-5 Manage animal CAN victim rehabilitation | | | | | | |
| F-4 Consult on animal shelter regulations (e.g., OSHA, DEA) | F-5 Advise on compassion fatigue in animal shelters | | | | | |
| G-4 Provide information on animal shelter history, trends, & programs | G-5 Provide expertise on animal shelter ethical issues | * The panel members represented at least three major positions within the specialty of Shelter Medicine. These included persons who are employed as shelter administrators, shelter consultants, and shelter educators/researchers. While one "best" verb was selected for each duty and task, different verbs may better reflect what an administrator does (e.g., provide or implement) vs. a consultant (e.g., advise or recommend) vs. an educator/researcher (e.g., teach or advance). | | | | |
| H-4 Communicate with the public as an expert on shelter medicine issues | H-5 Pursue professional development in shelter medicine | | | | | |

## General Knowledge and Skills

Population medicine/health
Small animal medicine
Small animal surgery
HVHQ surgical proficiency
Animal behavior
Infectious disease
Emergency and critical care
Anesthesia/analgesia
Pain management
Preventive medicine
Pharmacology
Vaccination & immunology
Theriogenology
Pediatrics
Pathology
Epidemiology
Statistics
Ethics
Recognition of CAN
Forensics
Shelter facility design
Standards of care
Diagnostic testing
Crisis management
Legislative process
Maintenance skills
Animal husbandry
Stress management
Problem-solving skills
Risk management
Leadership skills
Training skills
Time management
Disaster response
Communication skills
Conflict negotiation
Multi-tasking
Management skills
Humane restraint and capture
Regulatory agencies and policies
Legal & policy issues in shelter medicine
Shelter definitions, management, & philosophy
Shelter support & advocacy groups

## Worker Behaviors

Compassionate
Dedicated
Detail-oriented
Skilled leader
Emotional stability
Maturity
Professionalism
Inquisitive
Team builder
Open-minded
Flexible
Analytical
Ethical
Politically savvy
Persistent
Resilient
Visionary
Self-motivated
Creative

## Tools, Equipment, Supplies and Materials

Animal shelter
Reference reading list
Restraint/capture equipment
Behavior/training equipment
Medical/surgical equipment

## Acronyms

| | |
|---|---|
| ASV | Association of Shelter Veterinarians |
| CAAB | Certified Applied Animal Behaviorist |
| CAN | Cruelty, Abuse, and Neglect |
| CDC | Center for Disease Control |
| DACVIM | Diplomate, American College of Veterinary Internal Medicine |
| DEA | Drug Enforcement Administration |
| DVM | Doctor of Veterinary Medicine |
| HVHQ | High Volume, High Quality |
| MPVM | Master of Preventative Veterinary Medicine |
| MSPCA | Massachusetts Society for the Prevention of Cruelty to Animals |
| OSHA | Occupational Safety & Health Administration |
| USDA | United States Department of Agriculture |
| VMD | Veterinary Medical Doctor |

## Future Trends and Concerns

Increase awareness of CAN
Longer shelter stays
Animal overpopulation
Improved shelter pet health
Increase veterinary involvement and education in shelters
Veterinary involvement in public policy
Increased availability of sterilization
Academic shelter medicine programs
Improved public perception of animal shelters
Higher public expectation of animal shelters
Shift in species admitted to shelters-cat to dog ratio-entering shelters
International expansion of shelter medicine
Increased involvement in animal welfare
Increased involvement in public health
Increased management of feral cat population
Expanded shelter resources and facilities
Increased prosecution of animal abuse
Increased collaboration among animal stakeholders

# Appendix C

Shelter Medicine Specialist: Requirements for Professional Knowledge and Skills

## Shelter Medicine Specialist: Requirements for Professional Knowledge and Skills Based on Job Task Analysis Validation

***A special task force consisting of veterinary faculty involved in Shelter Medicine training was convened for the purpose of creating standards for post-graduate clinical training in Shelter Medicine.**

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## Table of Contents

# Introduction

## Background and Significance

Between four to six million dogs and cats are estimated to enter United States animal shelters each year. Most of these animals are homeless; lost, unwanted or abandoned, abused, neglected, or the result of unplanned breeding. Despite rising public awareness of companion animal homelessness and widespread desire to decrease shelter euthanasia rates, it has been estimated that five out of ten dogs and seven out of ten cats entering animal shelters are destroyed.

Increasing public focus on animal welfare necessitates a new, more cohesive role for veterinarians in animal shelters. It is now recognized that science-based recommendations are required to protect the health and welfare of homeless animals. There is an unprecedented demand for skilled veterinarians to design and oversee comprehensive programs that maintain wellness and prevent disease spread in shelters. Veterinary guidance has become even more urgent in recent years as trends for longer term housing of animals in shelters increase, creating populations with even greater risks for developing disease and compromised welfare.

Most communities now have at least one local animal shelter. Many localities have several different types of shelters, each requiring a different type of veterinary guidance, from small sanctuaries that provide lifetime care to large facilities that admit thousands of animals annually. Although some shelters employ staff veterinarians and certified veterinary technicians, shelter animal health care is frequently managed by employees with minimal medical training. These staff members are often tasked with the health care of hundreds of animals. Veterinarians working in shelters frequently report feeling inadequately trained to provide optimal care for populations of dogs and cats. Thus, it is imperative that training in shelter medicine is available to veterinarians so that they can aid the animal shelters in their communities.

The practice of veterinary medicine in an animal shelter differs significantly from conventional small animal veterinary practice. Whereas traditional small animal veterinary practice focuses on the individual patient, shelter veterinary practice emphasizes the health of a population while still ensuring individual animal welfare. The needs of the community must also be addressed, as protection of public and community animal health is part of the mandate for many shelters. In these environments, resources are generally limited, yet quality care must be provided. Often, this necessitates ethical thinking and challenging decisions. Veterinarians who work with shelters must not only possess medical and surgical skills and knowledge, they also must be capable and willing educators and managers, able to draw from many disciplines to meet the needs of the shelter and community. In addition to the design and oversight of basic preventive health care protocols, shelter veterinarians play a role in almost every community service that shelters provide, including; spay/neuter and adoption programs; cruelty investigations; public health protection; stray and injured animal capture, care and control; disaster response; and humane euthanasia among others. Beyond a conventional veterinary education, a strong background is necessary in areas such as epidemiology, population management and statistical tracking, immunology, infectious disease, behavior, public health, general management, facility design and veterinary forensics. While surgical ability, infectious disease knowledge and individual patient care are part of the work, other applicable skills are necessary, but perhaps less apparent to those working outside the field of shelter medicine.

Veterinarians around the world have recognized that shelter medicine is a rapidly advancing field. Shelter medicine resources are in high demand including scientific journal articles, web-based materials and veterinary textbooks. The Veterinary Information Network (VIN) added a Shelter Medicine Consultant in 2007. The Association of Shelter Veterinarians (ASV), established in 2001, has rapidly grown into a professional organization with more than 600 members and 23 student chapters. Over half of the United States' veterinary colleges have incorporated shelter medicine into their curricula. Some veterinary colleges offer clinical and/or didactic coursework in shelter medicine and many offer clinical externship opportunities. It became clear to many members of the ASV and others interested in the field that individuals serving as specialists in shelter medicine were needed. It is anticipated that this need will increase as veterinarians trained as shelter medicine specialists are increasingly sought to guide community animal shelters effectively, scientifically, and humanely. This has resulted in several veterinary colleges developing postgraduate internship and residency training programs, even though a recognized shelter medicine specialty does not yet exist. The authors of this document believe that the development of a formal residency curriculum leading to a recognized shelter medicine specialty designation is indicated to meet the growing need for trained shelter medicine specialists.

**Purpose Statement**

The purpose of this document is to provide a description of the foundation skills and knowledge that all shelter medicine residents will achieve during successful completion of a recognized program. It is assumed that residents will enter such programs with a strong background in clinical small animal veterinary medicine. The primary focus of this document is on direct knowledge and skills pertaining to dogs and cats, but requires residents to have familiarity with material pertinent to other species cared for in animal shelters. Acquiring this knowledge requires diverse training including a variety of mentored clinical experiences in the field. A complementary document defines minimum training requirements necessary to achieve the level of knowledge and skill described herein.

Note: The requirements for professional knowledge and skills as defined in this document also apply to veterinarians pursuing a non-residency path to certification in Shelter Medicine.

**Methods**

In 2005, members of the ASV and other interested individuals submitted a letter of intent to form a recognized veterinary specialty organization in shelter medicine to the AVMA's American Board of Veterinary Specialties (ABVS). The ABVS recommended that the ASV conduct an occupational analysis of shelter veterinary medicine to enhance its application for specialty recognition. In January 2007, a group of individuals considered experts in shelter medicine met with facilitators from The Ohio State University Center for Education and Training for Employment Analysis to perform this analysis, which was referred to as "Developing A Curriculum" (DACUM). During this meeting a Shelter Medicine Career Analysis was developed, resulting in a list of eight general duties and 64 tasks that veterinary specialists would be expected (and ultimately trained) to perform.[1]

[1] Funding for the DACUM analysis was provided by Merial Ltd.

The list of duties and tasks from the DACUM were incorporated into an on-line survey and distributed to members of the ASV and other individuals practicing in the shelter medicine field. Respondents to this survey were asked to evaluate each of the 64 tasks on the basis of the level of responsibility that a shelter specialist would likely exhibit for each task, the frequency with which a shelter medicine specialist would perform each task and the overall importance of each task to the work of a shelter medicine specialist. The following instructions and rankings were provided under the respective categories in the survey.

1. In the "Responsibility" column, choose the number that most accurately reflects the level of responsibility that a shelter medicine specialist would likely exhibit for that task. Choose the *top level of expertise* expected, which may encompass lower levels (e.g. an expert may also be expected to teach and perform tasks independently). Use the scale below to rate the level of responsibility of each task:

| | | |
|---|---|---|
| 5 = | **Expert**: | Expected to be a top expert /consultant /researcher in this area. (e.g. a pre-eminent authority on this subject, able to design recommendations broadly applicable to a variety of settings) |
| 4 = | **Teach Others**: | Conversant with current research and application of this information, able to teach other professionals |
| 3 = | **Advise:** | Provide input to organizations, other experts or communities to aid in the performance of this task |
| 2 = | **Supervise:** | Supervise others in the performance of this task |
| 1 = | **Perform:** | Perform this task independently |
| 0 = | **Not Part of Job:** | Shelter medicine specialists are unlikely to perform this task |

2. In the "Frequency" column indicate how often a shelter medicine specialist would perform this task. Use the scale below to rate the frequency of each task.

| | | |
|---|---|---|
| 4 = | **Very frequently:** | This is one of the most frequent tasks shelter medicine specialists are expected to perform (e.g. several times a week, for extended periods during each year, or the majority of the specialist's time) |
| 3 = | **Regularly**: | This is a task shelter medicine specialists would be expected to perform on a regular basis (e.g. several times a month, and/or more than ten times per year, or a significant proportion of the specialist's time) |
| 2 = | **Occasionally:** | This is a task shelter medicine specialists would be expected to perform on an intermittent basis (e.g. once a month or less, or between about 3-10 times per year, or significantly less time than is spent on other tasks) |
| 1 = | **Rarely:** | This is a task shelter medicine specialists would be expected to perform on an infrequent basis (e.g. 1-3 times per year or less) |
| 0 = | **Never:** | Shelter medicine specialists should be aware of this area, but would not be expected to perform this task |

3. In the "Overall Importance" column, choose the number that most accurately reflects the overall importance of that task in the job as a shelter medicine specialist. Use the scale below to rate the overall importance of each task:

| | | |
|---|---|---|
| 5 = | **Great** importance: | Performance is critical to success of shelter medicine specialists |
| 4 = | **Very** important: | Performance is very important to success of shelter medicine specialists |
| 3 = | Important: | Performance is important to success of shelter medicine specialists |
| 2 = | **Some** importance: | Performance is of some importance to success of shelter medicine specialists |
| 1 = | **Little** importance: | Performance is of little importance to success of shelter medicine specialists |
| 0 = | **No** importance: | Shelter medicine specialists are unlikely to perform this task |

The analysis clearly identified a skill set beyond that of a graduate veterinarian supporting the need for specialty designation. The results of the DACUM were used as the framework from which this paper evolved.

Using the results of the survey, a composite score for each of the 64 tasks identified by the DACUM was developed, taking into account the score for each component (level of responsibility, frequency of performing the task and overall importance of the task to shelter specialists) (see Appendix A). The overall rankings of each task, by their composite scores, as identified by respondents who were identified as shelter specialists are also provided in Appendix A. These composite scores were used to rank the importance of training for each task. Eight broad categories of knowledge from the DACUM proceedings were used (Table 1). A ninth category entitled "Develop effective means of communication" was added by the authors as it was recognized and agreed that skills in communication are essential to shelter medicine specialists as they must be able to effectively relate in unique contexts to shelter personnel, veterinary and other animal welfare colleagues as well as to the public.

The categories were divided among four working groups of task force members to add, clarify or remove tasks and then to indicate the level of knowledge that should be associated with each task according to standardized definitions (Table 2). The working groups agreed that the category entitled "Addressing animal cruelty/abuse/neglect (CAN)" should be re-categorized under section C, "Protect community and public health", leaving eight main categories. Ultimately, after extensive input from one or more of the working groups as well as external consultants when deemed necessary, each section was reviewed by the entire task force and a consensus was reached to finalize the descriptions for each category. The professional knowledge and skills described by this document constitute that which the authors believe all shelter medicine residency programs must provide to specialists in training. Ultimately, we believe this reflects the level of knowledge residents must achieve to become Board Certified in Shelter Medicine when the specialty is recognized by the ABVS.

**Table 1. DACUM Categories**

| | |
|---|---|
| **A** | Optimize shelter animal physical health |
| **B.** | Optimize shelter animal behavioral health |
| **C.** | Protect community and public health |
| **D.** | Alleviate companion animal homelessness |
| **E.** | Address animal cruelty/abuse/neglect * |
| **F.** | Facilitate animal shelter management |
| **G.** | Serve as a resource on animals and public policy |
| **H.** | Advance animal shelter medicine |
| **I.** | Develop effective means of communication** |

* *Address animal cruelty/abuse/neglect was re-categorized and included as a component of Section C (C-7).*

** *This category was added by the authors.*

**Table 2. Definitions of Levels of Knowledge**

| | |
|---|---|
| **Have detailed knowledge or skill:** | **Very thorough knowledge, can teach or demonstrate the skill at an expert level, can quote literature extensively**<br>• Shelter specialists are leaders in the veterinary profession in this area of knowledge<br>• Shelter specialists can design research in this area or create new knowledge in this area<br>• Shelter specialists can teach others (including specialists) in this area<br>• Shelter medicine specialists are the ones to whom someone would go to most commonly for knowledge in this area |
| **Have knowledge or some skill:** | **Very conversant, can quote some of the literature, can teach at a superficial level or can demonstrate, but not at an expert level**<br>• Shelter specialists can teach at the level of veterinarians (who are not experts in shelter medicine), veterinary students and shelter staff in this area of knowledge<br>• Shelter specialists can refer to others who have more specialized knowledge in this area |
| **Have familiarity:** | **Know enough about the topic to talk about it with others at a superficial level and/or guide others to more detailed resources** |

## Professional Knowledge and Skill Requirements by DACUM Category

This section contains a detailed description of the professional knowledge and skills that all shelter medicine residents should achieve during their training programs. Several sections were added after the original DACUM occupational analysis and survey, which reflects the dynamic and evolving nature of this new discipline. The authors anticipate that the expectations detailed in this document will require periodic revision as the specialty continues to evolve. Some redundancy among sections of this document was inevitable. For the sake of brevity and clarity, redundancy was minimized by referring the reader to other sections where appropriate. Each heading is followed by a percentage that indicates how crucial each task was perceived to be in the practice of a shelter medicine specialist (based on survey respondents' perceptions of the level of responsibility, frequency of performance and overall importance). It is considered more critical that residents master tasks ranked at higher percentages.

## A: Optimize Shelter Animal Physical Health

Duties that involve creating and maintaining physically healthy shelter animals received the highest percentile rankings in the DACUM. This reflects the key role that proper infectious disease management plays, not only in ensuring healthy animals for adoption, but also in positively impacting the shelter environment and people and animals in the surrounding community. Veterinarians encounter unique daily challenges maintaining physical health of small animal populations in animal shelters that require a solid interdisciplinary skill set. Design of shelter sanitation protocols, diagnostic procedures, outbreak responses, individual patient care protocols vs. population management, and euthanasia decisions require special skills and training. Preventive medicine is the foundation of shelter medicine where every effort is made to limit disease and optimize physical wellness. The factors that must be considered in this approach often go beyond the typical core of traditional small animal veterinary medical education, where there is more of a focus on treatment of disease. Shelter medicine experts solidly trained to optimize shelter animal physical health will be able to lead facilities, programs, and communities in progressive approaches that promote animal wellbeing.

**A-1 Design infectious disease protocols (92.8%)**

- Detailed knowledge of common and important viral, bacterial, fungal and parasitic pathogens as they relate to companion animals in shelters
- Detailed knowledge of various shelter philosophies, missions and resources as they relate to policy and protocol development for infectious diseases
- Detailed knowledge of antibiotic selection, mechanisms of action, time and dose dependence, rational dosing regimens, prophylactic and metaphylactic treatment and off-label use
- Detailed knowledge of disease control policies and protocols in shelters
- Knowledge of diagnostic testing methods (e.g. PCR, IFA, ELISA, culture, etc.)
- Knowledge of measures of diagnostic test accuracy
- Knowledge of mechanisms of antibiotic resistance and methods for prevention

**A-2 Design vaccination protocols (91.5%)**

- Detailed knowledge regarding clinical application of vaccines in shelters, including types of vaccine antigens and their use
- Detailed knowledge of onset and duration of vaccine-induced immunity for diseases of importance in shelters
- Detailed knowledge of vaccine handling, storage, preparation, administration
- Detailed knowledge of available professional guidelines for vaccination of cats and dogs in shelters, trap/neuter/release programs, and spay/neuter programs
- Detailed knowledge of impact of vaccination on disease diagnosis and surveillance
- Knowledge of immune response to infection and vaccination
- Knowledge of potential adverse events
- Familiarity with legal considerations, adverse event reporting, vaccine licensing and labels
- Familiarity with methods of vaccine development

**A-3 Design biosecurity procedures (91.2%)**

- Detailed knowledge of animal segregation, facility design and traffic flow to minimize disease transmission
- Familiarity with resources for biological risk assessment and monitoring

**A-4 Design cleaning (sanitation) and disinfection protocols (90.9%)**

- Detailed knowledge of principles of cleaning and disinfection as they relate to animal shelters, including utensils, laundry, vehicles and common use areas
- Detailed knowledge of the spectrum of activity and clinical application of common physical and chemical cleaning and disinfection agents
- Detailed knowledge of use of foot baths
- Detailed knowledge of cleaning and disinfection of vehicles and animal equipment
- Knowledge of hand sanitation practices including hand washing, gloves and sanitizers
- Knowledge of tools for shelter cleaning and disinfection, including cost and equipment requirements for common products
- Knowledge of the mechanisms and safety profiles of common cleaning and disinfection agents
- Knowledge of environmental monitoring methods to verify success of cleaning and disinfection
- Knowledge of handling and storage of common agents relating to light, temperature, contact with air, compatibility, stability, water hardness, relative humidity, pH
- Knowledge of specialized terminology such as biocide, germicide, sterilization process, disinfectant, antiseptic, sanitizers, detergents, antimicrobials
- Familiarity with storage and disposal, OSHA and EPA compliance, and maintenance of MSDS

**A-5 Diagnose disease outbreaks (88.2%)**

- Detailed knowledge of differential diagnoses for common and emerging contagious respiratory, gastrointestinal and dermatologic diseases
- Detailed knowledge of risk factors for disease outbreaks
- Detailed knowledge of appropriate diagnostic testing strategy and clinical assessment in an outbreak
- Detailed knowledge of clinical investigation of outbreaks, including sampling methods, data collection and risk analysis
- Knowledge of available professional guidelines for outbreak investigation
- Familiarity with molecular methods of outbreak investigation

**A-6 Manage disease outbreaks (87.2%)**

- Detailed knowledge of specific outbreak intervention strategies (e.g. quarantine, treatment, depopulation) including awareness of impact of shelter philosophy and resources
- Knowledge of outbreak communication considerations including shelter staff, adopters, other shelter/veterinary professionals and media

**A-7 Advise on population management and density in shelters (86.7%)**

- Detailed knowledge of obtaining and interpreting data regarding population management including: calculation of ideal and actual shelter capacity by species and sub-population (e.g. stray, adoptable, juvenile versus adult), monthly daily averages for intake, inventory and adoption, interrelationship between intake, length of stay and adoption.
- Detailed knowledge regarding calculation of shelter capacity, including physical, logistical and staffing requirements
- Detailed knowledge of impact of crowding and length of stay on disease, animal welfare, and shelter costs and program success
- Detailed knowledge of methods to decrease length of stay and facilitate animal flow through shelter

- Knowledge regarding published guidelines for housing density of confined cats and dogs (e.g. laboratories, boarding kennels, shelters, pet stores)
- Knowledge of alternatives to shelter housing (e.g. foster care, trap/neuter/return, other)
- Knowledge of obtaining computer reports from common shelter software systems regarding population management parameters as described in bullet 1.

**A-8 Create medical and surgical protocols (85.3%)**

- Detailed knowledge of veterinary medical guidelines for spay/neuter programs
- Detailed knowledge of various shelter philosophies, missions and resources as they relate to medical and surgical policy and protocol development.
- Detailed knowledge for considerations and methods for empirical selection of drugs
- Knowledge regarding clinical small animal medicine and surgery in relation to how these fields are applied in a population setting or resource-limited environment.
- Familiarity with regulations regarding implementation of medical and surgical protocols by non-medical staff and knowledge of same for state of most frequent practice.

**A-9 Design disease surveillance programs (83.5%)**

- Knowledge of the value and uses of disease surveillance systems in preventive medicine (e.g. those used for livestock, public health and wildlife)
- Knowledge of components of a disease surveillance system (e.g., case-definitions, accurate and appropriate data, feedback)
- Knowledge of use of common shelter software systems for disease surveillance

**A-10 Recommend general husbandry standards (82.4%)**

- Detailed knowledge of veterinary medical guidelines for care of dogs and cats in shelters
- Knowledge of veterinary medical guidelines for care of dogs and cats in other confined populations (e.g. laboratory)
- Familiarity with general care requirements for other species commonly in animal shelters

**A-11 Consult on facility/housing design and management (79.7%)**

- Detailed knowledge of facility and housing design to optimize health and welfare and minimize stress and infectious disease transfer (e.g. double sided runs, use of outdoor spaces/air, ventilation requirements, cage versus group housing)
- Detailed knowledge regarding calculation of required facility size in relation to expected capacity – methods to calculate required capacity based on expected/maximum daily, monthly, annual intake, adoptions and turnover time.
- Knowledge of shelter design in relation to overall shelter mission
- Knowledge regarding building materials to minimize infectious disease and problem behavior
- Familiarity with resources for shelter design and building, e.g. architectural and contracting firms that specialize in animal shelters, companies that produce mass or custom designed housing
- Familiarity with a wide range of shelters and housing styles

**A-12 Advise on medical selection criteria within shelters (75.5%)**

*Note on DACUM interpretation: This group interpreted this to include selection criteria for intake, transfer, treatment, euthanasia, or other outcomes depending on shelter philosophy and resources. Establishing medical selection criteria relies on a solid foundation of detailed knowledge regarding varying shelter philosophies as they relate to the disposition of animals, shelter population management strategies, and the impact of availability of shelter resources as described elsewhere in this document.*

- Knowledge regarding prognosis, treatment and resources required to provide care for common diseases of shelter animals within professional standards
- Knowledge regarding common shelter practices for management of common diseases

**A-13 Maintain optimal environmental conditions in shelters (75.5%)**

- Detailed knowledge of recommendations for temperature, humidity, ventilation (air exchange), and lighting for shelter dogs and cats
- Knowledge and familiarity with requirements for other species as described in A-10 above
- Knowledge regarding safe pest control in the shelter
- Familiar with HVAC systems and other methods of maintaining air quality (e.g. housing type, density, air cleaners, fresh air access)
- Familiar with noise control (e.g. sound proofing)

**A-14 Design euthanasia protocols (71.7%)**

- Detailed knowledge of published guidelines, standards and recommendations for acceptable and unacceptable methods of euthanasia for dogs and cats
- Detailed knowledge of euthanasia methods and routes of administration, including special considerations (e.g. for pregnant animals, neonates, feral/fractious animals)
- Detailed knowledge of pre-euthanasia medication, stages of euthanasia, mechanisms of death and methods of verifying death
- Detailed knowledge of animal behavioral considerations including stress reduction
- Knowledge regarding design of facilities for euthanasia
- Knowledge regarding euthanasia training for shelter staff
- Knowledge of human behavioral considerations (e.g. compassion fatigue, strategies for coping)
- Familiarity with regulations regarding euthanasia, including licensing and certification for staff, handling of drugs, and carcass disposal. Knowledge regarding these regulations for state of most frequent practice
- Familiarity with guidelines, methods and resources for euthanasia of other species

**A-15 Design protocols for individual patient care (68.9%)**

- Knowledge of differential diagnoses (physical and behavioral) for common health problems in shelter animals
- Knowledge of prognosis for common medical conditions found in shelter animals
- Knowledge of diagnosis and treatment of medical problems that commonly develop in the shelter

**A-16 Design safe field triage/capture/handling/transport protocols (63.2%)** *Note: Refer to section B for additional areas of required knowledge relevant to this section.*

- Knowledge of secure triage area establishment to allow initial inspection of animals
- Knowledge of conditions that require immediate medical or surgical care
- Familiarity with transport laws of healthy and potentially infectious animals

**A-17 Design nutrition programs for shelter animals (61.4%)**

- Knowledge regarding stage-appropriate diets and adequate caloric intake for cats and dogs
- Knowledge about published body condition scoring systems
- Knowledge about re-feeding syndrome and appropriate re-feeding strategies short and long term
- Knowledge regarding importance and methods for monitoring weight/body condition in shelter animals
- Familiarity with effects of malnutrition and anorexia on animal health (e.g. response to vaccination, recovery from surgery, hepatic lipidosis)
- Familiarity with indications for special diets/prescription diets for pets with special needs

**A-18 Shelter data analysis and interpretation**

*Note: This category was not in original DACUM so did not receive a numerical ranking. Disease is interpreted broadly to include behavioral disorders and failure of adoption as well as physical disorders.*

- Detailed knowledge pertaining to collection and interpretation of data related to shelter animal health and program success, including impediments to quality data collection. Examples of shelter data include live release rates, disease frequency, length of stay, intake, outcome and other welfare and health measures
- Knowledge of basic epidemiologic measures of disease occurrence (e.g., cumulative incidence, incidence density, case-fatality, point and period prevalence) and their interpretation
- Knowledge and ability to produce and evaluate descriptive statistics including absolute numbers, rates, percentages, average, median, and other descriptive measures.
- Knowledge of measures of association (e.g., risk ratios, odds ratios) used to identify risk factors for disease in shelters
- Knowledge of estimation and importance of length of stay on disease frequency and on turnover time
- Familiarity with commonly used shelter software systems sufficient to perform data entry

**B: Optimize Shelter Animal Behavioral Health**

A comprehensive understanding of animal behavioral health is important to the shelter medicine specialist. Problem behavior is one of the most common causes of owner relinquishment of dogs and cats to animal shelters and shelter veterinarians need to understand the prognosis and methods for rehabilitation in a shelter setting. Shelter experts must be knowledgeable of how standardized assessments can aid in identifying behavioral characteristics (e.g. aggression) that ensure that safe pets are selected for adoption and how adoption matchmaking can be improved through history, observation and behavior evaluation. Stress reduction and enrichment programs are essential for welfare and must be incorporated as part of preventive medicine (wellness) protocols. Behavior problems and compromised welfare can easily develop in the stressful shelter environment, regardless of length of stay, and compromise both the behavioral and physical health of animals. Shelter medicine experts can help to decrease the risk of euthanasia in shelters by teaching staff to understand, recognize, and prevent stress and compromised welfare, by incorporating safe handling and restraint of animals, and overall by optimizing shelter animal behavioral health.

**B-1 Promote acceptable quality of life (welfare) (88.2%)**

*Note on DACUM interpretation: This group interprets that this category implies an understanding of the concept of quality of life as it relates to dogs and cats.*

- Detailed knowledge of physical needs of dogs and cats (e.g. "five freedoms"(freedom from 1) hunger and pain, 2) discomfort, 3) pain, injury or disease, 4) freedom to express normal behavior, freedom from fear and distress)), physical health, proper nutrition, potable water, proper housing, aerobic exercise, warmth, sleep, grooming, breed specific care)
- Detailed knowledge of behavioral needs of dogs and cats (e.g. sense of control, mental stimulation, social companionship, ability to cope, ability to play, consistent daily routines, ability to engage in species-specific behaviors like chewing and scratching)
- Detailed knowledge of environmental needs of dogs and cats (e.g. space, housing, light/dark cycles, temperature, ventilation, humidity)
- Detailed knowledge of behavioral signs of stress
- Detailed knowledge of behavioral manifestations of pain and illness
- Detailed knowledge of causes of stress in shelters
- Detailed knowledge of the role of enrichment strategies on behavioral health and quality of life for cats and dogs in shelters (e.g. aerobic exercise, play, training programs, human interaction, conspecific interaction, sensory enrichment, toys, feeding strategies, provision for species typical behavior like scratching, chewing and elimination needs, provision of behavioral options that allow an increased sense of control over the environment, consistent routines, population management, light/dark cycles and noise control)
- Detailed knowledge of the impact of quality of life on shelter animal health and disposition (e.g. adoption, euthanasia)
- Detailed knowledge of legal requirements for animal care and welfare in state(s) of most frequent practice
- Detailed knowledge of available professional guidelines for shelter cat and dog welfare (e.g. housing and care requirements)
- Knowledge of other professional guidelines for cat and dog welfare (e.g. housing and care requirements of laboratory animals, others)
- Knowledge of the major contributing factors to quality of life (e.g. social relationships, mental stimulation, health, stress, control)

- Knowledge of physiologic signs of stress
- Knowledge of current models for measuring quality of life or welfare
- Knowledge of principles for maximizing/enhancing quality of life
- Knowledge of learning theory (e.g. classical and operant conditioning)
- Knowledge of species-specific animal behavior of dogs and cats (e.g. active and passive communication, body language and signaling, how animals perceive their world (e.g. unique sensory perception- olfactory, visual, auditory, tactile, pheromone), reproduction, parental care, behavioral development, socialization needs, feeding behavior, social structure, gender and age-related differences)
- Familiarity with how genetics and the environment affect behavior
- Familiarity with behavior patterns by species type (e.g. predator, prey)
- Familiarity with basic husbandry and behavioral needs of other pertinent species kept as pets (e.g. rabbits, other rodents, birds, reptiles, other)
- Familiarity with resources on basic husbandry and behavioral needs of other species
- Familiarity with resources for legal requirements for animal care and welfare for care in other states

**B-2 Establish behavioral selection criteria for animal shelters (74.3%)**

*Note on DACUM interpretation: Establishing behavioral selection criteria relies on a solid foundation of detailed knowledge regarding varying shelter philosophies as they relate to the disposition of animals, shelter population management strategies, and the impact of availability of shelter resources as described elsewhere in this document.*

- Knowledge of behavioral assessment techniques currently utilized in shelters (e.g. intake interviews, intake questionnaires, formal evaluation/assessment protocols, observation and documentation of behavior)
- Knowledge of existing research regarding canine/feline behavioral assessment
- Knowledge of impact of stress (housing and husbandry) on observed behavior
- Knowledge of legal liability associated with adopting out aggressive animals (e.g. bite history, observation of aggressive behavior in shelter)
- Familiar with typical behavioral characteristics of dog and cat breeds

**B-3 Design stress management programs (73.5%)**

- Detailed knowledge of causes of stress (particular stressors) in shelters
- Detailed knowledge of the impact of stress on physical and behavioral health and welfare
- Detailed knowledge of principles for preventing and minimizing stress
- Knowledge of the concept of stress and stressors for cats and dogs
- Knowledge of the major contributing factors to stress (e.g. social relationships, mental stimulation, physical and behavioral health, control)
- Knowledge of factors affecting the stress response (e.g. duration, severity, chronicity, novelty, predictability, ability to escape/control)
- Knowledge of factors that affect the ability of individual animals to cope with stress (e.g. personality type, age, breed characteristics, social experiences, level of socialization)
- Knowledge of current models for measuring stress

**B-4 Design preventive behavior programs (72.3%)**

- Detailed knowledge of behavioral causes of relinquishment
- Knowledge of strategies to prevent behavioral problems commonly associated with relinquishment of pets and those that develop in the shelter
- Knowledge of the relationship between dog training and pet retention

- Knowledge of puppy and kitten socialization programs
- Knowledge of veterinary behavior guidelines for puppy socialization and dog training

**B-5 Develop behavioral assessment protocols (69.7%)**
*Note on DACUM interpretation: The committee interprets this to mean that the shelter medicine specialist should have knowledge of existing assessments and be able to advise on and implement their use.*

- Knowledge of behavioral history taking
- Knowledge (competency) observing and interpreting behavior in the shelter (e.g. aggressive behavior, destructive behavior)
- Knowledge of behavioral assessment protocols
- Knowledge of research and limitations pertaining to behavior assessment protocols

**B-6 Advise on diagnosis, prognosis, and treatment of common behavioral problems (69.0%)**

- Knowledge of differential diagnoses (physical and behavioral) for causes of common behavior problems
- Knowledge of prognosis of common behavior problems
- Knowledge of diagnosis and treatment of behavioral problems that commonly develop in the shelter
- Knowledge of behavior modification and training techniques and tools for behavior problems that commonly develop in the shelter
- Knowledge of diagnosing and treating inappropriate elimination in cats
- Knowledge of treatment of medical problems, which are strongly related to behavior problems (e.g. feline lower urinary tract disease, endocrine disorders)
- Familiarity with diagnosis and treatment (including behavior modification and training techniques and tools) of behavioral problems commonly associated with relinquishment of pets
- Familiarity with basic psychopharmacology

**B-7 Develop protocols for safe animal handling (68.3%)**

- Detailed knowledge of safe/humane handling (e.g. capture, transport, restraint, examination, euthanasia)
- Detailed knowledge of equipment used for safe/humane handling (e.g. capture, transport, restraint, examination, euthanasia)
- Detailed knowledge of chemical restraint protocols and indications for use during capture, transport, restraint, examination, and euthanasia

**B-8 Advise on adopter/animal compatibility (56.4%)**

- Knowledge of the human factors related to relinquishment
- Knowledge of factors that affect adoption and retention
- Familiarity with adoption counseling and post adoption follow-up
- Familiarity with commonly used animal-adopter matching programs

**B-9 Provide recommendations for companion animal training (50.2%)**
*Note: The knowledge required for B-9 is covered in the previous sections. No additional knowledge is required for this section.*

## Section C: Protect Community and Public Health

Historically, animal shelters served to protect the public from rabies through control of stray animals, and protected animals through promoting legislation and enforcement of animal cruelty statutes. Although animal sheltering has changed dramatically since its beginnings more than a century ago, today's shelter medicine specialist must still have a thorough understanding of the interaction of humans and animals and the consequences of those interactions on human and animal health within the community. Shelters are anticipated to continue to play a central role in community veterinary public health protection, not only from rabies virus, cruelty, abuse and neglect, but from other existing and emerging zoonotic diseases and societal issues. Shelter medicine specialists require training in the protection of community and public health in order to best serve as advisors for shelters, their programs, and communities.

**C-1 Design zoonoses control programs in animal shelters for immunocompromised and healthy people (82.9%)**

- Detailed knowledge of common zoonoses affecting shelter dogs and cats, including prevalence, clinical signs, diagnosis, epidemiology, treatment and containment. Familiarity with zoonoses affecting other animal species
- Knowledge of zoonotic diseases and the veterinary role in prevention, recognition and response to such diseases for the protection of both animal and public health
- Knowledge and ability to develop comprehensive systems for preventing the spread of animal and human diseases in shelters, including housing, design, sanitation, barriers, prophylaxis, and record keeping
- Knowledge sufficient to identify animals at higher risk for zoonotic diseases and able to implement steps for animal and public health protection
- Knowledge of conditions associated with increased risk for zoonotic diseases in humans, including age, pregnancy, and immunosuppressive conditions
- Knowledge of public health recommendations and legal requirements for staff immunization. Detailed knowledge for jurisdiction of most frequent practice, awareness of resources to determine legal requirements for all areas
- Knowledge of federal, state and local regulations regarding management of zoonotic disease (e.g. which ones are reportable, vector wildlife species that cannot be relocated, etc.). Detailed knowledge for jurisdiction of most frequent practice, awareness of resources to determine legal requirements for all areas
- Familiarity with resources and able to advise on development of an education program to inform staff and volunteers of health risks of the shelter environment and needs for immunocompromised people to take extra precautions
- Familiarity with resources for implementation of a plan for immunizing staff with animal contact against rabies and tetanus
- Familiarity with resources for implementation of a plan, including training programs, to encourage safe volunteer involvement at the shelter
- Familiarity with the resources available for zoonosis information, including federal, state and county veterinary and public health agencies

**C-2 Consult on zoonoses control programs in communities for immunocompromised and healthy people (67.6%)**

*Note on DACUM interpretation: This is interpreted as the shelter specialist should advise on the shelter's role in zoonoses control programs.*

- Knowledge and ability to formulate recommendations for management of zoonoses within the shelter
- Knowledge and ability to provide community outreach, education and support related to effective management of free roaming populations of dogs and cats in the community as related to zoonotic disease risk and prevention

**C-3 Consult on rabies control (74.3%)**

- Detailed knowledge of the legal requirements for jurisdiction of most frequent practice for rabies quarantine and observation, vaccination, post-exposure rabies vaccination procedures, testing and record keeping to include knowledge of resources available
- Detailed knowledge of epidemiology of human, wild animal and domestic animal rabies, including defining exposures
- Detailed knowledge of the veterinary role in public health protection from rabies
- Knowledge of rabies prevention vaccine choices and delivery options
- Familiar with the legal requirements for all areas for rabies quarantine and observation, vaccination, post-exposure rabies vaccination procedures, testing and record keeping to include knowledge of resources available

**C-4 Provide recommendations for dog bite prevention (63.6%)**

- Detailed knowledge of legal requirements for dog bite reporting and animal disposition for jurisdiction of most frequent practice
- Detailed knowledge of restraint equipment and handling techniques sufficient to train staff and volunteers to avoid dog bites
- Familiar with incidence rates and risk factors of dog bite injuries and fatalities
- Familiar with legal remedies including pros and cons (e.g. dangerous dog and breed-specific laws)
- Familiar with resources for dog-bite prevention education
- Familiar with resources to determine legal requirements for dog bite reporting and animal disposition in all areas

**C-5 Advise on dangerous animal issues (e.g. wildlife, exotics, domestic) (60.2%)**

- Detailed knowledge of legal issues and resources surrounding dangerous animal ownership including wild, exotic or hybrid animals for jurisdiction of most frequent practice
- Detailed knowledge of resources related to safe handling and housing of dangerous dogs and cats, familiarity with resources for other species.
- Familiar with legal requirements for dangerous animal identification and management
- Familiar with resources for removal and management of dangerous and nuisance animals (wildlife)
- Familiar with legal issues and resources surrounding dangerous animal ownership including wild, exotic or hybrid animals

**C-6 Participate in emerging, reportable & foreign animal disease surveillance and response (71.4%)**

- Detailed knowledge of required notification procedures for reportable diseases in jurisdiction of most frequent practice
- Knowledge of emerging and reportable diseases, with emphasis on diseases of importance in North American shelter dogs and cats
- Knowledge and ability to train and educate others to identify potential risk factors and indicators for disease emergence (surveillance)
- Knowledge of proper biosecurity steps to take when emerging and reportable diseases are suspected, including quarantine, containment, documentation, testing, and follow-up
- Familiar with required notification procedures for reportable diseases

**C-7 Consult on animal cruelty, abuse, and neglect (CAN) (75.9%)**

- Detailed knowledge of legal definitions of cruelty, abuse, and neglect and the veterinarian's role in reporting for jurisdiction of most frequent practice
- Detailed knowledge of the CAN resources available, including safe havens, for jurisdiction of most frequent practice
- Knowledge of implications for veterinarians reporting abuse, including confidentiality requirements for medical records, immunity for reporting, mandated reporting laws, etc.
- Knowledge of general definitions of cruelty, abuse, and neglect
- Knowledge of the warning and physical signs of abuse and guidelines for reporting or education
- Knowledge of proper procedures for investigating and reporting CAN
- Knowledge of animal fighting laws, detailed for jurisdiction of most frequent practice, awareness of resources to determine legal requirements for all areas
- Knowledge of forensic investigations, including how to recognize, collect, preserve, and document evidence, including chain of evidence management, record keeping and generation of reports
- Knowledge of gross necropsy techniques and interpretation, familiarity with resources for special forensic necropsy techniques
- Knowledge of proper testimony techniques
- Knowledge of animal hoarding issues, including psychological concepts and ability to assist in the development of a plan for a multi-agency hoarding intervention with seizure and management of large numbers of animals
- Knowledge and ability to assist in the development of a plan for holding animals seized in legal investigations, with emphasis on veterinary care, infection control and animal welfare
- Knowledge of the link between human and animal violence, including children, elders, etc.
- Familiar with resources for legal definitions of cruelty, abuse, and neglect and the veterinarian's role in reporting
- Familiar with managerial issues when animals are seized in legal investigations, including needs for legal documentation, security, cost-containment, and disposition of the animals
- Familiar with resources for humans involved in CAN situations, including safe havens, etc.

## Section D: Alleviate Companion Animal Homelessness

The shelter medicine specialist should be a central source of knowledge and information in addressing animal homelessness on a community level. Solutions to the problem of companion animal homelessness require knowledge of the risk factors that may cause animals to enter shelters and awareness of potential community interventions. Shelter medicine specialists must be qualified to aid communities in developing and implementing data driven strategies to decrease the number of unwanted companion animals.

**D-1 Serve as resource on epidemiology of companion animal homelessness (83.6%)**

- Detailed knowledge of reasons that animals enter shelters
- Knowledge of methods to decrease overpopulation, methods to assess success, research regarding impact of these approaches (e.g. spay/neuter legislation, high- quality high-volume spay/neuter, trap-neuter-return)
- Knowledge of the philosophical and logistical differences of various sheltering strategies
- Familiarity with shelter software sufficient to analyze predominant sources and types of shelter admissions and dispositions
- Familiarity with resources to assist in the design of intervention programs to reduce companion animal homelessness
- Familiarity with resources to develop a community animal population and welfare assessment

**D-2 Design high-quality spay/neuter programs (79.7%)**

- Detailed knowledge of veterinary medical guidelines for spay/neuter programs
- Detailed knowledge of various models for spay/neuter services
- Detailed knowledge of the regulatory requirements for spay/neuter programs for jurisdiction of most frequent practice, awareness of resources to determine legal requirements for all areas
- Detailed knowledge of determination of gender and reproductive status for common species in shelters, including physical and diagnostic tests (e.g. determining whether or not female is spayed, pregnant)
- Knowledge and ability to develop veterinary components of high-quality high- volume spay/neuter programs
- Knowledge of the costs of neutering programs, including facility overhead, staff, and medical expenses

**D-3 Knowledge of non-surgical sterilization of companion animals (63.2%)**

- Knowledge of currently available nonsurgical contraception, including application, safety, method of action, duration of effect
- Familiar with resources for information on additional areas of current research

**D-4 Advise on humane education programs (60.1%)**

- Familiar with resources for humane education including the need for companion animal sterilization, proper animal care, role of animal shelters in the community and selection of appropriate pets.

**D-5 Provide for companion animal surrender intervention programs (59.2%)**

- Detailed knowledge of owner and animal risk factors for relinquishment
- Detailed knowledge of reasons for pet relinquishment

- Detailed knowledge of owner search methods for lost pets
- Familiar with resources for prevention and intervention

**D-6 Design animal-owner reunification programs (54.2%)**
*Note on DACUM interpretation: This was interpreted as advise on rather than design.*

- Knowledge of microchip identification systems, including international microchip and scanner compatibility issues, proper implantation and interrogation of microchips, use of microchip databases and related regulatory issues.
- Familiar with patterns of pet loss and owner search methods
- Familiar with resources for pet reunification, including Internet, print media, and shelter outreach

**D-7 Design shelter animal transfer programs (57.9%)**
*Note on DACUM interpretation: This was interpreted as advise on rather than design.*

- Detailed knowledge of issues for transferring and receiving shelters regarding infectious disease prevention and intervention, including risk of transmission of new diseases to non-endemic areas
    - Knowledge of shelter population dynamics that encourage shelter transfers
- Knowledge of the welfare issues associated with shelter transfer programs with consideration of physical health, behavioral health, transportation regulations and safety
- Familiar with animal inspection and movement laws, including health certificates, quarantines, record keeping and transfer of ownership. Detailed knowledge for jurisdiction of most frequent practice, awareness of resources to determine legal requirements for all areas, including international

**D-8 Participate in disaster planning and response**
*Note: This bullet item was not included in the original DACUM or survey, and therefore is not assigned a weighted score.*

- Knowledge of and ability to assist in the development of a shelter disaster preparedness plan with an emphasis on sections that apply to veterinary care, infection control, and welfare
- Familiarity with the system for local, regional, state, and national disaster response reporting and coordination Familiarity with and ability to participate in disaster response
- Familiarity with the requirements for and ability to assist in the design of a temporary shelter and standard operating procedures for animal care, identification and triage in a mass disaster, with an emphasis on veterinary care and infection control
- Familiarity with procedures and issues associated with temporary housing of pets for displaced families and co-housed human-animal shelters

## Section E: Facilitate Animal Shelter Management

In order to facilitate evolution of health care policies and procedures in any shelter, the shelter medicine specialist must understand a complex web of factors that may affect a shelter's ability to implement specific recommendations. Shelter animal health is directly affected by the structure of shelter leadership, management, and staffing. Shelter medicine specialists can provide valuable input regarding strategic planning, resource and budget allocation, and personnel issues as they impact animal health. Shelter specialists must know how to monitor a population of animals through tracking individual animals, legal record keeping, and compliance with health related, shelter, and veterinary medical regulations in order to facilitate animal shelter management best practices.

**E-1 Advise on resource allocation in shelter (e.g. personnel, budget) (62.2%)**

- Knowledge of how shelter boards function with regards to resource allocation (e.g. such that veterinarians understand that Boards can allocate proportionately more funding to medical/behavioral programs)
- Knowledge of the funding process for municipal and shelters with animal control contracts
- Knowledge of costs and general funding strategies for spay/neuter and medical services within shelters (e.g. fee for service, grants, municipal funding)
- Knowledge of principles and ability to perform cost (risk)/benefit analysis to a wide variety of practical shelter situations, including impact of time, personnel, and dollar costs on shelter resource investments (e.g. cost of days of care versus cost of additional personnel to reduce days of care)
- Familiarity with organizational structures of a wide variety of shelters with regards to their resource decision-making process
- Familiarity with principals and methods of cost/benefit analysis including personnel and space as well as financial resources
- Familiarity with budgets of shelters: overall shelter budget, veterinary budget, per capita spending on animal sheltering programs and national and regional variations in budgets

**E-2 Design animal identification, tracking and data analysis systems (56.2%)**

*Note on DACUM interpretation: The committee took this section to refer specifically to tracking individual animals through the shelter system. Broader data analysis issues are addressed in section A-18, shelter data analysis and interpretation.*

- Knowledge of characteristics of adequate animal tracking systems in shelters (e.g. unique, physical identifiers such as neck collars, animal ID numbers, visible gender indications such as colored collars, use of shelter software for animal location, role of microchips, photographs)
- Knowledge of microchip identification systems as described in section D-6 (Design animal-owner reunification systems)
- Knowledge and ability to produce shelter animal inventory using hand count or common shelter software, knowledge of common issues with inventory quality (e.g. animals lost in foster care, failure to record dispositions)
- Knowledge of methods for tracking history of animal movement within shelter using paper records or shelter software
- Familiarity with range of practices for animal tracking in shelters including software systems, physical identification, electronic options; other potential models (e.g. laboratory and zoo models)

**E-3 Advise on legal medical record keeping in shelters (67.4%)**

- Knowledge of legal requirements for medical records with detailed knowledge of the requirements of record-keeping in the state where residents are training
- Familiarity with how to find the legal requirements for record-keeping for all states

**E-4 Consult on animal shelter regulations (OSHA, DEA) (66.4%)**

*Note on DACUM interpretation: the DACUM intended this to refer specifically to DEA and OSHA, but the committee additionally interpreted "animal shelter regulations" as they relate to veterinary medicine*

- Knowledge of any restrictions for veterinary practice in shelters
- Knowledge of the legal ownership status of sheltered animals and associated implications for delivery of veterinary care

- Familiarity with OSHA and DEA regulations pertaining to shelters

**E-5 Advise on compassion fatigue in shelters (59.3 %)**

- Knowledge of definition, causes, identification of compassion fatigue
- Familiarity with resources regarding compassion fatigue in order to direct personnel to available resources

**E-6 Serve as a resource for liability issues**

*Note: This bullet item was not included in the original DACUM or survey, and therefore is not assigned a weighted score.*

- Detailed knowledge of the Veterinary Practice Act in resident's state pertaining to the practice of veterinary medicine and familiarity with issues generally covered by many state practice acts
- Knowledge of the requirement for veterinarians to report cruelty, abuse and neglect of children and animals, and the liability or lack thereof associated with reporting; familiarity with the variation of the laws pertaining to reporting in other states
- Knowledge of liability associated with improper handling and record-keeping with regards to controlled substances in shelters
- Familiarity with resources to determine liability associated with adoption of dangerous animals by shelters
- Familiarity with resources to determine liability associated with placement of animals with medical disorders or infectious diseases
- Familiarity with resources to determine liability associated with not providing adequate health documentation for animals involved in interstate transport
- Familiarity with resources to determine liability relating to providing veterinary services during disasters in states where the attending veterinarians are not licensed
- Familiarity with resources to determine liability relating to failure of shelters to provide adequate knowledge and training (to staff, volunteers and the public) to minimize their risk of zoonotic diseases in the shelter
- Familiarity with resources to determine liability relating to failure of shelters to provide adequate training of staff and volunteers regarding safe animal-handling and management
- Familiarity with state laws that proscribe minimum standards of care for sheltered animals and with other state laws regarding shelter management such as the Hayden Law; familiarity with the liability relating to failure to comply with these laws
- Familiarity with liability relating to breaches of confidentiality in written and verbal communication
- Familiarity with shelter's insurance coverage (e.g., amount and coverage) as it pertains to the issues above

## Section F: Serve as a Resource on Animals and Public Policy

Shelters medicine specialists should provide a sophisticated understanding of the broad health and welfare implications of legislative and ethical decisions pertaining to shelter animals. In order to best serve as a resource and facilitate efficient responses to animal issues involving shelters, shelter medicine specialists need to be capable of delving into the inter-relationships of animal agencies within a community. This requires a solid foundation in the overall history of animal sheltering, animal welfare, legislative process and the veterinary role in sheltering as well as sources of common conflict in animal welfare. Shelter medicine specialists are in a unique position to serve as a resource between the veterinary community, the humane community, and the public to promote functional and productive working relationships and advise effectively on development of new programs.

**F-1 Provide expertise on legislative items and policies related to animals (66.2%)**

- Detailed knowledge of existing and proposed local and state laws that may impact animal shelters or animal populations; familiarity with resources regarding legislation in other jurisdictions
- Familiarity with legislative process (e.g. how new animal-related laws are developed and implemented)
- Familiarity with the sources of information regarding state and federal animal- related laws
- Familiarity with organizations responsible for regulation of animal shelters, pet stores, breeders, and rescue groups, and sanctuaries

**F-2 Serve as a resource for shelters on animal regulatory issues and agencies (e.g. USDA, Fish and Game, Wildlife) (54.7%)**

- Familiarity with role played by each agency
- Familiarity with issues relating to non-indigenous exotic animals and laws pertaining to ownership/sheltering of these animals

**F-3 Provide expertise regarding community animal programs (58.1%)**

- Detailed knowledge of web-based, written and other resources regarding development of community animal programs (e.g. resources for development of high volume spay/neuter programs, feral cat management programs)
- Detailed knowledge of programs within the community providing subsidized spay/neuter and other veterinary care in order to refer citizens to these programs
- Detailed knowledge of all shelters, their types and their programs in the resident's community
- Familiarity with the range of community programs in existence, (e.g. spay/neuter programs, feral cat programs, rescue organizations, advocacy for animal-friendly housing, support services for low-income owners)
- Familiarity with the resident's local community's rescue organizations, feral cat programs and other programs

**F-4 Provide information on animal shelter history, trends and programs (61.3%)**

- Detailed knowledge of historical relationship between shelters and veterinarians
- Familiarity with origin and history of significant trends such as LES (Legislation/Education/Sterilization) and No-Kill
- Knowledge of history of animal shelters including origination of sheltering in the United States (municipal/public health versus private/animal advocacy)

- Knowledge of national animal sheltering organizations
- Familiarity with range of funding options for shelters (e.g., animal control, grants, fund-raising)

**F-5 Provide animal health and welfare expertise concerning ethical issues in shelters (75.8%)**

- Knowledge of the definition of ethics, process for assessing ethical issues and awareness of resources regarding veterinary and shelter ethical issues
- Familiarity with the range of shelter practices where ethical conflict often arises (e.g. euthanasia, animal care, legal issues)
- Familiarity with process for developing guidelines regarding potentially ethically controversial practices in shelters (e.g. development of euthanasia guidelines)

## Section G: Advance Animal Shelter Medicine

Pet homelessness and animal welfare concerns are global issues. Animals in shelters are a population at extremely high risk for infectious disease and death. More animals die from euthanasia annually in the United States than from any other disease or malady, yet shelter animals are a population for which veterinary medicine has few dedicated resources—including few trained specialists. Residents completing shelter medicine programs will advance the field of shelter medicine by enhancing educational opportunities for students, veterinarians and shelter professionals; contributing to research to benefit shelter animals; educating the veterinary community and public regarding the scope and practice of shelter medicine; and promoting the development of the specialty through professional service and activities.

**G-1 Promote development of shelter medicine education curricula (89.4%)**

- Knowledge of and ability to create and deliver educational content via didactic lecture, practical experience, and written material
- Familiarity with the content and variation within historical and existing academic curricula (e.g. within core and elective context, didactic and practical, variations across training programs)
- Familiarity with continuing education offerings at major veterinary and shelter conferences
- Familiarity with technological resources for distance learning

**G-2 Contribute to research in shelter medicine (88.7%)**

- Detailed knowledge sufficient to conduct, present and submit a resident research project for publication
- Knowledge regarding funding sources and grant writing process for research support
- Knowledge of and ability to evaluate research performed by others including appropriateness of design, analysis, and application.
- Knowledge of how to interpret published statistical evaluation of shelter medicine related data
- Knowledge of and ability to evaluate data quality including validity and reliability
- Knowledge of research project design and ability to design and conduct a research project
- Knowledge of research designs for epidemiologic studies
- Knowledge of how to formulate a research question
- Knowledge and application of basic statistical techniques used frequently in biomedical research
    - Ability to calculate and interpret appropriate summary statistics for categorical and continuous data
    - Ability to interpret p values and knowledge of statistical power

- Ability to interpret confidence intervals
- Familiarity with the component parts of sample size estimation techniques for categorical and continuous data
- Knowledge of basic comparative statistical techniques for categorical and continuous data between two or more groups (parametric and non parametric)
- Ability to interpret correlation coefficients and results from simple linear regression analyses

- Familiarity with existing body of research in shelter medicine

**G-3 Educate veterinary and shelter community regarding shelter medicine (88.6%)**

- Knowledge of and ability to speak before the public and other veterinarians
- Knowledge of the issues facing veterinarians when working with shelter administration and staff in various capacities
- Knowledge of the expectations shelter directors hold for shelter veterinarians
- Knowledge of evolution of other population health specialties such as food animal herd health, and changing attitudes of producers towards veterinary services in those fields.
- Familiarity with historical and current issues creating tension between private practice veterinarians and shelter veterinarians and administrators

**G-4 Communicate with the public as an expert in shelter medicine issues (88.6%)**

- Knowledge of and ability to communicate in writing and verbally with the media
- Knowledge of shelter medicine-related issues most commonly affecting communities (e.g., breed bans, mandatory S/N) and ability to serve as a resource for community members
- Knowledge of who influences animal welfare-related issues in communities (e.g., city councils, town boards)

**G-5 Pursue professional development in shelter medicine (91.6%)**

- Detailed knowledge of the resources for professional development (e.g. websites, books, continuing education meetings, Association of Shelter Veterinarian's *listserv*, Veterinary Information Network)
- Knowledge of resources available from other shelter medicine programs
- Familiar via personal attendance of at least one national shelter medicine meeting each year

**Section H: Develop effective means of communication**

In order to be an effective shelter medicine specialist, verbal and written communication skills are essential. Open and collaborative verbal communication has been linked to positive patient outcomes, increased compliance, higher job satisfaction and decreased staff stress. These outcomes are desirable in shelter settings, and residents should be equipped with the proper background and skill to aid in their achievement. Medical recordkeeping and reporting are critical skills that shelter medicine specialists use to demonstrate care, to communicate directly, to record data for current use and retrospective review and to establish documentation for legal purposes. Shelter medicine residents need to develop strong communication skills in order to convey their knowledge in an effective manner, thereby advancing shelter medicine.

**H -1 Enhance Basic Communication**

*Note: This bullet item was not included in the original DACUM or survey, and therefore is not assigned a weighted score.*

- Knowledge of the use of the medical record as a communication tool (see H2)
- Knowledge of and ability to use the consultation report as a communication tool

- Familiarity with variety of management structures and approaches in shelters with respect to appropriate communication channels
- Familiarity with relevant resources for training shelter staff in the subject matter defined throughout this document
- Familiarity with communication styles and personality types with respect to communication challenges (e.g. Myers Briggs, DiSC)
- Familiarity with types of communication skills utilized for successful negotiation, conflict resolution, diplomacy and successful communications.
    - Content skills
    - Process skills
    - Perceptual skills
- Familiarity with of four core communication skills
    - Recognition of non-verbal cues
    - Open-ended questioning
    - Reflective listening
    - Use of empathy
- Familiarity with of the skill of active listening
- Familiarity with application of above communication skills in relation to:
    - Handling euthanasia (with staff, volunteers, administration and others)
    - Compassion fatigue and other human stressors
    - Day-to-day workings of shelter
- Familiarity with media
    - Familiarity with print, electronic, radio and TV media objectives
    - Familiarity with talking to and working with the media
- Familiarity with organizing material and utilizing software for formal presentations
- Familiarity with the concepts of confidentiality as applied to written and verbal communication

**H-2 Develop medical record keeping systems (73.3%)**

*Note on DACUM interpretation: This areas of activity was originally categorized in the DACUM under Section A, Optimize Shelter Animal Physical Health. It was moved to this section to emphasize the importance of the medical record as a communication tool.*

- Detailed knowledge of state reporting (reportable diseases, suspected abuse) for state of practice
- Familiarity with state reporting (reportable diseases, suspected abuse) for other states
- Knowledge of and ability to use most commonly used shelter software systems for medical record keeping, including reports available
- Knowledge and ability to advise shelters on the use of medical records database for population and individual animal health management
- Knowledge of minimum and ideal content of medical records
- Knowledge of how to design a paper-based record keeping system
- Knowledge of the advantages and disadvantages of electronic versus paper records
- Knowledge of local practice acts
- Knowledge of federal and state requirements for drugs logs which must be recorded and kept (drug logs)
- Knowledge of the requirements and process for recording other routine events (e.g. anesthesia and surgery reports)
- Knowledge of how to create a report of findings from shelter consults or investigations, including overview, objectives, observations and recommendations

**APPENDIX A**

**Development of the Composite Score for Responses to the DACUM-based On-line Survey**

A composite score was developed from the responses of the DACUM-based survey, combining answers to the overall importance, responsibility and frequency sections *for each task.* The composite score for that task was developed as follows:

The mean score for each task for shelter specialist respondents was calculated for each section of the survey - overall importance, responsibility and frequency. These mean scores were then weighted according to the following formula: (O.25 X mean frequency score) + (O.25 X mean responsibility score) + (0.5 X mean overall importance score) for each task. This score was then converted to a percentage of the total possible score if all respondents had rated that task at its highest possible score. (The total possible score for each task was 5 (expert) for Responsibility, was 4 (very frequently) for Frequency and was 5 (of great importance) for Overall Importance.)

Example: if the mean frequency score for overall importance for a task was 4.6, for frequency it was 3.7 and for responsibility it was 4.3 then the composite score for that task was [(0.25 X 3.7) + (0.25 X 4.3) + (0.5 X 4.6) = 4.31. This score was then divided by the total possible composite score of 4.75 for that task and multiplied by 100 to get a percentage of the highest possible score. In this example the composite score was (4.31 / 4.75) X 100 = 90.7%.

**Composite Scores**

**Percentage of total possible composite score**

Based on 0.5(Importance)+0.25(freq)+0.25(responsibility)

% of total possible score from equation above (4.75)

| **Task** | **S. Speclst** |
|---|---|
| Design infectious disease protocols | 92.8% |
| Pursue professional development in shelter medicine | 91.6% |
| Design vaccination protocols | 91.5% |
| Design biosecurity procedures | 91.2% |
| Design sanitation and disinfection protocols | 90.9% |
| Promote development of shelter medicine education curricula | 89.4% |
| Contribute to research in shelter medicine | 88.7% |
| Communicate with the public as an expert on shelter medicine issues | 88.6% |
| Educate veterinary and shelter community regarding shelter medicine | 88.6% |
| Diagnose disease outbreaks | 88.2% |
| Promote acceptable quality of life | 88.2% |
| Manage disease outbreaks | 87.2% |

| | |
|---|---|
| Advise on population management and density in shelters | 86.7% |
| Create medical and surgical protocols | 85.3% |
| Serve as resource on epidemiology of animal homelessness | 83.6% |
| Design disease surveillance programs | 83.5% |
| Design zoonoses control programs | 82.9% |
| Recommend husbandry standards | 82.4% |
| Educate multiple constituents on animal CAN recognition and reporting | 81.9% |
| Design high quality, high volume spay/neuter programs | 79.7% |
| Consult on facility/housing design and management | 79.7% |
| Serve as an expert witness for animal CAN cases | 76.0% |
| Consult on animal cruelty, abuse and neglect | 75.9% |
| Provide expertise on animal shelter ethical issues | 75.8% |
| Advise on medical selection criteria within shelters | 75.5% |
| Maintain optimal environmental conditions in shelters | 75.5% |
| Provide forensic expertise for animal CAN investigation | 75.3% |
| Establish behavioral selection criteria for shelter animals | 74.3% |
| Consult on rabies control | 74.3% |
| Design stress management programs | 73.5% |
| Develop medical record keeping systems for shelters | 73.3% |
| Collaborate with external agencies regarding animals and public health | 72.8% |
| Design preventive behavioral programs | 72.3% |
| Design euthanasia protocols | 71.7% |
| Participate in emerging, reportable and foreign animal disease surveillance | 71.4% |
| Consult on disaster relief and preparedness | 70.8% |
| Develop behavioral assessment protocols | 69.7% |
| Advise on diagnosis, prognosis, and treatment of common behavioral problems of shelter animals | 69.0% |
| Design protocols for individual patient care | 68.9% |
| Develop protocols for safe animal handling | 68.3% |
| Consult on zoonoses control programs in communities | 67.6% |
| Advise on legal medical record keeping in shelters | 67.4% |
| Consult on animal shelter regulations (OSHA, DEA) | 66.4% |
| Provide expertise on legislative items and policies related to animals | 66.2% |
| Provide recommendation for dog bite prevention | 63.6% |
| Design safe field triage/capture/handling/transport protocols | 63.2% |
| Advance non-surgical contraception of companion animals | 63.2% |

| | |
|---|---|
| Advise on resource allocation in shelters | 62.2% |
| Design nutrition programs for shelter animals | 61.4% |
| Provide information on animal shelter history, trends, and programs | 61.3% |
| Provide humane animal capture, transport and housing for CAN animals | 60.9% |
| Advise on dangerous animal issues | 60.2% |
| Advise on humane education programs | 60.1% |
| Advise on compassion fatigue in shelters | 59.3% |
| Provide for companion animal surrender intervention programs | 59.2% |
| Provide expertise regarding community animal programs | 58.1% |
| Design shelter animal transport programs | 57.9% |
| Advise on animal shelter environmental impact | 56.9% |
| Advise on adopter/animal compatibility | 56.4% |
| Design animal identification and tracking and data analysis systems | 56.2% |
| Manage animal CAN victim rehabilitation | 55.6% |
| Serve as a resource on animal regulatory issues and agencies | 54.7% |
| Design animal/owner reunification programs | 54.2% |
| Provide recommendations for companion animal training | 50.2% |
| Communication | |
| Shelter data analysis and interpretation | |

# Appendix D

## Shelter Medicine Practice Category: Additional Specific Requirements for Practitioners

### I. Requirements

#### Shelter visits

**Objectives:**
Practitioner candidates are expected to become knowledgeable about a wide variety of sheltering models representing a range of sizes, budgets, species, philosophies, regions, facility styles and programs.

**Required training experiences:**
Practitioners must visit at least 15 different animal shelters in at least 2 of the following 5 regions: western United States; mid western United States; northeastern United States; southern United States, international. Visits should include both municipal and private shelters including both open and limited admission facilities. The content or type of visit may range from an informal tour to a comprehensive site consultation. The term animal shelter is meant to include any traditional open-admission shelters; limited or planned admission shelters; no-kill or adoption guarantee shelters; care-for-life sanctuaries; home-based rescue and foster-care networks; animal transport programs; and other permutations of these various approaches. Visitation of a wide variety of organizations is strongly encouraged.

#### Shelter consultations

**Objectives:**
Practitioner candidates are expected to develop the ability to systematically gather data, perform observations, communicate findings and provide resources regarding management, medical and husbandry practices and facility use at shelters as related to physical and mental animal health, as well as within HQHVSN programs.

Major consultation areas include: Shelter Management and Record Keeping; Facility Design and Environment; Population Management; Sanitation; Medical Health and Physical Well-being, including animal transport programs when applicable; Behavioral Health and Mental Well-being, including group housing and animal handling; Euthanasia; Shelter Animal Spay/Neuter; Public Health; Management of Specific Infectious Diseases (eg. respiratory disease, diarrhea, dermatophytosis, canine or feline parvovirus); and HQHVSN programs (shelter associated or non-shelter associated programs).

It is expected that applied knowledge of veterinary medical regulations, euthanasia regulations, shelter regulations, zoonotic disease regulations, DEA, OSHA and other regulatory matters, as well as best practices for animal sheltering will be reflected/addressed during the course of shelter consultations.

**Required training experiences:**

**Targeted site consultations and protocol development:**
Practitioners are required to participate in at least nine (9) on site targeted consultations, including at least one (1) consultation in each of the above listed major consultation areas. Clinical activities to meet this requirement may be conducted at one or more shelters.

Practitioners must design a protocol for a specific shelter on at least five (5) of the above listed major consultation areas, including at least one on management of an infectious disease. Practitioners must implement these protocols, including staff training and initial follow up.

**Outbreak investigations**

**Objectives:**
Practitioners are expected to learn to recognize and diagnose infectious disease outbreaks; utilize CDC approach to outbreak investigation including risk factor analysis; make recommendations for outbreak control, including: titer analysis, quarantine, isolation, treatment, communication and facility decontamination; and make recommendations for prevention of future outbreaks.

**Required training experiences:**
Practitioners must advise on at least nine (9) outbreaks, including at least three (3) site visits and outbreaks involving at least three (3) of the following diseases: dermatophytosis, canine distemper virus, canine parvovirus, feline parvovirus, or one "unknown" cause outbreak or mock/table top exercise involving a different pathogen. Clinical activities to meet this requirement may be conducted at one or more shelters.

**High quality, high volume spay-neuter (HQHVSN) program visits and surgical experience**

**Objectives:**
Practitioners are expected to become knowledgeable about different models of HQHVSN programs and develop skills in efficient surgical techniques for spaying and neutering cats and dogs.

**Required training experiences:**

**High volume spay-neuter program visits:**
Practitioners must visit at least 3 different high volume spay-neuter programs of at least 2 of the following different types: stationary, mobile, MASH, non-surgical or other. The content or type of visit may range from an informal tour to hands on participation. Visitation of a wide variety of organizations is strongly encouraged.

**HQHVSN surgical experience:**
Practitioners must spend the equivalent of at least four (4) weeks in HQHVSN practice. Training or experience should emphasize developing skill in performing HQHVSN techniques and developing awareness of differing management styles for operating HQHVSN clinics. Note: The term HQHVSN program refers to an efficient surgical initiative that meets or exceeds veterinary medical standards of care in providing accessible, targeted sterilization of large numbers of cats and dogs in order to reduce their overpopulation.

**Cruelty Investigations**

**Objectives:**
Practitioners are expected to develop a thorough understanding of the spectrum of cruelty cases (including abuse and neglect), the types of cases that are commonly seen in shelters, the types of assets and logistics required for investigating multi-animal events (eg. management of large scale seizure and temporary sheltering), and knowledge of the agencies engaged in the reporting, investigation, intervention, prosecution, enforcement, and follow-up of cruelty cases. Practitioners must develop an understanding of the forensic physical examination, methods for gathering evidence, and protocols for maintaining the chain of evidence in a case. Specifically, practitioners must perform live animal exams, forensic exams, participate in collection of physical evidence, prepare and present testimony, maintain contact with legal authorities, understand application of state statutes in specific cruelty cases, maintain chain of evidence, and comply with chain of authority.

Note: Although field experience is ideal for cruelty case training, it is recognized that opportunities may be lacking for certain case types or activities that require expert level input (eg. a practitioner may not be asked to testify in a major cruelty case). As noted below in some cases training requirements can be met through wet lab experiences.

**Required training experiences:**
Practitioners must participate in the investigation of at least two (2) single animal cases and at least one (1) multi-animal case involving alleged criminal abuse or neglect. Practitioners must perform at least two (2) detailed live exams under field conditions and at least one (1) forensic necropsy (can be wet lab) with appropriate documentation and record keeping. Practitioners must participate in physical evidence collection for at least one (1) case (can be wet lab).

**Disaster preparedness and response**

**Objectives:**
Practitioners are expected to develop an understanding of the issues involved in response to a disaster involving companion animals, including response, reporting and coordination; methods of safe transport; measures to control infectious/zoonotic disease and other risks in a temporary shelter; and animal-owner reunification. Practitioners are expected to gain experience in the practical and logistical issues involved in a disaster response including rescue, transport and sheltering of companion animals.
Note: As with cruelty investigations, field experience is ideal but it is recognized that the opportunity to participate in a disaster response may not occur, therefore simulation or wet lab is an acceptable substitute.

**Required training experiences:**
Practitioners must participate in response to one (1) natural or other disaster (field conditions, simulation or wet lab). Practitioners must complete a basic credentialing course for participation in disaster response.

**Continuing Education Meetings**

Practitioners must attend at least one major veterinary medical meeting with a dedicated shelter medicine track and one national or regional animal sheltering professional conference during the previous five years.

**Presentations to professional audiences and shelter staff**

Practitioners must give at least three (3) formal presentations to professional audiences and/or shelter staff. Conferences given within a veterinary practice or hospital; at a medical school or medical teaching hospital; at an animal shelter; or at a regional, state or national meeting are acceptable.

**Publication Requirements**

2 case reports OR 1 case report and 1 publication in accordance with ABVP guidelines

## II. Assessment

Documentation of clinical experiences must be provided in accordance with ABVP guidelines.

In addition, practitioner candidates for the Shelter Medicine Practice category must submit a “Shelter Medicine Practitioner Portfolio”, which includes a checklist of the additional specific credentialing requires and the documentation required for each.

# Shelter Medicine Practice Category: Additional Specific Requirements for Residency Training Programs

## I. Definitions Relating to Shelter Medicine Residency Training

**Associated specialties:** Recognized veterinary specialties other than ABVP-SMP. Training in associated specialties (e.g., dermatology, ophthalmology), must be directly supervised by a diplomate in good standing of that specialty.

**Direct supervision:** The resident and supervisor are concurrently managing cases in clinical practice or consultation. The supervisor is physically available for consultation.

**Indirect supervision:** The resident and supervisor, although participating together, are not concurrently physically involved in clinical practice or consultation. To qualify for indirect supervision, the resident and supervisor must have regular and significant direct communication (e.g., in person, phone, web) for at least 4 hours per week.

**Letter of commitment:** Letters of commitment may be requested for any off site training activities. If requested, such a letter should be provided from an appropriate representative of the organization agreeing to provide the training experience. The letter should describe the physical facility, available equipment pertinent to the training topic, and a detailed plan for the resident training experience. Letters from individuals who will act as direct supervisors of the residents during the experience are preferred.

**Off site training experiences:** Training experiences that take place at some place other than the primary training facility. When primary clinical experiences occur out of state, residents must be licensed in accordance with local veterinary practice acts. In cases in which the resident and supervisor are not physically working together, regular and significant direct communication is required. Such experience may be classified as either directly or indirectly supervised. Off training experiences may include:

- **Field experiences:** Training experience that occurs outside of the primary training site, but in which the clinician is in the same physical location as the animal or population.
- **Remote experiences:** Training experience that occurs while not physically at the same location as the animal or population.

**On site training experiences:** Training experiences that take place at a primary training facility. Such experience may be classified as either directly or indirectly supervised.

**Part-time experiences:** Experience completed non-contiguously. Part-time experience is permitted where cumulative experiences over time may accrue to account for a block of time (e.g., a resident might complete 40 hours of necropsy in small allotments of time during the course of their program). It is the resident's responsibility to document such experiences with an activity log, which is approved and signed by the supervisor of that experience.

**Primary clinician:** The clinician of record responsible for client interaction, anamnesis, physical examination, diagnosis, treatment, and case follow up. In the event that residents are prohibited from primary case management (e.g., some associated specialties or teaching hospital settings), the resident may be considered primary clinician when they have direct and significant involvement in the clinical case.

**Program Director/Program Advisor:** The veterinarian responsible for overseeing a shelter medicine residency training program at a given institution. The program director must be a diplomate of the Shelter Medicine Practice category or achieve diplomate status by 2017.

**Resident Advisor:** The veterinarian responsible for a resident's program. The resident advisor must be a diplomate of the Shelter Medicine Practice category or achieve diplomate status by 2017. The Resident Advisor will sign all documentation verifying completion of program requirements. In most cases, the Program Director will serve as the Resident Advisor. In programs with multiple clinicians supporting the training of multiple residents there may be additional Resident Advisors.

**Residency Committee:** The ABVP Residency Committee, which is responsible for approving residency programs and providing oversight as specified by the policies and procedures of ABVP.

**Shelter practice caseload:** Experience intended to provide residents with training in individual animal care in the context of a population. Residents are expected to hone their clinical skills in the day to day practice of shelter medicine in animal shelters. Residents must spend the equivalent of at least 20 training weeks in shelter practice.

**Shelter population caseload:** Experience intended to provide residents with training in population level care in an animal shelter setting. Residents are expected to become knowledgeable and gain clinical experience in a wide variety of sheltering models.

**Supervisors:** ABVP Shelter Medicine Practice diplomates, shelter medicine faculty, or other individuals approved by the Program Director and Residency Committee designated to oversee specific aspects of the required training program (e.g., a certified applied animal behaviorist who oversees shelter behavior training).

**Training week:** A week's experience is defined as a minimum of 40 hours. A resident may not claim more than one training week in any seven-day calendar week.

## II. General Description

An acceptable shelter medicine residency must include a minimum of one hundred (100) weeks of intensive postgraduate clinical training under the supervision of at least one (1) Shelter Medicine Practice Diplomate and approved Supervisors as necessary to fulfill all requirements.

The shelter medicine residency must take place at a specialty clinical facility where the resident will provide primary patient care appropriate to his/her level of training and manage in house, remote and field cases in all facets of veterinary shelter medicine as required.

If adequate personnel or facilities to fulfill these requirements are not available at the program site, the residency Program Director and/or Resident's Advisor must make special arrangements at other facilities to fulfill all requirements. The Residency Committee must approve such arrangements in advance. Letters of commitment for the provision of off-site training must be submitted to the Residency Committee when requesting approval of a new program and updated letters of commitment must be submitted at the time of renewal of an existing program.

Opportunities for participation in clinical instruction of veterinary students are recommended, but not required. When residents supervise students in primary care of shelter animals, program faculty must provide direct or indirect supervision appropriate to the resident's abilities (eg. direct supervision for new residents). Residents should not be hired solely as a means to staff student-training rotations in primary care and spay neuter surgery in shelters or to serve as a primary shelter veterinarian. While these activities can provide residents with valuable clinical and teaching experience, they should not comprise the bulk of the resident's training, nor interfere with the resident's ability to complete other program requirements.

## III. Anticipated Total Time Requirements

The total minimum time required for completion of a residency will be determined by the Program Director. It is recognized that time may be needed for orientation and fulfillment of other requirements such as course work or research outside of the required one hundred (100) week Clinical Training Program. Therefore, anticipated total time requirements will usually be 36 months for most academic residency programs. The total time requirement however for the ABVP clinical residency is 100 weeks (2 years).

If the required one hundred (100) week Clinical Training Program is not continuous, it must be arranged in blocks of time no less than two (2) weeks per block and a minimum total of twelve (12) weeks per year. In all cases, the entire residency training program must be completed within a maximum period of four (4) years.

## IV. Supervision During the Required 100 Week Clinical Training Program

Of the one hundred (100) week clinical program:
A minimum of eighty-four (84) weeks must consist of intensive clinical training in the Specialty of Shelter Medicine (see section V). Of this time, the trainee must be under the direct supervision of at least one (1) Shelter Medicine Diplomate or approved Supervisor for 56 weeks. For the remaining 28 weeks of intensive clinical training in the Specialty of Shelter Medicine, the resident may be either directly or indirectly supervised by at least one (1) Shelter Medicine Diplomate or approved Supervisor.

A minimum of sixteen (16) additional weeks must consist of clinical training under the direct supervision of one (1) or more Supervising Diplomates or approved supervisors in required rotations outside of the primary field of study (see section VI).

This training can be completed:
a) As defined blocks of time, such as formal rotations on a specialty service; or
b) On an individual case basis. For example, a resident on a clinical shelter rotation could be supervised by a dermatologist regarding management of specific cases. Such supervision by the Dermatologist would partially fulfill the dermatology requirement. The determinations of equivalency between case quantity and time spent is the responsibility of the Resident Advisor. After review of the annual report, if questions of equivalency are raised, the Residency Committee may require that the Program Director provide an explanation of how the determination of equivalency was reached.

## V. Required Clinical Training in the Specialty of Shelter Medicine (minimum 84 weeks)

### Shelter visits

**Objectives:**
Residents are expected to become knowledgeable about a wide variety of sheltering models representing a range of sizes, budgets, species, philosophies, regions, facility styles and programs.

**Required training experiences:**
Residents must visit at least 50 different animal shelters in at least 3 of the following 5 regions: western United States; mid western United States; northeastern United States; southern United States, international. Visits should include both municipal and private shelters including both open and limited admission facilities. The content or type of visit may range from an informal tour to a comprehensive site consultation. The term animal shelter is meant to include any traditional open-admission shelters; limited or planned admission shelters; no-kill or adoption guarantee shelters; care-for-life sanctuaries; home-based rescue and foster-care networks; animal transport programs; and other permutations of these various approaches. Visitation of a wide variety of organizations is strongly encouraged.

**Shelter Practice**

**Objectives:**
Residents are expected to hone their clinical skills in the day-to-day practice of shelter medicine in animal shelter(s).

**Required training experiences:**
Residents must spend the equivalent of at least 20 training weeks in shelter practice.

**Shelter consultations**

**Objectives:**
Residents are expected to develop the ability to systematically gather data, perform observations, communicate findings and provide resources regarding management, medical and husbandry practices and facility use at shelters as related to physical and mental animal health, as well as within HQHVSN programs.

Major consultation areas include: Shelter Management and Record Keeping; Facility Design and Environment; Population Management; Sanitation; Medical Health and Physical Well-being, including animal transport programs when applicable; Behavioral Health and Mental Well-being, including group housing and animal handling; Euthanasia; Shelter Animal Spay/Neuter; Public Health; Management of Specific Infectious Diseases (eg. respiratory disease, diarrhea, dermatophytosis, canine or feline parvovirus); and HQHVSN programs (shelter associated or non-shelter associated programs).

It is expected that applied knowledge of veterinary medical regulations, euthanasia regulations, shelter regulations, zoonotic disease regulations, DEA, OSHA and other regulatory matters, as well as best practices for animal sheltering will be reflected/addressed during the course of shelter consultations.

**Required training experiences:**

**Comprehensive site consultations:**
Residents are required to participate in three (3) on site comprehensive consultations covering the areas listed above. Primary responsibility for information gathering and communication is required for at least one (1) section on each comprehensive consultation; overall responsibility is required for at least one (1) comprehensive consultation.

**Targeted site consultations and protocol development:**
Residents are required to participate in at least nine (9) on site targeted consultations, including at least one (1) consultation in each of the above listed major consultation areas unless covered as section leader in the course of a comprehensive consultation. A maximum of three (3) targeted consultations at any single facility may be counted towards this requirement.

Residents must design a protocol for a specific shelter on at least five (5) of the above listed major consultation areas, including at least one on management of an infectious disease. Residents must implement at least one (1) of these protocols, including staff training and initial follow up.

**Written Telephone/email consultations:**
Residents must respond to at least sixty (60) telephone/email consultation requests covering a wide variety of questions from the field pertaining to shelter, rescue and foster animal health; and public health including rabies prevention, control, and management.

**Outbreak investigations**

**Objectives:**
Residents are expected to learn to recognize and diagnose infectious disease outbreaks; utilize CDC approach to outbreak investigation including risk factor analysis; make recommendations for outbreak control, including: titer analysis, quarantine, isolation, treatment, communication and facility decontamination; and make recommendations for prevention of future outbreaks.

**Required training experiences:**
Residents must advise on at least nine (9) outbreaks, including at least three (3) site visits and outbreaks involving at least three (3) of the following diseases: dermatophytosis, canine distemper virus, canine parvovirus, feline parvovirus, or one "unknown" cause outbreak or mock/table top exercise involving a different pathogen.

**High quality, high volume spay-neuter (HQHVSN) program visits and surgical experience**

**Objectives:**
Residents are expected to become knowledgeable about different models of HQHVSN programs and develop skills in efficient surgical techniques for spaying and neutering cats and dogs.

**Required training experiences:**

**High volume spay-neuter program visits:**
Residents must visit at least 5 different high volume spay-neuter programs of at least 3 of the following different types: stationary, mobile, MASH, non-surgical or other. The content or type of visit may range from an informal tour to hands on participation. Visitation of a wide variety of organizations is strongly encouraged.

**HQHVSN surgical experience:**
The resident must spend the equivalent of at least four (4) training weeks directly supervised by an approved supervisor actively participating in HQHVSN practice. Training should emphasize developing skill in performing HQHVSN techniques and developing awareness of differing management styles for operating HQHVSN clinics. Note: The term HQHVSN program refers to an efficient surgical initiative that meets or exceeds veterinary medical standards of care in providing accessible, targeted sterilization of large numbers of cats and dogs in order to reduce their overpopulation.

**Cruelty Investigations**

**Objectives:**
Residents are expected to develop a thorough understanding of the spectrum of cruelty cases (including abuse and neglect), the types of cases that are commonly seen in shelters, the types of assets and logistics required for investigating multi-animal events (eg. management of large scale seizure and temporary sheltering), and knowledge of the agencies engaged in the reporting, investigation, intervention, prosecution, enforcement, and follow-up of cruelty cases. Residents must develop an understanding of the forensic physical examination, methods for gathering evidence, and protocols for maintaining the chain of evidence in a case. Specifically, residents must perform live animal exams, forensic exams, participate in collection of physical evidence, prepare and present testimony, maintain contact with legal authorities, understand application of state statutes in specific cruelty cases, maintain chain of evidence, and comply with chain of authority.

Note: Although field experience is ideal for cruelty case training, it is recognized that opportunities may be lacking for certain case types or activities that require expert level input (eg. a resident in training may be unlikely to be asked to testify in a major cruelty case). As noted below in some cases training requirements can be met through wet lab experiences.

**Required training experiences:**
Residents must participate in the investigation of at least two (2) single animal cases and at least one (1) multi-animal case involving alleged criminal abuse or neglect. Residents must perform at least two (2) detailed live exams under field conditions and at least one (1) forensic necropsy (can be wet lab) with appropriate documentation and record keeping. Residents must participate in physical evidence collection for at least one (1) case (can be wet lab).

**Disaster preparedness and response**

**Objectives:**
Residents are expected to develop an understanding of the issues involved in response to a disaster involving companion animals, including response, reporting and coordination; methods of safe transport; measures to control infectious/zoonotic disease and other risks in a temporary shelter; and animal-owner reunification. Residents are expected to gain experience in the practical and logistical issues involved in a disaster response including rescue, transport and sheltering of companion animals.
Note: As with cruelty investigations, field experience is ideal but it is recognized that the opportunity to participate in a disaster response may not occur during every residency, therefore simulation or wet lab is an acceptable substitute.

**Required training experiences:**
Residents must participate in response to one (1) natural or other disaster (field conditions, simulation or wet lab). Residents must complete a basic credentialing course for participation in disaster response.

## VI. Required Rotations Outside of the Primary Field of Study (minimum 16 weeks)

**Dermatology:** The resident must spend the equivalent of at least two (2) training weeks directly supervised by a Board-certified veterinary dermatologist actively participating in the management of dermatologic cases, including selection, performance and interpretation of diagnostic tests (eg. DTM, cytology of skin preparations); patient management and decision-making; client communication; and appropriate follow-up. This training should emphasize the approach to diagnosis and treatment of common dermatological diseases with emphasis on those of most importance in shelters (eg. dermatophytosis, parasitic dermatopathies).

**Ophthalmology:** The resident must spend the equivalent of at least one (1) training week directly supervised by a Board-certified veterinary ophthalmologist actively participating in the management of ophthalmologic cases, including selection, performance and interpretation of diagnostic tests; patient management and decision-making; client communication and appropriate follow-up. This training should emphasize understanding all aspects of the ophthalmologic examination, including diagnosis and treatment of infectious diseases and other common diseases of the eye with emphasis on those seen commonly in shelters (eg. FHV-1, prolapsed gland of the third eyelid, entropion, ectropion).

**Behavior:** The resident must spend the equivalent of at least two (2) training weeks directly supervised by a Board-certified veterinary behaviorist actively participating in the management of behavior cases, including patient evaluation and decision-making; client communication and appropriate follow-up. This training should emphasize behavioral history taking and behavioral examination of owned animals and enable the resident to become familiar with evaluation, treatment and prognosis of behavior problems commonly associated with pet relinquishment (eg. aggression, inappropriate elimination, separation anxiety).

In addition, the resident must spend the equivalent of at least four (4) training weeks directly supervised by an approved supervisor actively participating in the behavioral evaluation and management of dogs and cats in a shelter setting.

**Avian/exotics/zoological medicine:** The resident must spend the equivalent of at least two (2) training weeks directly supervised by a Board-certified avian,exotics or zoological medicine specialist actively participating in the management of cases, including selection, performance and interpretation of diagnostic tests; patient management and decision-making; client communication and appropriate follow-up. This training should emphasize physical examination and husbandry of rabbits, other small mammals, birds and reptiles commonly encountered in shelters, as well as the approach to diagnosis and treatment of diseases common to these species.

**Internal Medicine:** The resident must spend the equivalent of at least two (2) training weeks directly supervised by a Board-certified small animal internist actively participating in the management of internal medicine cases, including selection, performance and interpretation of diagnostic tests; patient management and decision-making; client communication and appropriate follow-up. This training should emphasize developing skill in the problem-based approach to diagnosis and treatment of medical cases including integration of evidence-based medical concepts.

**Clinical pathology:** The resident must spend the equivalent of at least one (1) training week directly supervised by a Board-certified veterinary clinical pathologist actively participating in evaluation of clinical pathologic findings and reviewing cytologies. This training should emphasize development of proficiency in cytologic interpretation of blood smears, tissue exudates, mass aspirates and other samples that are likely to be encountered in shelter practice.

**Necropsy:** The resident must spend the equivalent of at least one (1) training week directly supervised by a Board-certified veterinary pathologist performing necropsies and evaluating pathologic findings. This training should emphasize developing skill in performance of a systematic necropsy, including sample collection from every organ system, special considerations for infectious disease detection (eg. collection of smears and samples for virology, bacteriology, molecular biology), and experience in documentation of findings for medical records and sample submission.

**Community practice:** The resident must spend the equivalent of at least one (1) training week directly supervised by an approved supervisor actively participating in the management of outpatient cases, including selection, performance and interpretation of diagnostic tests; patient management and decision-making; client communication and appropriate follow-up. This training should emphasize experience in application/communication of current guidelines for quality preventive care for individually owned pets (e.g. heartworm, parasite control, vaccination, spay/neuter, retrovirus management, zoonotic diseases, nutrition, behavioral wellness, pet identification).

## VII. Education and Other Scholarly Activities

**Clinical rounds:** Residents must attend and participate in clinical rounds on a daily basis during the clinical training period. The resident should periodically lead rounds discussions an average of once every other week.

**Journal clubs and Formal Conferences:** Residents must attend formal conferences such as journal clubs or seminars in shelter medicine and related disciplines on a regular basis. A minimum of 60 hours in attendance is required. The resident must give a formal presentation at such a conference at least once per year.

**Continuing Education Meetings:** The resident must attend at least one major veterinary medical meeting with a dedicated shelter medicine track and one national or regional animal sheltering professional conference during the previous 5 years.

**Presentations to professional audiences and shelter staff**
The resident must give at least six (6) formal presentations to professional audiences and/or shelter staff during the course of the residency program. Conferences given within a veterinary practice or hospital; at a medical school or medical teaching hospital; at an animal shelter; or at a regional, state or national meeting are acceptable. At least one presentation must be delivered to a primarily veterinary audience and at least one must be delivered to a primarily shelter audience. Journal club presentation and presentation of resident research does not count towards this requirement.

**Communication training**
The resident must complete a minimum of six (6) hours of formal instruction in communication (including didactic and structured interaction) emphasizing understanding and developing skills necessary for successful communication, negotiation and conflict resolution.

## VIII. Publication Requirements

Minimum of one (1) case report in accordance with ABVP guidelines

Minimum of one (1) first author publication in a peer reviewed journal in accordance with ABVP guidelines

Minimum of one (1) first author article related to shelter medicine for a lay audience

Documented completion (by a letter from the Resident Advisor) is required for each of these.

## IX. Hospital Facilities and Specialized Diagnostic Equipment

The following is required to be available in the primary training hospital: clinical pathology capabilities including CBC, serum chemistries, urinalysis and cytology and parasitology. Virology, microbiology and pathology, including forensic pathology, must be available in the primary training hospital or by arrangement with local or regional laboratories.

## X. Library Facilities

The resident must have access to a veterinary or medical library with searching capabilities. This library should be available within reasonable commuting distance or be available by computer hookup. The library should have access to those journals listed by the Veterinary Medical Libraries section of the Medical Library Association.

## XI. Assessment

Successful completion of a residency in the Specialty of Shelter Medicine may be achieved by successfully completing any residency-training program that has attained approval by the Residency Committee as meeting all training requirements prior to the start of training. A candidate and his/her Resident Advisor will be responsible for documenting that the training has occurred as specified.

Completion of all requirements should be documented semiannually by completion of the following forms:

1. Shelter medicine residency program summary form
2. Case log – individual animal
3. Case log – population level
4. Phone/email consult log

5. Special procedures log
6. Mortality log
7. Listing and documentation of continuing education
8. Listing and evaluations of oral presentations
9. A letter from the Residency Advisor indicating satisfactory or unsatisfactory progress over the last six months.

# Appendix E

ABVP Forms for Documenting Credentialing Requirements

## Shelter Medicine Practitioner Portfolio

Checklist for Additional Specific Credentialing Requirements

*A copy of this checklist, together with the required documentation for each item listed below, must be included in the credentials packet for Shelter Medicine practitioners. Please carefully follow the directions regarding required documentation, paying particular attention to conforming to the required length and format.*

| # | Item | Documentation Required | Completed (√) |
|---|---|---|---|
| 1 | Visit at least 15 animal shelters in at least 2 regions of the following 5 regions: western United States; mid western United States; northeastern United States; southern United States, international | Record each visit on the ABVP Shelter Medicine Case Log for Population Level Cases and Consults | |
| 2 | Participate in at least 9 targeted shelter consultations including all major areas/topics of consultation* | Record each consult on the ABVP Shelter Medicine Case Log for Population Level Cases and Consults; Provide an Short Report** (SR) of four of these. Each SR must address a different consult area/topic. | |
| 3 | Design at least 5 shelter protocols, including at least 1 infectious disease protocol | Provide an SR of each protocol. | |
| 4 | Advise on at least 9 disease outbreaks | Record each outbreak consultation on the ABVP Shelter Medicine Case Log for Population Level Cases and Consults; Provide an SR of two of these. Each SR must address a different pathogen. | |
| 5 | Visit at least 3 different high volume SN programs of at least 2 of the following different types: stationary, mobile, MASH, non-surgical or other | Record each visit on the ABVP Shelter Medicine Case Log for Population Level Cases and Consult Activities | |
| 6 | Participate in HQHVSN practice for at least 4 weeks | Record participation on the job self report form | |
| 7 | Participate in the investigation of at least 2 single animal cases involving alleged criminal abuse or neglect including live animal examination for documentation | Provide an SR of one case. Do not include any patient identification information. | |
| 8 | Participate in the investigation of at least 1 multi-animal case involving alleged criminal abuse or neglect | Provide an SR of the case. Do not include any patient identification information. | |
| 9 | Perform at least 1 forensic necropsy (can be wet lab) | Include a copy of your actual medical record for one forensic necropsy with any patient identification information removed. This report should include all gross and laboratory findings, assessment, communication and follow up (if applicable) | |
| 10 | Participate in response to 1 natural or other disaster (field conditions, simulation or wet lab) | Include an SR outlining the disaster, the scope of animal involvement and your direct role/activity in the response. | |
| 11 | Complete a basic credentialing course for participation in disaster response | Provide a copy of your certificate of completion. | |
| 12 | Attend at least 1 major veterinary medical meeting with a dedicated shelter medicine track | Maintain ABVP CE documentation form | |

| | | | |
|---|---|---|---|
| 13 | Attend at least 1 national animal sheltering professional conference | Maintain ABVP CE documentation form | |
| 14 | Deliver at least 3 formal presentations to professional audiences and/or shelter staff; conferences given within a veterinary practice or hospital; at a veterinary or medical school or teaching hospital; at an animal shelter (to staff or the public); or at a local, regional, state or national meeting are acceptable. | Provide a brief synopsis for each. State the date delivered, title, type of audience, number of attendees and type of presentation. The synopsis should consist of a brief description of the presentation along with 3-6 bulleted learning objectives and should not exceed 250 words. | |

***Consultation areas/topics:** These include the following: Shelter Management and Record Keeping; Facility Design and Environment; Population Management; Sanitation; Medical Health and Physical Well-being, including animal transport programs when applicable; Behavioral Health and Mental Well-being, including group housing and animal handling; Euthanasia; Shelter Animal Spay/Neuter; Public Health; Management of Specific Infectious Diseases (eg. respiratory disease, diarrhea, dermatophytosis, canine or feline parvovirus); and HQHVSN programs (shelter associated or non-shelter associated programs). Practitioners are expected to develop the ability to systematically gather data, perform observations, communicate findings and provide resources regarding management, medical and husbandry practices and facility use at shelters as related to physical and mental animal health, as well as within HQHVSN programs. It is expected that applied knowledge of veterinary medical regulations, euthanasia regulations, shelter regulations, zoonotic disease regulations, DEA, OSHA and other regulatory matters, as well as best practices for animal sheltering will be reflected/addressed during the course of shelter consultations.*

**Note: Detailed instructions and sample Short Reports are available online.**

**ABVP SHELTER MEDICINE CASE LOG - POPULATION-LEVEL CASES & CONSULT ACTIVITIES**

Name:

Institution/Practice:

| Case # | Date of initial visit | Location (US State or other country) | International or region | Type of facility | Annual intake | Nature of visit. If consult, indicate type and topic. | Species involved | Chief complaint | D/N | Assessment & follow-up |
|---|---|---|---|---|---|---|---|---|---|---|
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**Instructions:**

1. This is the required format for population-level cases and consults. All logs must be typed.
2. Please submit 3 copies of this log.
3. Specific instructions:
   a. Individual casework should be noted on the ABVP Individual Cases form.
   b. Location = state. Country must be indicated for international organizations.
   c. Region = indicate by abbreviations listed below what region the organization is located in.
   d. Type of facility = indicate by abbreviations listed below what type of facility the organization is (may use more than one designation)
   e. Nature of visit = indicate consult, externship, tour, other. If consult, indicate type and topic.
   f. Species involved = indicate the primary species focused on during your visit.
   g. Chief complaint = brief description of the problem(s) identified (if applicable)
   h. D/N = diplomate or advisor present (D) or not (N).
   i. Assessment & follow-up = brief description of observations, diagnosis, recommendations, and follow-up (if applicable)

Regions:

Western United States = W  Mid-western United States = MW  Northeastern United States = NE
Southern United States = S  International = I

Type of facility:

OA = open admission  LA = limited admission  MF = municipal facility  OS = other Shelter
PS = private shelter  AG = adoption guarantee or no kill  FN = Foster network  OSN = other spay/neuter program
SN1 = stationary spay/neuter  SN2 = mobile spay/neuter  SN3 = MASH spay/neuter  SN4 = non-surgical sterilization

## Summary of Shelter Medicine Residency Program

Shelter Medicine Residency Progress Check List Resident _____

Institution and Date Initiated _____ Advisor _____

### Shelter Medicine Residency Requirements

| # | Item Months in Program → | 0 | 6 | 12 | 18 | 24 | 30 | 36 | Completed (√) |
|---|---|---|---|---|---|---|---|---|---|
| | Send letter introducing the residency candidate along with a copy of the candidate's current *curriculum vitae* to the Residency Committee Chair prior to the start of the residency program (Advisor responsibility) | | | | | | | | |
| | Receive and review Shelter Medicine residency requirements, activity logs and progress checklist with Resident Advisor | | | | | | | | |
| | Receive reading list | | | | | | | | |
| | ***Intensive Clinical Training in the Specialty of Shelter Medicine*** | | | | | | | | |
| 1 | Minimum 84 Weeks of Clinical Training in Shelter Medicine* [Indicate no. of weeks and level of supervision: Direct (D) or Indirect (I)] *items 2-15 below are required experiences that must be completed within these 84 weeks | | | | | | | | |
| 2 | Visit at least 50 animal shelters in at least 3 regions of the following 5 regions: western United States; mid western United States; northeastern United States; southern United States, international (maintain activity log) | | | | | | | | |
| 3 | Participate in shelter practice for at least 20 training weeks (maintain activity and case logs of all clinical rotations including shelter practice) | | | | | | | | |
| 4 | Participate in at least 3 comprehensive shelter consultations with primary responsibility for at least 1 section of each and overall responsibility for at least 1 comprehensive consultation (maintain activity log) | | | | | | | | |
| 5 | Participate in at least 9 targeted shelter consultations including all major areas of consultation as defined in section V (maintain activity log) | | | | | | | | |
| 6 | Design at least 5 shelter protocols, including at least 1 infectious disease protocol; implement at least 1 of these protocols at a shelter | | | | | | | | |
| 7 | Respond to at least 60 telephone/email consultation requests (maintain activity log) | | | | | | | | |
| 8 | Advise on at least 9 disease outbreaks, including at least 3 site visits and at least 1 outbreak of at least 3 of the following: dermatophytosis, canine distemper virus, canine parvovirus, feline parvovirus, and one “unknown” cause outbreak (maintain activity log) | | | | | | | | |
| 9 | Visit at least 5 different HQHVSN programs of at least 3 of the following different types: stationary, mobile, MASH, non-surgical or other (maintain activity log) | | | | | | | | |
| 10 | Participate in HQHVSN practice under direct supervision for at least 4 weeks | | | | | | | | |
| 11 | Participate in the investigation of at least 2 single animal cases involving alleged criminal abuse or neglect including live animal examination for documentation (maintain activity log) | | | | | | | | |
| 12 | Participate in the investigation of at least 1 multi-animal case involving alleged criminal abuse or neglect (maintain activity log) | | | | | | | | |
| 13 | Perform at least 1 forensic necropsy (can be wet lab) (maintain activity log) | | | | | | | | |
| 14 | Participate in response to 1 natural or other disaster (field conditions, simulation or wet lab) | | | | | | | | |
| 15 | Complete a basic credentialing course for participation in disaster response | | | | | | | | |

| # | Item Months in Program → | 0 | 6 | 12 | 18 | 24 | 30 | 36 | Completed (√) |
|---|---|---|---|---|---|---|---|---|---|
| | ***Other Required Clinical Rotations*** (maintain activity and case logs for all clinical rotations) | | | | | | | | |
| 16 | At least 2 weeks- Dermatology | | | | | | | | |
| 17 | At least 1 week- Ophthalmology | | | | | | | | |
| 18 | At least 2 weeks- Behavior practice with boarded behaviorist | | | | | | | | |
| 19 | At least 4 weeks- Behavior in shelter with approved supervisor | | | | | | | | |
| 20 | At least 2 weeks- Avian/exotics/zoological medicine | | | | | | | | |
| 21 | At least 2 weeks- Small animal internal medicine | | | | | | | | |
| 22 | At least 1 week- Clinical Pathology | | | | | | | | |
| 23 | At least 1 week- Necropsy | | | | | | | | |
| 24 | At least 1 week- Community Practice | | | | | | | | |
| | ***Education and Other Scholarly Activities*** | | | | | | | | |
| 25 | Attend/participate in clinical rounds on a daily basis during the clinical training period; periodically lead rounds discussions an average of once every other week | | | | | | | | |
| 26 | Attend at least 60 hours of formal conferences (eg. journal clubs or seminars in shelter medicine) on a regular basis | | | | | | | | |
| 27 | Deliver a formal presentation at journal club or seminar at least once per year | | | | | | | | |
| 28 | Attend at least 1 major veterinary medical meeting with a dedicated shelter medicine track (maintain activity log) | | | | | | | | |
| 29 | Attend at least 1 national animal sheltering professional conference (maintain activity log) | | | | | | | | |
| 30 | Deliver at least 6 formal presentations to professional audiences and/or shelter staff; at least 1 presentation must be delivered to a primarily veterinary audience and at least 1 must be delivered to a primarily shelter audience (excluding journal club and resident research presentations) | | | | | | | | |
| 31 | Complete a minimum of 6 hours of formal instruction in communication (including didactic and structured interaction) | | | | | | | | |
| | ***Publication Requirements*** | | | | | | | | |
| 32 | Prepare at least 1 first author publication relevant to shelter medicine in a peer reviewed journal | | | | | | | | |
| 33 | Prepare at least 1 first author article related to shelter medicine for a lay audience | | | | | | | | |

**ABVP SHELTER MEDICINE CASE LOG – TELEPHONE AND EMAIL CONSULTS**

Name:

Institution/Practice:

| Case # | Date of initial contact | Location (US State or other country) | International or region | Type of facility | Annual intake | Consult topic | Species involved | Chief complaint | D/N | Assessment & follow-up |
|---|---|---|---|---|---|---|---|---|---|---|
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**Instructions:**

1. This is the required format for telephone and email consults. All logs must be typed.
2. Please submit 3 copies of this log.
3. Specific instructions:
   a. Consultations involving site visits, including follow-up, should be listed on the population level cases and consult activities form.
   b. Location = state. Country must be indicated for international organizations.
   c. Region = indicate by abbreviations listed below what region the organization is located in.
   d. Type of facility = indicate by abbreviations listed below what type of facility the organization is (may use more than one designation)
   e. Consult topic = indicate topic
   f. Species involved = indicate the primary species focused on during your visit.
   g. Chief complaint = brief description of the problem(s) identified (if applicable)
   h. D/N = diplomate or advisor present (D) or not (N).
   i. Assessment & follow-up = brief description of observations, diagnosis, recommendations, and follow-up (if applicable)

Regions:

Western United States = W  Mid-western United States = MW  Northeastern United States = NE
Southern United States = S  International = I

Type of facility:

OA = open admission  LA = limited admission  MF = municipal facility  OS = other Shelter
PS = private shelter  AG = adoption guarantee or no kill  FN = Foster network  OSN = other spay/neuter program
SN1 = stationary spay/neuter  SN2 = mobile spay/neuter  SN3 = MASH spay/neuter  SN4 = non-surgical sterilization

**ABVP CASE LOG**

Name:

Institution/Practice: CA EQ AV FA DA BF SW

| No. | Date | Case # | Species | Diagnosis | S/M | Procedure | P/A | E/M | D/N | System Code | Disposition |
|---|---|---|---|---|---|---|---|---|---|---|---|
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**Instructions**:

1. This is the required case log format. All case logs must be typed.
2. Resident should submit three (3) copies of case logs.
3. Specific instructions:
   a. Number cases consecutively throughout the program.
   b. Date = date of assignment or examination.
   c. Case # = clinic or institutional case number assigned.
   d. S/M = surgical or medical case.
   e. Procedure = brief description of the procedure or problem. Please clarify any abbreviations.
   f. P/A = primary or assistant person on the case.
   g. E/M = elective (E) or emergency (M).
   h. D/N = diplomate or advisor present (D) or not (N).
   i. Systems code = code for system or discipline involved. See codes below.
   j. Disposition = results of therapy, condition of the animal (e.g. discharged, improved, normal, died, etc.)
4. Systems codes

| | | | | | |
|---|---|---|---|---|---|
| Neurologic | NE | Musculoskeletal | MS | Otic | OT |
| Cardiovascular | CV | Respiratory | RS | Hematopoietic | HE |
| Endocrine | EN | Gastrointestinal | GI | Toxicologic | TX |
| Ophthalmic | OP | Reproductive | RP | Other | OR |
| Integumentary | IT | Renal/urinary | RU | | |

**ABVP MORTALITY LOGS**

Name:
Practice/Institution:

CA EQ AV FA DA BF SW

| No. | Date | Case # | Species | Diagnosis | Explanation | PM Exam | PM Diagnosis | S/M |
|---|---|---|---|---|---|---|---|---|
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**Instructions:**

1. This format is required for mortality logs. All logs should be type written.
2. Please submit three (3) copies of this log.
3. Specific instructions:
   a. Please consecutively number all cases through the program.
   b. Date = date of death (mortality).
   c. Case # = the case identification number of the institution/practice.
   d. Species = please type full name of the species.
   e. Diagnosis = a brief description of the original diagnosis. Please explain any abbreviations.
   f. Explanation = briefly explain the reason for the complication or death.
   g. PM Exam = yes or no, indicates whether or not a post-mortem exam was performed.
   h. PM Diagnosis = final diagnosis based on post-mortem examination/histopathology and any ancillary diagnostic tests (micro, virology, etc.).
   i. S/M = originally a surgical (S) or medicine (M) case.

# ABVP RESIDENT PRESENTATION, CONTINUING EDUCATION, ROUNDS SUMMARY LOG

Name:
Institution/Practice: CA EQ AV FA DA BF SW

Presentation given:

| No. | Date | Title | Type of Audience | Number in Audience | Type or Presentation |
|---|---|---|---|---|---|
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**Instructions:**

1. Please consecutively number each presentation. Please type and submit three (3) copies.
2. Date = date of actual presentation.
3. Title
4. Type of audience = students (S), residents (R), Faculty (F), Professional Continuing Education (PCE), Lay Continuing Education (LCE). More than one category may be used.
5. Number in audience.
6. Type of presentation = abstract, CE seminar, rounds, journal club, etc.
7. A minimum of two presentations, at least 15 minutes duration, are required per year.

Continuing Education Attended:

| No. | Date | Meeting Title | Location | Number of Hours CE Attended | Type of CE |
|---|---|---|---|---|---|
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**Instructions:**

1. Please number CE meetings consecutively. Please submit three (3) typed copies.
2. Date = date(s) of meeting, rounds, journal club, etc.
3. Meeting title.
4. Location
5. No. of hours of attendance.
6. Type of CE = Rounds (R), Journal Club (JC), Lectures (L), CE Meetings (CE).

**FIFTY PERCENT OF REQUIREMENT MUST BE FULFILLED BY FORMAL CE MEETINGS.**

**ABVP PROCEDURES LOG**

Name:

Institution/Practice: CA EQ AV FA DR BF SW

| No. | Date | Species | Special Procedure | Diagnosis | S/M | P/A | D/N | System Code |
|---|---|---|---|---|---|---|---|---|
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**Instructions:**

1. This is the required format for special procedures logs. All logs should be type written.
2. Please submit three (3) copies of the special procedures logs.
3. Specific instructions:
   a. Consecutively number procedures through the residency program.
   b. Date = date procedure was performed.
   c. Species = please type full name of species.
   d. Special procedure = Any procedure (diagnostic, treatment, etc.) that is not a routine physical examination or treatment procedure (do not include surgical procedures).
   e. S/M = surgery (S) or medicine (M) case.
   f. P/A = primary or assistant.
   g. D/N = diplomate/advisor present (D) or nor (N).
   h. System code = please refer to code list under instructions for case logs.

# Appendix F

## Reading List for Shelter Medicine Practice

The following is a list of topics, which will typically be covered on the examination, along with suggested textbooks. The newest editions of these texts are recommended, and other recently published books may also be helpful. Candidates are not expected to purchase or read all of these texts: rather emphasis should be placed on subject matter where candidates feel deficient.

### Animal Cruelty

Merck MD. Veterinary Forensics: Animal Cruelty Investigations.

Munro H, Munro R. Animal Abuse and Unlawful Killing: Veterinary Forensic Pathology.

Olson P. Recognizing and Reporting Animal Abuse — A Veterinarian's Guide. American Humane Association.

Patronek GJ, Loar L, Nathasan JN. Animal Hoarding: Structuring Interdisciplinary Responses to Help People, Animals and Communities at Risk, HARC.

Sinclair L, Merck M, Lockwood R. Forensic Investigation of Animal Cruelty.

### Behavior and Welfare

Hart BL, Hart LA, Bain MJ. Canine and Feline Behavior Therapy *OR* Horwitz D, Mills DS. BSAVA Manual of Canine and Feline Behavioural Medicine *OR* Houpt KA. Domestic Animal Behavior for Veterinarians and Animal Scientists (small animal sections) *OR* Landsberg GM, Hunthausen WL, Ackerman LJ. Handbook of Behavior Problems of the Dog and Cat. *OR* Overall KL. Clinical Behavioral Medicine for Small Animals. *OR* equivalent.

McMillan FD. Mental Health and Well-being in Animals.

Rochlitz, I. The Welfare of Cats. Dordrecht, The Netherlands, Springer.

Yin, S. Low Stress Handling, Restraint, and Behavior Modification of Dogs and Cats.

### Euthanasia

American Association of Zoo Veterinarians. Guidelines for Euthanasia of Nondomestic Animals.

Cooney K, Chappell J, Callen R, Connally B. Veterinary Euthanasia Techniques: A Practical Guide.

Humane Society of the United States: Euthanasia Reference Manual.

### Epidemiology and Statistics

Hulley, Cummings, Browner, Grady, Newman. Designing Clinical Research: An Epidemiologic Approach.

Petrie, A., Watson, P. Statistics for Veterinary and Animal Science

Smith RD. Veterinary Clinical Epidemiology: A Problem-Oriented Approach. *OR* Pfeiffer DU. Veterinary Epidemiology *OR* Thrusfield M. Veterinary Epidemiology *OR* equivalent

### General Medicine and Surgery—Including Population Medicine

August J. Consultations in Feline Internal Medicine. Population Medicine Section of last 3 editions.

Birchard JJ, Sherding RG. Saunders Manual of Small Animal Practice *OR* Morgan R. Handbook of Small Animal Practice *OR* equivalent.

Booth D. Small Animal Pharmacology and Therapeutics.

Fossum T. Small Animal Surgery (introductory chapters and reproductive surgery chapters)

Ganong *OR* Guyton. Basic Physiology text

Kirk RW. Current Veterinary Therapy (relevant chapters, last 3 editions)

Little S. The Cat: Clinical Medicine and Management

Miller L, Zawistowski S. Shelter Medicine for Veterinarians and Staff

Muir WW, Hubbell JA, Bednarski RM. Handbook of Veterinary Anesthesia *OR* equivalent

Peterson ME, Kutzler MA. Small Animal Pediatrics: The first 12 months of life. London: (sections 1-3)

Radostits OM. Herd Health: Food Animal Production Medicine (introductory chapters only)

Willard MD, Tvedten H. Small Animal Clinical Diagnosis by Laboratory Methods.

## Grant Writing

Carlson M, O'Neal-McElrath T. Winning Grants Step by Step. *OR* Webster's New World Grant Writing Handbook.

## Infectious Disease

Barr, Bowman. Canine and Feline Infectious Diseases and Parasitology.

Block S. Disinfection, Sterilization and Preservation.

Colville, Berryhill. Handbook of Zoonoses *OR* Hugh-Jones. Zoonoses: Recognition, Control, and Prevention.

Greene CE. Infectious Diseases of the Dog and Cat.

Miller L, Hurley K. Management of Infectious Disease in Animal Shelters.

Peterson C A, Dvorak G, Spickler AR. Maddie's® Infection Control Manual for Animal Shelters

## Rabbits and Small Mammal Care

Quesenberry K, Carpenter JW. Ferrets, Rabbits, and Rodents Clinical Medicine and Surgery.

Miller L, Zawistowski S. Shelter Medicine for Veterinarians and Staff (Relevant Chapters)

## Shelter Management / Policy Development

Renz & Herman. The Jossey-Bass Handbook of Nonprofit Leadership and Management

American Humane Association, Operational Guides for Animal Shelters - Animal Adoption, Animal Ordinance Preparation, Fundraising Plans, Humane Education, Personnel Selection and Management, Planning and Building an Animal Shelter, Public and Media Relations, Recommendations for City/County Animal Control Contracts, Strategic Planning, and Volunteer Management

Aronson, Animal Control Management: A new look at a public responsibility (New directions in the human animal bond.

## Guidelines Documents

ASV Guidelines for Standards of Care in Animal Shelters

ASV Veterinary Medical Care Guidelines for Spay-Neuter Programs

AVMA Guidelines for Euthanasia of Animals

AVMA Model Dog and Cat Control Ordinance

NASPHV Animals in Public Settings Compendium

NASPHV Animal Rabies Compendium

NASPHV Veterinary Standard Precautions for Zoonotic Disease Prevention

Delta Society. Professional Standards for Dog Trainers: Effective, Humane Principles.

AAHA Canine Vaccination Guidelines

AAFP Feline Vaccination Guidelines

The Asilomar Accords

## Required journals (relevant articles from last 5 years)

American Journal of Veterinary Research

Animal Sheltering Magazine

Animal Welfare

Anthrozoos

Applied Animal Behavior Science

Canadian Veterinary Journal

Compendium on Continuing Education for the Practicing Veterinarian

Journal of Applied Animal Welfare Science

Journal of Feline Medicine and Surgery

Journal of Hospital Infection

Journal of Parasitology

Journal of the American Animal Hospital Association

Journal of the AVMA

Journal of Veterinary Diagnostic Investigation

Journal of Veterinary Pharmacology and Therapeutics

Journal of Veterinary Behavior: Clinical Applications and Research

Journal of Veterinary Internal Medicine

Journal of Veterinary Medical Education

Journal of Virology

PLOS

Preventive Veterinary Medicine

Veterinary Clinics of North America

Veterinary Dermatology

Veterinary Microbiology

Veterinary Pathology

Veterinary Therapeutics

# Appendix G

## Examination Blueprint—Shelter Medicine

The results of the Shelter Medicine Specialist Job Analysis Survey show the major categories of knowledge required for Shelter Medicine specialists and serve as the basis for examination items. To create the exam blueprint, testable knowledge was weighted by category according to the tabulated rankings as assessed in the survey validation. All exam items will be coded by category to ensure that areas are covered in accordance with the examination blueprint.

| | **Category** | **Percentage distribution** |
|---|---|---|
| **A** | **Shelter Animal Physical Health**<br>(Infectious Diseases, Disease Outbreaks, Vaccination, Biosecurity, Sanitation, Population Management and Surveillance, General Medical and Surgery, Husbandry, Facility and Housing Design, Environment, Euthanasia, Field Triage and Transport, Nutrition, Shelter Data Analysis) | **37** |
| **B** | **Shelter Animal Behavioral Health**<br>(Quality of Life, Behavioral Assessment, Stress Management, Preventive Behavioral Care, Common Behavior Problems, Animal Handling, Adoption Selection) | **17** |
| **C** | **Community and Public Health**<br>(Zoonoses, Rabies, Dog Bite Prevention, Dangerous Animal Issues, Emerging and Reportable Disease, Animal Cruelty) | **14** |
| **D** | **Companion Animal Homelessness**<br>(Epidemiology of Companion Animal Homelessness, Spay Neuter Programs, Nonsurgical sterilization, Pet Retention and Reunification, Animal Transfer Programs, Disaster Response) | **13** |
| **E** | **Shelter Management**<br>(Management, Funding and Resource Allocation, Organizational Structure, Animal ID and Tracking, Regulations, Legal Liability, Compassion Fatigue) | **9** |
| **F*** | **Animals and Public Policy**<br>(Legislative Issues, Current Events, Animal Regulatory Issues and Agencies, Types Of Community Animal Programs, History and Trends, Ethical Issues) | **6** |
| **G**** | **Research and Critical Review of Literature**<br>(Basic Epidemiology, Study Design, Statistics And Grant Writing) | **2** |
| **H** | **Communication**<br>(Basic Communication Skills, Record Keeping Systems) | **2** |
| | **Total** | **100** |

*** F – One subcategory (F-3) was removed. This material is addressed by other credentialing requirements (eg. shelter visits, high volume spay neuter program visits) as well as overlapping concepts in other categories.**

**** G - The original category name was changed from "Advance Animal Shelter Medicine" to "Research and Critical Review of Literature" to reflect the subject matter from this section that will be included in the exam. This is because only one of the five subcategories (G2) from this section was deemed as testable exam material. The remaining subcategories are addressed by other credentialing requirements (eg. continuing education, professional development, delivering presentations).**

For a detailed description of the knowledge requirements by category, refer to the document entitled, "Shelter Medicine Specialist Job Task Analysis: Requirements for Professional Knowledge and Skills" (Appendix C). Note that because of the interrelated nature of many concepts, duplication occurs among some categories. When this happens, the context of those questions will be related to the category. For example, questions on housing in category A will relate to the their impact on physical health, while questions on housing in category B will relate to their impact on behavioral health.

**Methodology**

Categories = 8 Subcategories in each category (that were included in the DACUM survey)

| Category | No. of Subcategories | Ave. % over all subcategories* |
|---|---|---|
| A | 17 | 80.9 |
| B | 9 | 69.1 |
| C | 7 | 70.8 |
| D | 7 | 65.4 |
| E | 5 | 62.3 |
| F | 5 - 1 = 4 | 63.2 |
| G | 5 - 4 = 1 | 88.7 |
| H | 1 | 73.3 |

***Average percentage of possible points (based on composite score for responsibility, frequency and importance) averaged over the total number of subcategories in each category.**

Weighted scoring system: each average % (third column above) was weighted by the number of subcategories (each subcategory presumably giving rise to exam questions) and summed over all categories to create an overall score. Then, the % of that total score contributed by each category was calculated. See below. E.G. Category A (17 subcategories X 80.9%) + Category B (9 subcategories X 69.1%)+ . . . = Total possible points over the 8 categories.

| Category | Score | % of total score | Rounded scores |
|---|---|---|---|
| A | 13.7 | 37.3 | 37 |
| B | 6.2 | 16.9 | 17 |
| C | 5.0 | 13.6 | 14 |
| D | 4.6 | 12.5 | 13 |
| E | 3.1 | 8.5 | 9 |
| F | 2.5 | 6.8 | 6 |
| G | 0.9 | 2.5 | 2 |
| H | 0.7 | 1.9 | 2 |
| **Total** | 36.7 | 100% | 100% |

# Frequently Asked Questions about Certification in Shelter Medicine Practice

*Practitioners and residents planning to submit their credentials should carefully review the ABVP applicant and resident handbooks, as well as the additional specific credentialing requirements for ABVP-SMP. The information provided here is meant to provide additional insight into the credentialing requirements that are specific to SMP.*

**Why am I required to interact with more than one animal shelter including organizations outside of my own geographic region?**

A shelter medicine specialist must be knowledgeable about a wide variety of sheltering models representing a range of sizes, budgets, species, philosophies, regions, facility styles and programs. The diverse nature of shelters reflects diverse challenges necessitating exposure to a diverse caseload. A specialist must be able to effectively practice population level care in a variety of shelter settings, including population level response to common shelter diseases.

**I do not reside in the United States but would like to apply for certification in SMP. How can I meet the requirements for regional shelter visits?**

Applicants residing outside of the U.S. must demonstrate a broad range of experiences encompassing a variety of diverse sheltering models, conducive to providing the required clinical training experiences as defined in the specific credentialing requirements. In addition, they must have a comparable national geographic scope with respect to their location of residence. Applicants practicing outside of the U.S. should contact the SMP regent to discuss how this requirement can be met.

**I am applying through the practitioner route and work primarily at one animal shelter. Can some of the required "consults", protocols, and outbreak investigations be performed at my primary shelter of employment?**

Practitioners are required to participate in various population level clinical activities including targeted consultations, outbreak investigations, and protocol development. Clinical activities to meet this requirement may be conducted at one or more shelters. The credentials committee recognizes that the bulk of a practitioner's clinical experience may involve reviews conducted and protocols developed at the applicant's primary shelter of employment, however applicants should strive to gain additional experiences in a variety of organizations whenever possible. Clinical experience with more than one shelter is strongly recommended.

**I am applying through the practitioner route and would like to apply clinical experiences and other required activities that I performed more than 5 years ago. Will I be able to count these?**

No. ABVP requires that credentialing experiences including cases, consultations, coursework, continuing education, and all other requirements be fulfilled within the 5 years preceding application. Once the credentials materials are submitted, you will have 3 attempts (3 credentials cycles) to pass all portions of the credentials packet. Only the failed portions are resubmitted each year if allowed. None of your experiences will "time out" during the 3-year window of time

that is allotted for you to pass your credentials.

**I have or will be completing online course work in Shelter Medicine. Will this count towards my CE requirement?**
Internet-based course work will be accepted for the number of hours credited by the sponsoring organization. When such course work is divided into discreet sessions by topic and number of CE hours, each section should be logged accordingly on the CE form. In contrast, continuous, interactive online courses that are not divided into discreet units should be logged by course title, course provider, TOTAL number of CE credits, name of the course coordinator, and the start date.

**I am applying through the residency route and would like to apply clinical experiences and other required activities that I performed before my residency. Will I be able to count these?**
No. ABVP requires that credentialing experiences for residents be part of an approved ABVP residency program. ABVP residency training entails intensive and mentored clinical experience. Cases, consultations, continuing education, and all other requirements must be fulfilled within the timeframe of an approved, supervised residency program.

**I am applying through the practitioner path, and work part-time in the sheltering field. How do I determine if I meet the practice time requirements?**
Practitioners must complete five (5) years of full time practice experience before application and six (6) years of experience before examination. The first year need not be in the RVS, however, application must be made to the RVS in which the veterinarian has primarily practiced within the previous five (5) years. The equivalent part-time experience is acceptable and should be calculated using 35 hours per week as "full time effort" (ie: 35 hours/week = 100% FTE). For example, if you work 25 hours per week in shelter practice, this equates to 70% FTE in shelter medicine practice, therefore 6.5 years of experience will be required before examination.

**Do I consider only my experience within the past 5 years when I complete the Self-Report Job Experience? I am struggling with designating the frequency with which I see the various types of cases (ie: daily, weekly, monthly) because it varies tremendously in my range of practice. What do I do?**
Yes, the job report experience form should reflect your clinical practice in the preceding 5 years of full time effort in shelter medicine (or the equivalent if part-time). It is understood that the frequency of cases may vary tremendously and that applicants will have to select an average assessment to reflect their experience as best as possible.

**What is required to fulfill the requirement for "completing a basic credentialing course for participation in disaster response"?**
The following online FEMA training sessions must be completed:

- IS-100.B: Introduction to Incident Command System
- IS-200.B: ICS for Single Resources and Initial Action Incidents
- IS-700.A: National Incident Management System (NIMS) An Introduction
- IS-10.A: Animals in Disasters: Awareness and Preparedness
- IS-11.A: Animals in Disasters: Community Planning

Each of these sessions is between 3 and 4.5 hours in length. Completion of all 5 of these sessions satisfies the requirement for a "basic credentialing course in disaster response". Certificates of completion for each session must be included to document this training. Visit the following link to learn how to take these short courses at no cost online: http://training.fema.gov/IS/isfaqdetails.asp?id=2&cat=General%20Questions.
Foreign applicants who wish to take these courses should contact the ABVP office for sponsorship to do so as required by FEMA.

**What will "count" towards the requirement of attending a professional animal sheltering conference"?**
Attendance at any local, regional or national professional animal sheltering conference will satisfy this requirement. A minimum of 8 hours should be documented on the CE form. In many cases, CE obtained at these meetings may not be RACE or state board-approved, therefore these hours may not count towards the requirements for hours of professional veterinary CE, but they will count towards the requirement for attending a professional animal sheltering conference. All professional veterinary CE hours must be either RACE or state-board approved.

**Management of specific infectious diseases is listed as a major consultation area. How is this different than disease outbreak investigation, or is it the same thing?**
Although there is overlap between these two categories, "management of specific infectious diseases" refers to a more proactive approach in which specific policies and procedures are developed in order to detail how an infectious disease will be handled in an animal shelter, including such elements as prevention, recognition, diagnosis, decision-making, and so forth. In contrast, an "outbreak investigation" is undertaken when an infectious disease has been introduced into a population and is spreading. Outbreak response is a more reactive measure and involves diagnosis, as well as a thorough population level response, to contain the disease. In some shelters, infectious diseases are endemic, creating situations where ongoing, smoldering outbreaks are present. Such cases could fall into either category for the sake of logging credentialing experiences, keeping in mind that taking methodical measures to reduce the disease rate, or eliminate the disease altogether, is the most important consideration.

**What constitutes a population level case suitable for a case report?**
Population level case reports should represent the diagnosis of a significant problem affecting the health of a shelter population. The report should document a population level problem, detailing your systematic assessment, response and follow up. The report may include non-medical aspects of management, but should also detail population level medical management of the problem. Large scale, multi-animal cruelty cases and disaster response cases are also considered

population level cases. Emphasis should be on systematic assessment, response and follow up, including medical management.

The following excerpt from the Shelter Medicine credentialing requirements applies to both population and individual case reports:

Two ABVP-format case reports submitted as part of the application are required. These case reports should represent different topics in Shelter Medicine Practice. Both individual animal and population level cases are acceptable. When two case reports are submitted, at least one MUST focus on a population of animals. For individual animal cases, the case must have population implications and the impact of the case on the management of the population of animals, of which the individual animal is a member, must be discussed. Case reports should follow the format described in the ABVP Applicant Handbook and should allow the ABVP Credentials Committee to evaluate an applicant's ability to recognize problems, formulate differential diagnoses, and develop and implement appropriate diagnostic, therapeutic or preventive/control plans. The manuscripts should reflect the applicant's professional expertise and demonstrate his or her ability to use medical principles in the diagnosis and treatment of shelter animals and populations. The case reports should represent the applicant's ability to communicate medical observations and data in an organized and appropriate manner and must be in accordance with the guidelines published in the ABVP Applicant Handbook.

Note: Refer to the Applicant handbook for detailed guidelines for case reports. In addition to the guidelines in the handbook, the following should be adhered to:

- Remember than anonymity is required—You must not include your name, hospital or shelter name, location, or any identifying information at any point in the manuscript.
- Introduction – Must highlight any significant differences, challenges, or considerations that may exist regarding the management and outcome of the case in a shelter-housed animal/population compared to that of a client owned animal housed in a typical home environment.
- Clinical Report- Must include basic information regarding the shelter's intake, housing and population as well as other aspects pertinent to the case presented. You must state your role in the management of the case (e.g. staff veterinarian, consultant, etc), including when you became involved and which aspects of the case were within and outside your control.
- Cases in which you were involved in a very limited or peripheral extent, or as a consultant with minimal input and/or follow-up, are not appropriate.
- For population cases, your report must include relevant baseline and follow up information/data in tabular form
- Discussion – Must include your analysis of all aspects of case management, including physical and behavioral health, quality of life, outcomes, and implications for the population and the shelter (e.g. infectious disease risks, public health implications, resource allocation, etc.).
- Include pertinent statistics for population level cases.
- Discuss, if applicable, any limitations in case management that were the result of the applicant's role (e.g. consultant, part-time staff, etc).
- Discuss the implications and applications for management of similar cases in other types of shelter settings.

****Shelter Medicine Practice Short Report (SR):** Short reports are designed to allow the Credentials Committee to evaluate your ability to recognize problems, formulate differential diagnoses, and develop and implement appropriate diagnostic, therapeutic and preventive plans or protocols for areas of required experience. Clinical activities/case management must have been carried out within five (5) years prior to submission of a certification application.

The required sections for each SR are:

1. Header "Shelter Medicine Short Report"
2. Case type specifying which category requirement the report is submitted to meet:
    a. Targeted shelter consultation, including major consultation area (4)
    b. Shelter protocols (5 including at least 1 infectious disease protocol)
    c. Disease outbreak (2)
    d. Single animal abuse case (1)
    e. Multi-animal abuse case (1)
    f. Disaster response (1)
3. Title
4. Case description
5. Outcome
6. Implications/applications
7. References

Each SR must:

- Adequately demonstrate your ability to practice ABVP-caliber veterinary medicine and surgery within your RVS.
- Be sufficiently challenging for you to demonstrate the range and depth of your clinical expertise within your RVS.
- Demonstrate your ability to clearly communicate in a professional style and have a minimum of spelling, punctuation and grammatical errors.
- An SR does not have to be unusual or unique. However, each one should encompass the current diagnostic, therapeutic, and clinical management techniques that ABVP Diplomates utilize in their practice. Each SR must have a different title, and must reflect a different aspect of clinical practice within the applicant's RVS.
- Each SR must illustrate a different topic and type of case within the required categories.
- No introduction, tables or figures should be included, and only a brief written description of vital lab work should be included if important to understand the summary of the case.
- At least one (1) but no more than two (2) references that reflect the current state of published information about the case are required to validate your management of the case as presented. The references should be listed using JAVMA author guidelines.

Journal titles in the Reference section should be italicized and abbreviated in accordance with the National Library of Medicine and Index Medicus. For references with more than three (3) authors, only the first three (3) should be listed followed by "et al."

Format and style:

- Short reports must be double-spaced throughout.
- Margins must be one inch (1”) on the top, bottom, left and right hand side of each page.
- Only Arial or Times New Roman font styles are acceptable. Font size should be at least 10 point but no larger than 12 point.
- Number each page consecutively.
- Files must be submitted as .doc or .pdf formats. Do NOT use .docx or other file formats.
- Each SR must not exceed five hundred (500) words. Word count does not include title and reference(s).
- For drugs and products, use generic or chemical names. Trade names, brands, specialized equipment, and proprietary information must be cited in endnotes.
- Use metric units throughout the short report for all doses, measurements and temperatures. Do not use ANY English units.
- Express drug dosages in metric units with specific time intervals and routes of administration (correct- 22 mg/kg PO q12h; incorrect–10 mg/lb bid).
- Do NOT use a portion of a tablet size (1/4 of a 200mg tablet).
- If the report involves evaluation of efficacy or safety of a pharmaceutical, biologic, or other product, the product must be commercially and legally available.

Spelling:

- Manuscripts should be written in American English.
- For spelling of lay terms, refer to the latest American edition of the Merriam-Webster Dictionary.
- The latest edition of Dorland's Illustrated Medical Dictionary should be used for proper spelling and usage of scientific and medical terms.
- Words spelled with British/European spellings will be considered misspelled and will adversely affect the evaluation of the short report.

Abbreviations:

- As a general rule, abbreviations other than standard abbreviations and units of measures are strongly discouraged.
- A term should be abbreviated only if it is used at least three (3) times in the short report. The term must be expanded at the first occurrence, with the abbreviation given in parentheses after the expanded term. Abbreviations should not be used to start a sentence.
- Except for the abbreviations ELISA, ACTH, EDTA, DNA, and RNA, abbreviations should not be used in titles.

Anonymity is required. You must not include your name, hospital or shelter name, client name, location, or any identifying information at any point in the manuscript.

Short reports are only identified by your applicant identification number. The ID number will be automatically generated once you complete and submit a credentials application. Evaluations will be made anonymously by members of the ABVP Credentials Committee.

Instructions must be followed exactly and in the correct order. Failure to adhere to these instructions will result in an unaccepted short report.

**Evaluation Rubrics**

All short reports must be submitted in the format specified in the ABVP requirements. Instructions must be followed exactly and in the correct order. Failure to adhere to these instructions will result in an unaccepted report. All short reports will be evaluated according to the following general guidelines:

| | Pass | Fail |
|---|---|---|
| **Clinical activity or case described** | Carried out within 5 years prior to submission of credentials packet | Carried out more than 5 years prior to submission of credentials packet |
| **Title, case description, outcome, implications /applications, references are provided according to guidelines** | All sections are included. Each SR has a different title and reflects a different aspect of clinical practice. The category for which the SR is submitted is clearly indicated at the top of the document. Anonymity is maintained. | One or more sections is/are missing, titles or content are repeated, and/or anonymity is not maintained |
| **Punctuation, spelling, grammar and professional terminology** | Professional language used throughout. No more than 2 spelling or grammatical errors | Unprofessional language and/or 3 or more spelling or grammatical errors |
| **Format and references as specified in instructions** | 1-2 references are included; document has 1" margins throughout with double-spacing in appropriate font | No references or 3 or more references are included; wrong font, margins, or spacing is used |
| **File type** | Submitted as .doc or .pdf | Any other formatting, including .docx |
| **Word count** | 500 words or less (excluding title and references) | Exceeds 500 words |
| **Overall assessment** | At least 12/14 of the submitted short reports are judged "passing" based on the rubrics contained within this document; no more than 1 "failing" report can be from a single category | Fewer than 12 submitted short reports are judged passing and/or multiple failing reports fall within the same category (e.g. protocols, targeted shelter consults, etc). |

**The following rubric will apply to all short reports submitted for targeted shelter consults, regardless of the focus of the consult described:**

| | Pass | Fail |
|---|---|---|
| **Shelter consult topics** | • All 4 required short reports are submitted from the major shelter consultation areas described in the certification pathways document and are labeled to indicate which area is the focus | One or more of the following:<br>• Fewer than 4 reports are submitted<br>• One or more topics covered are not from the major shelter consultations areas<br>• Topics are repeated |
| **Case description** | • Focuses on the shelter as the "case" including information (e.g. annual intake, type of organization, surgical volume, etc) pertinent to the consultation topic<br>• Provides the context for the consult and a summary of specific observations made in a manner that illustrates the candidate's ability to systemically gather information/data<br>• Includes or addresses the need for basic data and statistics | One or more of the following:<br>• Provides inadequate information about the shelter<br>• Does not provide context for consult<br>• Excludes observations of relevance to the topic and/or includes more than one irrelevant observation<br>• Observations made/presentation of information does not indicate systematic approach to consult<br>• Does not include data or statistics or justification for their absence |
| **Outcome** | • Provides a summary assessment<br>• Discusses specific recommendations including suggested resources/training<br>• All observations mentioned in the description that are deficiencies are addressed with a specific recommendation for remediation | One or more of the following:<br>• Fails to provide summary assessment<br>• One or more deficiencies noted in case description does not have a corresponding recommendation for remediation (e.g. not identified as a problem)<br>• Recommendations made do not address the deficiencies and/or are inappropriate for the context in which they are made and/or are inconsistent with published practices |
| **Implications/ applications** | • Provides a summary of follow-up including impact of recommendations<br>• Provides summary/explanation of the relevance of the consult topic | • Fails to discuss impact of the recommendations and/or fails to adequately explain relevance or importance of the consult topic |

**The following rubric will apply to all short reports submitted for shelter protocols, regardless of the type of protocol described:**

| | Pass | Fail |
|---|---|---|
| **Shelter protocol topics** | • All 5 required short reports are submitted from the major shelter consultation areas described in the certification pathways document<br>• At least 1 protocol is for the management of an infectious disease | One or more of the following:<br>• Fewer than 5 reports are submitted<br>• No infectious disease protocol is submitted<br>• One or more topics covered are not from the major shelter consultations areas |
| **Case description** | • Focuses on the shelter as the "case" including relevant information (e.g. annual intake, type of organization, etc)<br>• Provides an overview of the relevance and importance of the disease or consult topic | One or more of the following:<br>• Provides inadequate information about the shelter<br>• Protocol is not applicable for or targeted to a population of animals<br>• Fails to identify the relevance of the topic for which the protocol was designed |
| **Outcome** | • Provides summary of what the protocol entailed and demonstrates rational stepwise approach to management<br>• Infectious disease protocols cover all aspects of management, including recognition/diagnosis of cases, treatment, environmental control and management, and other relevant aspects<br>• Protocol is consistent with published practices | One or more of the following:<br>• Fails to demonstrate a rational or stepwise approach<br>• Disease protocol only focuses on treatment or management but not both<br>• Outcome focuses on treatment or management of individual animals rather the entire shelter and population<br>• Protocol is inconsistent with recommended practices without an adequate justification for any deviations noted |
| **Implications/ applications** | • Provides a discussion of considerations regarding the development and implementation of the protocol as well as the context of the shelter for which it was designed<br>• Candidate shows the protocol to be relevant and appropriate for the issue and context to which it was applied<br>• Includes a statement verifying the candidate designed and implemented the protocol, including staff training and initial follow-up (not included in word count) | One or more of the following:<br>• No discussion regarding implementation or context is provided<br>• Protocol developed is irrelevant or inappropriate for the context in which it will be utilized<br>• Does not include a statement verifying the candidates direct creation and involvement implementation of the protocol |

**The following rubric will apply to all short reports submitted for outbreak management and response, regardless of the type of outbreak described:**

| | Pass | Fail |
|---|---|---|
| **Type of outbreak (e.g. causative agent)** | • Both required short reports are submitted for outbreak management of an infectious disease, including one of the major diseases (dermatophytosis, canine distemper virus, canine parvovirus, feline parvovirus) identified in the certification pathways document<br>• Only one SR may be for an "unknown" outbreak | One or more of the following:<br>• Fewer than two short reports are submitted<br>• Neither report is for one of the required major diseases<br>• Both outbreaks are described are for unknown diseases<br>• Report does not describe an outbreak of infectious disease |
| **Case description** | • Focuses on the shelter as the "case" including relevant information (e.g. annual intake, type of organization, etc)<br>• Provides a description of the outbreak including information on the shelter facility and operations directly relevant to the outbreak<br>• Demonstrates clear understanding of the steps required to investigate and manage an outbreak<br>• Provides a succinct list of what steps were taken to arrive at a diagnosis and control disease | One or more of the following:<br>• Does not focus on the shelter as the case (focus is on individual animals)<br>• Relevant information on the facility and operations is not provided<br>• Approach to investigation and management of the outbreak does not indicate a thorough understanding and/or rational clinical approach<br>• Summary of control measures is not provided and/or measures are inappropriate or inconsistent with published practices |
| **Outcome** | • Provides a summary of the outcome, including resolution of the outbreak and resumption of normal operations. | • Does not provide a summary of the outcome and/or summary does not indicate successful resolution of the outbreak (e.g. acceptance of endemic disease not suitable for submission for the requirement) |
| **Implications/ applications** | • Provides an assessment of the factors contributing to this specific outbreak<br>• Identifies which contributing factors were most critical to address with a brief justification as to why<br>• Discusses corrective actions for observational deficiencies identified that contributed to the outbreak | One or more of the following:<br>• Does not provide an assessment of factors contributing to the outbreak<br>• Fails to prioritize those most critical/relevant to transmission of the particular pathogen described<br>• Fails to provide recommendations consistent with published practices to address reported deficiencies |

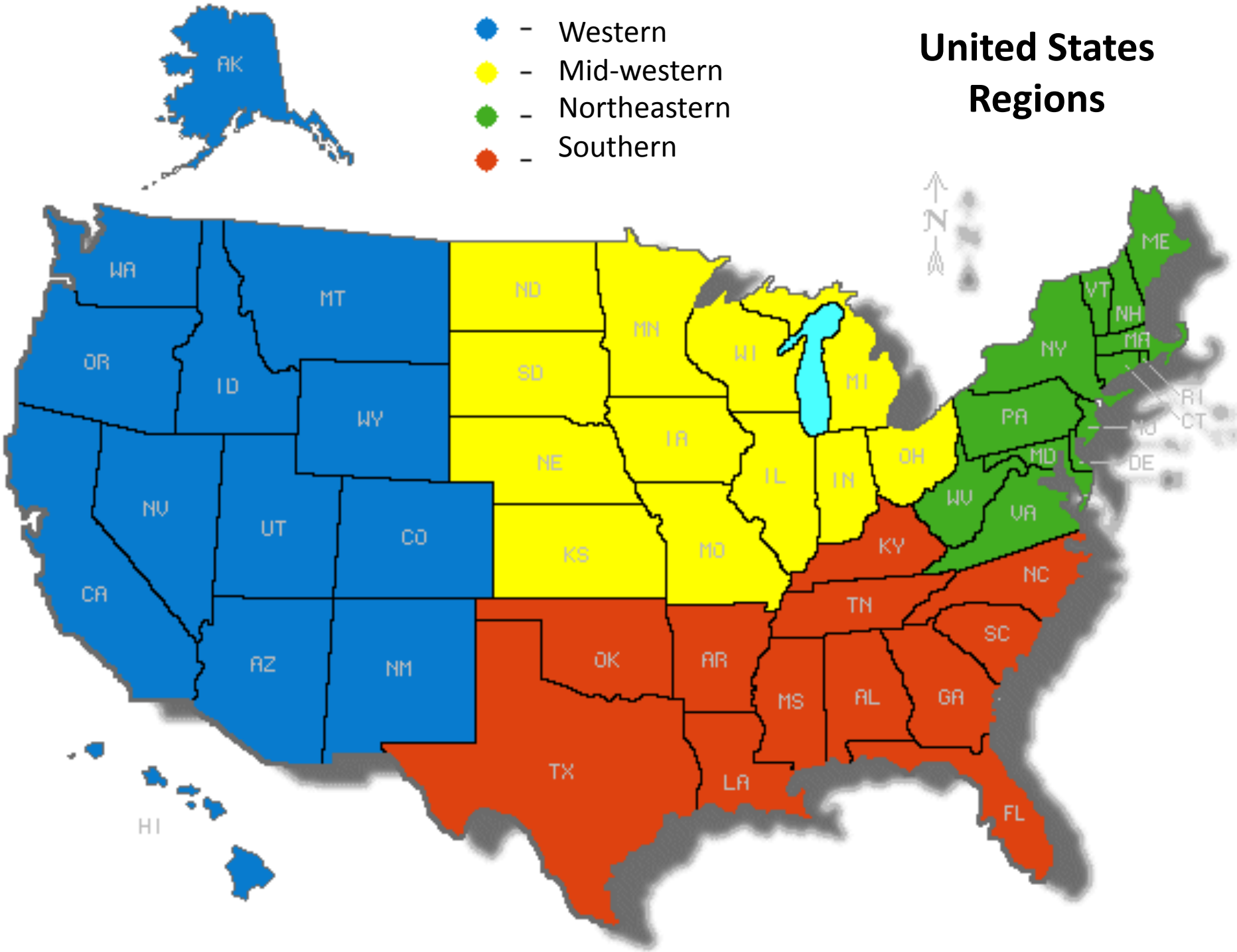
**The following rubric will apply to all short reports submitted for animal cruelty cases, regardless of the type of case described:**

| | Pass | Fail |
|---|---|---|
| **Animal cruelty topic** | • Both required short reports are submitted: one for single animal and one for multi-animal cases<br>• Topic is for a case that is legally recognized as a form of cruelty, abuse, or neglect in the jurisdiction in which it occurred<br>• Large scale, multi-animal case must include at least 10 animals or include extenuating circumstances for the lead organization that warrant inclusion as a multi-animal case (e.g. seizure of 8 neglected horses by an agency with limited equine capacity) | One or more of the following:<br>• One or both of the reports are missing or two reports of the same type are submitted (e.g. both single animal or both multi-animal)<br>• Large scale case submitted does not meet the minimum number of animals and/or does not provide adequate justification of extenuating circumstances to warrant inclusion<br>• Topic(s) submitted do not pertain to a legally recognized form of cruelty, abuse, or neglect (e.g. psychological abuse) |
| **Case description** | • Demonstrates familiarity/competency with the handling of animal cruelty cases<br>• Includes discussion of the specific aspects of a legal case – documentation, gathering evidence, maintaining chain of custody, communication with law enforcement and expert witness testimony (if applicable)<br>• Information on examination, diagnosis, and treatment/management of the animal(s) should be sufficient to indicate humane care was provided but is not the focus<br>• Multi-animal cases include summary of SOPs for documentation and health care (SOP must be specific to the type of case) and include a description of necessary resources for response as well as temporary sheltering provided | One or more of the following:<br>• Proper procedures for documentation of evidence not followed or described<br>• Inadequate animal care provided<br>• Lack of standard protocol or indication as to resources and housing for multi-animal cases<br>• Deficiencies in SOPs (e.g. inconsistent with recommended practices) due to financial or other limitations are not discussed/justified |
| **Outcome** | • Discusses both animal(s) outcome and status of the case<br>• Successful prosecution or known outcome not required but should be discussed in context of how case was handled<br>• Treatment of individual animal(s) | One or more of the following:<br>• Fails to discuss outcome or context of case<br>• Animal euthanized without forensic necropsy or otherwise lost to follow-up with insufficient documentation of evidence |

| | | |
|---|---|---|
| | not necessary *per se* if a forensic necropsy and appropriate documentation and gathering of evidence was performed<br>• For multi-animal cases: general animal outcome (placement, euthanasia, etc) and case outcome must be discussed<br>• Includes information on the holding and evidentiary requirements for the animals in the case | |
| **Implications/ applications** | • Outlines clinical reasoning behind the documentation and treatment of case(s) in context of applicable law (e.g. elements of crime such as failure to provide food or water, etc)<br>• Summarizes relevance of handling of this case to other similar cases | One or more of the following:<br>• Fails to demonstrate/outline clinical reasoning<br>• Treatment and/or documentation is not considered within the context of applicable law<br>• Applicability of this case to other similar cases is not discussed |

**The following rubric will apply to all short reports submitted for disaster response, regardless of the type of disaster described:**

| | Pass | Fail |
|---|---|---|
| **Disaster topic** | • Real-life or desktop exercise responding to a disaster is described, including a summary of the candidate's role in disaster management and response<br>• Both natural and man-made disasters are acceptable for inclusion but must be distinct from multi-animal cruelty cases | One or more of the following:<br>• Experience described is not directly related to disaster management or response<br>• Candidate's role is not clearly specified<br>• Topic selected for inclusion is better defined as a multi-animal cruelty case |
| **Case description** | • Provides an overview of the type of disaster, role of the responding agency, candidate's role in the response and/or training relevant to disaster management and response, and information about the agency and timeline<br>• Includes a summary of the overall structure and management (including communication) of the disaster in the context of a collaborative community response<br>• Explains relevant operational and medical aspects of the organization's and individual's roles, including standards of care, safe animal handling, and control of infectious disease in the context of emergency sheltering<br>• Demonstrates a clear structure for response and advanced planning | One or more of the following:<br>• Fails to provide a summary of candidate's role<br>• Missing information on the type of disaster, responding agency, or timeline<br>• Does not indicate structure and management of the disaster or indicates a lack of advanced planning and/or community collaboration<br>• Does not address relevant operational and medical aspects of the response either through discussion of the individual's or agency's role in providing such services or by specifying what was delegated/assigned to other individuals or agencies |
| **Outcome** | • Provides a summary of the scope of operations, resolution of response activities and on-going post-disaster needs or plans, including return to regular operations. | One or more of the following:<br>• Fails to indicate the scope of operations and/or timeline<br>• Does not indicate completion of the response and/or return to regular operations |
| **Implications/ applications** | • Discusses the different roles and responsibilities of organizations and individuals in an agency during a disaster; demonstrates an understanding of how/where this fits in to the larger response.<br>• Specifies pre-disaster planning or recognizes the need to facilitate optimal response and management. | One or more of the following:<br>• Inadequate discussion of roles and responsibilities relevant to disaster response and/or lack of context within overall efforts<br>• Does not discuss planning needed for successful management |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