

These documents were developed to help with the challenge of convincing non-sheltering or non-medical professionals, such as grantors, politicians, regulators, and board members to interact with the guidelines.

To help overcome the barriers created due to the length and level of detail, ASV has created a series of one-page highlight documents for each section, endorsed by those section's authors, that presents information targeted for fundraisers or those setting policy for shelters through boards of directors or local governments. These section highlights supplement the larger document, which is always open access for those desiring more detail, and can be used alongside our [interactive checklist](#) to help shelters and other animal welfare organizations elevate their external advocacy on their path to improving the overall wellbeing of animals in their care.

Introduction	2
Management and Record Keeping	3
Population Management	4
Animal Handling	5
Facilities	6
Sanitation	8
Medical Health	10
Shelter Surgery	12
Forensics	13
Behavior and Mental Well-Being	14
Euthanasia	16
Animal Transport and Relocation Programs	17
Disaster Response	19
Public Health	21

Highlights of

The Guidelines for Standards of Care in Animal Shelters, Second Edition (2022)



Introduction

The Association of Shelter Veterinarians' (ASV) Guidelines for Standards of Care in Animal Shelters was originally published in 2010. This second edition, published in 2022, incorporates important updates based on the growing body of animal sheltering science and recommendations rooted in practical experience. These Guidelines were written for organizations of any size or type who provide temporary housing for companion animals.

- The term *shelter* used here includes foster-based rescues, nonprofit humane societies and SPCAs, municipal animal services facilities, and hybrid organizations. The Guidelines are also applicable to any organization that routinely cares for populations of companion animals, including sanctuaries, cat cafés, vet clinics, pet stores, dog breeding operations, research facilities (including universities), and service, military, or sporting dog organizations.
- The term *personnel* is used here to include all paid and volunteer team members caring for animals in shelters. This document is intended to guide all personnel, including administrative, medical, behavior, and animal care staff; volunteers; foster caregivers; sole operators; and those filling any other role that supports animal well-being.

The Guidelines are not a detailed manual for shelter operations. Rather, the aim is to provide guidelines for the establishment of standards of care based on the animals' needs, while allowing shelters to determine exactly how those needs are met. The organization's mission or mandate, resources, challenges, and community needs will impact the options available. The document's focus is limited to the care of cats and dogs; similar operational principles can be applied to meet the unique needs of other species.

Each Guidelines section contains key actionable statements which are also available as a checklist on the shelternet.org website. The key statements use an *unacceptable*, *must*, *should*, or *ideal* format.

- *Unacceptable practices* need to be avoided or prevented without exception
- *Must practices* are necessary to ensure humane care
- *Should practices* are strongly recommended, and compliance is expected in almost all circumstances
- *Ideal practices* are implemented when resources allow

The ASV recognizes that each organization is uniquely situated and faces challenges that may impact their ability to implement the practices recommended. The ranked format of statements allows organizations to set priorities for improving their operations and facilities by identifying those most critical to animal health and welfare.

The key actional statements alone are not sufficient to guide policies and protocols. The document provides additional recommendations and valuable context for understanding the intended purpose of these statements. The document should be read in its entirety because concepts build upon one another. The references and appendices provide access to more information as well as the science and research behind specific recommendations.

This document is based on the Five Domains Model, an approach to assessing animal welfare that puts focus on creating opportunities for positive experiences in addition to mitigating negative ones within the domains of nutrition, environment, health, behavior, and mental state. This framework keeps animal needs as the guiding principle behind all recommendations.

The ASV offers this document as a tool to help shelters connect to expert guidance and measure themselves against a common standard, to help personnel find compassion satisfaction, to solidify the shelter's role in supporting their community, and to elevate the welfare of animals in their care. Shelters should be aware that state and local laws and regulations may supersede the recommendations made here.

See the [full guidelines for references and supporting documents:](https://jsmcah.org/index.php/jasv/issue/view/2)
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Highlights of

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1. Management and Record Keeping

1.1 General

Shelters must have a clearly defined mission or mandate, adequate personnel, up-to-date policies and protocols, a system for training and supervising personnel, and management practices aligned with these guidelines. A community needs assessment can help identify what services are most needed. Strategic planning is also helpful. Administrators are encouraged to consult industry-specific professional organizations for guidance on best practices and to learn from the experience of others in the field.

1.2 Management structure

Shelters must have a clearly defined organizational structure that outlines accountability, responsibility, and authority for management decisions; this is essential for understanding roles and responsibilities and supporting clear communication. Because animal health and welfare is woven into every facet of shelter operations, veterinarians should be integrally involved with this process. Decisions involving the allocation of resources should only be made by those with the appropriate knowledge, training, and when applicable, credentials.

A formal relationship with a veterinarian, preferably with training or experience in shelter medicine, must be in place to ensure oversight of medical and surgical care in the shelter. In the United States, veterinary practice is defined by state or territorial practice acts that generally cover the diagnosis and treatment, prescription of pharmaceuticals, surgery, and the tasks that other personnel may perform under direct or indirect veterinary supervision. Shelters can maximize capacity for medical services by using veterinary technicians and other personnel to the extent of their capabilities and as regulations allow, and by providing veterinary care via telemedicine.

1.3 Establishment of policies and protocols

Organizational policies are a framework of high-level decisions that ensure operations remain consistent with the shelter's mission and priorities. Shelter policies help ensure that animal needs do not overwhelm available re-sources (see Population Management). Important shelter policies include intake, treatable conditions, euthanasia, adoption, transport, and community animal services.

Shelter protocols are critical tools that ensure consistent daily operations in keeping with organizational policies. Protocols must be developed and documented in sufficient detail to achieve and maintain the standards described in this document (see Appendix B) and should be reviewed and updated regularly. All personnel

must have access to up-to-date protocols and management must routinely monitor and ensure compliance with protocols.

Shelters are obligated to comply with all local, state, and national regulations, which need to be reviewed regularly. Existing regulations may represent outdated practice or lower standards of care and can restrict or even conflict with current best practices. When implementation of these Guidelines does not align with government regulations or policies, shelters are encouraged to support endeavors for legislative change.

1.4 Training

Effective training of paid and unpaid staff and volunteers is necessary to ensure safe and humane animal care and the safety of people. Shelters must provide training for each task, and personnel must demonstrate skills and knowledge before proficiency is assumed. Documentation of training should be maintained and reviewed regularly, with ongoing feedback. When licensing or certification is required to perform specialized duties, personnel performing these tasks must be credentialed. Continuing education must be provided for all personnel to improve skills and maintain credentials. Shelters must provide all personnel the information and training needed to recognize and protect themselves against common zoonotic conditions (see Public Health), as well as proper training in basic animal handling skills, animal body language, and bite prevention strategies.

1.5 Record keeping and animal identification

Animal identification and maintenance of animal records are essential for shelter operations and must adhere to regulatory requirements. Software systems designed for animal shelters should be used for record keeping to better manage resources, schedules, and shelter processes. The software should be able to generate basic population level reports as well as individual animal records. Each animal must have a unique identifier and individual record established at or prior to admission. Shelter software programs typically generate a 'kennel card' that can be displayed on the animal's primary enclosure for easy reference. A means of identification also should be physically affixed (e.g., collar and tag) or permanently inserted (microchip). Records also must be maintained for animals in foster care and other off-site housing locations. Essential elements of an animal shelter record are shown in Table 1.1.

*See the full guidelines for references and supporting documents:
<https://jsmcah.org/index.php/jasv/issue/view/2>*

Highlights of

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2. Population Management

2.1 General

Shelters must practice active population management, which is the process of intentionally and efficiently planning services for each animal in the shelter's care. All shelters have limits to their ability to provide care, and these limitations define the number and type of animals for which an organization can provide humane care, also known as the organization's **capacity for care**. Working to maintain the population within the shelter's capacity for care has been linked to decreased length of stay (LOS), decreased disease and euthanasia rates, and increased live outcomes.

2.2 Determining capacity for care

The most visible factor in determining the shelter's capacity for care is housing capacity, including in-shelter enclosures as well as foster homes and off-site housing. Housing units that are too small or otherwise inappropriate cannot be included.

The organization's capacity is also determined by shelter personnel, resources, and available outcomes. Trained personnel must be scheduled to meet daily animal care needs and efficiently and effectively accomplish each critical task. Animals with medical and behavioral challenges may need more care time per day and may also require services from personnel with advanced skills or credentials. Foster programs also must have sufficient personnel to provide support to foster caregivers and animals.

2.3 Operating within capacity for care

2.3.1 Admission planning: When appropriate, admission policies should prioritize retention over shelter intake. Owners may be able to keep their pet if given access to services, supplies, or information. Admission must be balanced with the ability to provide appropriate outcomes, minimize LOS, and ensure the shelter remains within its capacity for care. Intake by appointment can be used to control the flow of animals into the shelter. Organizations impacted by unpredicted intakes (e.g. disasters, large-scale investigations) must have a plan to flex their operations to increase their capacity for care.

2.3.2 Outcome planning: Every attempt must be made to locate a lost animal's owner, including careful screening for identification and microchips, in the field and at the time of intake. Shelters should remove barriers to local outcomes by providing accessible and convenient open hours; adoption and reclaim services in languages spoken by the community; affordable adoption and reclaim fees; and adoption and outreach events that reach the entire community.

2.3.3 Length of stay: The number of animals a shelter has in its care on any given day is a product of the number of animals it admits and the length of time they stay in the shelter's care (i.e. LOS).

$$\text{Average Daily Population} = \text{Average Daily Admissions} \times \text{Average LOS}$$

Caring for fewer animals at a time allows shelters to improve welfare and creates the capacity to provide care for animals who require longer stays.

2.3.4 Pathway planning: LOS can be minimized through effective pathway planning. Pathway planning is a proactive process that anticipates the services and care an animal will require to achieve an appropriate outcome, with consideration to available housing, personnel, resources, and the likelihood of achieving the outcome while maintaining good welfare. Planning ahead prevents needless delays that add days to a shelter stay.

2.3.5 Population rounds: The entire shelter population, including animals housed in foster or off-site, must be regularly assessed by knowledgeable personnel with decision-making ability and authority. The population rounds team answers the following for each animal: How are you doing? What is your pathway? Are there updates or concerns that change this pathway? What are your next steps?

Additionally, all animals physically in the shelter must be monitored daily to identify housing, care, or service needs to determine whether the shelter is within their capacity for care. A shelter animal inventory, including all animals in foster care, should be taken and reconciled daily.

2.4 Monitoring population data

At a minimum, shelters must track monthly intake and outcome type for each species by age group. LOS data should also be regularly analyzed to identify bottlenecks, mismatched resources, and capacity for care concerns. Population level data should be reviewed and analyzed regularly, and ideally shared with other community organizations directly or through national databases such as Shelter Animals Count.

Outcome-based metrics do not account for quality of life or animals still in the shelter's care. Live release rates or save rates must be evaluated in the context of animal welfare and cannot be used alone as a measure of success. Aversion to euthanasia is not an excuse for crowding and poor welfare.

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Highlights of

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3. Animal Handling

3.1 General

Safe and humane handling is an essential part of supporting animal well-being. Handling must be humane and appropriate for the individual animal and situation. This requires ongoing observation and assessment of behavior with adjustments to the animal's handling plan as needed; appropriate choice and management of environment; sufficient number of trained personnel; and suitable equipment readily available and in good working condition. Potential stressors should be minimized. High-value treats and toys can engage, distract, and reward animals before, during, and immediately after handling. When needed, medication should be used to minimize fear, anxiety, and stress and enhance safety during handling.

3.2 Restraint

Resistance to handling is almost always the result of fear or anxiety. Improper or forceful use of restraint techniques and equipment can escalate a high stress situation, increasing the likelihood of animal or human injury. The minimal amount of physical restraint needed to accomplish necessary animal care must be used.

Forceful restraint methods include scruffing cats or pinning dogs to the ground. These methods must not be used, except in extraordinary circumstances such as situations in which a human or animal is in immediate danger, and other options are not possible. For example, a short period of forceful restraint may be required for an animal that needs to be captured and removed from an unsafe environment. Techniques that rely on dominance theory, such as alpha rolls, are inhumane.

Alternatives to forceful restraint include distraction with food or toys, positive reinforcement, use of towels, blocking visual stimuli, sedation, and proper use of humane handling equipment. Selecting a quiet environment, preparing all necessary materials in advance, and involving a person the animal has a bond with can help minimize fear, anxiety, and stress and reduce the restraint required. If repeated handling is required, training the animal to allow common tasks or to cooperate with handling equipment such as the use of a muzzle is a valuable strategy. Use of sedatives or behavior medications can be the most humane and effective option for frightened, fractious, or feral animals for the delivery of necessary care.

Handling must minimize the risk of escape. Attention to security of enclosures and carriers, building and vehicle exit points, and minimizing fearful stimuli are important during daily care and when moving animals inside and outside the facility.

3.3 Handling equipment

Using humane handling equipment minimizes animal stress during necessary procedures and daily care, prevents escape, and promotes animal and human safety. For example, rather than carrying a cat in their arms, personnel can transport cats through the shelter in carriers. A variety of humane equipment that facilitates animal handling with minimal or no hands-on contact must be available. Handling equipment also has the potential to increase fear or injury if used in a forceful manner or not maintained in good working order.

Control poles must only be used when alternatives for handling dogs are insufficient to protect human safety. To prevent the need for daily removal of dogs that are not deemed safe to walk on a leash, double compartment housing is recommended. It is unacceptable to use control poles on cats or small dogs. Any restraint method, including control poles, cat tongs, or slip-leads, that causes significant compression of the neck or thorax can cause substantial or life-threatening injury and profound emotional trauma in cats. Animals for whom handling equipment is necessary for long-term safe handling should receive positive reinforcement training to minimize fear, anxiety, and distress during its use.

Aggressive behavior between dogs can occur unexpectedly. Shelters must have written protocols and readily accessible equipment for breaking up dog fights to prevent human and animal injury. Equipment may include air horns, whistles, citronella spray, blankets, break sticks, panels, and water hoses (see Behavior).

3.4 Handling feral cats

Specific handling procedures for feral cats include the use of live traps, cat dens, squeeze cages, trap dividers, purposely designed cage nets, and multi-compartment enclosures. This equipment permits personnel to safely sedate or anesthetize extremely fearful cats with injectable medication, to provide food and sanitation, to transfer cats from one enclosure to another, and to release outside, all without hands-on handling.

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Highlights of

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4. Facilities

4.1 General

While community-centered sheltering practices and foster programs are reducing the demand for in-shelter care in some areas, providing housing for animals remains an essential part of sheltering operations. The quality and set-up of animal housing impacts every aspect of their experience at the facility and plays a pivotal role in managing disease.

4.2 Primary enclosures

A primary enclosure is an area of confinement such as a cage, kennel, or housing unit where an animal spends the majority of their time. The primary enclosure must be structurally sound and maintained in safe, working condition to prevent injury and escape. Primary enclosures with wire-mesh bottoms or slatted floors are unacceptable because they can cause pain, discomfort, and injury. Enclosure sides that are entirely wire or chain-link increase the risk of disease transmission, animal stress, and injury. Solid barriers are recommended where animal contact can occur. Cages or crates intended for temporary confinement or travel are unacceptable for use as primary enclosures.

4.2.1 Individual primary enclosure size: Animals must be able to make normal postural adjustments within their primary enclosure, including standing and walking several steps, sitting normally, laying down at full body length, and holding the tail completely erect. Individual adult cat housing that is less than 8 ft² (0.75 m²) of floor space is unacceptable. Ideally, individual cat housing provides 11 ft² (1.0 m²) or more of floor space. For dogs, the minimum recommended kennel dimensions differ widely based on body size. The primary enclosure must allow animals to sit, sleep, and eat away from areas of their enclosures where they defecate and urinate. Housing with two or more appropriately sized compartments provides this separation and facilitates spot cleaning, reduces fomite transmission, and increases personnel safety (see Sanitation). Multi-compartment housing is particularly important for newly admitted, fractious, quarantined, sick, and juvenile animals. Cat housing units should be elevated off the floor and should face away from each other or be spaced more than 4 ft (1.2 m) apart. Primary enclosures with indoor-outdoor access are ideal for most animals, especially when held long term.

4.2.2 Primary enclosure set-up: The set-up of the enclosure and care items provided are important in meeting the welfare needs of shelter animals (Figures 4.1 & 4.2). The enclosure needs to be large enough to accommodate the necessary set-up without impeding the animal's ability to move or stretch. All dogs should be given the opportunity to hide within their enclosure, especially

young, small, fearful, and anxious animals. A soft resting place that elevates animals off of the floor should be made available for all animals to ensure comfort, keep animals dry, and support thermo-regulation. All cats must be given the opportunity to hide within their enclosure. To ensure that cats can display natural behaviors, feline primary enclosures must allow scratching, climbing, and perching. Cats must have a litter box large enough to comfortably accommodate their entire body and allow for proper posturing.

4.2.3 Additional considerations: Appropriately sized, enriched primary enclosures are critical for all animals regardless of their length of stay (LOS) in the shelter. Housing that provides animals with additional space, enrichment, and choice within their enclosure must be provided for animals remaining in the shelter long term (i.e. more than 2 weeks). Foster care, while beneficial for many animals, can be particularly valuable when animals require a longer LOS, such as protracted legal holds or long-term medical care. Animals for whom handling poses an acute welfare or safety risk need to be housed in enclosures that allow humane, touch-free daily care (i.e. multi-compartment). It is unacceptable to house animals in an enclosure that would require the use of forceful animal handling equipment for daily cleaning and care (see Animal Handling). Except for a brief, emergency situation, it is unacceptable to house animals in facility spaces not intended for animal housing (e.g. bathrooms and hallways). Tethering is an unacceptable method of confinement for any animal.

4.3 Cohousing

Cohousing or group housing (keeping more than one animal in an enclosure) can improve animal welfare by facilitating social contact with other animals of the same species but is not suitable for every situation. Mental and physical benefits need to be carefully weighed against health and safety risks.

4.3.1 Cohousing enclosure set-up: The optimal space requirements for cohousing vary based on species, as well as size, activity level, and behavior. A minimum of 18 ft² (1.7 m²) of floor space per adult cat should be provided for cohousing.

Appropriate resources (e.g. food, water, bedding, litter boxes, elevated perches, hiding places, and toys) must be provided to minimize competition or resource guarding.

4.3.2 Selecting animals for cohousing: Cohousing requires careful selection of animals by trained personnel; unrelated or unfamiliar animals must not be cohoused until health and behavior are assessed. Monitoring after introduction is essential

to recognize signs of stress or negative interactions (e.g. guarding food or other resources). Animals predicted to have longer LOS may benefit most from cohousing. No more than six adult cats should be cohoused; pairs are preferred for dogs but no more than two to four adult dogs should be cohoused in a primary enclosure. Housing young puppies and kittens with their mother and littermates is important for physical and emotional development. Because of their susceptibility to infectious disease, puppies and kittens under 20 weeks of age must not be cohoused with unfamiliar animals except when the benefits outweigh the risks for all animals involved.

4.3.3 Monitoring cohoused animals: Monitoring, especially after a new animal is introduced into a group and during feeding time, is critical to ensure that all animals are benefitting. In addition to daily monitoring for resource guarding and other signs of social conflict, regular physical examinations including measurement of body weight can ensure that cohoused animals are not suffering due to unrecognized social conflicts. Not all animals are well suited to cohousing.

4.4 Isolation housing

Isolation housing must meet the medical and behavioral needs of ill animals. Separate isolation areas must be provided for animals with different highly contagious diseases to prevent coinfections with multiple pathogens. Isolation rooms must be designed so that they do not open directly into another animal housing area. Isolation rooms must be clearly labeled to indicate current use and necessary precautions and should have access to a sink for handwashing and be set up with space for treatments, examinations, and storage for dedicated supplies. Ideally, isolation rooms are designed with windows to allow observation of animals from a corridor without needing to repeatedly enter the room.

4.5 Surfaces and drainage

Primary enclosures and all animal areas must be able to be fully sanitized and withstand repeated cleanings. Nonporous surfaces are important in cages and kennels, as well as high traffic areas such as walkways or playrooms. A sealed, impermeable surface, such as resinous epoxy or resinous urethane, is recommended for shelter flooring. Linoleum or tiles may be acceptable flooring in low-risk areas but are less durable and more challenging to sanitize. Drainage systems must be designed to prevent standing water and cross-contamination of waste between housing units. Outdoor portions of primary enclosures must have nonporous, durable floors that allow for sanitation and proper drainage.

4.6 Heating, ventilation, and air quality

To ensure humane and comfortable conditions, environmental temperature must be maintained between 64°F (18°C) and 80°F (26.6°C). The relative humidity should be maintained between 30% and 70%. Ventilation must not compromise recommended ambient temperatures. The standard recommendation for ventilation of animal facilities is between 10 and 20 room air exchanges

per hour with fresh air but can vary with population density. To improve ventilation, barred enclosure doors are recommended over plexiglass doors or fully enclosed units. Air from isolation areas should be exhausted outside and not recirculated.

4.7 Noise control

Noise levels that are uncomfortable for humans are likely to be very uncomfortable for animals (see Behavior). Noise and vibration-producing equipment and mechanical systems should be located as far away from animal housing as possible. Prevention and mitigation strategies to minimize the impact of noise can include arrangement of cages; material selection for cages, doors, and latches; and decisions about where to house individual animals. Facility design, environmental management, enrichment strategies, and behavior modification can dramatically reduce noise levels related to barking.

4.8 Lighting

Facilities should be designed to offer as much natural light as possible. Exposure to sunlight in a manner that maintains daily circadian rhythms improves health and well-being for animals and for shelter personnel. When artificial light is used, it should approximate natural light in duration and intensity to support circadian rhythms. If it is necessary to keep lights on after dark for safety or by regulation, a fixture that emits red-orange light is preferred.

4.9 Enrichment spaces

Dedicated indoor or outdoor enrichment, exercise, and training spaces need to provide protection from the elements and limit exposure to disease and parasites. All enclosed outdoor spaces should have double door entry points to reduce the risk of escape.

4.10 Intake spaces

Shelter admission areas should be separated from adoptions and other client-facing areas. If a different space is not available, placing a divider within the lobby or scheduling intake appointments outside of adoption hours can functionally separate admissions from adoptions.

4.11 Drop boxes

The use of 'drop boxes' where live animals are placed in unmonitored receptacles for later intake is unsafe and unacceptable.

4.12 Facility design and planning

When designing a new facility or undertaking a significant renovation, shelters should consult with a shelter veterinarian and an architect experienced in shelter design. The movement of animals, people, and supplies should be incorporated into the design. Shelters must avoid large warehouse type rooms; multiple smaller rooms with fewer primary enclosures per area are strongly preferred.

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Highlights of

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5. Sanitation

5.1 General

Maintaining a sanitary environment is an integral part of supporting health and welfare and minimizing the risk of infectious disease. A clean shelter increases the comfort level of the animals and personnel and presents a positive image of the shelter to the public. Protocols for proper sanitation are essential for any sheltering program.

5.2 Definitions

Cleaning is defined as the manual removal of urine, fecal matter, food waste, hair, bodily fluids, and other debris from the environment. **Disinfection**, typically by the application of a chemical product to a clean surface for a specific period, is the process of killing most of the remaining pathogens. **Sanitation** refers to the combination of cleaning and disinfection. **Sterilization** is the destruction of all pathogens (e.g. viruses, bacteria, and fungi), including spores, and is generally reserved for surgical instruments and other equipment necessary for sterile procedures.

5.3 Sanitation practices

Shelters must have a sanitation plan for all locations in which animals are present, including enclosures, common-use areas, foster homes, and outdoor spaces. Sanitation protocols are used to describe which areas to sanitize, which products to use, and how to use them. Sanitation protocols should be based on pathogens, routes, and risk of transmission. Sanitation protocols must include steps for removal of organic matter, cleaning, and disinfection. Ideally, sanitation protocols will be developed in consultation with a veterinarian experienced in shelter medicine. Those making decisions about sanitation protocols need to be familiar with the active ingredients of common disinfectants, target pathogens, and potential routes of transmission. An increasing number of resources provide guidelines tailored to the shelter environment.

Sanitation products must be diluted and used according to label instructions or published recommendations. Some disinfectants such as quaternary ammonium products and bleach can be harmful when animals contact or ingest them, even at recommended dilutions, so removing the residue is an essential step. Disinfectants used in animal areas must be effective against non-enveloped viruses, such as parvovirus, panleukopenia, and calicivirus. Several studies have found that quaternary ammonium-based products, which are commonly used in shelters and veterinary clinics, do not eliminate non-enveloped viruses despite label claims. Other products, such as accelerated hydrogen peroxide, potassium peroxy mono-sulfate, and bleach products, are effective

against non-enveloped pathogens and dermatophytes at the appropriate concentration and contact time. Adequate sanitation cannot be accomplished by using water alone, by spraying and quickly wiping off a disinfectant, or by using a disinfectant with no detergent properties (i.e. bleach) without cleaning first. Alternative methods of disinfection such as ultraviolet light, steam, freezing, and air filtration systems must not be relied on as the sole means of sanitation in shelters.

Industry guidelines recommend a minimum of 9 minutes per animal per day for routine cleaning of enclosures. The actual time needed to accomplish daily sanitation will vary based on population, housing size and type, specific products and protocols, and facility use. Calculating how long proper sanitation typically takes per housing unit can provide better estimates of sanitation staffing needs. Sanitation should proceed in an order that minimizes both the risk of pathogen transmission from infected animals and the exposure of vulnerable animals. In general, the recommended order of cleaning and care, from first to last, is 1) healthy puppies and kittens, 2) healthy adult animals, and 3) unhealthy animals. Shelters may need to alter sanitation protocols when disease rates increase or a more difficult to kill pathogen is identified. During an outbreak, protocols should be reviewed; common mistakes include incorrect choice of disinfectant, under- or over-dilution, not observing contact times, etc.

5.3.1 Sanitizing primary enclosures: Enclosures must be completely sanitized before being occupied by a different animal. This process, also known as **deep cleaning**, is important even if an animal has only occupied a primary enclosure for a short time, the enclosure is not visibly soiled, or the animal appears healthy. Sanitation is indicated when enclosures are heavily soiled, an infectious disease is diagnosed and on a regular schedule based on use. It is unacceptable to spray primary enclosures while animals are inside them; animals nearby also need to be removed when overspray is likely. Adequate drainage is essential for animal housing areas; drainage systems or operational practices (e.g. squeegee and towel drying) must prevent the accumulation of standing water. Dry surfaces are required before animal use. Ideally, mopping is avoided in animal housing areas, as mops may harbor pathogens. However, mopping may be necessary when sanitizing animal enclosures and ward hallways that do not have drains. When mopping cannot be avoided, personnel must ensure that both cleaning and disinfection of the floor surface occur. Mop heads require disposal or sanitation and drying between uses.

5.3.2 Spot cleaning primary enclosures: When an animal will remain in their enclosure and it has not been heavily soiled, complete sanitation of the enclosure may not be necessary. Daily cleaning is essential, but can often be accomplished using a spot cleaning method. During spot cleaning, an animal may remain in their enclosure or be given out-of-kennel enrichment. Soiled bedding, old food, urine, and feces are removed, the area tidied, and food and water resupplied (Table 5.1). Spot cleaning is typically less stressful for animals as it requires less animal handling and does not remove familiar scents.

5.4 Reducing pathogen spread

Care to avoid the spread of disease through fomites (contaminated objects including hands, work clothing, food bowls, litter boxes, toys, etc.) is important during sanitation and when interacting with animals in the shelter.

5.4.1 Personal protective equipment: Personal protective equipment (PPE) is a physical barrier that reduces the spread of disease when used properly. PPE should be selected based on specific pathogens and exposure risks within each population (see Public Health). Appropriate PPE should be used in each area and disposed of or sanitized before proceeding to care for other animals (Appendix C). Protective garments must be changed between handling each animal when there is a high risk for disease transmission. Staff training, adequate supplies, and facility set-up (e.g. location of trash receptacles) allow for proper use and removal of PPE. Personnel should wash hands after removing PPE.

5.4.2 Hand hygiene: Hand hygiene stations should be available in or near every area where contact with animals occurs. Ideally, hand hygiene stations are sinks that allow washing with soap and water and drying with single use towels. At a minimum, hand hygiene stations provide hand sanitizer with at least 60% alcohol. Because hand sanitizers are ineffective against some of the most concerning pathogens in shelters (e.g. parvovirus, calicivirus, and ringworm), hand sanitizers should not be relied on as the sole means of hand hygiene. Sanitation protocols must address hand hygiene for shelter staff, volunteers, and visitors.

5.4.3 Equipment and supplies: All items that come into contact with animals should be sanitized on a regular basis, whenever visibly soiled, and when in direct contact with bodily fluids. In disease outbreaks or when proper sanitation of supplies is not possible between animals, the use of disposable items may be warranted. Gloves, clothes, and shoes can serve as fomites, underscoring the importance of the proper use and replacement of PPE. Separate cleaning supplies must be designated for each shelter area or be sanitized prior to use in each area.

Transport cages and traps, as well as vehicle compartments used for animal transport, must be sanitized before being occupied by a different animal. Mobile equipment, such as rolling trash cans and carts, should be assigned to one area or be sanitized between

areas. Items with scratched, damaged, and porous surfaces are difficult or impossible to completely disinfect and should be used with caution or discarded between animals. All bedding and other textiles must be discarded or laundered and thoroughly dried when visibly soiled and before reuse with a different animal. Routine cleaning or laundering of bedding could fail to remove non-enveloped viruses and dermatophytes; discarding the items in question or using pathogen-specific laundry protocols is recommended. Automatic watering devices and water bottles should not be used if the watering valve cannot be sanitized before being used by another animal. Dishwashers have excellent mechanical washing action and attain high temperatures which destroy most pathogens but may not destroy non-enveloped viruses (e.g. parvoviruses). The best way to inactivate these viruses is through the application of a disinfectant to the dishes following the dishwasher cycle.

5.5 Other shelter areas

Foot traffic plays a role in fomite transmission throughout the shelter and grounds; dedicated boots that can be sanitized or disposable shoe covers should be used in potentially contaminated or protected areas, such as isolation and surgery. Footbaths are not practical and must not be relied on for infectious disease control in the shelter. Animal waste and bodily fluids must be removed from indoor common spaces as soon as possible; the area then needs to be sanitized properly. Feces must be removed from outdoor areas between animals or groups. To reduce parasite egg accumulation in the environment, daily removal of feces is acceptable; immediate removal is preferred. Outdoor areas around the shelter must be kept clean, recognizing it is impossible to disinfect gravel, dirt, and grass surfaces. Many shelters designate certain outdoor areas for use by specific animals, allowing closure of an area when needed while still preserving other areas for continued use. Access to areas that cannot be sanitized should be restricted to adult animals who have been vaccinated, dewormed, and appear healthy. Standing water should not be allowed to accumulate in or around the shelter.

5.6 Wildlife, rodent, and insect control

Rodents and insects may harbor pathogens that can spread to shelter animals through direct ingestion, contamination of pet food, or contamination of the environment. All food storage areas must be protected from wildlife, rodents, and insects. Properly storing food bags in sealed bins, promptly cleaning spills or waste, and resealing and refrigerating opened food containers (animal or human) can help mitigate infestations. Rodent and insect control solutions must be safe, humane, and effective. Integrated pest management plans are recommended.

*See the full guidelines for references and supporting documents:
<https://jsmcah.org/index.php/jasv/issue/view/2>*

Highlights of

The Guidelines for Standards of Care in Animal Shelters, Second Edition (2022)



6. Medical Health

4.1 General

Shelter medical care must begin at or before intake and continue throughout the shelter stay. Individual animal health must be addressed within the balance of decisions and practices that support overall population health.

6.2 Veterinary oversight and medical record keeping

A formal relationship with a veterinarian must be in place to ensure oversight of medical and surgical care in the shelter. Medications and treatments must only be administered by prescription or in accordance with written protocols provided by a veterinarian. Medication should only be prescribed when there exists a reasonable presumptive diagnosis, the ability to administer as directed, and a plan to monitor the course of disease. When drugs are used or dispensed, it must be done in accordance with federal and state regulations. Accurate medical records are essential and should include accurate identifying information; signalment (age, sex, species, and reproductive status); and a dated list of physical exam findings, vaccinations, diagnostic test results, procedures, and treatments.

6.3 Medical assessment

Collecting information about animal health before admission allows the shelter to offer medical services that can prevent the need for intake. When shelter intake is necessary, each animal must receive at least a cursory health assessment by trained personnel to check for signs of infectious disease or problems that require emergency medical care. The intake assessment must include confirmation of the animal's estimated age, sex, physical description, and the presence of any identification and microchips. Administration of core vaccinations (Table 6.1) and parasite prevention is typically paired with the intake assessment. A comprehensive physical examination by a veterinarian or trained personnel is ideally performed within 24 hours of intake. Screening tests can be a part of this assessment. Animals with signs of infectious disease at intake should be isolated until determined to be low risk to the population. Quarantines are appropriate only for animals with a history of direct, high-risk infectious disease exposure. Trained personnel must visually observe the health and well-being of every animal at least once every 24 hours, ideally before cleaning, so that food intake and condition of the enclosure, including feces, urine, or vomit, can be noted. Animals staying in the shelter long term should have a monthly exam by trained personnel and a veterinary exam at least every 6 months.

6.4 Essential wellness and preventive care

6.4.1 Vaccination: Shelters must have a written vaccination protocol developed under the supervision of the shelter's veterinarian. Shelter vaccine protocols differ from protocols used in private practice; key differences include an earlier and longer age range for juveniles, a shorter time span between vaccines, and different core and non-core products. Proper technique for vaccine administration is important for efficacy and safety. Recording the serial and batch number information in the medical record is required for rabies vaccines and is recommended for all vaccines in case of adverse reactions, recalls, or vaccine failures. Shelters must have protocols for recognizing, managing, and reporting adverse vaccine reactions.

6.4.2 Core vaccines in shelters: A core vaccine is one given to all eligible animals and is withheld only in extraordinary circumstances. For all core vaccines except rabies, shelters should use modified live virus or recombinant vaccines (MLV) rather than killed products because they provide a faster immune response.

Dogs: A subcutaneous (SC) MLV vaccine for canine distemper, adeno-, parvo-, and parainfluenza viruses (DAPP) is core for shelter puppies and dogs. An intranasal (IN) vaccine containing both *Bordetella* and parainfluenza virus (Bord/PI), with or without adenovirus, is also core for shelter puppies and dogs.

Cats: An SC MLV vaccine for feline viral rhinotracheitis, calicivirus, and panleukopenia viruses (FVRCP) is core for shelter cats and kittens. Feline IN vaccination for herpes and calicivirus has a similar efficacy to the injectable, but there is questionable reliability of IN vaccination against panleukopenia virus. Feral cats should receive all core vaccines at the time of spay-neuter, regardless of age.

Rabies: Eligible dogs and cats should be vaccinated against rabies before leaving shelter care. Rabies vaccines must be administered following state and local guidelines and the most recent Compendium for Animal Rabies Prevention and Control. Puppies and kittens that are too young for rabies vaccination may be adopted or transported with the recommendation that new caretakers provide vaccination when old enough.

6.4.3 Non-core vaccines: Non-core vaccines (e.g. Canine influenza, *Leptospira*, Lyme; Feline *Bordetella*, Chlamydia, leukemia virus, etc.) may be useful when prescribed by a veterinarian for specific animals, subpopulations, or in the face of diagnosed outbreaks. Many of these vaccinations are not fully effective for 10–14 days after the final dose.

6.4.4 Vaccine schedules: Adult animals must be vaccinated with core vaccines (except rabies) at or before intake (Table 6.1). Revaccination 2–4 weeks later is suggested for those still in shelter care. Animals housed in shelters should be vaccinated with core vaccines even if ill or pregnant, as the risks of not vaccinating outweigh the small risk of vaccination complications. Puppies and kittens housed in shelter facilities must begin core vaccinations at or before intake starting at 4 weeks old and must be revaccinated every 2 weeks until 20 weeks old. Housing litters in individual foster homes until they are old enough for spay-neuter and adoption can greatly reduce the risk of parvo, distemper, and panleukopenia.

6.4.5 Parasites: A shelter's parasite control program should be designed with the supervision of a veterinarian. All dogs and cats must be treated for roundworms and hookworms at intake, starting at 2 weeks of age. Parasite treatment reduces contamination of the shelter environment where animals and humans may be exposed. All shelters should have policies regarding testing, prevention, and management of heartworm disease. This policy may specify in-shelter prevention, treatment and management protocols, or a plan for referral of adopters to local veterinarians for testing or care.

6.4.6 Nutrition: Food that is consistent with the nutritional needs, health status, and species of the individual animal supports animal health and streamlines feeding protocols. Ideally, adult dogs are fed twice daily, and cats are fed multiple small meals or allowed to forage throughout the day. Healthy puppies and kittens as well as lactating and pregnant animals must be fed small amounts frequently or have food available through the day. When managing starved animals or those with unique nutritional needs, veterinary input must be sought. Food intake must be monitored daily.

6.4.7 Pregnant, nursing, and neonatal animals: Shelters should have a protocol for the care of pregnant, nursing, and neonatal animals, including whether an animal will be spayed or allowed to go to term (see Surgery). Shelters housing pregnant, nursing, or neonatal animals must ensure that additional disease prevention, nutrition, and stress reduction measures are taken. Housing pregnant and nursing animals in foster care provides significant medical and behavioral benefits.

6.5 Responding to health concerns

6.5.1 Pain management: Pain must be recognized and treated to alleviate suffering. Observation of behavior and knowledge of the causes of pain are the most accurate ways of assessing pain in animals. Several published scales are available to assess pain in animals. Protocols for the treatment of painful conditions should be created by a veterinarian. Pain control provided must be of an appropriate strength and duration to preempt or relieve pain. When pain can be anticipated, as with surgical procedures, pain control should be provided before the painful event. The use of

controlled drugs must be supervised by a veterinarian as required by regulatory statutes. Non-pharmacological approaches (e.g. presence of littermates, quiet environment, massage, physical therapy, heat, and deep bedding) can supplement pharmacologic interventions. Treatment of pain can include providing euthanasia.

6.5.2 Emergency medical care: An emergency medical plan must be in place to provide appropriate and timely veterinary care for any animal who is injured, in distress, or showing signs of significant illness. The plan should specify whether emergency services are provided on site or through an outside veterinary clinic. If the emergency medical plan cannot be implemented or fails to relieve suffering, the animal should be euthanized.

6.5.3 Responding to infectious disease: Animals with a suspected infectious disease must be isolated until diagnosis by a veterinarian or treatment determines them to be a low risk to the general population. The treatment and response plan for animals with mild to moderate or uncomplicated infections is based on clinical signs and often follows a standard protocol. When the number of cases increases above typical for the shelter, when signs are severe or not responding to treatment, and when a zoonotic condition is suspected, identification of specific pathogens should be sought. A necropsy should be performed if an animal dies from unexplained causes.

6.5.4 Outbreak response: During an outbreak, a risk assessment to identify potentially exposed animals must be performed based on the confirmed or suspected pathogen. Physical separation must be established between sick, exposed, at-risk, and unexposed animals. All at-risk animals should be monitored for signs of disease at least once a day. Depopulation, defined as euthanasia of an entire population or subpopulation, including healthy and unhealthy animals, is a last resort reserved for extraordinary circumstances.

6.6 Population health surveillance

Shelters should track animal population health trends and develop targeted strategies to address concerns. Increases in deaths or infections over time may indicate deficiencies in population management practices, such as operating beyond a shelter's capacity for care, lapses in preventive care protocols, or the need for targeted interventions.

6.7 Rehoming considerations

Adopters should be informed about any disease or condition known to be present at the time of outcome. Ongoing care for known medical conditions typically becomes the responsibility of the adopter, transport partner, or other caretaker of the animal, but may be provided by the shelter when regulations and policies allow.

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<https://jsmcah.org/index.php/jasv/issue/view/2>

Highlights of

The Guidelines for Standards of Care in Animal Shelters, Second Edition (2022)



7. Shelter Surgery

7.1 General

Shelters routinely sterilize (i.e. spay or neuter) shelter animals, owned pets, and community cats to decrease the local population of animals needing shelter services and improve individual animal health and welfare. Spay-neuter (S/N) is associated with a reduction in many nuisance and unwanted behaviors as well as increased life expectancy. In some jurisdictions, pre-adoption sterilization of dogs and cats is required by law. In almost all cases, it is safe and humane to spay dogs and cats at any stage of pregnancy. Keeping the uterus closed during and following the spay procedure allows the anesthetized fetuses to die humanely without the need for additional barbiturate injections. If a shelter is considering allowing animals to give birth, it is important to assess the availability of routine and after-hours emergency medical care, behavioral care, foster home capacity, live outcome options, and regional population implications.

7.2 Spay-Neuter

Shelters should sterilize all animals before adoption or ensure that they will be sterilized after their adoption. Spay-neuter can be safely performed in healthy animals as young as 6 weeks old and as small as 1.5–2 pounds (0.7–1 kg) body weight. If a shelter does not have the capacity to sterilize all animals prior to adoption without increasing length of stay, an acceptable alternative is to arrange post-adoption spay-neuter. Shelters must have a system for keeping track of unaltered animals and ensuring that surgery is completed in a timely manner.

Granting an exemption from a S/N requirement should only occur when performing the procedure puts the patient at significant risk. It is generally safe to sterilize patients in estrus or suffering from mild infections or other medical conditions, such as infectious respiratory disease or heartworm disease. In these cases, veterinarians must weigh the benefits and risks to that animal, others receiving surgery that day, the shelter population, and the community population. Shelter S/N policies need to follow all state and local ordinances regarding the timing of S/N with respect to legal holding periods.

7.2.1 Practices and protocols: Shelters that perform their own sterilization surgeries must follow the current ASV Veterinary Medical Care Guidelines for Spay-Neuter Programs. This document provides guidance on presurgical care, transport, anesthesia, pain

management, surgery, and postsurgical care.

7.2.2 Identifying altered animals: The placement of a permanent tattoo on the abdomen at the time of S/N is an accepted standard for indicating sterilization and strongly recommended for all animals. If an animal is lost or transferred to another owner without records, the tattoo can prevent unnecessary anesthesia or surgery. For community cats, removal of the tip of one ear is the accepted standard for indicating an animal is sterilized.

7.3 Other surgeries

Surgical procedures to address other medical concerns may also be performed onsite in shelters that regularly perform S/N surgery. These surgeries must adhere to the ASV Spay-Neuter Guidelines. Ideally, shelters without the capacity to perform these surgeries partner with outside organizations, specialists, or transport partners to obtain necessary care. It is critical that shelters pursue surgical treatment only when the appropriate pre- and postsurgical care can be provided, particularly following orthopedic procedures. In these cases, appropriate postoperative plans may require alternative housing plans. Ideally, orthopedic patients requiring extended care are not housed long term at the shelter.

7.3.1 Dentistry: Appropriate dental care considers individual patient health, surgical safety, and postoperative recovery needs including pain control, in the context of the shelter population. Medical records should document the dental exam, diagnostics, and treatments performed. Non-anesthetic dental probing, scaling, and polishing is unacceptable. Without sedation, significant dental concerns can be missed or inadequately addressed. The restraint required can cause significant animal and technician stress, and veterinary staff and the animal are put at risk of serious injury from sharp instruments or bites. Ideally, intraoral radiographs are taken in patients undergoing dental surgery to detect important concerns of the tooth and jaw not visible during oral examination. Dental procedures, including radiology, must be performed by appropriately trained and credentialed individuals based on state and local regulations. Shelters without the capacity to perform dentistry can partner with adopters, outside organizations, specialists, or transport partners to ensure animals receive needed care.

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Highlights of

The Guidelines for Standards of Care in Animal Shelters, Second Edition (2022)



8. Forensics

8.1 General

Shelters may receive animals who have experienced abuse or neglect (i.e. maltreatment) and have an obligation to recognize and report suspected cases. Many shelters are engaged in the active investigation of suspected crimes against animals, or **forensics**, which can be part of their mission or mandate. Caring for animals who have been abused or neglected may place significant demands on shelter resources due to their medical or behavioral needs, the number of animals involved, and potentially lengthy stays while a legal outcome is determined.

8.2 Laws and regulations

The definitions of animal abuse and neglect vary across states and jurisdictions, as do relevant laws. These crimes range from inflicting physical or emotional harm (i.e. abuse) to failing to provide adequate and necessary care (i.e. neglect). Shelters, veterinarians, and humane investigators must be familiar with animal abuse and neglect laws in their jurisdiction, including animal cruelty reporting requirements and liability protection statutes, and know how to report suspected cases. In recent years, the Five Domains model of animal welfare assessment has been used as a framework for assessment in animal legal cases.

8.3 Forensic investigation policies

Shelters should have a policy that outlines the scope of forensic services provided. Services may be limited to animal care or may involve active investigation. For shelters that regularly provide investigative support to other agencies, the policy needs to define which geographic areas are covered, which species can be investigated, where forensic exams are performed and by whom, and how animals and other evidence are held. Consultation with an attorney is suggested during the development of a forensic investigation policy. A memorandum of understanding with collaborating agencies defines roles and financial responsibilities for crime scene documentation, care and treatment of animals. A release permitting the shelter to examine and care for the animals is recommended. Those investigating a suspected case of animal abuse or neglect must first ensure that they have the legal right (e.g. seizure, warrant, or owner consent) to examine, treat, and document the condition of the animal or scene. It is essential to understand the legal procedures involved in criminal investigation, including the defendant's right to protection from unreasonable search and seizure.

8.4 The veterinary forensic evaluation

Information about the scene, evidence collected, allegations, and known or reported history, as well as findings from forensic examination or necropsy, diagnostic results, and evidence collected from the animal are all included. Evaluation and opinion formation for forensic purposes must be conducted by a veterinarian.

Veterinarians may be expected to provide evidence through written statements or by providing testimony in court. The lead investigator or district attorney is a good resource for understanding legal requirements and expectations.

8.4.1 Veterinary forensic examination: A key part of forensic evaluation is a forensic physical exam or necropsy with documentation, for which shelters should have standard protocols. The priority is providing stabilization and medical care. In most cases, this can be accomplished while simultaneously trying to identify, document, collect, and preserve key evidence in a timely manner. Case evidence may disappear quickly or change over time with appropriate care.

8.4.2 Documentation: Photographs should include the front, back, left, right, and top of the animal, as well as abnormalities and identifying information. Photographs should be of sufficient quality to serve as evidence, and they should be managed to ensure proof of origin and integrity. Videos can help document dynamic processes such as limping or behavior.

8.5 Managing evidence

Chain of custody protocols must be maintained. To ensure proper packaging, storage, and transfer of evidence between agencies, it is recommended that shelters consult local law enforcement, the forensic laboratory, or forensics reference materials. Monitoring and response to ongoing treatment should be documented as evidence throughout recovery. Demonstrating improvement as a response to appropriate care provides evidence and may refute narratives presented by the defense.

8.6 Training

Specific training regarding forensic evaluations, evidence identification and collection, and testifying in court has become widely accessible (Appendix D).

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Highlights of

The Guidelines for Standards of Care in Animal Shelters, Second Edition (2022)



9. Behavior and Mental Well-Being

9.1 General

It is essential for shelters to address animals' emotional and physical needs to promote health and well-being.

9.2 Stress and welfare

Shelters must have comprehensive protocols in place for recognizing and mitigating stress and associated negative emotions including fear, anxiety, and frustration, starting at the time of intake and continuing throughout the animal's stay. Foster care is generally the preferred method of housing for dogs and cats. Animals must be monitored daily to detect changes in well-being; any animal experiencing mental suffering, distress, or behavioral deterioration must be urgently assessed and treated. Alternative placement options must be urgently pursued for distressed animals not responding to behavioral care; if other options are not available, these animals should be humanely euthanized.

9.3 Intake

Collecting information before admission allows the shelter to offer services that prevent intake, such as outpatient behavioral care, other rehoming resources, or spay-neuter. If intake to the shelter is necessary, personnel must collect a thorough behavioral history at or near the time of intake, including the reasons the animal was brought to the shelter and previously observed behavior. Information about aggressive behavior must be recorded with an objective description of the animal's actions and the circumstances. Information about positive behaviors and preferences is also important. Personnel must use the available history to tailor animal care, meet the needs of individuals, and protect the safety and welfare of people and animals.

9.4 Environmental management

Shelters must have policies and protocols for managing the environment in a manner that supports animal mental health and well-being.

9.4.1 Housing: Shelter housing has a tremendous impact on animal health and welfare. Novel environments are especially stressful for shy, under-socialized, or geriatric cats and dogs. Feral animals must not be housed in the shelter except for a brief time related to the delivery of veterinary care. Prey species must be housed away from predatory species at all times. Cats should not be handled or housed within spatial, visual, or auditory range of dogs.

9.4.2 Daily routine: Animals should be provided with a consistent, structured environment that minimizes reassignment of

enclosures, caregivers, and schedules. An unpredictable environment can result in chronic fear and anxiety.

9.5 Enrichment and socialization

Successful enrichment programs promote emotional well-being and must be given the same significance as other components of animal care. Positive social interaction, mental stimulation, and physical activity that meets each animal's needs must be provided daily, outside of the activities of feeding and cleaning. Animals should also be provided with choice and control over their environment. Physical and mental activity need to be tailored to meet individual animal needs.

9.5.1 Time out of enclosure: Time out of the primary enclosure is one of the most effective means of reducing stress in kennel dogs and must be provided daily unless doing so creates an unmanageable risk. Cats must be offered regular opportunities to express natural behaviors, including physical activity and exploration.

9.5.2 Interactions with people and other animals: Shelters should provide all animals with opportunities to engage in healthy social contact with humans and animals of the same species. Regular positive daily social interaction with people is essential for all socialized dogs and cats, beginning at the time of admission. Animals benefit greatly from having the opportunity to play, and play behavior is a strong indicator of positive welfare. If confinement is necessary for medical or behavioral reasons, interactions can be provided without removing the animal from the enclosure.

9.5.3 Playgroups: Well-managed playgroup programs provide opportunities for healthy social contact. Playgroups require a safe and well-maintained space and the participation of sufficient personnel trained in canine behavior and humane handling. Shelters should optimize human and animal safety by limiting the number of dogs in playgroups based on competency of personnel, play yard size, individual dog behavior, and shelter resources.

9.5.4 Enrichment within enclosures: All cats need the opportunity to rest comfortably, hide, perch, scratch, play, and exercise choice within their environment. All dogs need the opportunity to rest comfortably, retreat from view, chew, play, and exercise choice within their environment. Feeding enrichment and olfactory, visual, auditory, and tactile stimulation can all be used as forms of sensory enrichment. Rotation of novel items is necessary to maintain interest.

9.5.5 Socialization of puppies and kittens: For young puppies and kittens, proper socialization with people and other animals of the same species is essential for normal behavioral development. A broad range of positive socialization experiences must be provided and is best accomplished in a foster or adoptive home. While in the shelter's care, young puppies and kittens should be housed with their littermates and their mother to promote normal behavioral and emotional development, as well as the establishment of species-specific behaviors. Single, unrelated puppies or kittens benefit greatly from being housed with one or more age-matched individuals once health status for each is determined.

9.6 Behavior assessment

Behavior assessments provide information that should be used to better understand and meet an animal's needs, address behavior and welfare concerns, and match them to an appropriate outcome. Requiring all shelter animals to go through a formal behavior evaluation test, where behavior is observed and interpreted using a series of sub-tests, is no longer recommended because these tests fail to reliably predict future behavior, require considerable time and resources, and can increase length of stay. Current recommendations for behavior assessment are to combine objective information collected via behavioral history with objective behavior observations noted during a variety of interactions. Documenting relevant behavior observations daily can track positive and negative trends. Behavior that requires intervention or affects how an animal can be safely handled must be entered into the animal's record and communicated with shelter personnel promptly.

9.7 Responding to behavior or welfare concerns

When behavior or welfare concerns are present, it is important for shelters to develop an individualized plan, provide support, and make timely outcome decisions. Behavior care and outcome decisions must be based on current animal behavior science. When behavior cannot be humanely managed in the shelter environment, seeking foster care and making timely outcome decisions are essential components of providing behavioral care.

9.7.1 Animal training: Animal training must be based on Least Intrusive Minimally Aversive principles and the Humane Hierarchy of Behavior Change in accordance with current professional guidelines. Positive reinforcement training programs for dogs and cats improve health, welfare, and likelihood of adoption. Training methods that incorporate punishment can increase fear, anxiety, and aggression toward people and compromise safety and welfare.

9.7.2 Behavior modification: Behavior modification applies techniques which change an animal's behavior and underlying emotions. These protocols must incorporate scientific principles of animal behavior and learning, such as classical and operant conditioning, systematic desensitization, and counterconditioning. It is unacceptable to use physical force as punishment to modify animal behavior. Shelters must ensure they have the necessary

resources to support behavior modification plans.

9.7.3 Behavior medication: Behavior medications must be strongly considered to address welfare concerns related to emotional health. Behavior medications may address immediate welfare concerns associated with shelter intake or housing, or long-term problems that impair welfare (e.g. separation anxiety, fear of people, and chronic stress associated with shelter housing). Behavioral health concerns must be objectively assessed and diagnosed to ensure that medications are prescribed when indicated, with clear goals for treatment and outcome. Behavior medications must only be administered under the advice of a veterinarian. When behavior medication is prescribed, it must be part of a comprehensive plan to address the animal's condition.

9.7.4 Animals with long-term stays: Keeping length of stay as short as possible is a critical factor in maintaining animal welfare. For all animals staying in the shelter more than a few days, appropriate levels of additional enrichment must be provided daily. In addition to more time and enrichment activities outside of their enclosures, housing that provides additional space, enrichment, and choice within the enclosure must be provided daily for all animals remaining in the shelter long term. When an outcome is not quickly available (e.g. animals seized as legal evidence), foster care is a better choice than confinement in the shelter. Long-term confinement of any animal who cannot be provided with basic care without inducing stress or compromising safety is unacceptable. Euthanasia is the humane option for animals who cannot be provided with basic care when live outcome (e.g. return-to-field) is not possible in a timely manner.

9.8 Risk assessment of animals displaying aggressive behavior

Shelters must respond promptly to behavior that poses a significant safety risk. When an animal's behavior might result in harm to people, other animals, or themselves, assessing the magnitude and likelihood of that harm is crucial. Shelters must have protocols and criteria in place that attempt to identify and manage animals at high risk of causing harm to shelter personnel, the public, or other domesticated animals. Euthanasia is the appropriate outcome for animals at high risk of causing serious harm to people.

9.9 Rehoming considerations

Adopters and foster caregivers must be counseled on providing safe, gradual, and controlled introductions of shelter animals to children and resident pets. A record of the animal's behavior should be provided in electronic or hardcopy form at the time of transfer, foster, or adoption. When behavior concerns have been noted, communication about humane and appropriate management, and modification of concerning behaviors reduces the risk of placing animals into a home environment and reduces shelter returns.

*See the full guidelines for references and supporting documents:
<https://jsmcah.org/index.php/jasv/issue/view/2>*

10. Euthanasia

10.1 General

All animals and people must be treated with respect during the euthanasia process, whether euthanasia is performed in the shelter, the field, or a home setting. The euthanasia process must be as free from pain, fear, anxiety, and distress as possible. A veterinarian with appropriate training and expertise should be consulted when establishing euthanasia protocols. Agents and methods deemed unacceptable in the AVMA Guidelines for the Euthanasia of Animals are unacceptable for use in shelters.

10.2 Euthanasia process

Euthanasia protocols must be created and followed to support consistent practices. Protocols include euthanasia drugs, delivery methods, handling plans, and environmental conditions, and should have options to accommodate individual animal's behavioral and physical needs and ensure human safety.

Using multiple methods to confirm an animal's identity prior to euthanasia is important, including shelter records, enclosure labels, collars, tags, physical descriptions, and consulting people familiar with the animal. For stray animals, a final check of local missing animal listings should be performed to confirm that there are no matches. Immediately prior to euthanasia, animals must be scanned for a microchip.

It is unacceptable to euthanize an animal without verifying legal eligibility, which includes verification that the organization owns or has legal responsibility for the animal (e.g. the animal is not on a court ordered or mandated stray hold), or the organization has consent from the animal's owner, or the animal has a documented need for immediate euthanasia to alleviate suffering.

After the euthanasia procedure, death must be verified by trained staff before disposing of the animal's body. Proper verification of death always includes confirmation of cardiac standstill or rigor mortis.

10.2.1 Euthanasia methods: Euthanasia methods must be reliable, irreversible, compatible with the species, age, health and behavior of the animal, and ensure a smooth loss of consciousness followed by death. The use of pre-euthanasia sedation is generally recommended because it improves the experience for animals and personnel. While necessary in rare occasions in the field, gunshot is unacceptable as a routine method for euthanasia of dogs, cats, or other small companion animals. Inhalation of carbon monoxide is an unacceptable method of euthanasia for companion animals in shelters.

10.3 Environment and equipment

A separate room should be designated for euthanasia in a quiet area. Soft bedding, calm music, and comforting experiences are often beneficial for socialized animals. Other animals, such as wildlife and feral cats, are better served by minimal interaction and opportunities to hide.

All equipment used during the euthanasia process must be easily accessible and in good working order. Euthanasia equipment and surfaces should be cleaned after each use, and the entire room should be sanitized regularly. All drugs used during the euthanasia process must be stored, administered, and documented in accordance with federal and state regulations. Disposal of animal remains must comply with all applicable laws and regulations.

10.4 Personnel considerations

Personnel performing euthanasia must be appropriately trained and maintain all necessary required local and state certifications. The safety and well-being of personnel must be incorporated into euthanasia protocols; systems must be in place to prevent, recognize, and address fatigue and distress related to euthanasia in shelter personnel.

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Highlights of

The Guidelines for Standards of Care in Animal Shelters, Second Edition (2022)



11. Animal Transport and Relocation Programs

11.1 General

Animal relocation programs involve the transfer and transport of animals from one sheltering organization (the source) to another (the destination). Transport can be local, regional, or international. The purpose is typically to move companion animals from communities with an excess pet population to communities with unmet adopter demand. Intentionally designed relocation programs consider the health, behavior, and safety risks and benefits for all affected animals and minimize negative impacts through careful selection and planning.

11.2 Responsibilities for relocation programs

All participants in the relocation process must follow federal regulations for animal transportation as well as local or state regulations for both source and destination locations. Departments of Agriculture and Departments of Health commonly have requirements for animals being imported into their jurisdiction. These often include health certificates (i.e. Certificates of Veterinary Inspection [CVI]) and certain vaccinations; there may also be restrictions for age and health conditions. For commercial air transport, the airline must be consulted for specific requirements. Emergency plans must be made prior to transport, including emergency contact information, safe locations to stop if necessary, protocols to address vehicle problems, and a plan for animal and human medical emergencies. Written agreements between all parties involved in the relocation program should be developed and reviewed regularly. At minimum, such agreements address medical and behavioral selection criteria as well as transportation and destination requirements. A contact person must be identified at each transfer point, and a record of each animal's travel from source to destination must be kept. Public health and safety must be considered in the design of relocation programs and protocols. Zoonotic diseases with a regional distribution (e.g. plague, rabies, and *Leptospirosis*) and aggressive behaviors require special consideration (see Behavior, Public Health).

Organizations engaging in relocation should track standard metrics for transported animals. This includes animal demographics, behavioral and medical conditions, and outcomes. Unless there are extenuating circumstances, animals should not be returned to the source even in the event of unexpected medical or behavioral concerns. Transport is a significant stressor for the animal as well as a significant resource investment. If destination shelters regularly find that transported animals are not eligible for adoption, it is important for all parties to revisit selection criteria and program goals.

11.3 Responsibilities at the source

As with all shelters, all eligible animals within a source population must be vaccinated at or before intake (see Medical Health). It is not recommended to hold animals back from transport just to allow response to vaccination or to receive a booster. To prevent the spread of internal and external parasites, treatment for fleas, ticks, and internal parasites is strongly recommended. Ideally, all dogs 6 months of age and older are tested for heartworm disease prior to relocation.

The animal's health and behavior records must be shared with the destination. When required, a valid health certificate (CVI) and proof of rabies vaccination must accompany each animal. Requirements may vary from state to state. Animals must be examined by trained staff within 24 h prior to travel and deemed fit for transport. The purpose of the pre-transport examination is to look for evidence of infectious disease, and to evaluate the animal's ability to tolerate the impact of the physical and emotional experiences encountered during travel.

Animals being transported must be provided with visual identification. Collars or tags are routinely used, though in some cases, other techniques may be needed (e.g. marking the inner ear or painting a claw on a neonate). Ideally, animals are microchipped before transport, as this provides permanent identification. To aid in identification of individual animals, each primary transport enclosure must be marked with each animal's unique identifier.

A copy of the manifest for each transport, identifying each animal on board, must be maintained in an accessible location separate from the vehicle itself, in case an accident leads to loss or destruction of the manifest accompanying the animals. For example, a cloud-based digital manifest can be made available to source, transporter, and destination in real time.

11.4 Responsibilities during transport

11.4.1 Primary enclosure and occupancy: Ideally, animals should be acclimated to the transport carrier to reduce associated stress. Unfamiliar animals must not be transported together in the same primary enclosure. Transport enclosures must be large enough for animals to stand and sit erect, turn around normally while standing, and lie in a natural position without lying on another animal. They must not have sharp edges, and the flooring must prevent injury, discomfort, and leakage of fluids into other enclosures. Absorbent bedding must be provided unless it poses a risk to an individual animal's health. Kennels must be positioned in a manner that ensures adequate airflow and temperature regu-

lation within each primary enclosure; choose enclosures with vent openings on at least three sides and maintaining at least 1 inch (2 cm) of unobstructed space between vent openings and adjacent structures. When primary enclosures are permanently fixed to the vehicle so that only a single door provides ventilation, the door needs to face an unobstructed aisle. Primary enclosures must be secured to prevent movement within the vehicle, and doors secured to prevent accidental opening. In an emergency, operators must be able to swiftly remove animals.

11.4.2 Special cases: Cats should be provided with a hiding space or visual barrier that allows ventilation and monitoring during transport. Stress can be further reduced if cats are acclimated to their carrier prior to transport and provided familiar objects with their own scent. Ideally, all cats are provided with access to a litter box during long-distance transport. Cats and dogs are ideally transported in separate vehicles. If cats are transported in a vehicle with dogs, they must be housed in a physically separate space with special consideration given to visual and noise barriers.

Vulnerable populations, including puppies and kittens, geriatric animals, or animals with chronic medical or behavioral conditions, require special care during transport. This includes avoiding temperature extremes, more frequent feedings, and enhanced protection from infectious disease exposure. Pediatric and brachycephalic animals are more susceptible to temperature extremes and may require alternative modes of transport. Kittens or puppies less than 8 weeks old should be transported with their mother when possible in a single enclosure large enough for her to lie down with legs extended for comfort and to facilitate nursing. Importing animals under 8 weeks old may be prohibited in some states.

Behavior medications should be considered when an animal is likely to have emotional welfare concerns during transport. Safe and humane relocation programs do not use sedatives or behavior medications to compensate for poor transportation practices. It is unacceptable to transport animals that are sedated or anesthetized to the point that they are unable to swallow, walk, or thermoregulate.

11.4.3 Vehicles: Training in accident prevention and techniques to minimize animal discomfort are recommended (e.g. avoiding excessive lateral movement and sudden acceleration or deceleration). Control over heating and cooling in the animal compartment is essential and must be monitored; alarms can facilitate monitoring when drivers and animals are in separate compartments. For animal safety, ambient temperature must be maintained above 45°F (7.2°C) and below 85°F (29.5°C), and humidity maintained between 30 and 70%. To ensure comfortable conditions, ambient temperature should be maintained between 64°F (18°C) and 80°F (26.6°C). Operators must ensure that air in the animal compartment is fresh and free of vehicle exhaust fumes; carbon monoxide detectors should be placed in the animal compartment.

11.4.4 Monitoring and care: Vehicle drivers or animal attendants must have sufficient training to recognize and respond to animal needs during transport. For transports longer than 4 hours, two drivers should be present to monitor and reload animals. At minimum, every 4 hours, the vehicle must be stopped, and a visual observation of each animal must be performed. If it becomes necessary to remove animals from their enclosures, safeguards are needed to ensure animal safety and to prevent escape. Caregivers also are charged with meeting the nutritional needs of transported animals. For juvenile animals, a small meal should be given no more than 4 hours before departure, and small amounts of food should be provided every 4 hours throughout transport. For both adults and juveniles, water must be provided at least every 4 hours during observation stops. Food must be provided at least every 24 hours for adults.

During transport, driving time to an intermediate or final destination should not exceed 12 hours per day, and loading and unloading of animals should not exceed 1 hour each. Transport that exceeds 12 hours of travel must be broken up with an overnight rest stop. Total transport time from the source to a final destination should include no more than 28 hours confined to a transport vehicle, including loading and unloading time and excluding an overnight rest stop. Animals should never be left unattended in a transport vehicle unless sufficient monitoring capabilities are in place, and attendants are able to immediately respond to animal care needs. When feasible, an overnight facility that can accommodate the housing of cats and dogs off of the vehicle is preferred. Overnight facilities can include foster homes, shelters, hotels, or transport hubs. Cats may benefit from remaining in their transport carriers, if large enough. Cats must have access to a litter box if housed overnight.

11.4.5 Aggregation: If transporting animals from different sources on separate vehicles is not possible, animals from each source are ideally housed in separate compartments. Protocols that minimize exposure and cross-contamination between populations must be in place.

11.5 Responsibilities at the destination

Each animal admitted through a relocation program must receive a brief health assessment at intake to identify signs of infectious disease and problems that require emergency or follow-up medical care. The destination facility must have adequate housing prepared for the arriving animals without displacing the existing population. The need for isolation or quarantine of arriving animals is informed by regulatory requirements, animal health status, and infectious disease risk. Quarantines are only appropriate for high-risk animals with direct infectious disease exposure; unnecessary holds increase LOS and are detrimental to animal health and organizational goals.

*See the full guidelines for references and supporting documents:
<https://jsmcah.org/index.php/jasv/issue/view/2>*

Highlights of

The Guidelines for Standards of Care in Animal Shelters, Second Edition (2022)



12. Disaster response

12.1 General

All shelters should be prepared to respond when directly affected by a disaster. Advance planning is critical to safeguard animal welfare and to protect human health and safety during a disaster, whether due to natural events such as hurricanes, tornadoes, floods, and fires, or human-made events such as large-scale cruelty cases, workplace violence, and toxic chemical spills. Animal welfare needs described elsewhere in the Guidelines are still present even when a shelter is experiencing a disaster, and deviations from these Guidelines should be as brief and minimal as possible. Published operational guidelines for animal evacuation/transport, animal decontamination, and emergency animal sheltering may be helpful in planning for and responding to disasters. Whether impacted or offering aid, familiarity with disaster response principles is essential. Disaster response is divided into four phases: 1) Mitigation, 2) Preparedness, 3) Response, and 4) Recovery.

12.2 Mitigation

Shelters must identify and plan for reasonably anticipated disasters, including those most likely to occur in their geographic area. Once disaster risks are identified, mitigation strategies, such as holding community pet identification and rabies vaccination clinics and maintaining insurance and liability policies, can be developed and implemented to reduce the impact of a future disaster.

12.3 Preparedness

Every sheltering organization must have a written plan that outlines the actions the shelter will take in response to likely emergency scenarios. These actions may include services that the shelter does not typically provide, including admission of displaced animals, provision of resources, or relocation of animals to other facilities. Disaster response plans must detail how shelters will provide essential services to all animals currently in care, including those in foster homes. Plans should include evacuation strategies in the event that supply chains or are disrupted. Since the risk of zoonotic disease spread may increase during disasters, plans must include steps to control transmission, especially rabies, due to an increased likelihood of dog bites.

Shelter disaster plans should indicate the personnel structure necessary to provide essential animal care services during a disaster. Training is an essential part of preparedness; exercises and drills are excellent training tools and allow shelters to

evaluate how well the current plan fits the organization's needs. Provisions should be included to address the physical and mental stress experienced by personnel, community members, and responders. Shelters responding to disasters as part of a coordinated response should draft memoranda of understanding with their governmental and nongovernmental response partners.

12.4 Response

The most common challenge faced during a response is communication, both internally and externally. When indicated, an Incident Command System should be initiated rapidly to designate and maintain a clear chain of command and communication infrastructure (see Appendix I).

Each animal admitted during a disaster must receive at least a cursory assessment at intake to check for signs of infectious disease, any conditions that require emergency medical care, and exposure to hazards. Animals admitted during a disaster should be given core vaccines, including rabies, and parasite control (see Medical Health) and must be decontaminated when applicable; use of personal protective equipment (PPE) is recommended until decontamination is complete.

Shelters must anticipate the arrival of self-deployed volunteers during a disaster; preemptive planning for volunteer roles, training, and oversight can effectively mobilize this resource. Veterinary professionals must only provide medical treatment or services when they hold a license to practice in that jurisdiction or are exempt from that requirement. Oversight of controlled substances must remain with the individual identified as the responsible party on the DEA license for that premise. Shelters should have a system for managing physical and monetary donations and tracking resources and staff time during disaster response and recovery in order to apply for reimbursement grants from local, state, or federal agencies or private organizations.

As soon as it is safe, shelters must make concerted efforts to reunify pets displaced by a disaster. If an animal is transported out of the impacted area, clear communication between partner shelters regarding timelines for reunification efforts is important.

12.5 Recovery

The recovery period following a disaster lasts until the individual shelter and affected communities return to normal. Even if undamaged, shelters may be challenged by continuing impacts on their community or personnel. If damage to the shelter building, grounds, or local infrastructure is a concern, a full safety assess-

ment must be made prior to resuming normal activities. Shelters must tailor placement efforts when their community is impacted by a disaster, and they should provide additional services that

support keeping pets with their owners. Shelters should debrief and evaluate their planning, response, and recovery processes, so that adjustments to their plans can be made.

*See the full guidelines for references and supporting documents:
<https://jsmcah.org/index.php/jasv/issue/view/2>*

Highlights of

The Guidelines for Standards of Care in Animal Shelters, Second Edition (2022)



13. Public Health

13.1 General

Public health promotes and protects people and the communities where they live, largely through One Health, which focuses on the connections among the well-being of animals, people, and the environment. The care that shelters provide to animals also impacts humans and the environment. Within their facilities and in the larger community they serve, shelters must take precautions to protect the health and safety of animals, people, and the environment.

13.2 Personal protective measures

Shelter personnel encounter risks to their health on a daily basis through normal work activities. Giving personnel the knowledge and equipment needed to mitigate risks is a critical component of workplace safety. Personal protective equipment (PPE) includes gloves, smocks, goggles, face masks, face shields, shoe covers, and ear plugs. PPE types and sizes must accommodate all personnel, including those with special concerns such as latex allergies.

13.2.1 Hand hygiene: Proper hand hygiene is essential to protecting human health in animal care environments. Personnel should wear gloves when handling animal waste or fluids and should wash hands frequently, especially after handling animals, and after removing PPE, and before eating, smoking, or touching their face. Personnel and visitors should be discouraged from eating, drinking, or bringing pacifiers, teething toys, or baby bottles into animal housing areas. Animals should not be present in areas designated for human food preparation or consumption.

13.3 Workplace hazards

13.3.1 Chemical hazards: Hazardous compounds such as disinfectants, medications, and pesticides are routinely encountered in shelters. When working with hazardous chemicals, eye protection or respirator face masks must be worn as indicated by the product label. A well-ventilated area or fume hood may be required for certain products. Occupational Safety and Health Administration (OSHA) requires organizations to correctly label and store chemicals to prevent spills or accidental mixing.

When allowed to accumulate or when improperly stored, animal urine and feces can become a significant source of toxic compounds such as ammonia and hydrogen sulfide. Shelters must promptly dispose of biological waste (animal waste, animal tissues, and carcasses) according to state and local regulations.

Shelters must follow regulatory guidelines for the disposal of unused medications. Controlled medications must be disposed of or wasted in a manner that follows regulations, prevents environmental contamination, and prevents human diversion. Guidance to reduce waste gas exposure associated with anesthesia may be found in the ASV's Veterinary Medical Care Guidelines for Spay-Neuter Programs and from OSHA.

13.3.2 Physical hazards: Shelter personnel are commonly exposed to physical hazards, such as slippery surfaces, loud noises such as barking or clanging metal, animal scratches and bites, job requirements to lift heavy objects and animals, and exposures to needles or other sharp objects. Shelters must follow industry guidelines for the proper disposal of sharps. Supervisors must advise persons injured at the shelter or by a shelter animal to seek medical care because the severity of the injury may initially be difficult to recognize.

Noise exposure: Prolonged exposure to loud noise can damage the hearing of animals and people. Both environmental and behavioral noise abatement strategies should be used in animal housing and holding areas. Hearing protection must be worn by employees working in environments where volume is at or above 100 dB cumulatively for 15 min. When volumes exceed 85 dB at any point in time, hearing protection should be worn. Hearing protection is recommended whenever personnel have to raise their voice in order to be heard three feet away. Several decibel meters are commercially available, including phone apps. Hearing conservation programs that include training and regular hearing testing may be required by OSHA.

13.3.3 Biological hazards: Animal bites are both a physical and biological hazard of significant concern in shelters. Training in animal body language, safe handling techniques, and using sedation can reduce but not eliminate the risk of bites. All bites that break the skin carry a risk for infection, which can be reduced by immediately washing the wound. Deep penetrating punctures that close quickly, like those caused by cat bites, are at higher risk of developing serious bacterial infections. The public must be prevented from having contact with animals who pose a high risk of biting by clearly marking and restricting access to areas where these animals are held. Shelters must consider public safety when making outcome decisions regarding animals who pose a risk of serious harm. If, after a careful risk assessment, the shelter decides that an animal with a history of mild to moderate aggressive

behavior is eligible for a live outcome (see Behavior), a record of all known bite incidents must be provided to adopters, fosters, or transfer partners.

Human rabies exposure: Animal bites can, rarely, transmit rabies virus. To allow for appropriate follow-up by public health authorities, shelters must follow regulations for reporting animal bites to humans. At intake, shelter personnel must ask owners or finders if the animal being admitted has bitten anyone within the past 10 days. Because aggression may be a symptom of rabies, all animals who have bitten a human must be managed according to state and local regulations, including quarantine or euthanasia. Because animals who are symptomatic for rabies succumb to their illness rapidly, the rabies quarantine period is typically 10 days. In some cases, euthanasia and testing may be preferred, especially if the animal is suffering physically or emotionally, or presents a danger to others. If a dog, cat, or ferret dies for any reason within 10 days of a bite, testing for rabies is mandated. Because the consequences of rabies exposure are deadly, personnel who routinely work with animals should receive pre-exposure vaccinations against rabies in accordance with the current recommendations of the Advisory Committee on Immunization Practices.

Animal rabies exposures: Shelters frequently admit animals with injuries or neurological symptoms of unknown cause, which, though rare, could be indications of rabies virus infection. At intake, shelter personnel must ask owners and finders of incoming animals about recent wildlife bites or exposures and document evidence of wounds that could indicate a potential rabies exposure. Determining the appropriate quarantine period for an animal potentially exposed to rabies depends on species, previous rabies vaccination, and local regulations. Animals who have potentially been exposed to rabies must be managed with guidance from the NASPHV Rabies Compendium, and in accordance with state and local health regulations. Shelters should vaccinate all eligible animals for rabies prior to leaving the shelter. Community cat vaccination is important because cats are the domestic animal most likely to acquire and transmit rabies in the U.S. and Canada.

Zoonotic diseases are transmitted from animals to people. Although all people are at risk of zoonotic disease, those with exposure to animals, and those with delayed or weakened immune responses due to young or old age, disease, pregnancy, or medical treatments have an increased risk. Many common pathogens in the shelter can pass from animals to humans, including internal parasites (roundworms, hookworms, and toxoplasma), external parasites (mites), fungal diseases (ringworm), and bacterial diseases (*Bordetella*, *Chlamydia*, and *Leptospira*). Viral diseases (rabies, influenza, and COVID-19) are less commonly transmitted to people. Timely treatment and management of animals with zoonotic pathogens help prevent spread to people and other animals.

Training personnel to recognize zoonotic diseases is a key step in prevention. In addition to the general infectious disease control measures described in this document (see Medical Health), shelters should have a protocol for responding to zoonotic diseases, including communication regarding potential exposures. Reporting of some zoonotic diseases is mandated by local, state, and national regulations. Access to animals with known zoonotic conditions should be limited to those necessary to provide appropriate care. Enclosures of animals with suspected zoonotic disease must be clearly marked to indicate the condition and necessary precautions, such as PPE, handling, and sanitation practices. Shelters must disclose the risk of known zoonotic disease to personnel, transport partners, foster care providers, and adopters. Some states prohibit relocation of animals with zoonotic disease.

Antimicrobial resistance and emerging pathogens: A key factor in slowing the development of resistance is to use antimicrobials only when truly needed. Routinely using antimicrobials to prevent infection in healthy animals is unacceptable. Antimicrobial use must be tailored to appropriate clinical conditions, used judiciously, and evaluated for therapeutic effect. It is vital that antibiotics are only prescribed when they are effective against the pathogen of concern. In a shelter, treatment protocols for common conditions need to be evidence-based and include specific criteria for diagnosis; which antibiotic, dosage, and duration to use; any follow-up considerations; and when to consult the veterinarian. Diagnostic testing is strongly recommended when animals do not respond to treatment or display unusual or severe signs of infection.

Some emerging diseases with the potential to infect people, such as influenza, were first identified in animal shelter populations. Because shelter populations can be sentinels for emerging diseases, animal shelters should monitor their populations for signs of unusual or severe disease. Poor sanitation practices, close housing of multiple species, housing diseased animals in the general population, and operating over capacity for care can facilitate the spread of disease. Animal population management should be used to reduce the risk of developing novel or emerging pathogens.

13.4 Human well-being

Shelter employees have been shown to have high levels of compassion fatigue, secondary traumatic stress, suicidal ideation, and burn-out as a result of their daily work. When mental health concerns are communicated or observed, personnel should be encouraged to seek professional help. Ensuring personnel have the skills and resources to provide appropriate care for shelter animals improves job satisfaction and human, animal and population health.

See the full guidelines for references and supporting documents:
<https://jsmcah.org/index.php/jasv/issue/view/2>