

Chester, an eight-year-old springer spaniel, bonds with a patient in the Mount Sinai Pet-Assisted Therapy Program in New York City. Helping out are Chester's owner, Sharon Green, right, and nurses Alice Mathis, left, and Millicent James, center.

By Melinda Stanley-Hermanns, MSN, RN,BC,
and Julie Miller, BSN, RN, CCRN

Animal-Assisted Therapy

***Domestic animals aren't merely pets.
To some, they can be healers.***

Animals of all kinds, including dogs, cats, and rabbits, are being used more and more often to treat acutely and chronically ill patients. The goal is to decrease stress and improve patients' physical condition and attitudes, usually through a program that involves an animal and a handler assigned to a single patient. The therapy uses animals that have been evaluated for temperament, are in

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Dogs at Ground Zero

What started as a recovery mission to New York City turned into a therapy mission.

When air traffic was grounded on September 11, 2001, and only military aircraft were allowed into U.S. airspace, a C-141 cargo plane, escorted by U.S. fighter jets, carried search-and-rescue dogs and their partners to New York City.

Among them were Robert Wank, an investigator with the Orange County Sheriff's Department in California, and his partner, Aris, a 10-year-old purebred black German shepherd and advanced-certified search-and-rescue dog, as well as Wank's human partner Seth Peacock and his black Labrador partner, Pup Dog. The call came just hours after the World Trade Center collapsed, and Aris, who had officially been retired, was back on duty. Aris and Pup Dog joined about 14 other police dogs to search for survivors.

Unfortunately, during their 10-day stint at Ground Zero, Aris and Pup Dog grew frustrated at finding no victims. A few times, to

keep the dogs' spirits up, Wank and Peacock took turns hiding in crushed ambulances that had been cleared from the site so that Aris and Pup Dog could "search" for and "rescue" them. "We had to do it to keep them motivated," Wank said. "To a search and rescue dog, finding victims means you're doing a good job. We let them find us and then rewarded them with a toy."

In turn, Aris and Pup Dog elevated the moods of workers by walking around the site, which many of the workers hadn't left since the buildings collapsed. Wank noticed that while he and Aris searched their



assigned quadrants, the workers seemed genuinely happy to see Aris, often smiling at him and offering their water. At meal breaks the dogs were especially popular, and the workers eagerly fed them.

Each day before heading to Ground Zero, this two-man, two-dog team stopped by firehouses, providing a pleasant distraction from the devastation. "The dogs gave these people something else to

talk about—something nice," Wank said.

Dogs like Aris and Pup Dog are trained by the Office of Emergency Services or by the Federal Emergency Management Agency, which trained

Aris because of his breed and bloodline (German shepherds from the Czech Republic that have received *Schutzhund* training, involving three stages: tracking, obedience, and protection).

Ground Zero was Aris's last mission: he's gone back into retirement and lives with Wank and his family as their much-loved pet.

—Carrie Potter, senior editor



Wank and Aris, foreground, in the rubble of the World Trade Center, September 2001, above, and around New York City in the days after the terrorist attacks, above right and below.



Pet-Assisted Therapy at Mount Sinai in New York

One program alters lives.

Chester is usually pretty laid back, says Aimee Schonbrun, coordinator of the Mount Sinai Pet-Assisted Therapy Program in New York City. But when it comes to working with patients, Chester is one excited springer spaniel.

Chester and his owner, Sharon Green, are part of Mount Sinai's two-year-old animal-assisted therapy program, where pets and their owners pay weekly visits to help patients with physical rehabilitation. Eight-year-old Chester and his canine colleagues are a huge success, Schonbrun says.

"I see how patients benefit from this program, especially because they are so isolated," she says. "When you're a patient in a hospital, there's no sense of time. Days pass you by. But these pets bring these patients back into reality again."

The Mount Sinai program brings together animals and patients who have brain damage or debilitating diseases. The premise is simple: the anticipation of an animal visit can motivate an injured patient to complete physical therapy beforehand, or it can inspire a patient to interact more closely with hospital staff during and after a

pet's visit. And petting or combing an animal or throwing a ball can be a simple yet vital exercise for a patient in physical therapy. "It's fun, relaxing interaction," Schonbrun says. "It's a change from

constantly being bombarded by nurses and being poked and prodded with needles."

Schonbrun has seen the effects that animals can have. A trained social worker, she previously worked with abused children and saw how pet therapy brought them out of emotional isolation. The concept works similarly among hospitalized patients. "Giving the dog a treat will get patients to work their hands without even realizing it," Schonbrun says. "We have seen patients who will not

talk for weeks and who suddenly just start talking to the dog."

One patient, who has a particularly severe brain injury, says Chester's weekly visits have been life altering. "These patients come here to relearn life skills—to walk, to talk. This particular patient began to really open up in her sessions with Chester," Schonbrun says. "And Chester is usually lazy, but even he is always very excited to see her." —David Belcher, associate editor



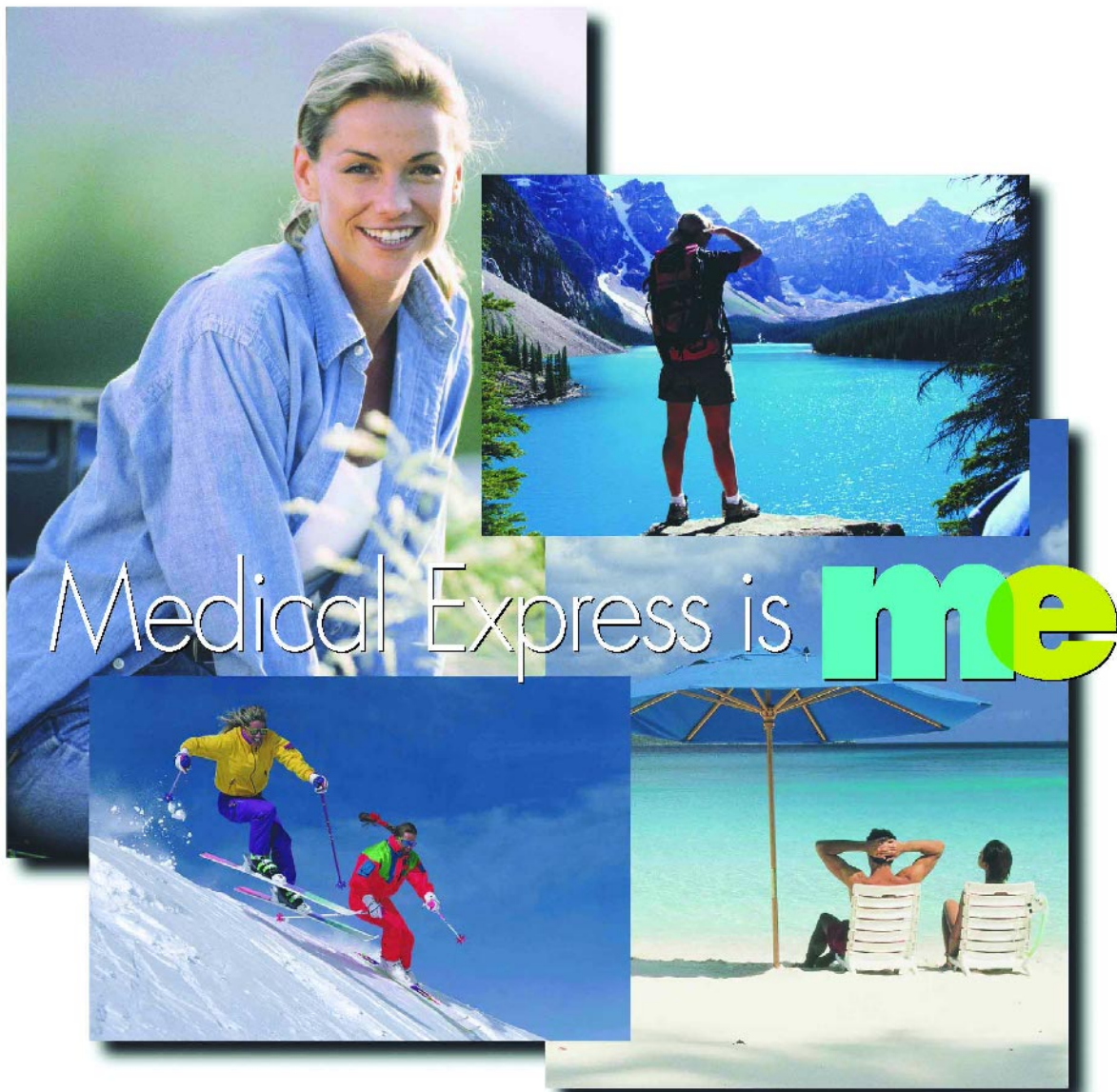
good health, and have undergone extensive training that involves obedience and behavioral conditioning.

In 1859 Florence Nightingale wrote "a small pet animal is often an excellent companion for the sick, for long chronic cases especially." She recommended that patients care for animals, stating that this was beneficial to recovery.¹ Animals have been used in various cultures for therapeutic purposes for thousands of years and their use appears to be gaining acceptance in hospitals, nursing homes, and psychiatric institutions. Many physiologic and psychological benefits have been noted in patients during interactions with animals: specifically, decreases in blood pressure, heart rate, and stress levels. Also, improvements in emotional well-being and social interaction have been linked to the therapy.² This article examines the benefits of animal assisted therapy in hospitalized patients, provides guidelines for setting up a program, and reviews some current research.

PHYSIOLOGIC BENEFITS

Most studies that support the physiologic benefits of animal-assisted therapy indicate an increase in relaxation, as evidenced by reductions in blood

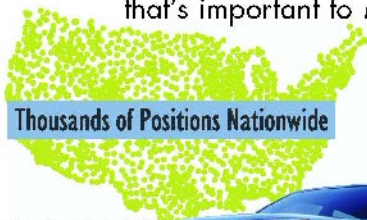
pressure and heart rate. In a 1992 study of 5,741 patients at a free clinic in Melbourne, Australia, participants in a cardiovascular screening program were questioned about pet ownership. Results showed pet owners to have significantly lower systolic blood pressure and triglyceride levels than non-pet owners (this finding was independent of exercise).³ A 2001 study of 30 men and 30 women found a correlation between dog ownership and control of borderline hypertension (the average reading of participants was 145/92 mmHg). The study compared two groups: those who adopted a dog from a shelter and those involved in a program of transcendental meditation. Psychological stress tests were administered and blood pressure and heart rate were measured initially and after three months. At the beginning of the study both groups showed significant increases in systolic blood pressure in response to the stress tests. Both groups also showed high systolic blood pressure levels while at work. After three months, the dog owners showed significant reductions in resting blood pressure and ambulatory blood pressure while at work. Those who practiced transcendental meditation showed



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no significant changes. The researchers also mentioned that all participants in the dog group kept the animals after the study was completed.⁴

In an attempt to establish a scientific basis for animal-assisted therapy, a 1999 study of 18 dogs and 18 humans measured neurochemicals and mean arterial pressure in both humans and dogs. The study, an unpublished PhD thesis for the University of South Africa, compared quiet reading with human–dog interaction and showed that the activities were almost equally effective in relieving human stress (as measured by increases in oxytocin, prolactin, and β -endorphin levels). However, the small sample size makes generalizability difficult.

Case reports of animals used in rehabilitation programs demonstrate other physical benefits. For example, a patient who has had a stroke might gain strength and muscle conditioning using a wrist weight to increase resistance while brushing an animal.⁵ Further study is needed to confirm the benefits of animal-assisted therapy in the rehabilitation setting.

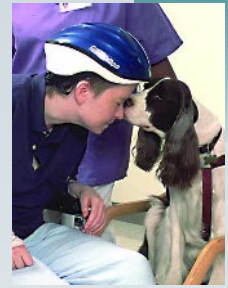
EMOTIONAL BENEFITS

Most people take pleasure in interacting with animals, but some studies have documented the psychological benefits. Barak and colleagues conducted a one-year controlled trial involving geriatric patients with schizophrenia, 10 of whom interacted with a dog or cat in weekly four-hour sessions over a 12-month period. This group was compared with the control group of 10 patients who read and discussed current news.⁶ The animal-therapy group showed significant improvements in social functioning, impulse control, and daily activities.

Connor and Miller conducted a literature review and noted several psychological benefits of animal-assisted therapy that have been documented: decreased stress levels, increased feelings of self-worth, and assistance in adjusting to an altered body image.⁷ Barker and Dawson reported that animal-assisted therapy resulted in a twofold reduction in anxiety over therapeutic recreational activities in patients who had a range of psychiatric disorders, although patients with mood and substance abuse disorders showed no reduction in anxiety with animal-assisted therapy.⁸

Prisons use animal interaction as a behavior-modification tool and as a reward for good behavior. Some prisons have set up training programs in which the inmates train animals; these programs appear to improve the self-esteem of inmates involved.⁹

Benefits of touch. Although the benefits of human touch have been documented, there have been few studies investigating touch in animal-assisted therapy. In an unpublished study conducted by one of us (Stanley), conducted at Trinity Mother Frances



Setting Up a Program

The following steps are recommended when starting an animal-assisted therapy program.

Select a coordinator who has experience with animal behavior, if possible. The coordinator will have the following responsibilities:

- Investigate and select animal-assisted therapy certifying organizations.
- Develop policies and procedures based on the recommendations of certifying organizations.
- Perform a needs assessment to identify patient populations that animal-assisted therapy will serve.
- Incorporate institutional recommendations for infection control, volunteer requirements, and animal behavior in developing policies and procedures.
- Recruit therapy animal handlers and volunteer teams; have them submit applications for evaluation by the certifying organization.
- Review applications and health screening forms for therapy animal handlers and volunteers (for example, coordinator would reject any dog that has ever bitten anyone).
- Using evaluators from certifying organizations, perform temperament evaluations of therapy animals.
- Plan and conduct training sessions for handlers and volunteers. (Training sessions should be conducted at least annually.)
- Hold educational inservice training to teach staff about referrals, infection control, indications for therapy animal use, and patient safety.
- Conduct annual evaluations of performance and of the effectiveness of the animal-assisted therapy program.



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Health System in Tyler, Texas, using the Profile of Mood States–Short Form, patients' moods were assessed before and after animal-assisted therapy. Patients on a transitional care unit interacted with dogs by petting and cuddling them for about five minutes every day. This small sample of 10 participants demonstrated a reduction in anger, hostility, tension, and anxiety.

OTHER THERAPY VS. VISITATION

There are differences between animal-assisted visitation and animal-assisted therapy.

Animal-assisted visitation simply uses certified therapy animals to visit patients and families at the bedside or in a common waiting area. The goals of visitation include reducing anxiety, increasing tactile contact, and improving self-esteem. Reduced anxiety may be measured by a decrease in heart rate and blood pressure, as well as the patient's report. This activity may enhance strength and range of motion. It's common for patients to report feeling more optimistic about a medical procedure after animal visitation.

Animal-assisted therapy is done one on one, and should be performed by a trained practitioner (a nurse may locate a trainer through certifying organizations; see *Resources*, page 76). Therapy goals include improving strength, range of motion, balance, memory, and speech. These goals can be accomplished by using the animal as the focus of the patient's exercise. For example, a hemiplegic patient can brush an animal or throw a ball to be retrieved to strengthen the upper body and improve movement and balance. A patient with expressive aphasia can work on naming body parts, pronouncing words about the animal, and exercising facial muscles by blowing on the animal's hair.

BUT IS IT SAFE?

Zoonosis (the transmission of disease between animals and humans), infection control, and safety are often the biggest barriers to animal-assisted therapy programs. In 1997 Emmett stated that "there have been no documented cases of disease transmission" in animal-assisted therapy programs.¹⁰ We found no documented cases in 2002.

Handlers must wash their hands with soap and water between patients. Animals must be clean (bathed within 24 hours), currently vaccinated, and free of disease and parasites. Animals must always be kept on a leash or in a basket and under the handler's complete control.

POLICIES AND PROCEDURES

Initially, the certifying organization for therapy animals must be researched thoroughly. The key to a safe animal-assisted therapy program is to have

Eligibility Criteria

Special Requirements

- An altered level of consciousness or coma may necessitate verbal consent from a family member.
- Wounds or burns must be covered during visit.
- Tracheostomies must be covered with cap, ventilator, oxygen source, or other covering.
- Intensive care environments require guidance from the nurse regarding the best way to approach the patient and avoid equipment.
- Use with pediatric patients necessitates verbal consent from guardian for visitation and written consent from guardian for therapy.

Contraindications

- allergy to animal
- open wounds or burns
- open tracheostomy
- immunosuppression, as defined by institution, using absolute neutrophil count
- agitation or aggression
- isolation of any kind
- fear of animals

consistent evaluation and training guidelines for the handlers and animals as well as nurses. Not all organizations uphold stringent standards. The minimum should include evaluation of animals based on temperament and the quality of the interaction between animal and handler; the handler shouldn't be harsh with the animal or command too loudly. The animal shouldn't shy away from the handler. Both animal and handler should exhibit enjoyment of each other's company. Also evaluated is the animal's ability to follow basic commands to sit, stay, heel, and lie down. These tests should be conducted in the facility in which the animal will work.

Animal evaluations vary according to the certifying organization. At minimum, they should consist of basic obedience with a variety of distractions (loud noises). These tests are frequently stressful for the animal and are designed to determine whether the animal will behave in ways inappropriate to a hospital or work setting. Animal evaluators are trained to identify stress responses in animals and to pass or fail an animal based on observations made during the test. Usually, the evaluator will try to

Personal Pet Visitation

When patients want to see their own animals.

Some facilities use the following guidelines for personal pet visitation.

- Pet must be bathed within 24 hours before visit.
- Pet must have current vaccinations.
- Pet must be brought in carrier or on short leash.
- Pet must be escorted into and out of facility by trained staff member.
- Pet must interact only with patient.
- Visits are time limited (usually 30 minutes, once per week). Animal may be forced to leave at any time.
- Institutional policies, in accordance with the Americans with Disabilities Act, should cover animals that guide the physically impaired, including seeing-eye, hearing-ear, physical assistance, and seizure-detection animals.

Adapted with permission from Connor K, Miller J. Animal-assisted therapy: an in-depth look. *Dimens Crit Care Nurs* 2000;19(3):20-6. © 2000 Lippincott Williams & Wilkins.

duplicate the conditions the animal may encounter during therapy. For example, if a patient is prone to shouting and moving suddenly, the evaluator will act similarly to gauge the animal's reaction. Each animal's reactions may differ, as well, but displays of aggression, growling, distractedness, and nervousness will immediately disqualify an animal for therapy purposes.

The types of certified animals the facility will allow should be decided in conjunction with the infectious disease committee. The most commonly used animals are dogs, probably because of ease of training (versus a cat or rabbit) and their usually even temperament. Birds aren't usually allowed (more than half the birds in this country carry infections, such as *Mycobacterium avium*).¹¹ Cats and rabbits are used and must meet the same criteria as dogs, but they are not required to follow commands. Cats and rabbits must be trained to stay in a basket while petted (they may harbor bacteria in their paws). Dog paws must not make contact with the patient. If a dog jumps on and injures a patient, a nurse should document the incident and notify the physician. If a patient requests that a dog be placed on the bed, a barrier (such as a sheet or towel) should be placed between the dog and the bed linens. Patients' requests for a specific breed or size of animal should be honored when possible.

Eligibility of patients. It's the responsibility of the staff and animal-assisted-therapy coordinator to screen patients for eligibility. Patients who are in any type of isolation or are immunosuppressed are

Resources

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disqualified. Handlers should have no active infections and all current immunizations, including a vaccine against hepatitis B virus, and undergo annual tuberculosis testing.

Any staff member at a facility that has a therapy coordinator may make a referral for visitation and therapy. Our facility schedules bimonthly visitations, during which animals visit patients on several units: oncology, cardiology step down, pediatric, and intensive care. During these visits no referral is needed. And if a visit or therapy session is desired when an animal is not normally available, the coordinator will schedule a session. Also, methods for referrals will vary according to institution. ▼

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