

A Webber Training Teleclass
Hosted by Paul Webber paul@webbertraining.com
www.webbertraining.com





First online: 09 September 2014

Can Therapy Dogs Improve Pain and Satisfaction After Total Joint Arthroplasty? A Randomized Controlled Trial

Carl M. Harper 🔤 , Yan Dong, Thomas S. Thornhill, John Wright, John Ready, Gregory W. Brick, George Dyer

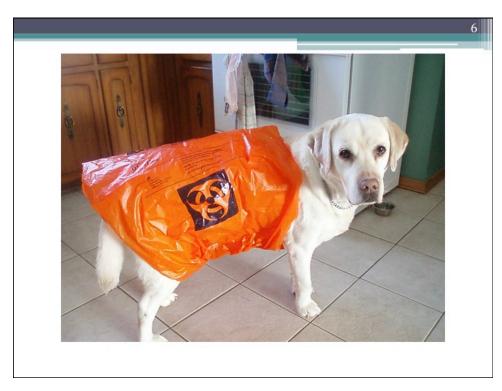
Results

Patients in the treatment group had lower VAS scores after each physical therapy session with a final VAS score difference of 2.4 units (animal-assisted therapy VAS, 1.7; SD, 0.97 [95% CI, 1.4–2.0] versus control VAS, 4.1; SD, 0.97 [95% CI, 3.8–4.4], p < 0.001) after the third physical therapy session. Patients in the treatment group had a higher proportion of top-box HCAHPS scores in the following fields: nursing communication (33 of 36, 92% [95% CI, 78%–98%] versus 69%, 25 of 36 [95% CI, 52%–84%], p = 0.035; risk ratio, 1.3 [95% CI of risk ratio, 1.0–1.7]; risk difference, 23% [95% CI of risk difference, 5%–40%]), pain management (34 of 36, 94% [95% CI, 81%–99%]), versus 26 of 36, 72% [95% CI, 55%–86%], p = 0.024; risk ratio, 1.3 [95% CI of risk ratio, 1.1–1.6]; risk difference, 18% [95% CI of risk difference, 5%–39%]). The overall hospital rating also was greater in the treatment group (0–10 scale) (9.6; SD, 0.7 [95% CI, 9.3–9.8] versus 8.6, SD, 0.9 [95% CI, 8.3–8.9], p < 0.001).

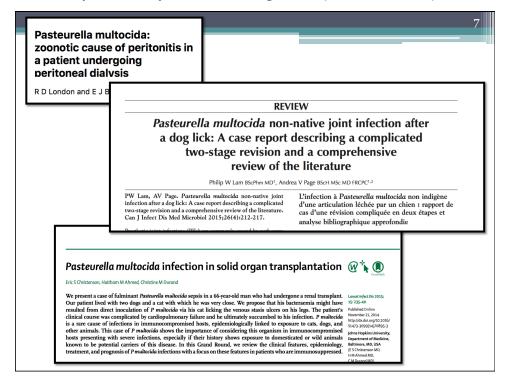
Conclusions

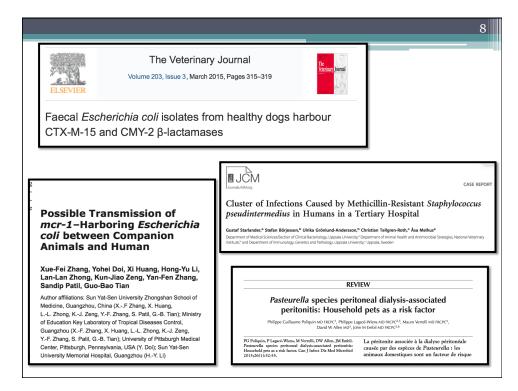
The use of therapy dogs has a positive effect on patients' pain level and satisfaction with hospital stay after total joint replacement. Surgeons are encouraged to inquire about the status of volunteer-based animal-assisted therapy programs in their hospital as this may provide a means to improve the immediate postoperative recovery for a select group of patients having total joint arthroplasty.

Author, Year, (Ref. No.)	Type	Methodology	Findings
Abate SV, 2011 (71)	Hospitalized heart- failure patients	Subjects were provided the opportunity to participate in canine-assisted ambulation (walking with a therapy dog). Case subjects were compared with a historical population of 537 controls.	Distance ambulated increased from 120.2 steps in a randomly selected, stratified historical sample to 235.07 in the canine-assisted ambulation study sample (P<.0001). Subjects unanimously agreed that they enjoyed canine-assisted ambulation and would like to participate in canine-assisted ambulation again.
Banks MR, 2002 (72)	Long-term care	Randomized clinical trial, three groups of 15 patients (no animal-assisted therapy; animal-assisted therapy once/week; animal-assisted therapy 3x/week); pre-post assessment	Residents volunteering for the study had a strong life-history of emotional intimacy with pets. AAA significantly reduced loneliness scores in comparison with the no animal-assisted therapy group.
Barak Y, 2001 (73)	Psychiatric ward	Randomized clinical trial of 20 patients, 10 with and 10 without animal-assisted therapy	Improvement was noted in both groups compared with baseline scores and were significantly more positive for the AAA group on both Total Social Adaptive Functioning Evaluation score and on the Social Functions subscale.
Barker SB, 2003 (74)	Fear in electroconvulsive therapy (ECT)	35 patients were assigned on alternate days to a 15-min animal-assisted therapy session (intervention), or 15-min session with magazines (control)	Animal-assisted therapy reduced fear and anxiety but had no demonstrated effect on depression.
Barker SB, 1998 (75)	Psychiatric patients	Self-reported, pre- and post-treatment crossover study that compared the effects of a single animal-assisted therapy session with those of a single regularly scheduled therapeutic recreation session.	Reductions in anxiety scores were found after the aniimal-assisted therapy session for patients with psychotic disorders, mood disorders, and other disorders. No significant differences found in reduction of anxiety.
Beck CE, 2012 (76)	Outpatient veterans	Animal-assisted therapy on Warriors in Transition (N = 24) attending an Occupational Therapy Life Skills program; pre-test, post-test nonrandomized control group study	Differences were not found between the groups on most measures; subjective reports of satisfaction with AAA.
Brodie SJ, 1999 (77)		Review	Potential benefits of pet therapy are



A Webber Training Teleclass
Hosted by Paul Webber paul@webbertraining.com
www.webbertraining.com

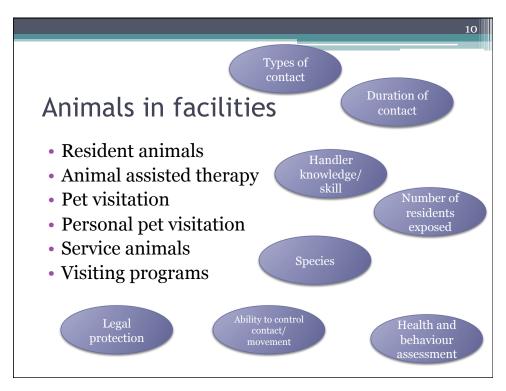




A Webber Training Teleclass
Hosted by Paul Webber paul@webbertraining.com
www.webbertraining.com

Animals in facilities

Resident animals
Animal assisted therapy
Pet visitation
Personal pet visitation
Service animals
Visiting programs



11

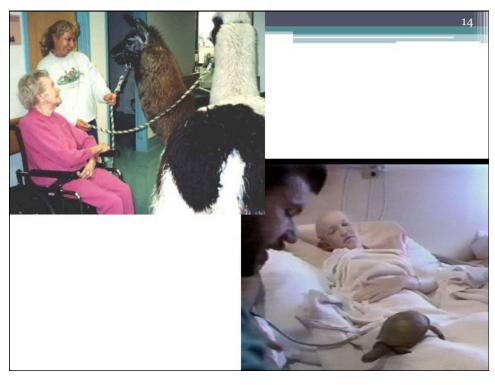
Animals in facilities

- Resident animals
- Animal assisted therapy
- Animal visitation
- Personal pet visitation
- Service animals
- Visiting programs



A Webber Training Teleclass
Hosted by Paul Webber paul@webbertraining.com
www.webbertraining.com





A Webber Training Teleclass
Hosted by Paul Webber paul@webbertraining.com
www.webbertraining.com



INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY JULY 2006, VOL. 27, NO. 7

16

ORIGINAL ARTICLE

Characteristics of Programs Involving Canine Visitation of Hospitalized People in Ontario

Sandra L. Lefebvre, DVM; David Waltner-Toews, DVM, PhD; Andrew Peregrine, PhD, Diplomate EVPC, MRCVS; Richard Reid-Smith, DVM, DVSc; Leslie Hodge, MSc; J. Scott Weese, DVM, DVSc, Diplomate ACVIM

- Survey of all Ontario, Canada hospitals, 2004 • 96.5% response rate
- Parallel survey of visitation dog owners
- 90% (201/223) hospitals permitted animal visitation
 - 27% of facilities not aware of all origins of animals

17

Screening Protocols*

- "Core" vaccination: 93%
 - Canine parvovirus, canine parainfluenza, distemper, hepatitis, rabies
- Additional vaccination:
 - Leptospirosis (11%), 'kennel cough' (7%)
- Deworming: 2%
- Temperament testing: 47%
- * Owner reported

18

Patient Contacts*

- 73% allowed on bed
- 79% allowed to lick patients

* Owner reported

19

Observational Study

- Temperament issues
 - Husky too aggressive to examine
 - Pomeranian bite on upper lip
 - Chihuahua bite on hand*
 - Labrador scratch on arm*

20

- Visitation of patients in ICU and under contact precautions
- Physicians petting dog then immediately touching patients in ICU
- Touching animals while eating
- Feeding dog a treat by mouth
- Dogs drinking from toilets

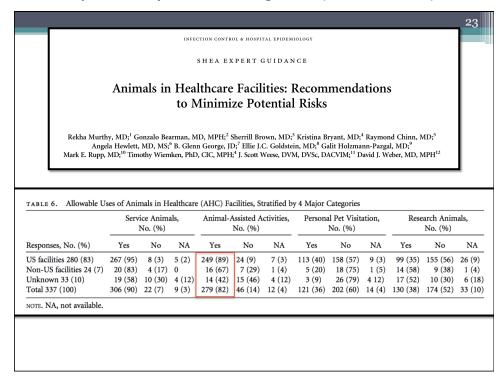
• Hand hygiene

• 0/75 healthcare workers that handled dogs performed hand hygiene before or after

• ~4% (n>400) of patients practiced hand hygiene before handling dogs

• Only 5% after

About half of observed dogs licked patients
~25% of handlers held patients' hands
<4% of handlers performed hand hygiene between patients



Do animals involved in visitation programs carry zoonotic pathogens?

C. difficile: 58%
Including ribotype 027/NAP1
Salmonella: 3%
Extended spectrum cephalosporin resistant *E. coli*: 4%
Giardia: 7%
Toxocara canis: 2%
Pasteurella canis/multicida: 22%/7%
Lefebvre et al J Hosp Infect 2006

Group A streptococci: 0%
MRSA: 0%
VRE: 0%
Ringworm: 0%
Cryptosporidium spp: 0%



28

Incidence of acquisition of methicillin-resistant
Staphylococcus aureus, Clostridium difficile,
and other health-care-associated pathogens
by dogs that participate in animal-assisted interventions

Sandra L. Lefebvre, DVM, PhD; Richard J. Reid-Smith, DVM, DVSc; David Waltner-Toews, DVM, PhD; J. Scott Weese, DVM, DVSc, DACVIM

- Dogs enrolled before starting visitation careers
 - Healthcare facilities (n=100)
 - Other facilities (ie schools) (n=100)
- Monthly sampling for MRSA, VRE, E. coli, Salmonella, C. difficile

29

Results

- 9% of exposed dogs acquired MRSA
 - 1% unexposed
 - All naturally decolonized by next visit
- C. difficile acquisition by
 - 15 unexposed dogs
 - 28 exposed dogs (*P*=0.025)
- 1 exposed dog acquired VRE

30

- MRSA risk factors
 - Healthcare centre visitation: OR 6.3
 - Visitation of children: OR 7.1
- *C. difficile* risk factors
 - Healthcare contact: OR 3.3
 - Visitation of children: OR 3.5
 - Antimicrobial treatment: OR 2.2
 - Antimicrobial treatment of someone in the house: OR 3.2

Nested Case-Control Study

• Positive/negatives in healthcare group

• MRSA

• Licked patients: OR 13.5

• Fed treats by patients: OR 12.3

• C. difficile

• Licked patients: OR 2.9

• Sat on beds: OR 2.9

• Ate feces: OR 0.12

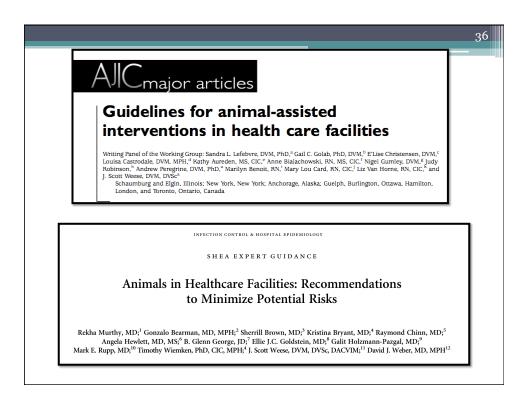
Do visitation animals actually cause disease?

There have been no reported outbreaks of disease attributed to visitation programs.....

There have been no reported outbreaks of disease attributed to visitation programs.....

but would the current system realistically detect animal involvement in disease?





Recommendations

• Facilities should have:

• Written policy

• Designated liaison

• Training/program requirements

• Species

• Domesticated species

• Good and predictable temperament

• Good knowledge about infectious disease carriage

• Ability to test/assess

• House trained

• Living in households

• Dogs

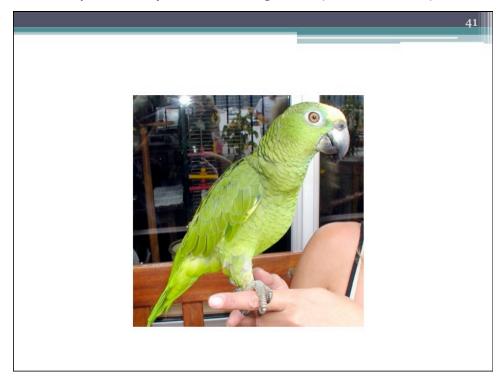
39

A. Allow only domestic companion dogs to serve as animalassisted activities animals. Cats are not included in the recommendation due to concerns for increased potential allergenicity, potential increased risk of bites and scratches, and lack of data demonstrating advantages over dogs.

C. Only dogs should be used (ie, exclude cats and other animals). Cats should be excluded because they cannot be trained to reliably provide safe interactions with patients in the healthcare setting.



A Webber Training Teleclass Hosted by Paul Webber paul@webbertraining.com www.webbertraining.com



Sources
Not from shelters, pounds, pet stores
In household for at least 6 months
Age
Dogs: ≥ 1-2 years
Temperament
Passed objective, standard temperament test conducted by trained personnel

• Animal health screening

Rabies vaccination
Annual veterinary examination
No deworming recommendations
No specific pathogen screening (ie MRSA, Salmonella ...)

Diet
No raw food or treats

Restricted for ≥ 1 week following
Diarrhea
Vomiting
Sneezing, coughing
Antimicrobial, immunosuppressive therapy
Skin disease, SSTI
Potentially painful disorders
Fleas, external or internal parasites

Temporary animal removal (re-assess)
 Negative behavioural changes since last temperament test
 Fearful response noted during visitation
 Loss of sight or hearing

• Permanent animal removal

• Any bite

• Any aggressive behaviour

47

Handlers

- Undergo formal hospital volunteer training
- Vaccination requirements consistent with those for healthcare workers at the facility
- Training program regarding visitation activities
- Syndromic restriction: self screening

48

Pre-visit

- Self-screen pets (syndromic)
- Check for external parasites
- Bath if visibly soiled coat
- Clean leash/collar
 - Leashed \leq 2 metres in length
- Method to identify animals (ie scarf, badge, collar)

Visitation procedures
Hand hygiene
Proper contacts
Safety, disease transmission
Only on beds with impermeable, disposable barrier
No contact with invasive devices, wounds, bandages...
No visitation of patients under enhanced precautions

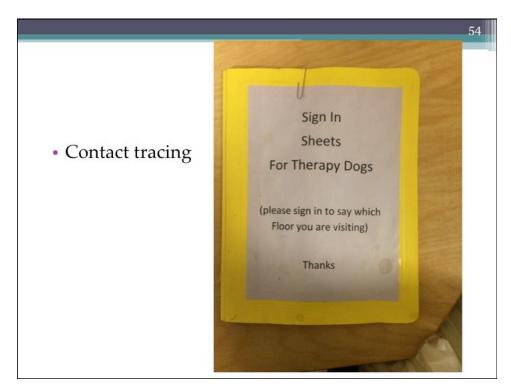
No visitation when patient is eating
Explicit patient (and roommate) permission before entering room
Physician designation?
Restrict to 1 hour (dog fatigue)

No entrance to
ICU
Food preparation areas
Medication preparation areas
OR
Isolation
Neonatal nurseries
Potentially frightening areas



A Webber Training Teleclass
Hosted by Paul Webber paul@webbertraining.com
www.webbertraining.com

Hand hygiene
Patients: Before AND after animal contact
Handlers: Between rooms
Handlers carry hand sanitizer



A Webber Training Teleclass
Hosted by Paul Webber paul@webbertraining.com
www.webbertraining.com





A Webber Training Teleclass
Hosted by Paul Webber paul@webbertraining.com
www.webbertraining.com

57

Questions?

jsweese@uoguelph.ca



September 22 HARDWARE OR SOFTWARE? INTERVENTIONS FOR A SUSTAINABLE INFECTION CONTROL PROGRAM

Prof. Joost Hopman, Radboud University, The Netherlands

September 26 (Free Teleclass – Broadcast live from the annual conference of the Infection Prevention Society – www.ips.uk.net)

E.M. COTTRELL LECTURE

Dr. Mary Woods, Academy of Social Sciences and Academy of Medical Sciences, Uk

September 28 (Free Teleclass – Broadcast live from the annual conference of the Infection Prevention Society – www.ips.uk.net)

USING SCIENCE TO GUIDE HAND HYGIENE SURVEILLANCE AND IMPROVEMENT

Prof. Eli Perencevich, University of Iowa

September 29 ADHERENCE ENGINEERING TO REDUCE CENTRAL LINE ASSOCIATED BLOODSTREAM INFECTIONS

www.webbertraining.com/schedulep1.php



THANKS FOR YOUR SUPPORT

Thanks to Teleclass Education

PATRON SPONSORS





