

# **‘Pets, Pools and Parrots – A garden of Eden or a microbial nightmare? Managing risks associated with the Eden Alternative™**

*Presented to  
SEOICN/CHICA-EO Environmental Conference  
February 12, 2008  
Liz Van Horne, Infection Prevention and Control Consultant  
Ministry of Health and Long-Term Care*



# Overview

- To describe the Eden concept
- To identify the infection prevention and control challenges in the Eden environment including:
  - Gardening
  - Children
  - Animal assisted therapy/visitation
  - Resident pets

# What is the Eden Alternative™?

- Concept for improving quality of life for residents with the addition of plant and animal life
  - Pets, plants and children integrated into daily lives and routines of residents in long-term care
- Originated in 1991 – Chase Memorial Nursing Home, New Berlin NY
- Dr. William Thomas developed program
- Change also includes decentralizing organizational structure to empower front-line staff
- Many organizations have adapted concept to fit the needs of their organizations

# Why is it important?

- Residents in LTC may be afflicted by loneliness, helplessness and boredom
- Studies have shown inclusion of plants, animals and children increases quality of life
- Allows residents to recapture some of the activities that may have been given up on admission to the LTCH

# What are the benefits?

- Animals shown to decrease stress, improve mood, increase communication skills and sociability, decrease loneliness and depression
- Plants and gardens change 'sterile' environment into more pleasant and natural place – plants can be decorative or useful (e.g. vegetables)
- Children provide an opportunity to socialize and allow the residents to assume a supportive role

# Why should infection prevention and control be concerned?

- Each component carries risk
- Residents in LTC frequently frail with underlying health issues
- Risks must be addressed to ensure a safe environment for residents, visitors and health care providers

# What are the risks?

- Animals –
  - Zoonoses may be spread from animals to humans
  - Recent literature documenting carriage of MRSA and *C. difficile* by visiting pets
- Children –
  - May introduce diseases prevalent in community into the home
- Gardening –
  - May introduce organisms in soil into residents
  - Water features may be a reservoir for organisms

# How can these be managed?

- Shutting the doors is not an option!
- Benefits have been well documented
- Challenge is to put measures in place to create a safe environment for all



# Plants/Gardens

- Organisms present in the soil may cause infections if they enter skin
- Outdoor gardening may expose residents to vector-borne risks
- Prevention includes:
  - Ensure resident's skin is intact
  - Use gloves for all gardening – indoors and out
  - Perform hand hygiene after all gardening activities
  - Confine gardening activities to times when risk is less – not early mornings or evenings
  - Eliminate any standing water areas

# Children

- On-site child care centres increasingly common in LTCH
- Young children are often reservoirs of communicable diseases
- Not all residents will have immunity
- Prevention geared to reducing exposure risk



# Children

- Ensure policies are in place for:
  - Immunization
  - Surveillance for symptoms of communicable diseases
  - Management of outbreaks in either child care centre and/or LTCH
  - Communication essential

# Animals

- Animals divided into several groups
  - Resident animals
  - Visiting animals
  - Therapy animals
- May also include service animals
- Not all animals are appropriate



# Resident Animals

- Animals reside in the LTCH
- Commonly
  - Birds
  - Cats
  - Dogs
- Cats and dogs may be restricted to certain areas or allowed to roam throughout the facility
- Birds may be in cages throughout the facility

# Resident animals – issues to consider

- Animals must:
  - Be assessed by veterinarian on a regular basis
  - Have received all required immunizations
- Birds:
  - Must remain in cages and not allowed to fly freely
  - Cages must be cleaned on a regular basis
  - Residents should not be in the immediate area when cages are cleaned
  - Staff must use appropriate PPE to clean cages

# Resident animals – issues to consider

- Cats:
  - Must be adult
  - Must be temperament tested
  - Must remain indoors
  - Litter box must be away from resident care areas
  - Litter must be cleaned daily – responsibility must be assigned to staff
  - Appropriate PPE must be available to staff
- Dogs:
  - Must be adult
  - Must be temperament tested
  - Must be supervised when taken outdoors

## **Resident animals – issues to consider**

- Feeding of cats and dogs should be done in an area where there will be no interference while the animal eats
- Dogs and cats must be neutered
- Any animal that exhibits negative behaviour must be removed from the environment pending investigation of the incident and re-evaluation of animal

# Visiting Animals

- Any animal that comes into the facility for the purpose of visiting with residents
  - May be resident's own animal or part of a group that volunteers to visit in the setting
- Restrict to trained, domesticated small companion animals
- Exclude:
  - Reptiles and amphibians
  - Hamsters, gerbils, mice and rats
  - hedgehogs

# Visiting animals

- General considerations
  - Maintain a record of all residents visited by animals
  - Obtain consent for animal visitations from resident/resident's family
  - Visits should not occur when residents are eating or drinking
  - Animals should not lick residents faces
  - Hand hygiene should be performed before and after visiting with an animal – animal handler should carry alcohol-based hand rub to facilitate this
  - If animal is placed on resident's bed a disposable impermeable barrier must be placed between animal and bed linen

## Visiting animals – resident's own

- Restrict to domesticated small animals
- Must have up-to-date immunizations
- Animal must be groomed prior to the visit
- Animal and handler must be free of symptoms of communicable diseases
- Animal must be transported to visit location in a carrier to minimize contact with other residents and staff
- Animal must not visit other residents

# Visiting animals – non-resident owned

- Must be assessed to ensure temperament suitable for the setting – re-evaluate on a regular basis
- Must receive a health evaluation by a veterinarian at least annually
  - Must have all required immunizations
  - Must be free of symptoms of communicable diseases
- Diet – exclude animals that have been fed any raw or dehydrated foods or treats
- Must be groomed prior to the visit
- Must not visit residents on additional precautions

# Visiting animals – non-resident owned

- Animal handlers
  - Must be knowledgeable about policies and procedures of the setting related to animal visitation
  - Must receive infection prevention and control training related to animal visitation
  - Must comply with organization's policies related to influenza immunization and any additional volunteer requirements
  - Must self-screen for any symptoms of communicable disease and refrain from visiting if ill
  - Must handle only one animal per visit
  - Must control the animal at all times
  - Must report any incidents immediately and remove the animal from the setting

# Therapy animals

- May be different from animal visitation
- Animal may be brought to the facility to participate in therapeutic interaction with a specific resident or group of residents
- This should be included in the resident plan of care
- Requirements for therapy animals are the same as visiting animals

**This is not the plan!**



# Incorporating plants, pets and children

- This does take work!
- Careful planning is essential
- All staff in the setting must be committed to creating a safe environment
- Risks can be managed to provide a nurturing environment that will have a positive impact on residents, staff and families/visitors



# References

- Halbert RJ. *Lessons from the Original 'Eden'*. Provider, June 2000:49-51
- Lefebvre SL, Waltner-Toews D, Peregrine A, et al. *Characteristics of Programs involving Canine Visitation of Hospitalized People in Ontario*. ICHE July 2006;27:754-758
- Weese JS, Dick H, Willey BM, McGeer A, et al. *Suspected transmission of methicillin-resistant Staphylococcus aureus between domestic pets and humans in veterinary clinics and in the household*. Veterinary Microbiology; 2006
- Brodie SJ, Biley FC, Shewring M. *An exploration of the potential risks associated with using pet therapy in healthcare settings*. Journal of Clinical Nursing 2002;11:444-456

# References

- Coleman MT, Looney S, O'Brien J, Ziegler C, Pastorino CA, Turner C. *The Eden Alternative: Findings After 1 Year of Implementation*. Journal of Gerontology 2002; 57A(7):M422-M427.
- Duncan SL. *APIC State-of-the Art Report: The implications of service animals in health care settings* AJIC 2000;28:170-180
- Guay DRP. *Pet-assisted therapy in the nursing home setting: Potential for zoonosis* Am J Infect Control 2001;29:178-86