Designing End-of-Life Care Settings to Enhance Quality of Life

A Cornell University Report

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Summary

Shared by researchers at Cornell University, this report presents straightforward design guidance for settings in which end-of-life care is delivered. Focused on accommodating the unique and unfamiliar changes experienced during the end-of-life journey, the research reflected here examined four primary design elements of the built environment that profoundly influence end-of-life care settings. The material in this document can be used to inform conversations among designers, users, and stakeholders to support creation of custom design solutions that support residents, families, and caregivers.

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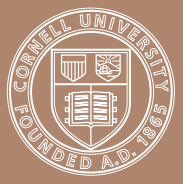

Cornell University

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Informing the Conversation Among Designers, Users & Stakeholders

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Analysis

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Student Contributors

The following students, in a course titled *Policy Meets Design*, contributed to the preliminary data analysis as part of a service learning project, and, in collaboration with the community partners and the research team, provided a wealth of possible solutions on the best methods to present the research findings in a visual format. Their work and the feedback by facility representatives played an important role in identifying the best presentation style for this guidebook.

- Kearny Chang
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This document is a work-in-progress summary of interviews of health practitioners and literature reviews of available sources, and is intended to act as a stimulus to initiate discussion among industry professionals and experts about design for end-of-life. Therefore, the list of recommendations is not to be considered definitive, complete or fully tested. Neither the authors nor distributors are responsible for the readers' interpretation and application of these recommendations. Further research is required to test all of these recommendations and to add specificity to each intervention.

Introduction

Few of the environments in which we live our lives match end-of-life care settings and the complexity of needs that must be accommodated. Pain, fear and grief infuse the unfamiliar work being done and significantly heighten sensitivity to all environmental factors including space, sound, light, odor and tactile qualities. The built environment, when thoughtfully addressed absolutely can make a positive difference for all involved in end-of-life experiences. Discerning how best to create and manage the environment requires a thoughtful, ongoing conversation among designers, users and stakeholders in end-of-life care settings. This document is intended to be a catalyst for that conversation.

As you discuss design responses appropriate to your situation, keep in mind that the over arching challenge is to accommodate change. The common thread among all end-of-life experiences is change, from moment to moment throughout the day, and from day to day over the course of each experience. Much as props transform a stage from scene to scene, the environment for end-of-life care should be designed to flex in support of change, based on the evolving needs of the individual. That ability to flex will provide those living the experience with the complimentary feelings of being in control and belonging in each moment.

Information and ideas presented in this document are drawn from several sources: focus groups, a survey of end-of-life care providers including professionals and family members, and a literature review about environmental factors in end-of-life care. Whether you are designing a new care facility, upgrading an existing facility, or adapting a private residence, use the considerations in the four chapters that follow not as a checklist, but as a resource to inform your conversation toward a coherently flexible and appropriately supportive design.

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1. Regulate Ambient Environment

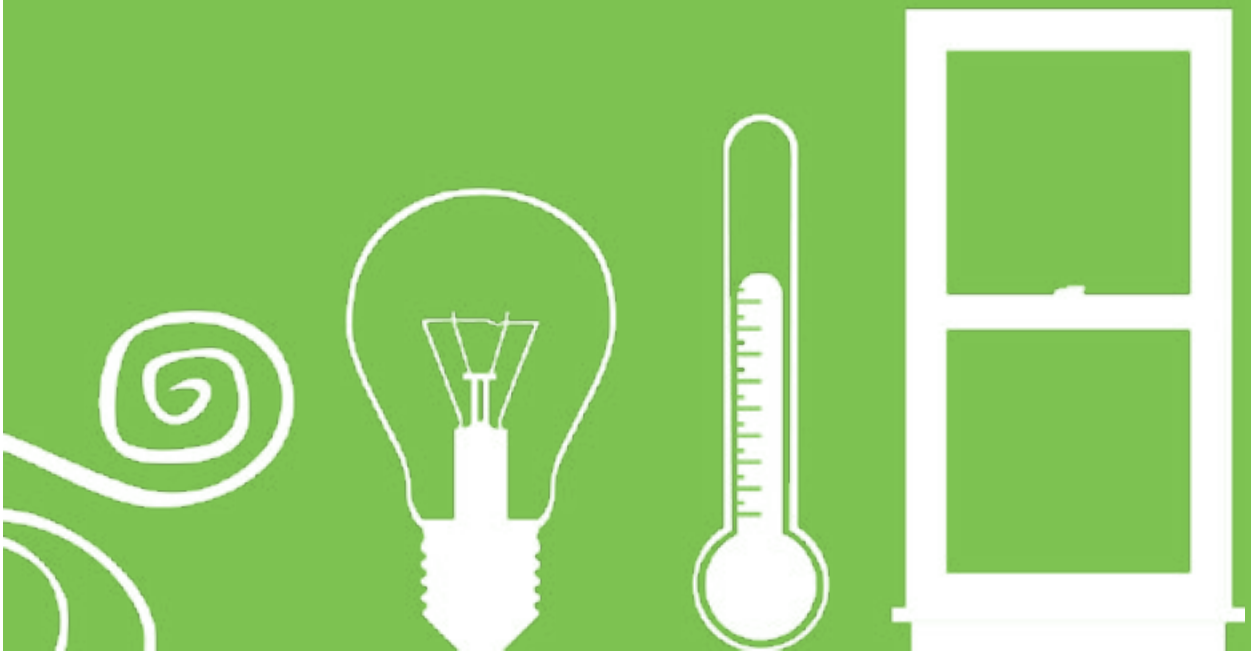
2. Manage External Stimulation

3. Provide Furnishings

4. Optimize Space & Layout

Regulate Ambient Environment

The ambient environment, perceived through our senses of vision, hearing, touch, and smell, as well as through our somatic receptors of temperature and humidity, influences how we feel in settings. Aspects of the ambient environment are particularly important in end-of-life care because of the potential for heightened sensitivity and reduced ability of the body to remain homeostatic, e.g., to maintain body temperature. This chapter organizes information to inform your conversation in making design decisions about the ambient environment.



1.1 Color & Pattern

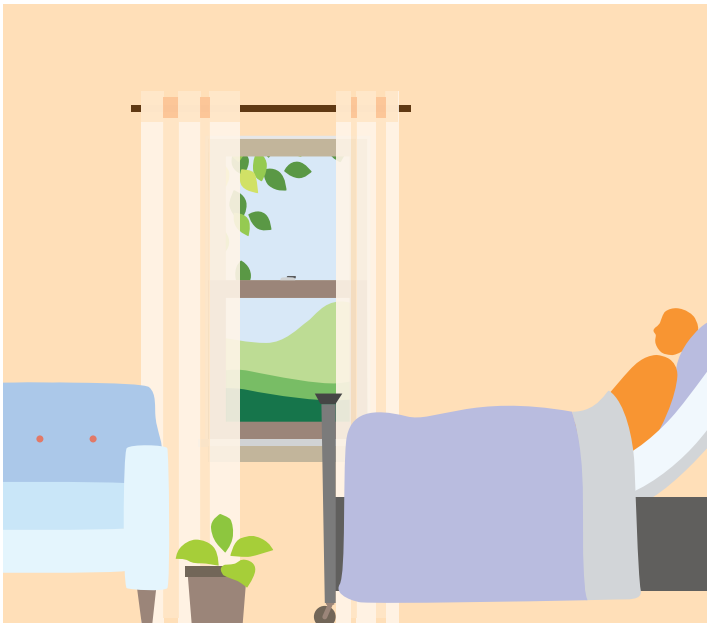
Use color and pattern to create a peaceful and relaxing environment.

Texture & Fabric

Interior wall coverings and fabrics should not have a busy pattern. Avoid patterns containing symbols that could trigger emotional distress.

Soft & Subtle Colors

Use soft, soothing (low saturation, natural, neutral) color palettes. Avoid using a lot of dark colors in resident spaces.



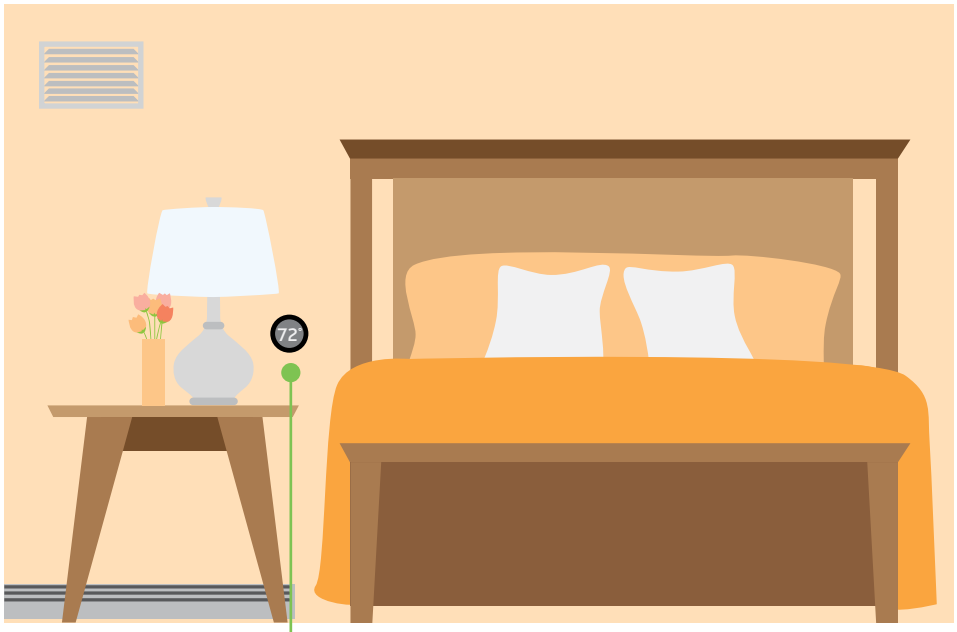
Presence of Color

Bring color into resident surroundings, such as through trim colors, bedding, furnishings and curtains.

1.2 Thermal Conditions

To minimize discomfort and pain caused by decline in the ability to regulate body temperature at end-of-life, provide residents with the following types of options for individual thermal control.

Thermal Comfort

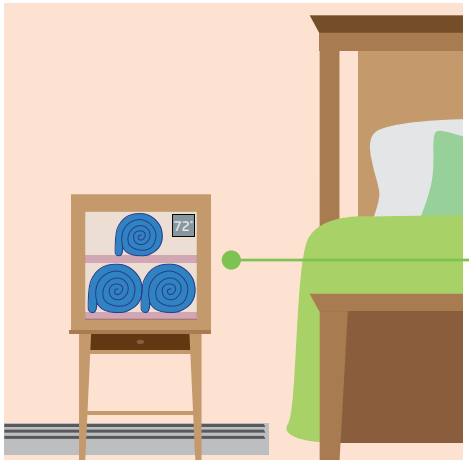


Provide accessible and intuitively controlled heating and air conditioning systems.

Thermal Control

Provide operable windows with screens.

Thermal Conditions



Sufficient Heating & Cooling

When needed, provide heated blankets and/or blanket warmers.

"Physical Comfort ... [means] being free from physical pain and discomfort, including shortness of breath, nausea, constipation, joint pain, and so on. It includes being comfortable in terms of temperature and body position. To some older people, it even includes crisp, freshly laundered sheets. It certainly includes having one's pain or discomfort noticed and addressed." *(Kane, 2001, p. 297)*

Sufficient Heating & Cooling

Install fans in resident rooms if there are no air conditioning systems to help with thermal comfort.

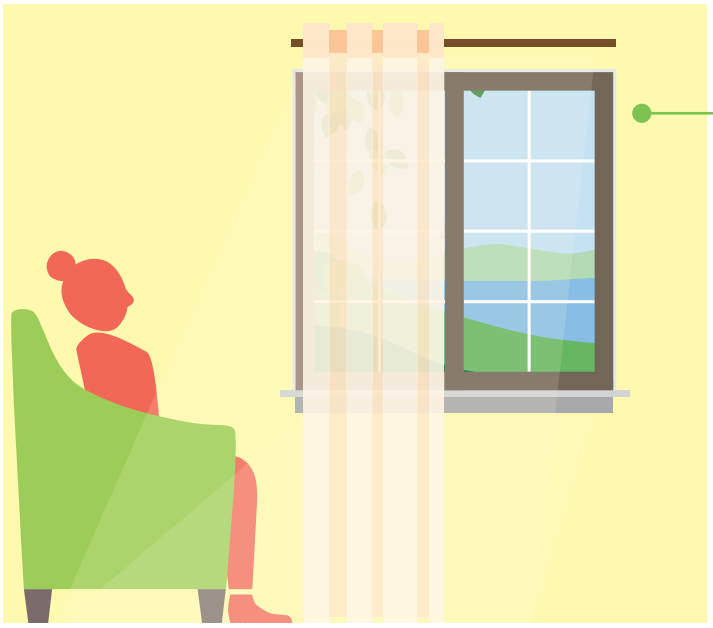
1.3 Lighting

Allow full management of lighting at all hours of the day. Because residents, practitioners, and caregivers are all users of the space and each has different needs and preferences, lighting should be intuitively controllable in terms of level, source, and location.

Lighting Quality: Uniformity & Spectrum

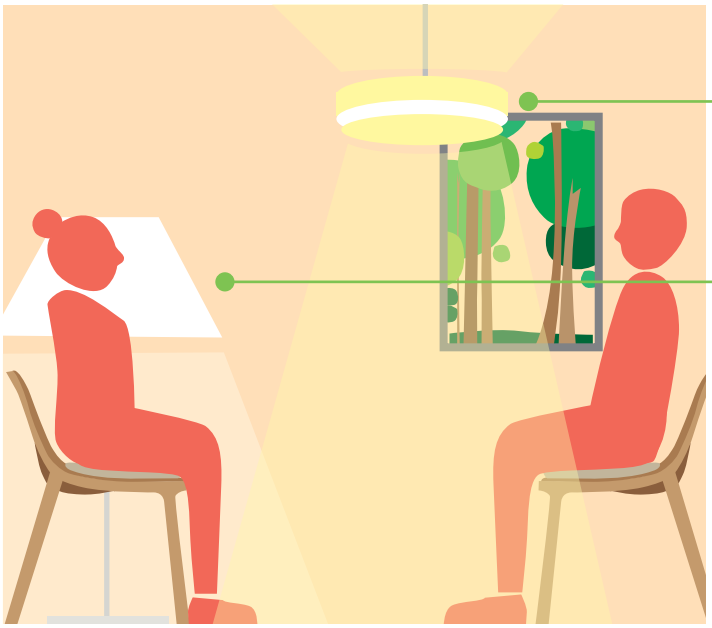
Do not use fluorescent tube lighting because of cold, institutional feel and potentially disturbing 60 cycles per second flicker.

> ***"There is also strong evidence that shows that exposure to light helps in reducing depression, alleviating pain, and improving sleep and circadian rhythms among patients ... Clearly, an important goal for facility designers should be to fulfill human needs for light and provide a high-quality lighted environment. There is clearly a strong preference for daylight over electric light."*** *(Joseph, 2006, p. 10)*



Lighting Quality: Uniformity & Spectrum

Maximize access to natural light (e.g., large windows and skylights) while also providing easily accessible means to eliminate natural light and darken space as desired (e.g., switches, adjustable blinds, shades, or curtains), including control of light contamination from hallways and equipment as needed to support resident circadian rhythms-sleep cycles.

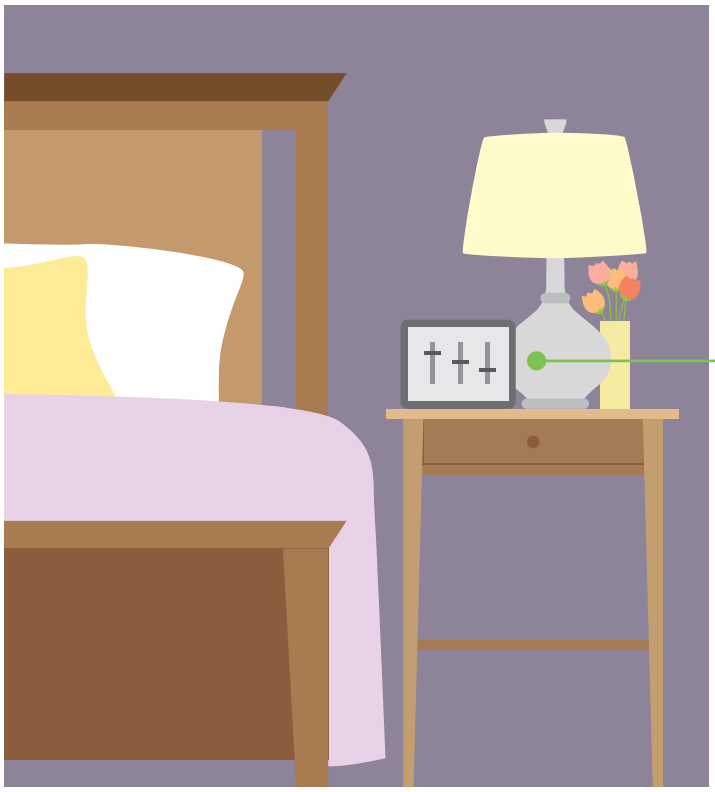


Lighting Quality: Uniformity & Spectrum

Use soft overhead lighting and color corrected daylight lamps.

Do not use fixtures that allow line of sight views of lighting elements, allowing for the reduction of glare.

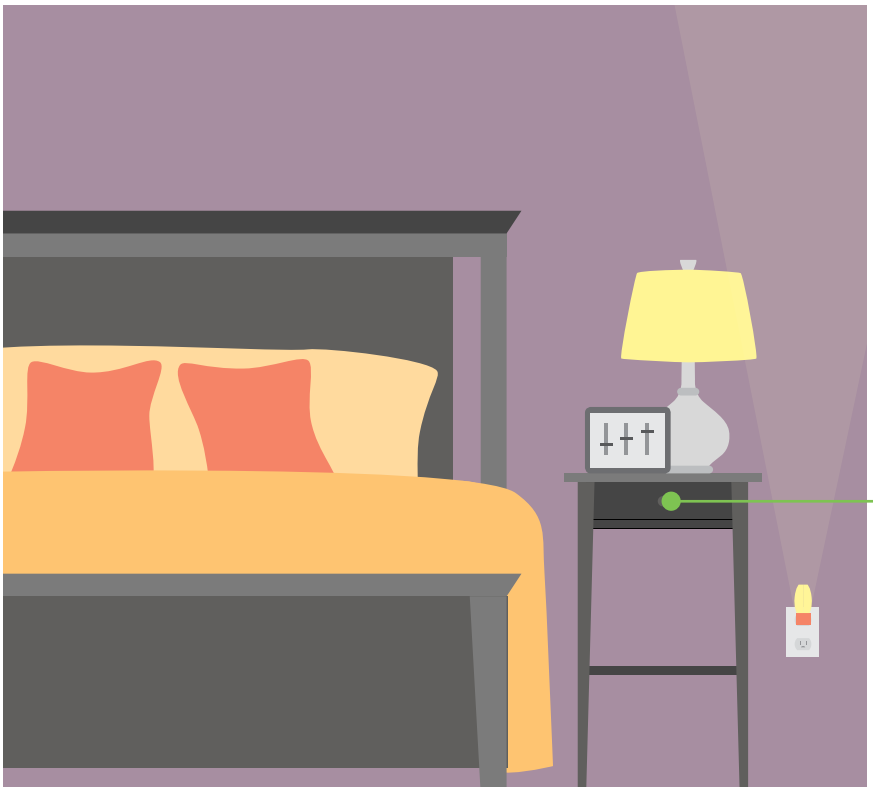
Lighting



Control of Lighting

Provide residents and staff with the easily accessible means to adjust lighting by small increments, such as through wireless control using a tablet.

> ***"Daylight entering through windows can be extremely beneficial to patients, provided there is no glare and it is possible to control light levels."*** *(Joseph, 2006, p. 9)*



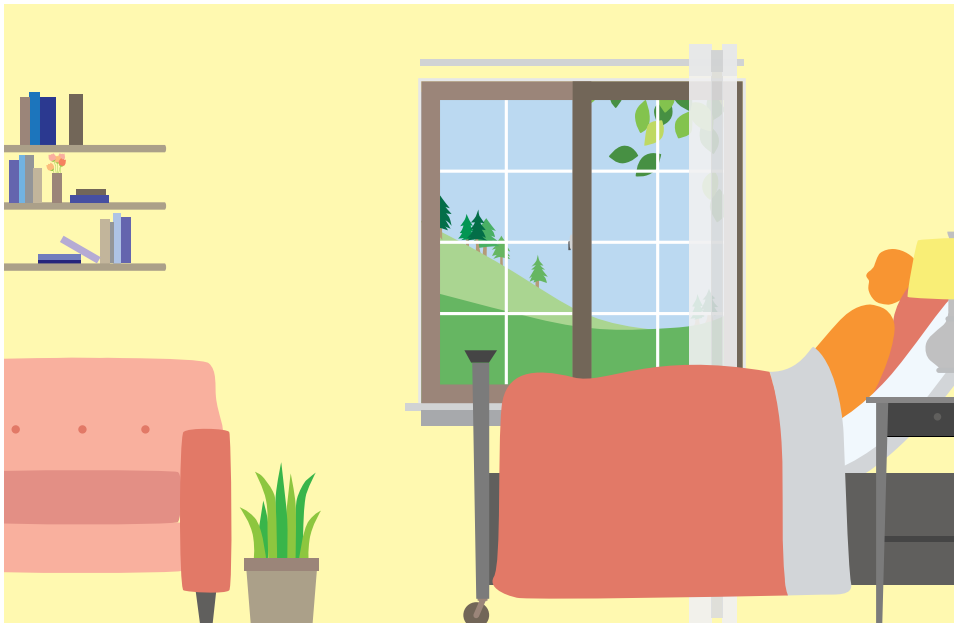
Control of Lighting

Equip resident rooms with a small night light and a side table with lights that residents can reach.

1.4 Views of Nature

Exposure to the natural environment has a calming influence, exercises the mind, and enables spiritual connection with life.

Nature Views

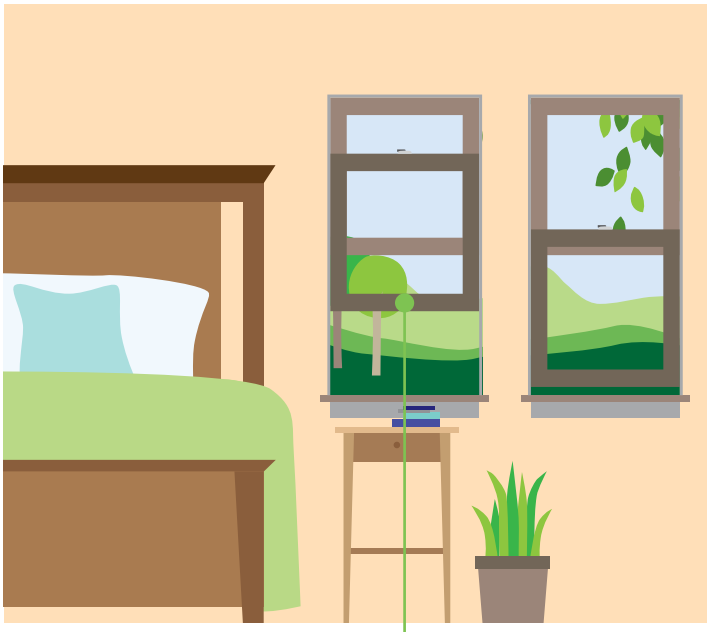


Proximate to the bed, provide residents with large windows overlooking beauty of nature to increase healthful sensory input and provide an expansive versus confined feel of space.

Connection to Outdoors

Use clear glass to increase resident connection to outdoors.

Operable Windows

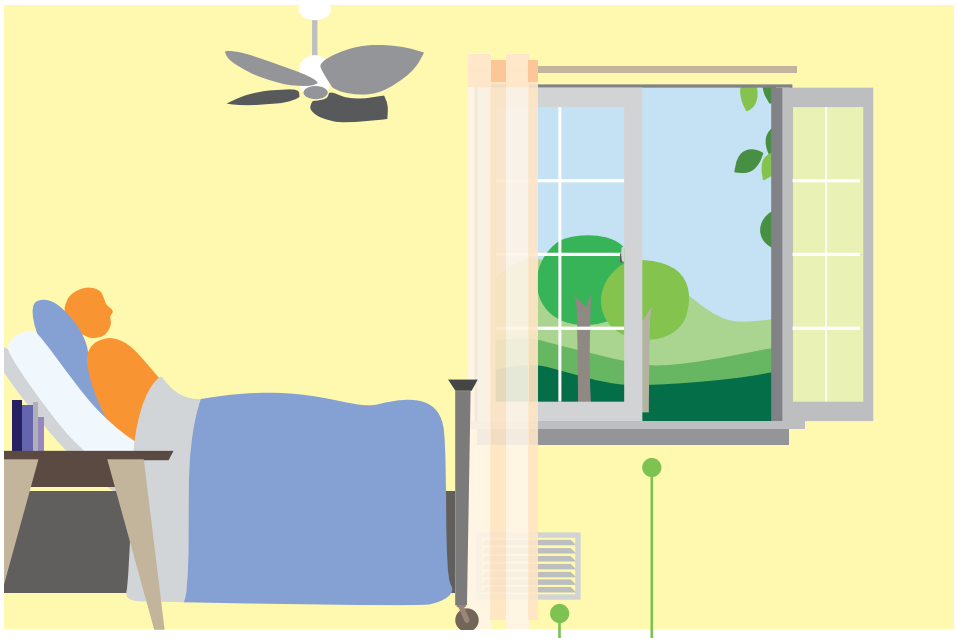


With operable windows or sliding glass doors, you can increase sensory access to nature. Provide screens to keep out bugs.

1.5 Air

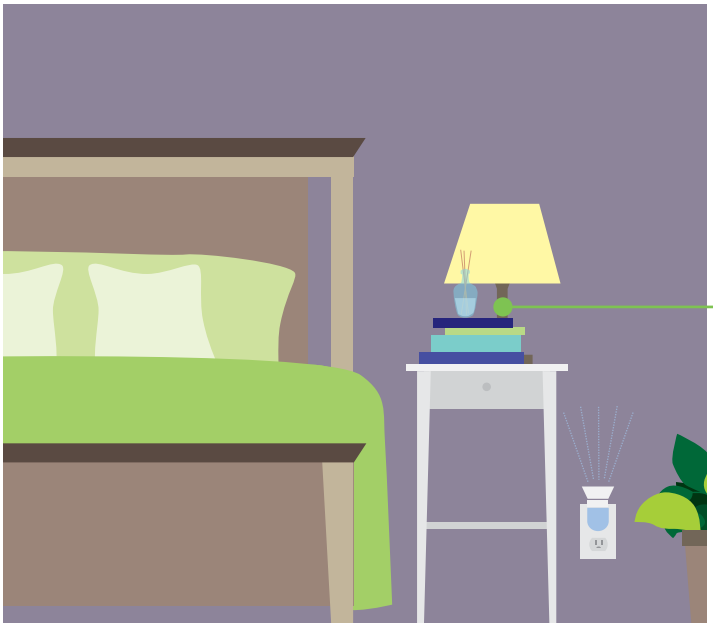
Air quality, in terms of oxygen level, humidity level, air movement, and odor, influences comfort.

Air Movement



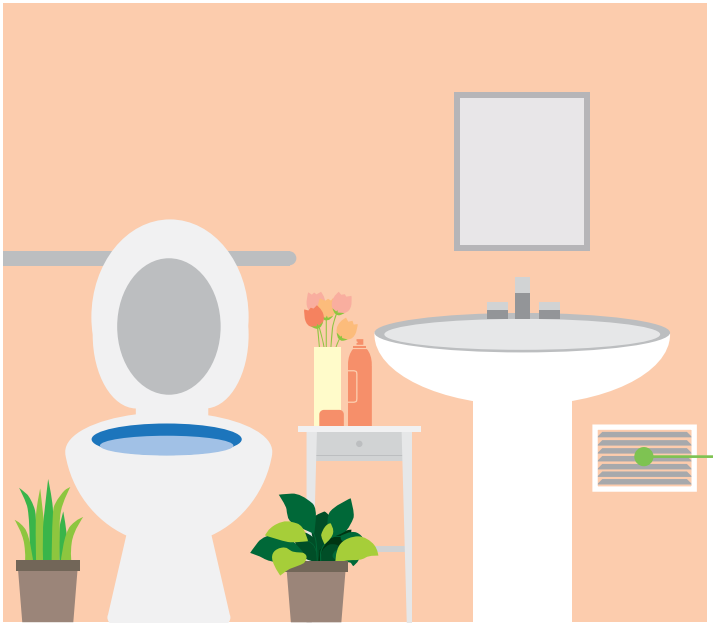
With installed HVAC systems and locally controlled fans, control humidity levels, reduce noxious odor, and provide efficient ventilation for each room.

Operable windows will bring fresh air, promote air movement and provide natural ventilation.



Odor Control

Consider using odor control devices and/or non-toxic odor neutralizing products to reduce odors.



Odor Control

Control odors at source, e.g., with controllable ventilation in private bathrooms and food preparation areas and design of odor producing waste removal systems.

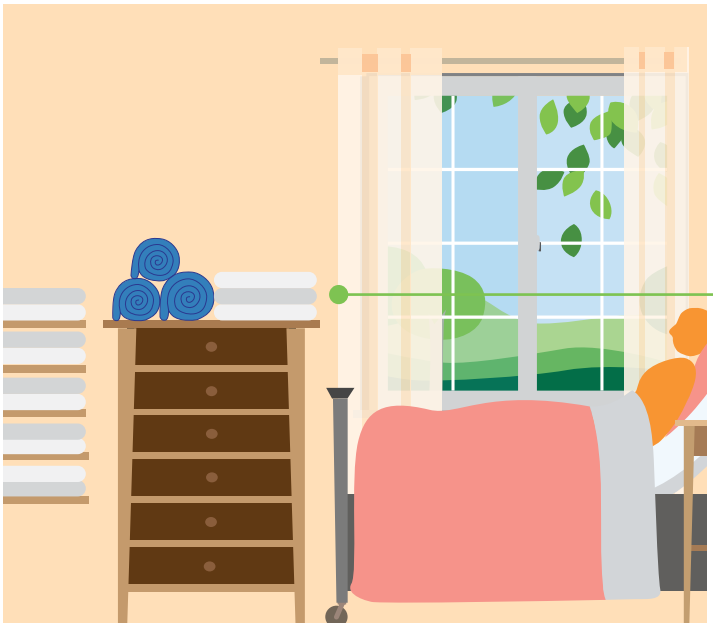
1.6 Housekeeping & Maintenance

An environment that is frequently cared for positively influences resident, staff, and caregivers' perceptions of quality of care. Additionally, an environment that facilitates personal hygiene enables residents to be more relaxed and reduces discomfort during bathing and toileting.

Clean Bathroom

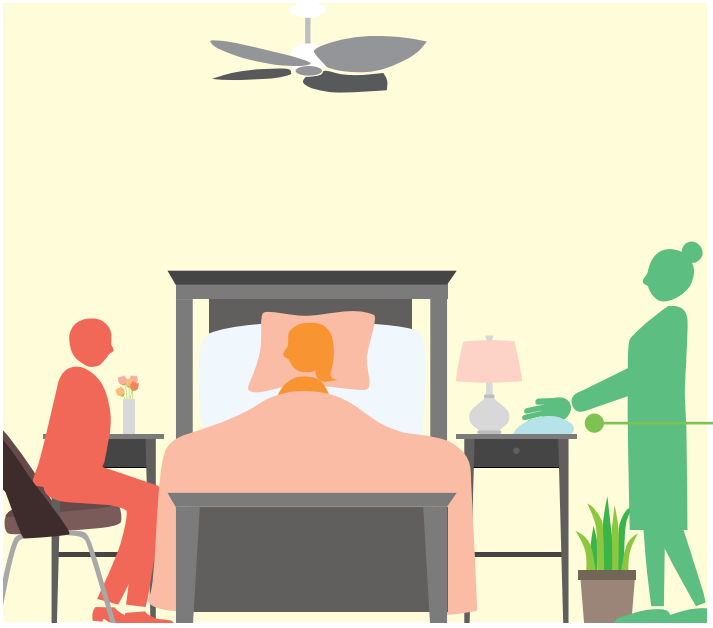
Provide frequently cleaned and easily maintainable, and accessible private bathrooms and/or private showers. Incorporate personal hygiene features (e.g., bidets, shower stalls/bathtubs large enough for caregiving during bathing).

> ***"The way in which attention is paid to the physical environment symbolizes how people are cared for at the unit; a messy and unclean environment conveys the idea that the care given is similar."*** *(Rasmussen, 2007, p. 125)*



Clean and Easy-to-Organize Bedroom

The design of the environment should support a system where daily changing, removal, and stocking of clean linens can be accomplished.



Durable Surfaces

Incorporate durable and easily cleaned materials and surfaces. Cleaning, maintaining (e.g., painting) of all surfaces is important to perceptions of environmental quality and infection control.

Manage External Stimulation

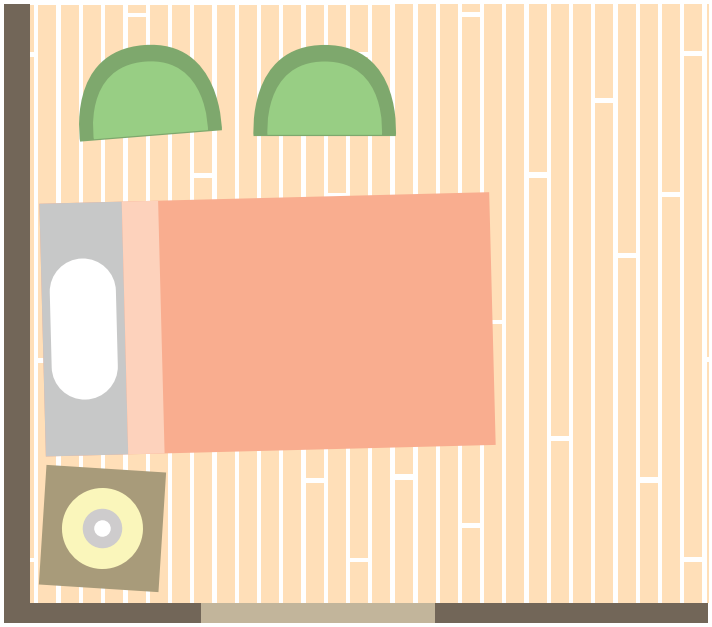
Sensory stimulation has an impact on the well-being of people at end-of-life. Unwanted stimulation elevates anxiety, agitation, and discomfort. Residents need peace and quiet to enhance quality of sleep and enable rest with dignity.

Positive stimulation, by contrast, can elevate feelings of satisfaction and comfort.

Your discussion of environmental features should address the need for control of external stimulation.

2.1 Limit Unwanted Stimulation

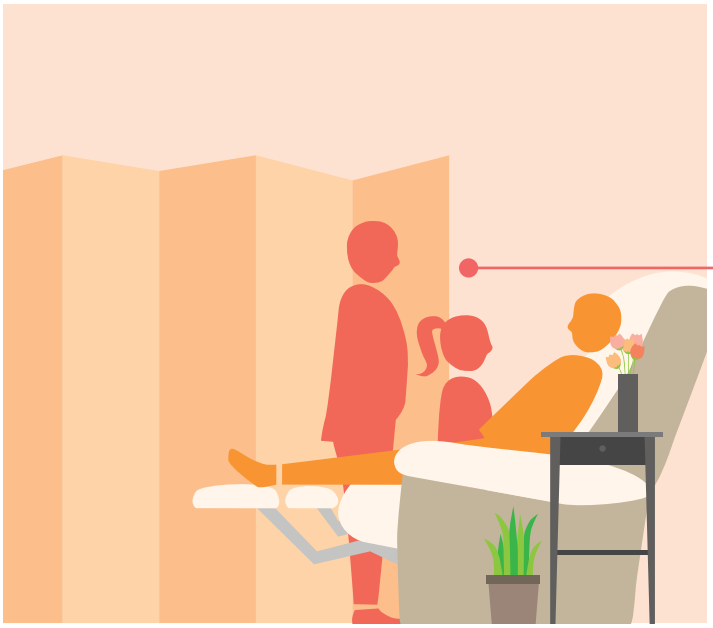
The environment should be designed to give residents, visitors, and caregivers flexibility in controlling unwanted stimulation.



Privacy (Visual Stimulation)

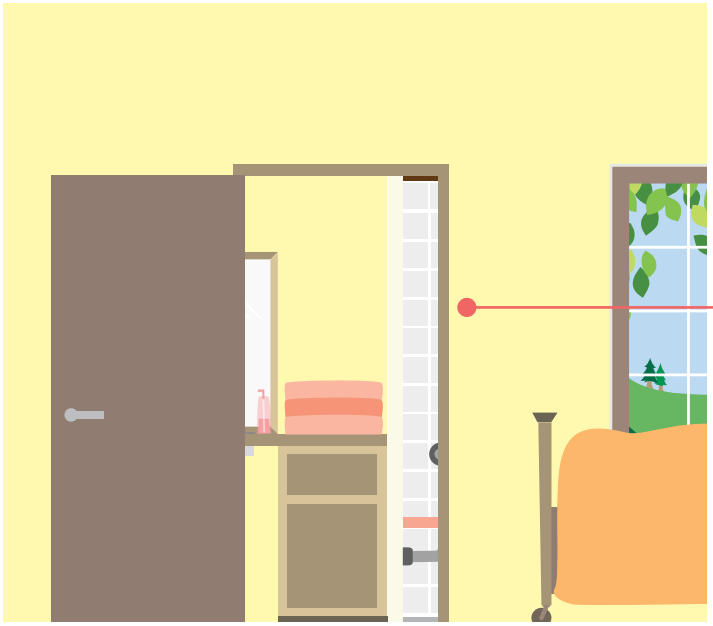
The ideal is to provide single occupancy rooms with closable doors to give each resident and his or her family full control of privacy.

Privacy for end-of-life patients and their families is of great importance. "Families' need for privacy and proximity when a loved one is dying should receive greater attention from ICU professionals as well as hospital managers and architects." *(Fridh, Forsberg, & Bergbom, 2007, p. 99)* ***Silence and the privacy of having a single room were among the important environmental components for supporting spiritual expression and sense of self-worth. "The atmosphere of peace and the opportunity for a quiet space were important to their process of making sense of things and finding meaning in their experience."*** *(Tan, Braunack-Mayer, & Beilby, 2005, p. 1052)*



Privacy (Visual Stimulation)

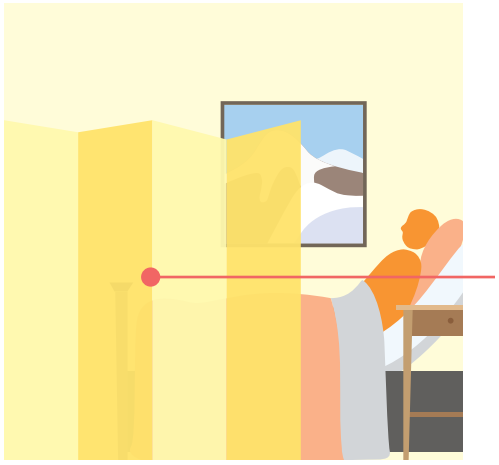
If it is not possible to provide single occupancy rooms, then create private areas for residents and their families that are secluded from the view, sound, and presence of other people. If single occupancy is not possible, then facilitate these ends through provision of movable privacy screens.



Privacy (Visual Stimulation)

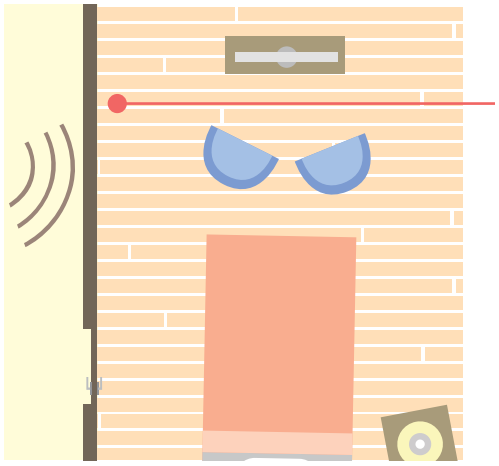
Provide each resident bedroom with a private bathroom.

Limit Unwanted Stimulation



Privacy (Visual Stimulation)

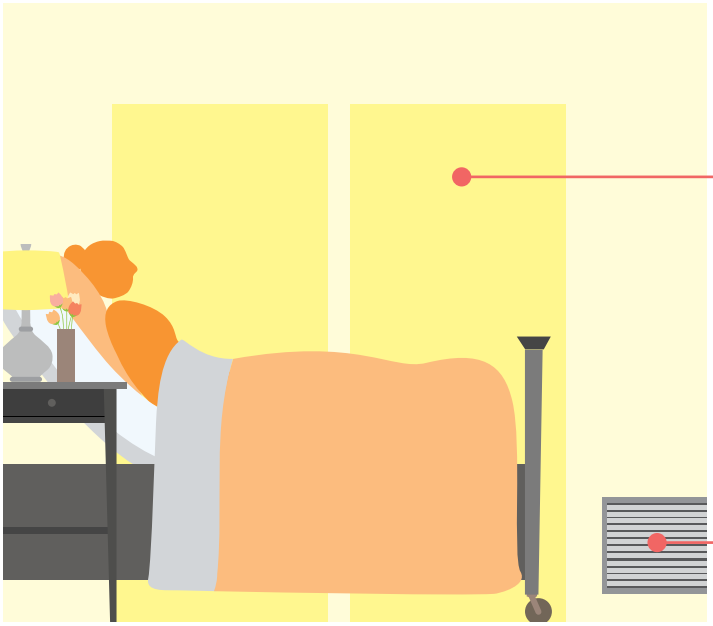
For both single and double occupancy rooms, provide curtains or movable screens that can be utilized when providing personal care.



Auditory Stimulation

All rooms should be made to be quiet, e.g. through use of soundproof doors, windows, and walls, when the resident desires quiet, irrespective of room proximity to busy hallways, nursing areas, other resident rooms, and external noise sources.
Provide residents and caregivers with sound masking technology as desired to control unwanted external noise beyond what already is controlled by structural soundproofing. Additionally, audio alarms could be situated by the caregivers' work area instead of resident rooms whenever possible.

> ***"Being in a calm environment devoid of loud alarms, telephones, screaming voices and unfamiliar noise, and where movement is at a calm and comfortable pace contributes to the feeling that one is able to follow one's own rhythm."*** *(Rasmussen & Edvardsson, 2007, p. 127)*



Auditory Stimulation

Use noise-reducing materials, e.g., wall coverings and carpeting, in rooms wherever possible on otherwise hard and reflective surfaces to absorb disturbing sound.

Install ventilation systems that are quiet.

Olfactory Stimulation

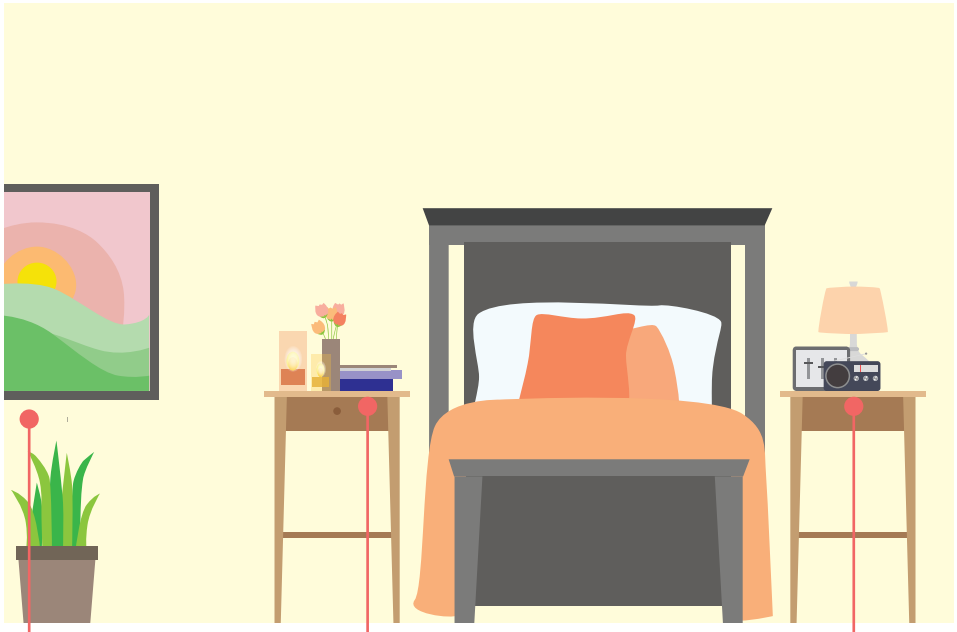
Control noxious odor at the source, e.g., through effective systems of removing soiled and odorous materials, frequent cleaning and trash removal, zoned and ventilated food preparation areas, and rules about use of perfumes.

Provide ventilation, e.g., through operable windows and controllable ventilation systems to improve olfactory sensations. Make sure to provide screens on the windows to keep insects out.

2.2 Design Positive Restoration

Positive stimulations are those objects, events, or activities that provide positive distraction, feed the senses, exercise the mind, and focus attention away from physical decline. Flexibility and adaptability in support of restorative features are needed to accommodate variations among residents relative to preferences, belief systems, and cognitive state.

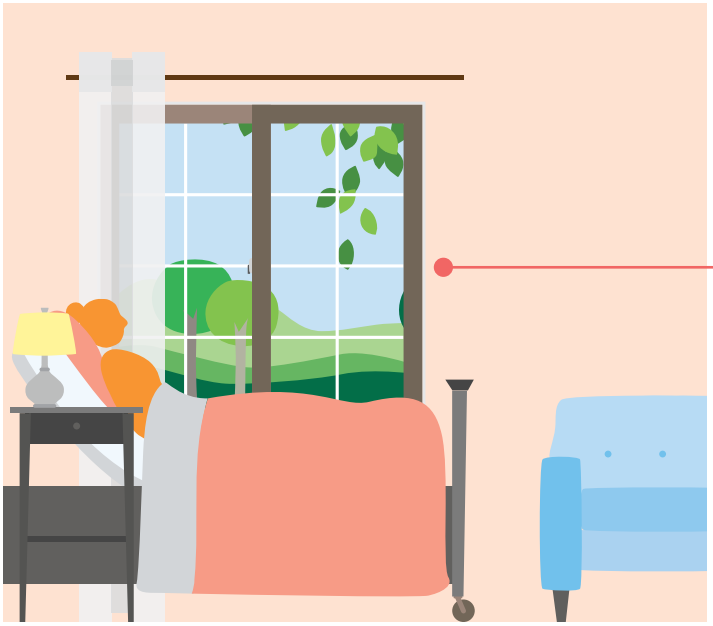
Spiritual & Emotional Restoration



Resident bedrooms should have spaces for the placement of religious/ spiritual symbols, e.g., stained glass images, icons, or paintings mounted on the walls. People come from various walks of life, spiritual, cultural experiences and choices. Enable customization of the spiritual resources.

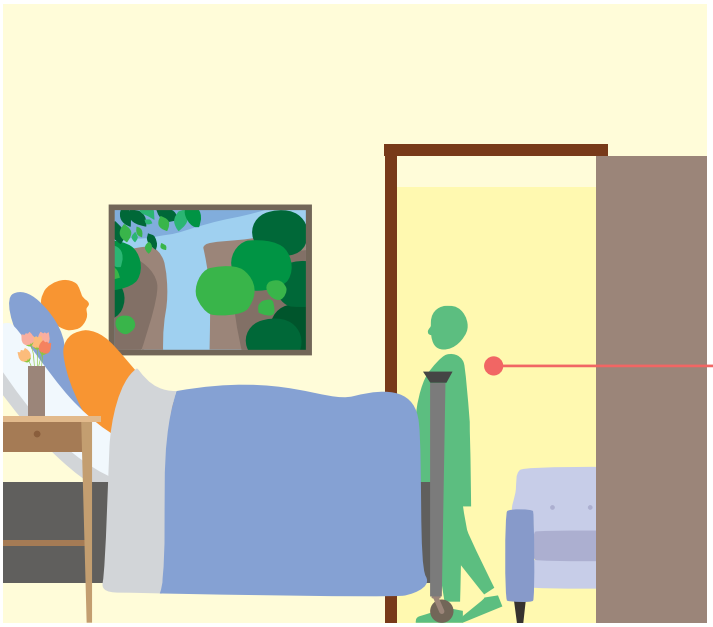
Provide reachable storage for books and pamphlets on spiritual well-being. Provide candles (electronic where restrictions prohibit actual flames) for spiritual and emotional restoration.

Provide residents with the means of listening to music.



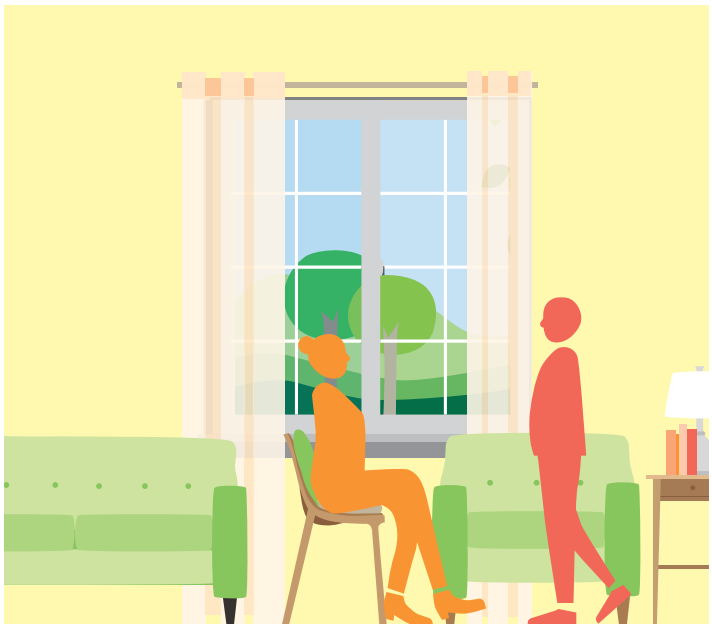
Spiritual & Emotional Restoration

Allow access to nature or views to nature to promote spiritual well-being.



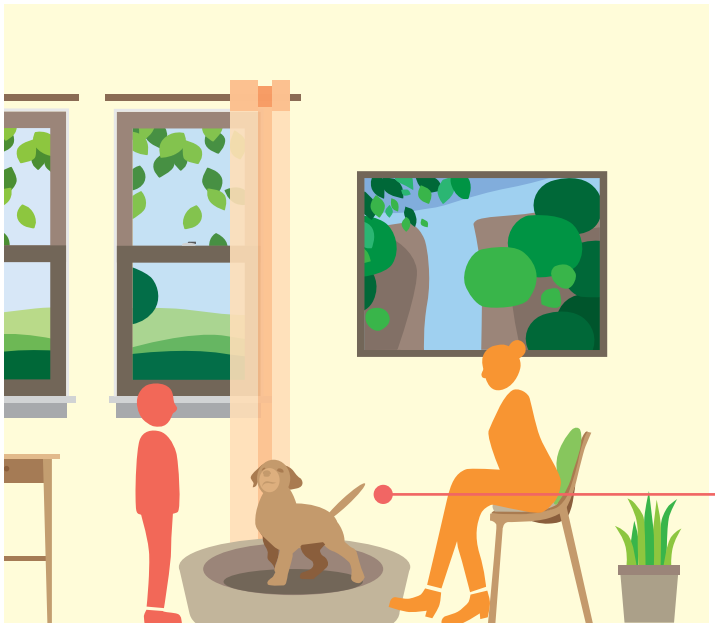
Social Stimulation

Consider ways to provide vantage points onto activity areas through doors or windows to reduce resident's feeling of isolation.



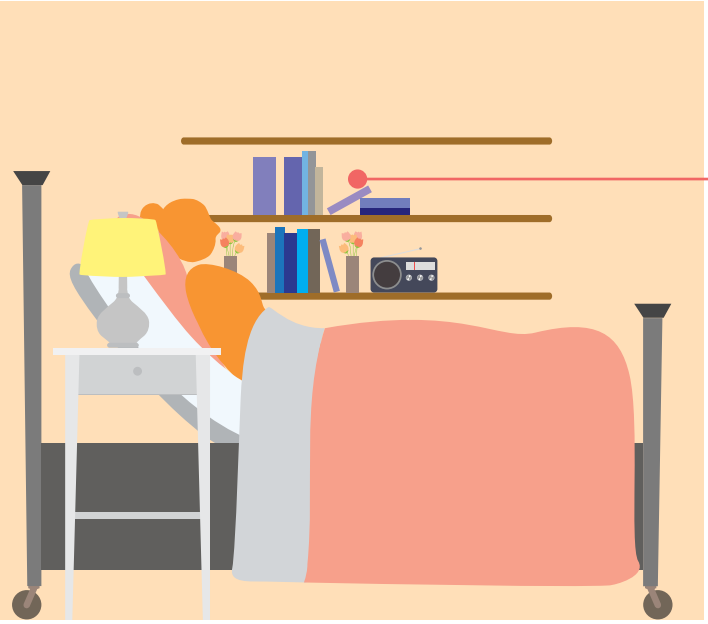
Social Stimulation

For residents who are mobile, provide easy access to common areas for engagement in stimulating activities with families, visitors, other residents, or staff.



Social Stimulation

Given that petting an animal decreases stress, design for the potential of visiting animals.



Cognitive Stimulation

Provide residents with access to books, games, movies, hobbies and music.

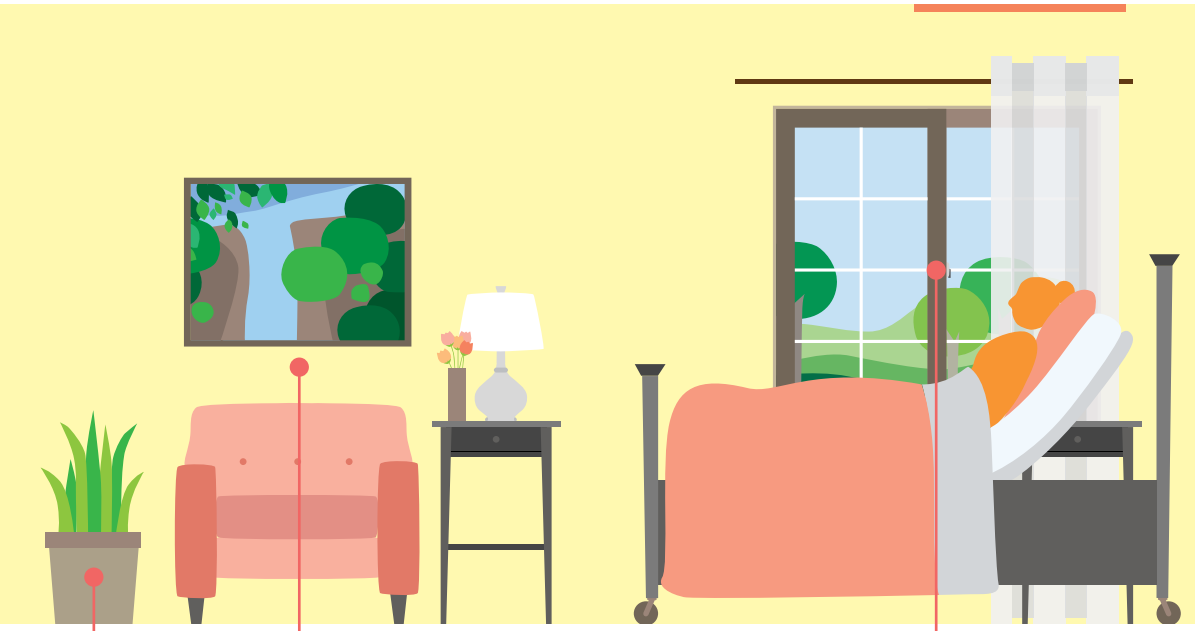
"Music, art, and poetry therapies are becoming popular forms of patient care in hospice settings as forms of reflection and expression of life experiences and reviews." *(Wlodarczyk, 2009)*

Pleasant Aromas and Smells

Provide positive aromas specific to the preferences of the individual, e.g., fresh air, fresh flowers, scented oils, baked goods, or natural wood, keeping in mind that without appropriate control odors may negatively affect other residents.

> ***"In watching diseases, both in private houses and in public hospitals, the thing which strikes the experienced observer most forcibly is this, that the symptoms or the sufferings generally considered to be inevitable and incident to the disease are very often not symptoms of the disease at all, but of something quite different—of the want of fresh air, or of light, or of warmth, or of quiet, or of cleanliness, of each or of all of these."*** *(Nightingale, 1946, p. 5)*

Visual Stimulation

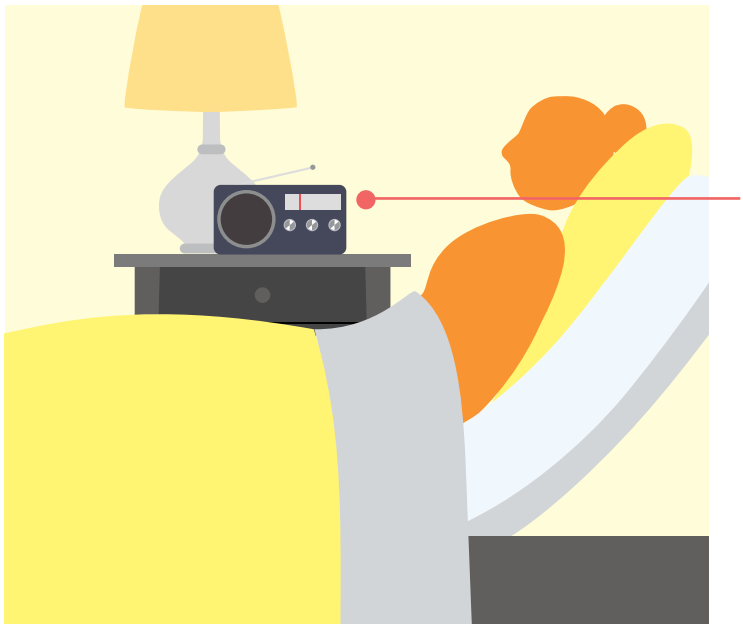


Incorporate flowers and plants into the interior.

Placing pictures of nature, comforting images, and soothing artwork on the walls and even ceilings is an effective form of positive distraction.

Design lower windows so that residents have visual access to nature.

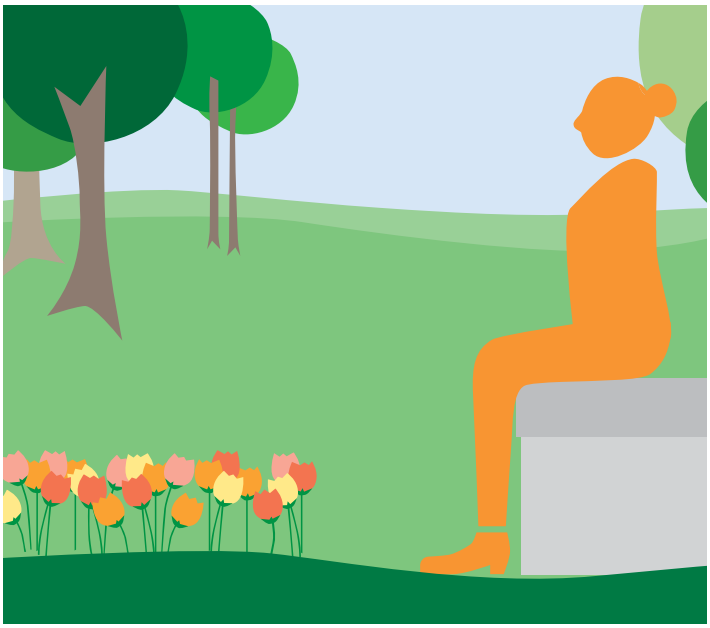
"Views of vegetation, and especially water, appear to sustain interest and attention more effectively than urban views of equivalent information rate." *(Ulrich, 1984, p. 420)* ***"Because most natural views apparently elicit positive feelings, reduce fear in stressed subjects, hold interest, and may block or reduce stressful thoughts, they might also foster restoration from anxiety or stress."*** *(Ulrich, 1984, p. 420)*



Auditory Stimulation

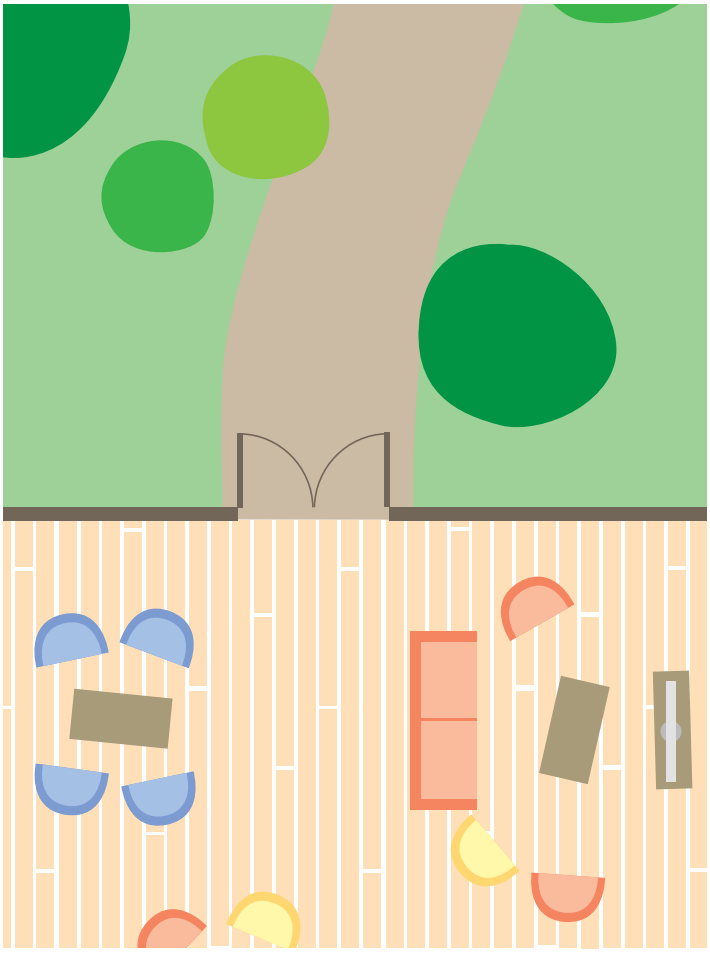
Given that music and sounds of nature are shown to reduce stress, comfort residents, and soothe pain, provide residents with means of listening to preferred music, mindful of the potential for auditory disturbance of residents in adjoining rooms.
Auditory stimulation needs to be easily controllable by the resident.

> ***"The diverse qualities of music potentiate its effectiveness as a medium to be used to soothe pain and ease suffering."*** *(Magill-Levreault, 1993, p. 6)* ***"Patients should be invited to choose the music that they wish to listen to."*** *(O'Callaghan, 1996, p. 45)*



Immersive Stimulation

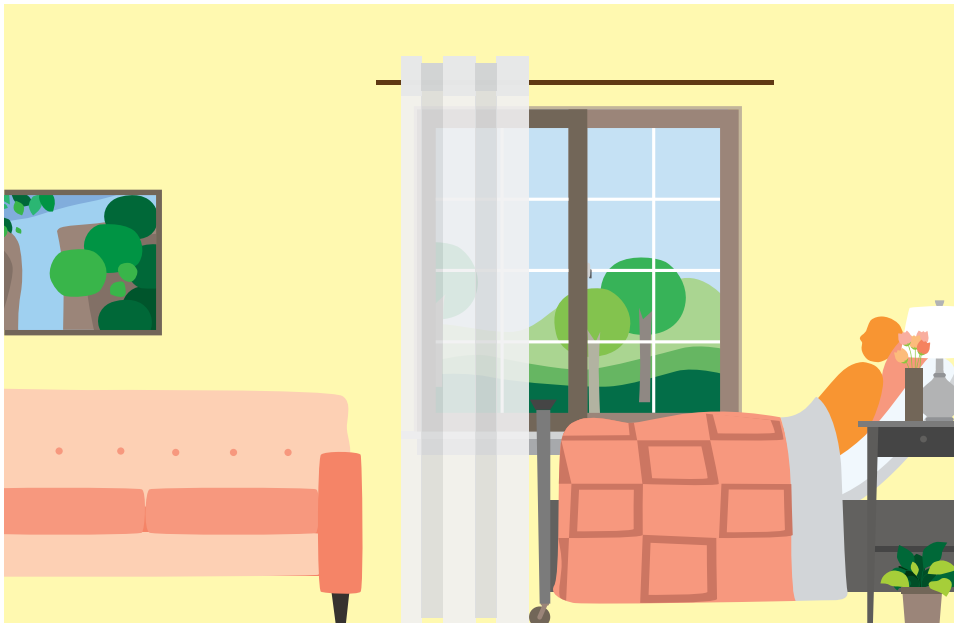
Enable residents to be surrounded by nature through fountains, patios, porches, gazebos, arboretums, and/or gardens to help calm and cheer up residents.



Immersive Stimulation

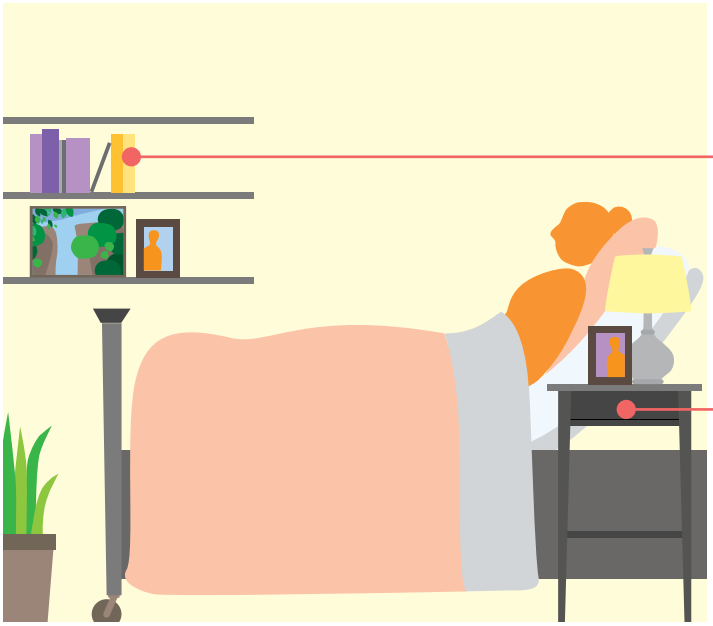
Place nature areas, such as gardens, close to resident areas so that users can find such nature areas without difficulty.

Immersive Stimulation



Resident environments should be cheerful, warm, and homelike rather than appear institutional.

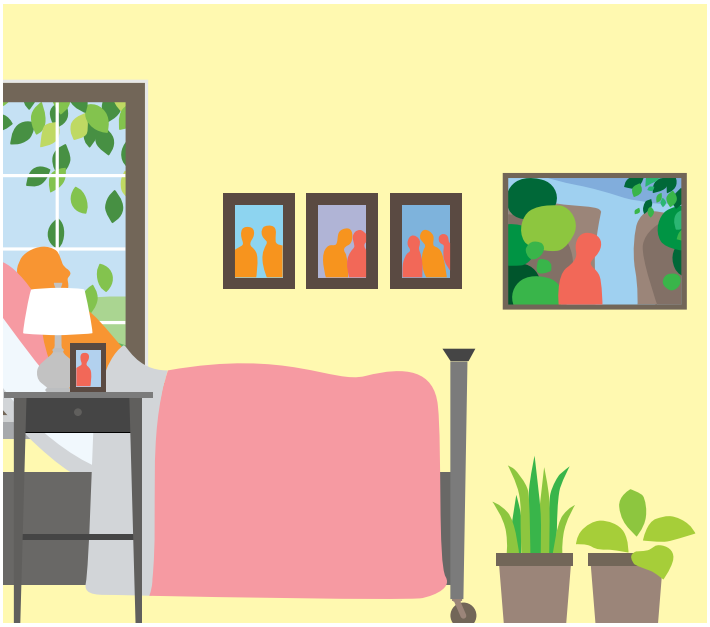
> ***"For a dying patient, the environment must provide some recognizable connection with the home, spirituality and nature. The environment also must allow a patient to review life, find meaning in it and become reconciled to death - in other words, to achieve spiritual healing."***
> *(Gappell, 1990, p. 77)*



Immersive Stimulation

Provide residents with well-lighted space and surfaces on which to display meaningful items that personalize their surroundings.

Provide residents with a bedside table that allows them to keep personal items close.



Immersive Stimulation

Minimize the amount of permanent decorations on walls and other surfaces in resident rooms to promote personalization, e.g., family photos, personal belongings, familiar objects, and mementos.

Provide Furnishings

Furnishings, inclusive of furniture and other moveable objects that define spaces, should be flexible to support the fluid, progressively changing needs of residents, visitors, and caregivers throughout each day over the course of each unique end-of-life experience.

3.1 Furniture

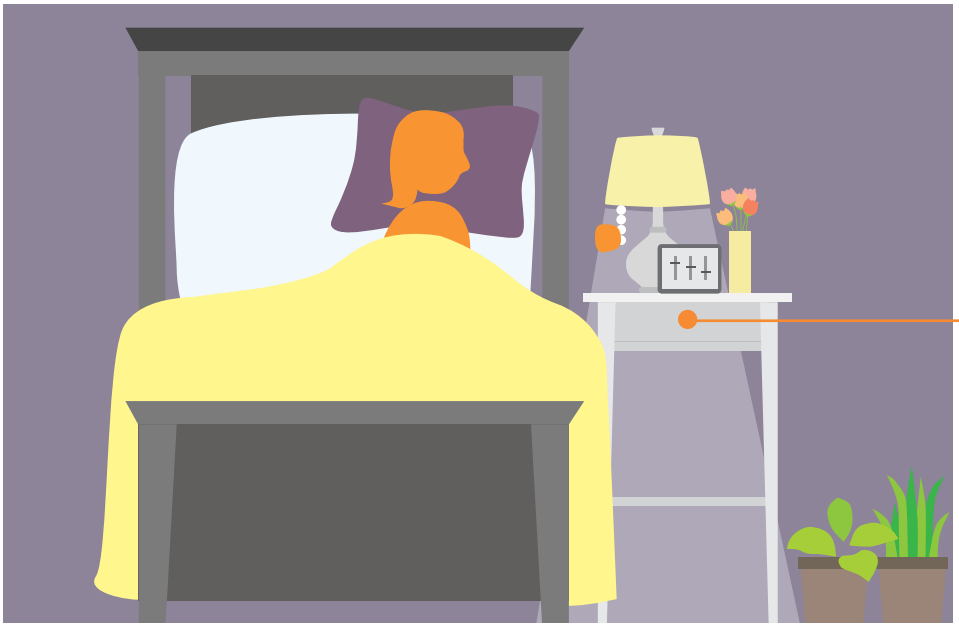
The resident's bed should be adaptable to accommodate changing requirements for physical, emotional, social, and behavioral comfort. The goal in seating is to provide ample, appropriate, safe, and flexible seating options that accommodate changing social dynamics, e.g., individual, intimate, small group, or large group gatherings, among residents, visitors, and caregivers for varying lengths of stay.

Sleeping & Rest

Bedding (e.g., mattress, air mattress, alternating pressure mattress, toppers, and generous supply of pillows and bolster pillows) varying in firmness should be available for comfort and pressure wound prevention.

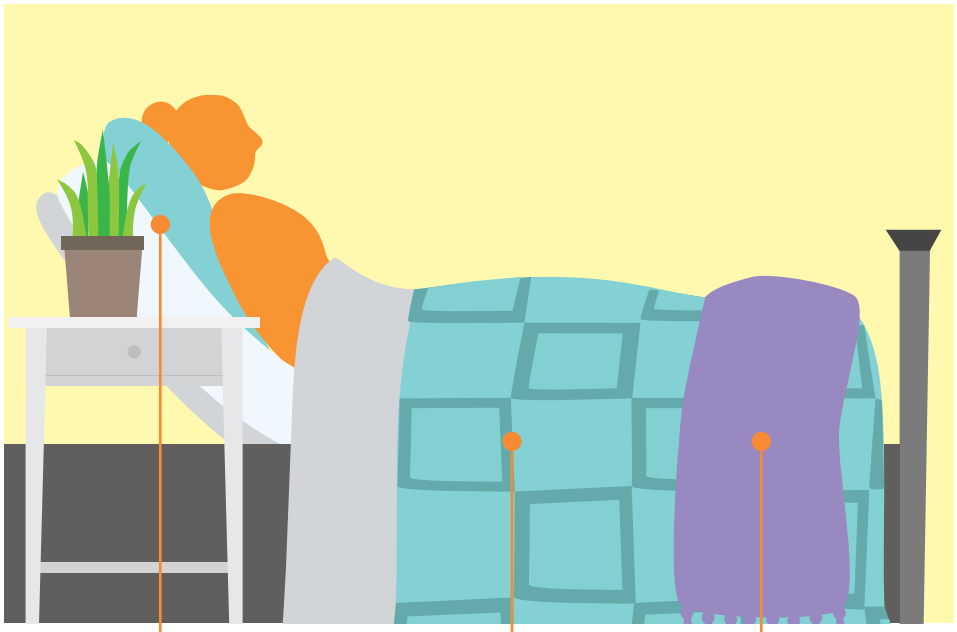
The bed should allow for adjustment and intuitive control by the resident.

Sleeping & Rest



A nightstand should be easily accessible from the bed, with reachable lights.

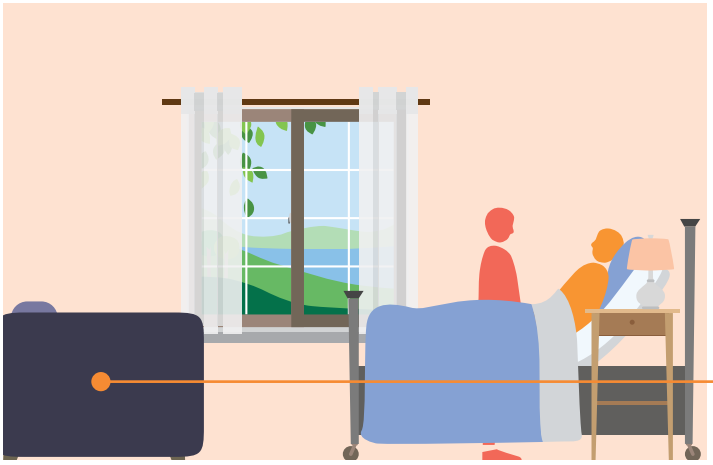
Sleeping & Rest



Bed linens should be made of soft, breathable materials (100% cotton preferred).

Residents and family members prefer bed linens that look and feel like linens from their own home or are "home-like" instead of institutional.

A generous supply of soft blankets/ comforters, a blanket warmer, and heating pads to control body thermal comfort should be provided.



Sleeping & Rest

A bed should be available to encourage long-term stay or extended visits by loved ones.

Sleeping & Rest

This can be a sofa bed or convertible bed that can be stored during the day and pulled out at night. For couples, if possible, provide an extension to the resident bed to enable closeness.

Furniture

Seating

Furniture options should allow, through portability, the potential for visitors to sit comfortably for extended periods of time in close proximity and to enable physical contact between visitor and resident, e.g., holding hands. If the family and visitor sofa is heavy and not easily movable, provide additional simple seating solutions, such as light chairs or stools.

Seating

When at an institution, personal furniture from home should be an option.

An ample supply of comfortable seating options. e.g., padded chairs, sofas, recliners, that can be reconfigured is needed to accommodate changing social dynamics among the resident, visitors, and caregivers.

Comfortable, adjustable recliners should be available, particularly for residents who can sleep only when sitting up.

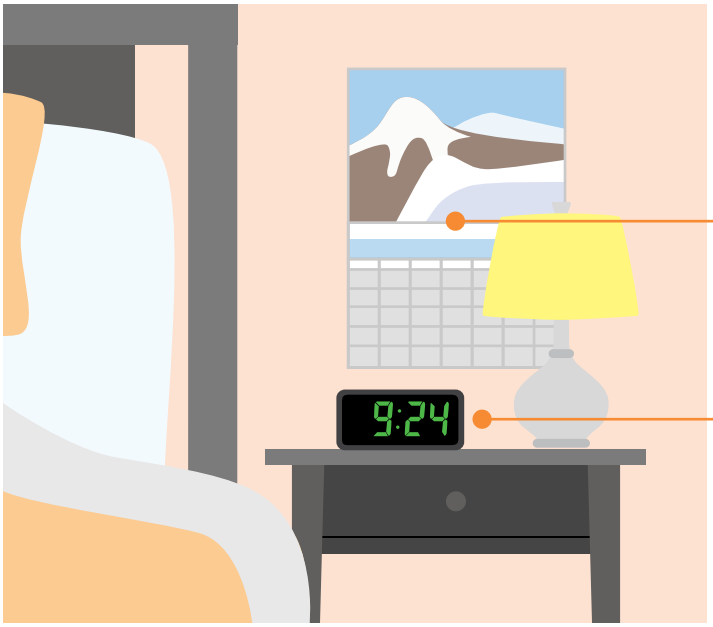
3.2 Other Amenities

Flexibility and appropriateness should guide decisions related to other resident room furnishing and objects.

Orientation and Messaging

A message board for pinning pictures and writing the caregiver's name should be within viewing range of the resident.

All posted notices should be designed with larger font sizes and in simple styles.

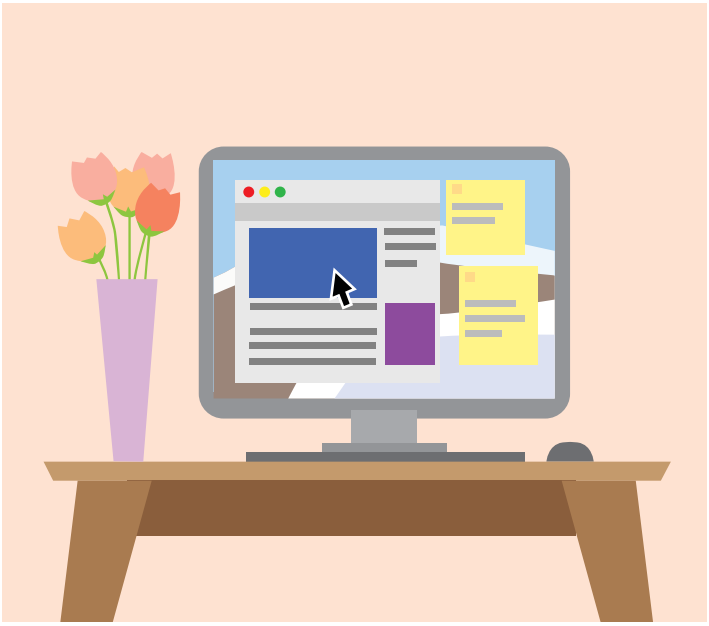


Orientation and Messaging

A calendar with gentle reminders of the season should be nearby.

A clock with a large, digital display should be placed by the bed. Residents should have the ability to cover the clock and other intruding lights at night, including computer devices and equipment lights.

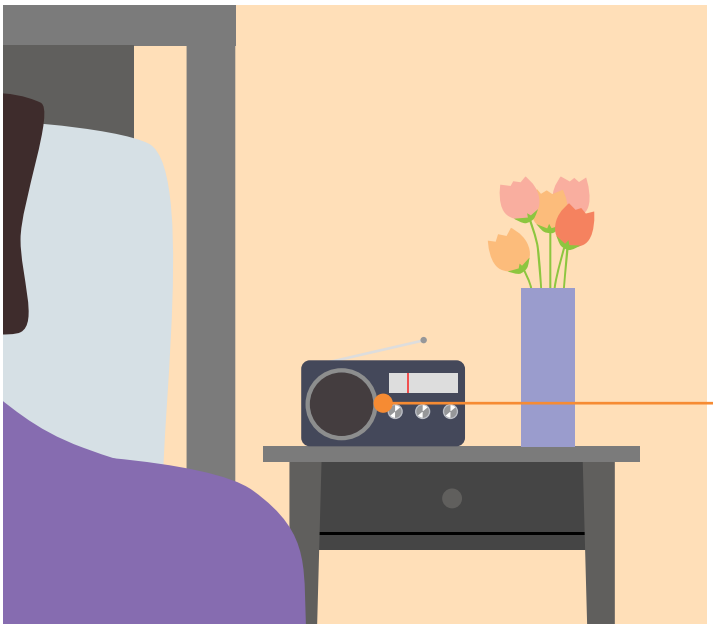
Other Amenities



Technology

Audiovisual and/or audio communication via phone or computer with a large digital display and internet/Wi-Fi access should be available to both residents and families for easy communication with loved ones.

> ***"Staying in contact represents the possibilities of remaining in touch with family and friends, for example, by having access to a phone or having a space in which to receive visitors without the feeling that they are in the way, and making new contacts means having the possibility to make contact with others and to have someone to talk to."*** *(Rasmussen, 2007, pp. 126-127)*



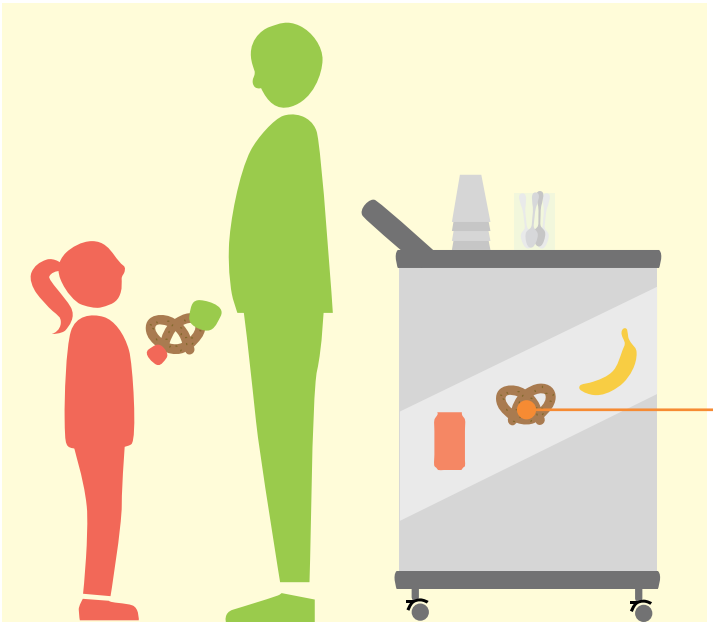
Technology

A means of playing music, such as a radio or mp3 device should be available to the resident.

Technology

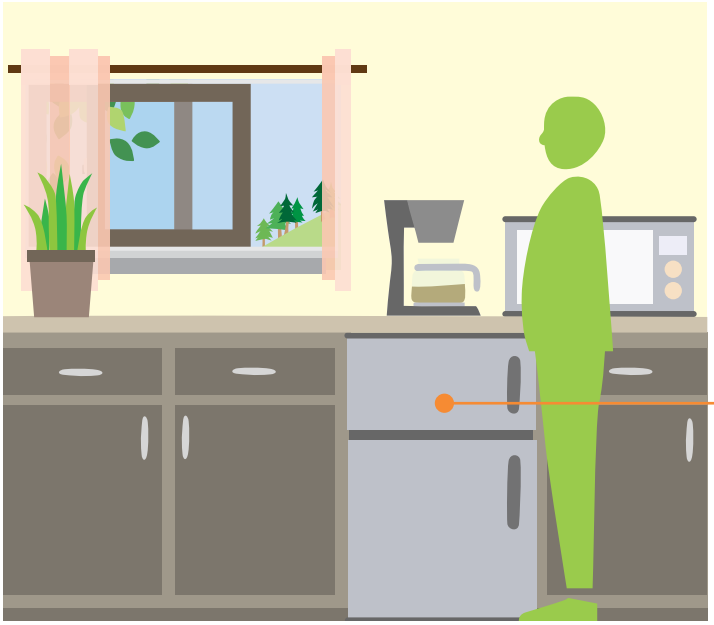
Television should be equipped with a DVD player, and easy channel and volume control. One of the channels should be a calming relaxation channel. Television and forms of media should be portable and able to be brought closer to the bed to accommodate visual impairments.

Other Amenities



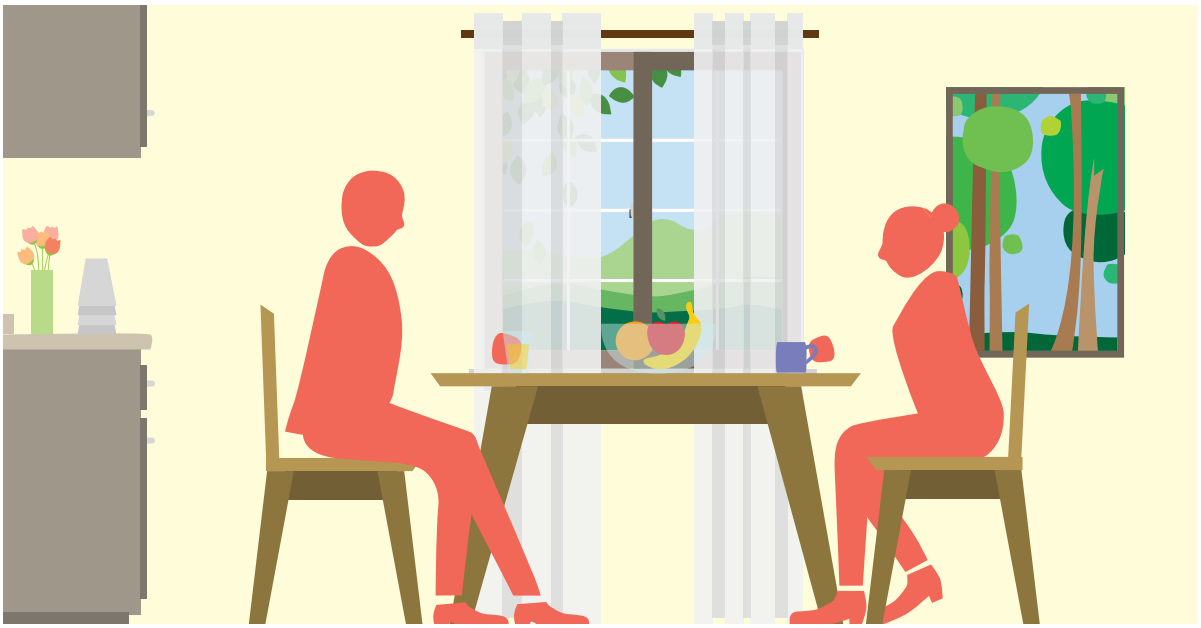
Nourishment

A beverage and snack cart should be available at all times to accommodate residents and their family members' desire for refreshments.



Nourishment

For an institution to maximize comfort for and meet the needs of residents and families, small kitchen appliances such as a refrigerator should be provided.

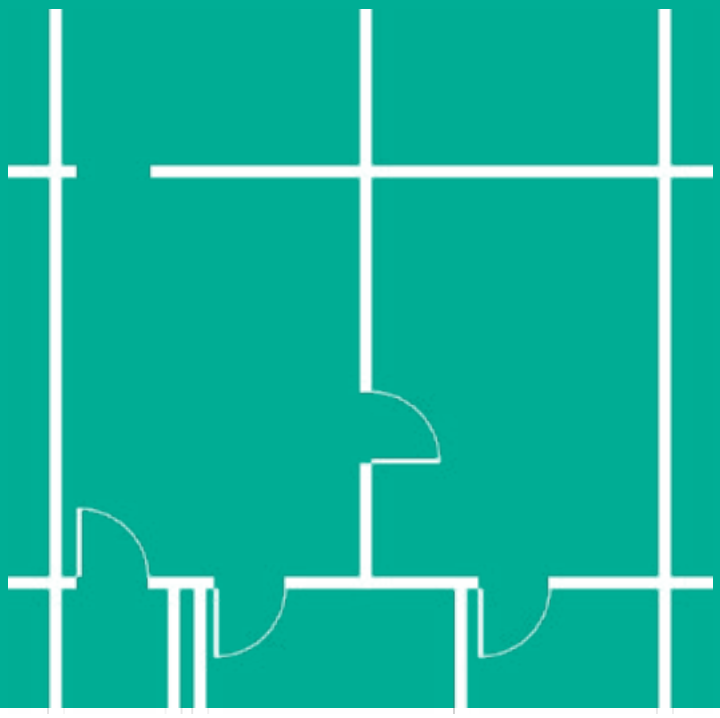


Nourishment

There should be a common space with comfortable dining furniture for food sharing.

Optimize Space & Layout

Spatial factors including amount of space, proportions of rooms, location of doors and windows, and placement of features such as light switches, ventilation units, and light fixtures significantly influence room layout flexibility. Ultimately, these spatial factors affect the experience of the occupants. Thoughtful consideration of spatial factors relative to desired social, behavioral, psychological, and physiological outcomes for all involved is important. The following considerations are intended to inform your discussion about space and layout.

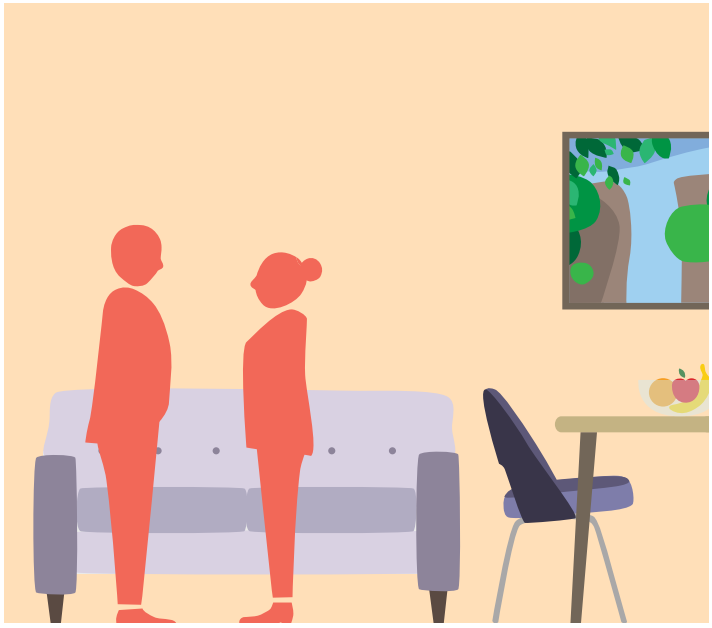


4.1 Quality Care & Coordination

Important communication and access issues affect care quality in end-of-life settings.

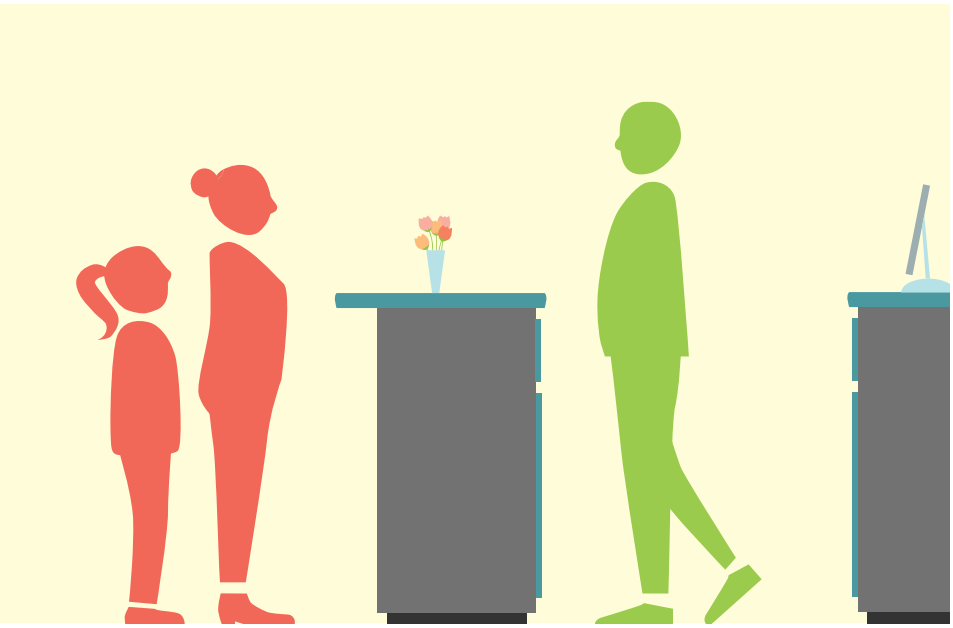
Space for Private Communication

Include privacy areas to accommodate family members as they grieve with the resident.



Space for Private Communication

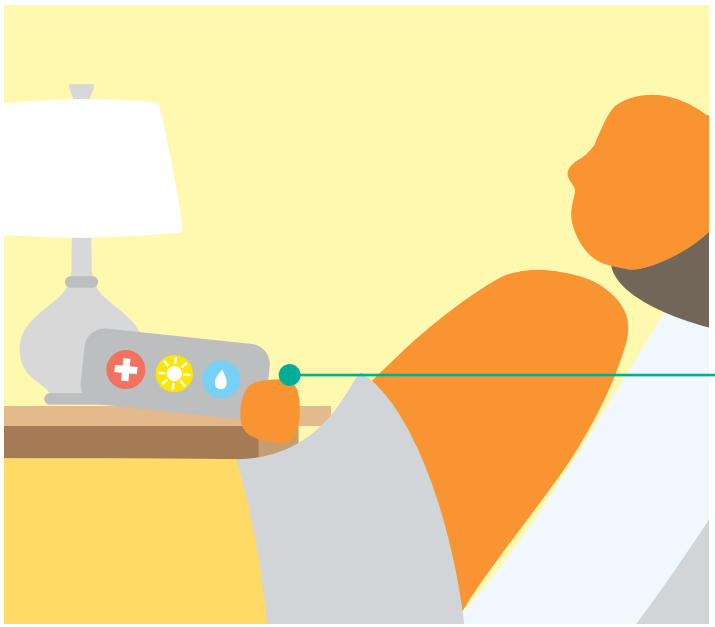
Provide different size private spaces to accommodate a range of social interactions face-to-face or by phone or video calls, e.g., 1 person private spaces, 2-3 person intimate conversation spaces, and family scale interaction spaces.



Proximity and Access to Nurses/Staff

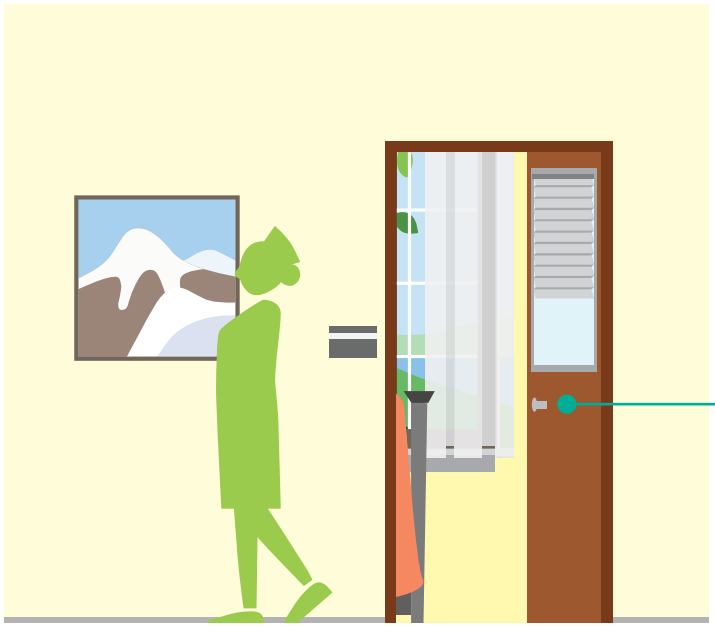
Allow residents and families easy access to the nurse's station in case of emergencies.

"Patients were made to feel valued as individual people. This value was felt in the 'closeness' and proximity of care available to patients at the hospice; having time for patients, attending to their needs in such a way that conveyed they 'mattered' to the staff, created a sense of proximal caring, reducing the sense of distance between patient and staff." *(Malone, 2003, cited by Moore, 2012, p. 155)* ***"Promoting proximity between the patient and family members is an important component of family- centered care."*** *(Medina, 2005, p.101S)* ***"Proximity [addresses] the need to have personal contact and to remain near the critically ill person physically and emotionally."*** *(Leske,1992, cited by Medina, 2005, p.101S)*



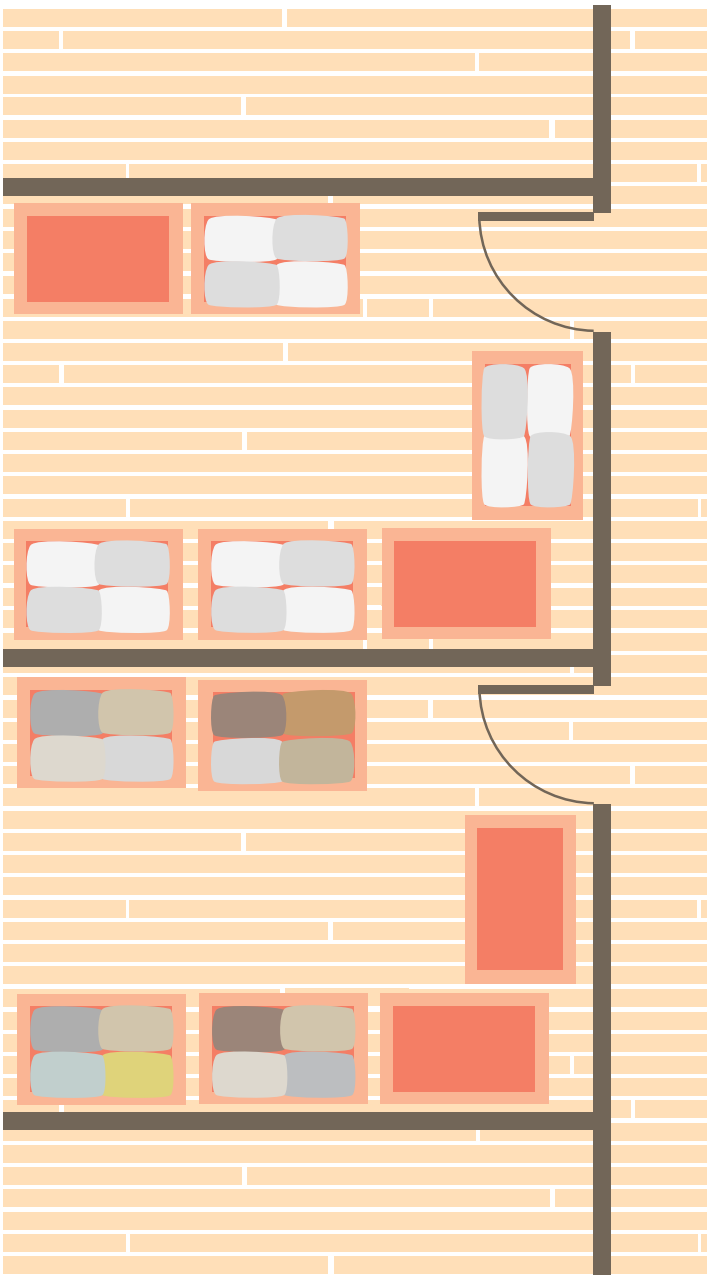
Proximity and Access to Nurses/Staff

Provide accessible and intuitively usable mechanisms for eliciting rapid responses from staff and doctors when needed, e.g., bell, buzzer, clapper, etc.



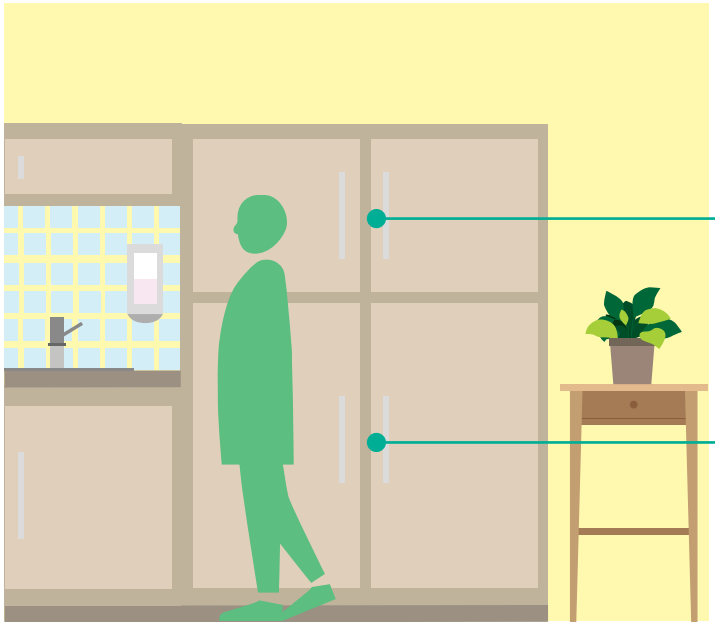
Proximity and Access to Nurses/Staff

Allow doors to remain open when needed so that when caregivers are immediately outside the resident room they can hear the resident.



Supplies & Medications

Provide separate rooms for clean items and soiled items.



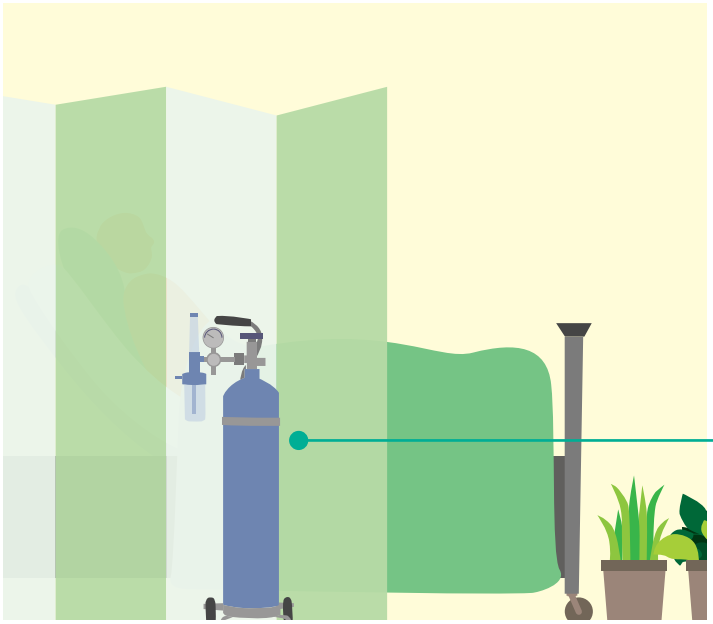
Supplies & Medications

Provide conveniently available, organized, and ample storage for supplies and/or medications that are out of the resident's line of sight.

Provide secure but accessible storage space for medications that must be readily available as symptoms change.

Supplies & Medications

Provide designated storage space for non-medical supplies, such as pressure mattresses, etc.

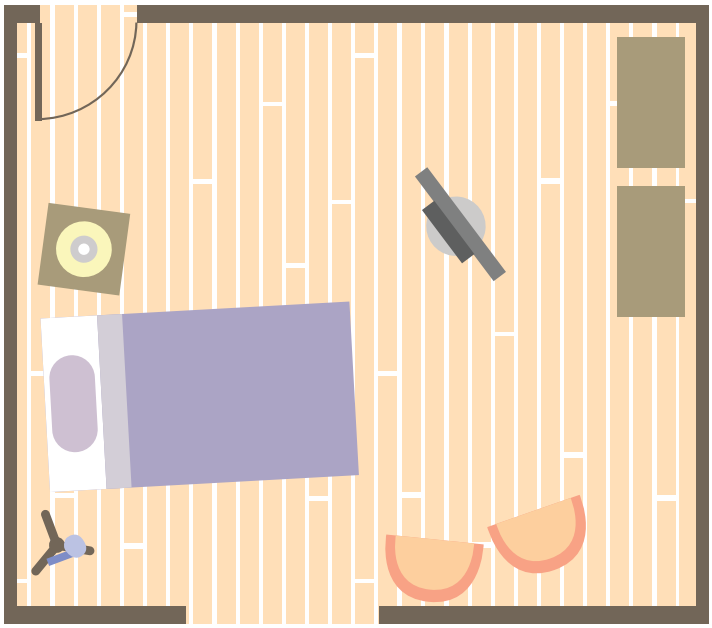


Supplies & Medications

Design space into resident rooms to accommodate as unobtrusively as possible any medical equipment needed during caregiving.

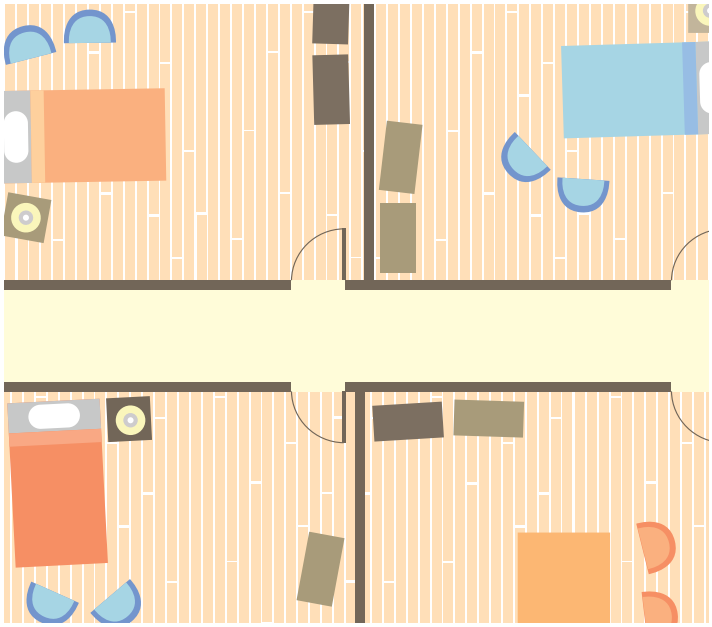
Supplies & Medications

Provide storage within resident rooms and resident bathrooms for personal care items or other personal supplies.



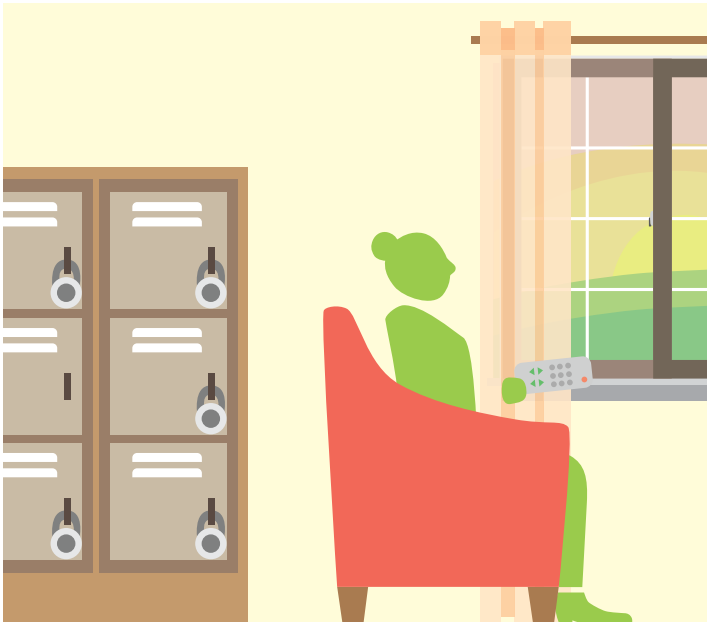
Space to Provide Care

Position resident beds and medical equipment such that the resident, family, and staff have adequate physical space to move comfortably and safely while interacting or engaging in care.



Space to Provide Care

Design rooms that provide space to reposition beds and rearrange furniture to ensure meeting diverse patients' needs.

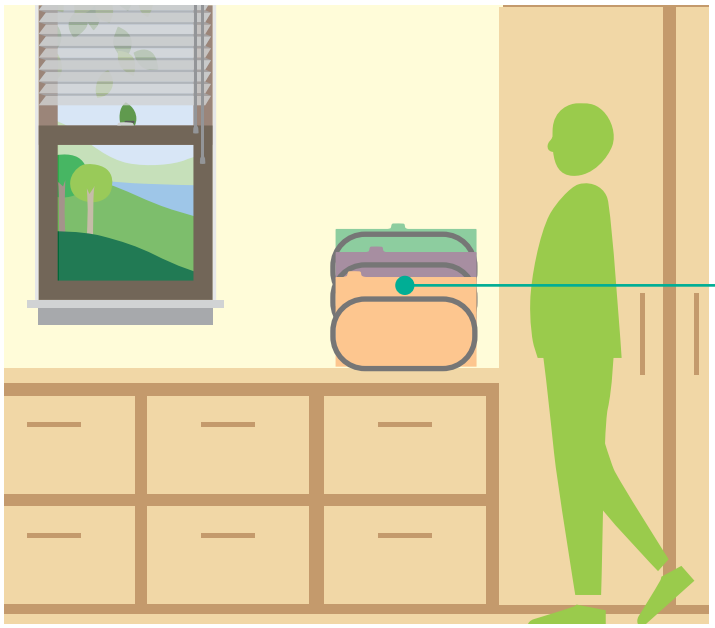


Separate Spaces for Caregivers

Designate a pleasant, clearly defined, and relaxing breakroom for staff, inclusive of secure personal storage space.

Separate Spaces for Caregivers

Provide a meeting room for communication among staff of different disciplines to ensure coordinated care.



Separate Spaces for Caregivers

Provide adequate workspace for medical staff to work or maintain records.

> ***"Although less intense than the grief experienced by patients' loved ones, physicians do experience loss with the death of each patient."*** *(Pantilat, 2008, p. 358)*

4.2 Spirituality

Spiritual comfort at end-of-life can be fundamental to letting go.

Meditative Areas

Provide private and quiet, meditative areas for relaxation, reflection, or prayer for individuals or families. (LED candels)

Personal Spaces

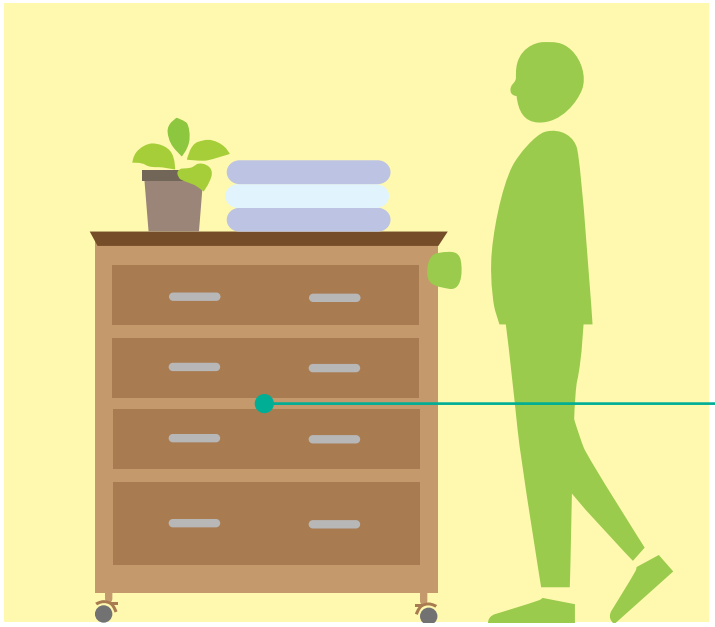
Provide residents and families with personal spaces for spiritual practices or pastoral caregiving. (LED candels)

4.3 Space & Spaciousness

Although needs at times can be contradictory, finding optimal ways of handling space and spatial features influences the quality of each end-of-life experience.

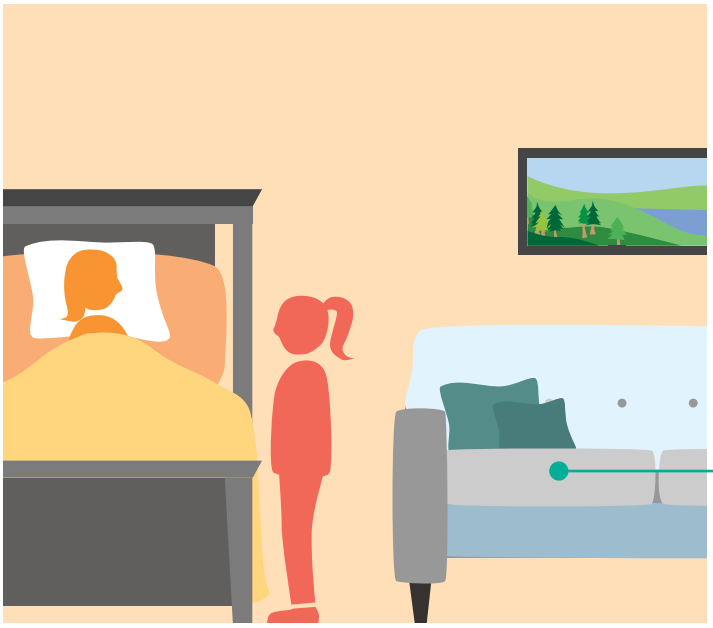
Large Resident Room

Provide residents with large, bright, and airy resident rooms.



Large Resident Room

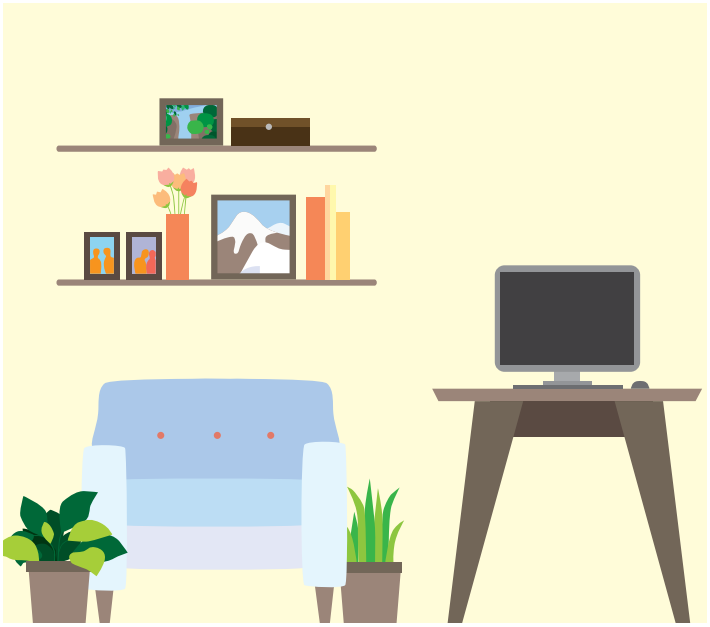
Provide residents with rooms that can support rearrangement of furniture.



Large Resident Room

Provide ample space for visitors and family to feel comfortable when interacting.

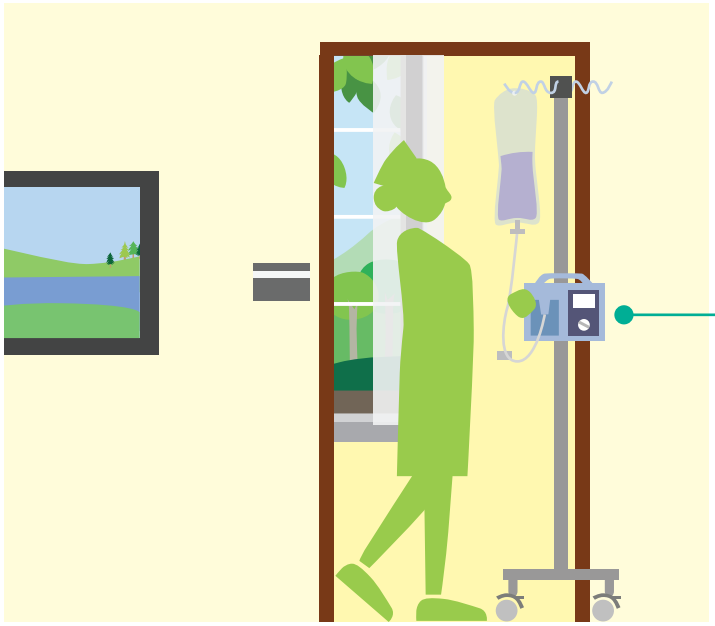
Provide adequate space for overnight stays by family members or visitors.



Large Resident Room

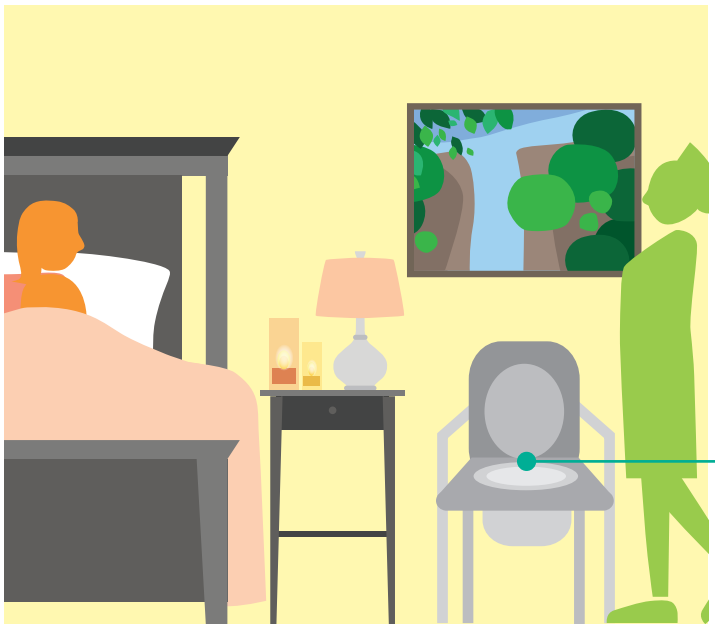
Allow for personalization within resident rooms. Provide residents with space for personal belongings and items from home, including: furniture, photos, computers, flowers, etc.

Space & Spaciousness



Large Resident Room

Door openings should be wide enough to accommodate moving beds, furniture, and equipment in and out of the resident room.

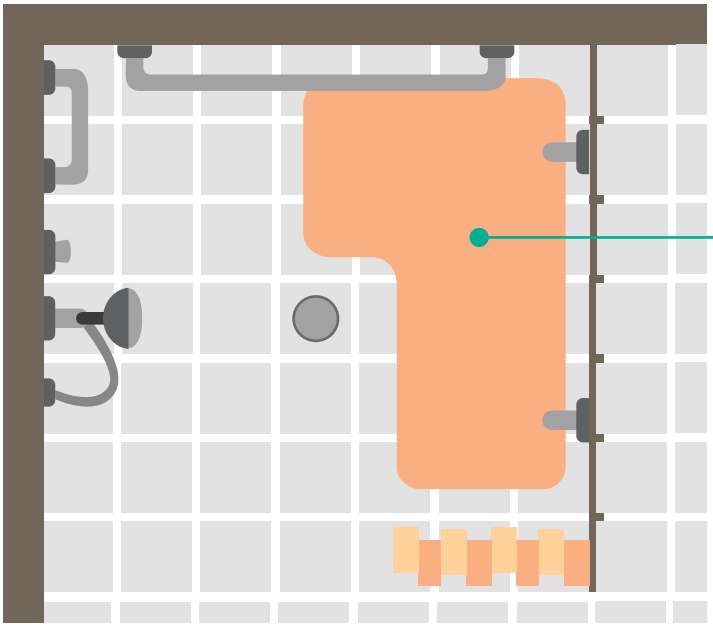


Large Resident Room/ Bedside and Commode

Provide room for bedside commode.

Spacious Bathroom

Bathrooms should provide sink space and shelving for personal care items.



Spacious Bathroom

Provide each resident room with a spacious bathroom compliant with the Americans with Disabilities Act, e.g., bathrooms should have a wide shower that can accommodate a resident in a wheelchair.

4.4 Facilitate Communal Presence

Flexibility designed into common areas augments that of resident rooms to ensure appropriate accommodation of all social situations in each end-of-life experience.

Communal Spaces

Provide comfortable common areas with flexible seating options, e.g., living room, day room, or sun room, close to resident rooms for visitors, family members, or residents to socialize with others, take breaks, rest, and relax. Accommodating for communication in different forms will help maximizing quality of life.

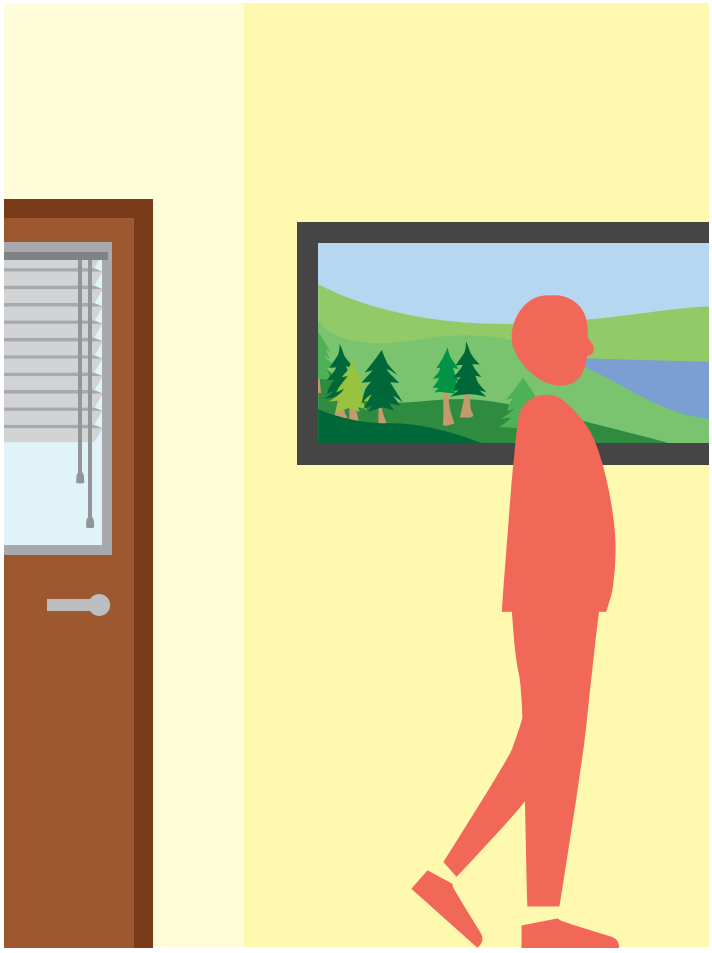
> ***"A physical environment which supports the need for social interaction and privacy" was one of the most important themes. "[Among patients], there was a range of views on the desired level of social interaction. ... Some patients wished to remain socially active. ... Loneliness and boredom were experienced by many patients."*** *(Rigby, 2010, p. 271-272)* ***"Maintaining contact ranged from family visits to calls or letters."*** *(Rigby, 2010)*

Communal Spaces

Provide ramps to outdoors when necessary to promote wheelchair access to outdoor areas.

Provide additional common spaces, such as an outdoor patio or dining room to support communication and social interactions in the presence of soothing elements of nature.

Facilitate Communal Presence



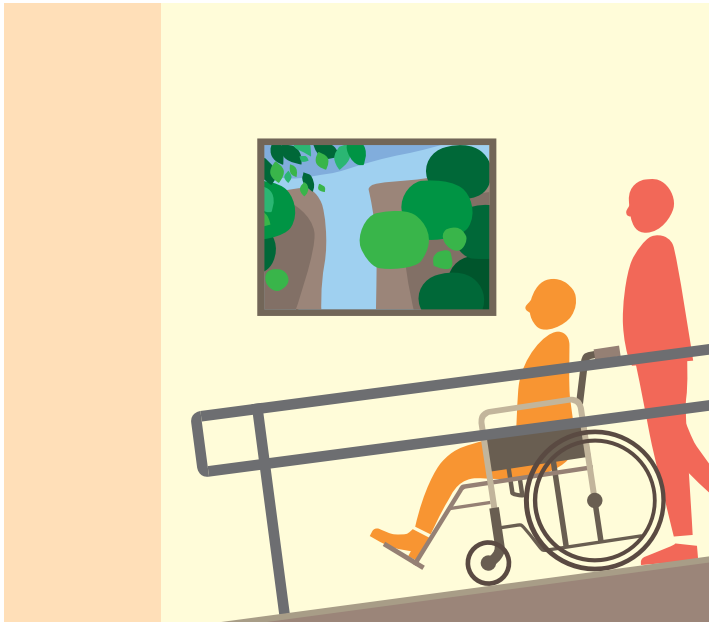
Communal Spaces

Ample space outside resident rooms should be provided for family and visitors to stroll.

Mobility

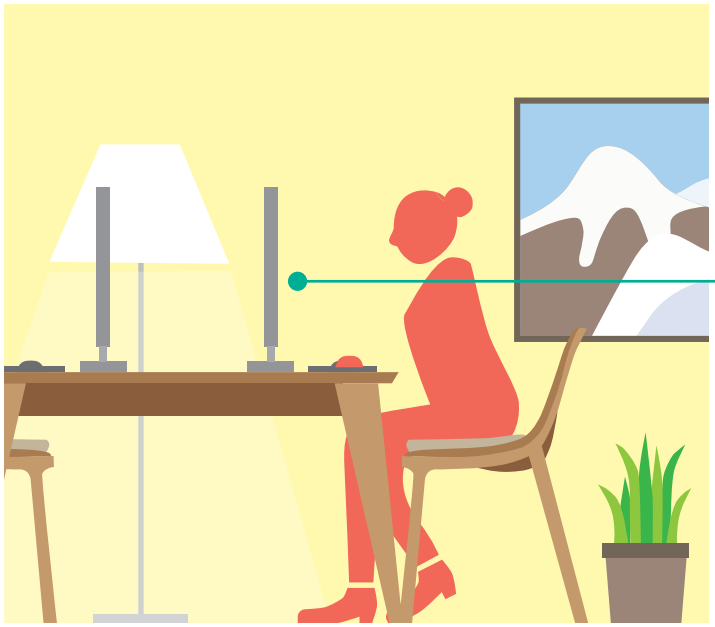
Common rooms must be large enough to maneuver multiple wheelchairs.

Facilitate Communal Presence



Communal Spaces

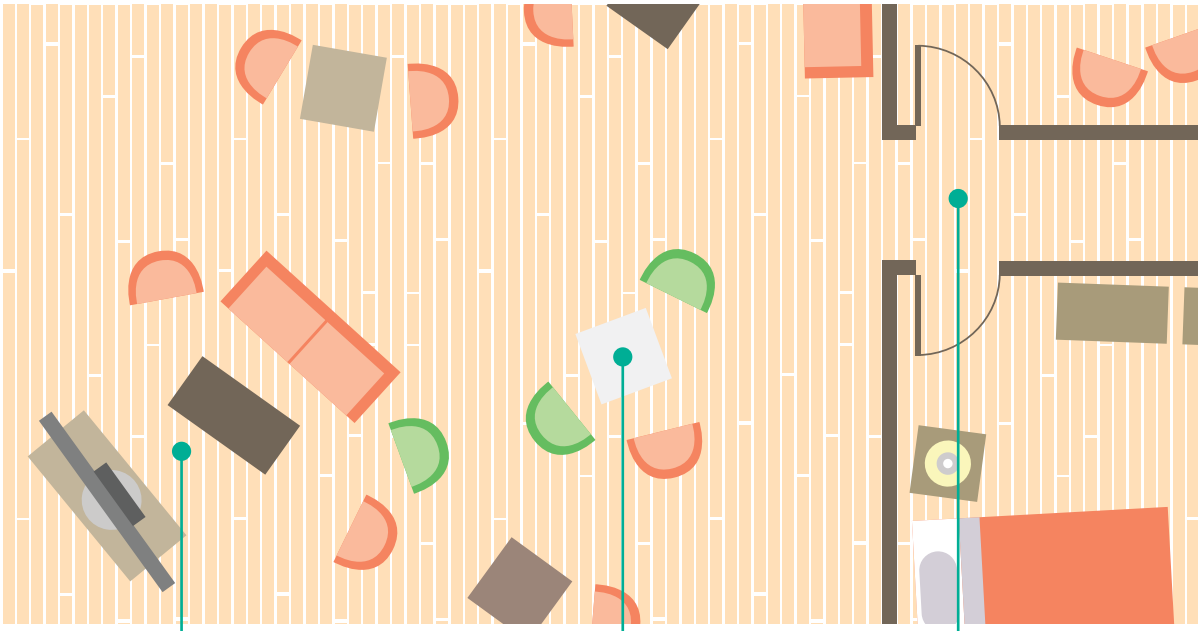
Eliminate obstacles in circulation paths to promote mobility. Provide ramps when necessary to promote wheelchair accessibility.



Communal Spaces

Provide areas for visitors who need to use computers.

Communal Spaces

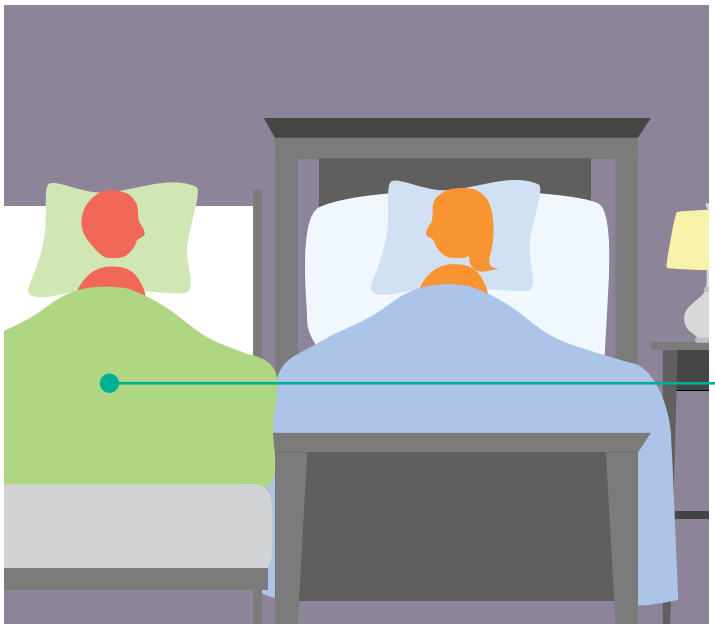


Design the dayrooms for multiple functions. Provide common lounges, patios, great rooms, or TV areas to residents during the day.

Residents should have a safe area to interact with others.

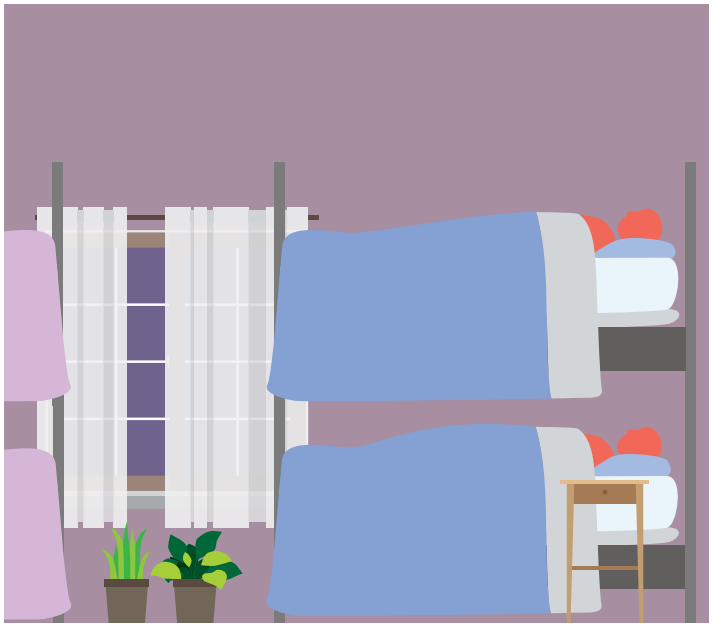
Common lounges should be close to resident rooms as to not isolate patients from their families. However, noise isolation should be considered.

Facilitate Communal Presence



Family & Caregivers Sleeping Nearby

Provide space for the resident to rest comfortably with a loved one, e.g., a co-sleeping bed or an adjacent single bed.



Family & Caregivers Sleeping Nearby

In facilities, provide overnight rooms for family member visits.

Family & Caregivers Sleeping Nearby

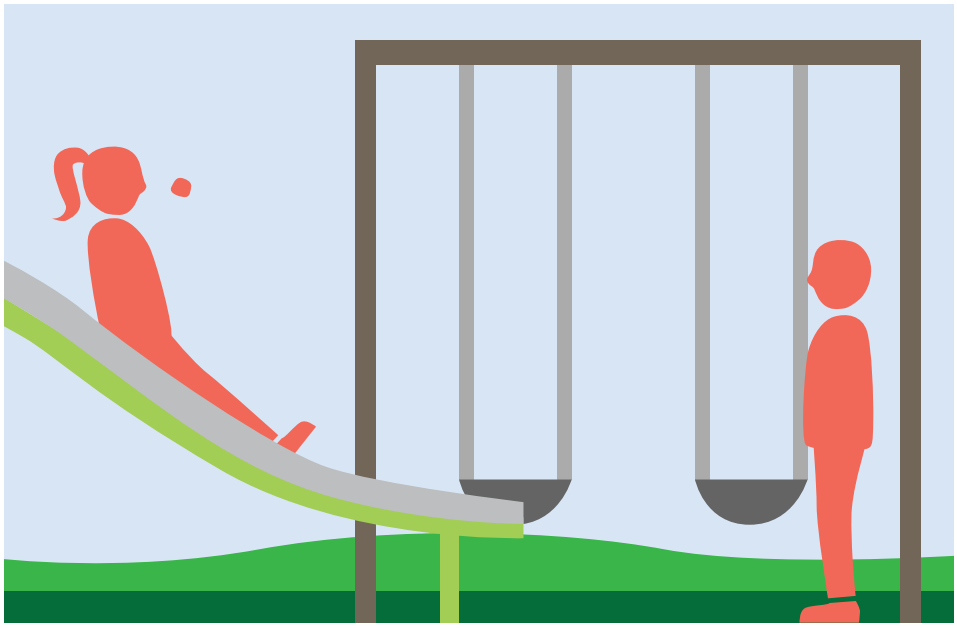
Provide a bed for caregivers in the resident's room, e.g., sleeper sofa, or near the resident's room.

Provide space for family to rest comfortably with their loved one.

> *"[In Macmillan Cancer Support hospitals,] the team's aim was to reconfigure three bedrooms into one integrated space where relatives could relax, rest and refresh, to encourage them to stay for longer periods at the hospital with their loved ones ... [and to] give patients and visitors an opportunity to be together away from the bedside."* *(Waller, 2011, p. 18)*

Facilitate Communal Presence

Spaces for Children



Provide child-friendly, safe play areas for child visitors both inside and/or outside to encourage the presence of relatives of diverse ages. Ensure that play areas are separated and will not transmit noise to resident areas.

Kitchen/Food Preparation

Consider providing residents and families with access to a well-ventilated kitchen or kitchenette to make and share warm, home cooked meal, recognizing that certain foods may emit odors considered noxious by some resident. Kitchens must have sufficient workspace for volunteers to set up trays, prepare meals, bake, etc.

Conclusion

Each end-of-life experience is uniquely unfamiliar and complex. For those living the experience to do so with comfort and dignity, the setting must be appropriately supportive. Design and management of a supportive environment requires ongoing conversation among the designers, users and stakeholders in your situation. The considerations listed in this document's four chapters were intended to inform that conversation toward creation of a coherently flexible, controllable, and appropriately supportive environment for end-of-life experiences.

We appreciate any feedback you can provide on the usefulness of this document in your situation. Please send comments to Professor Rana Sagha Zadeh (rzadeh@cornell.edu) and Professor Paul Eshelman (pee2@cornell.edu).

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