Evaluation of the
Design & Dignity
PROGRAMME
Beaumont Mortuary Glasswork
Michelle O’Donnell, Glasshammer Studio
The following evaluation was conducted by University College Cork (UCC), led by the School of Nursing and Midwifery and commissioned through the All Ireland Institute of Hospice and Palliative Care (AIIHPC) in collaboration with the Irish Hospice Foundation. The Design & Dignity programme is a partnership programme of the Irish Hospice Foundation and the Health Service Executive (HSE).

Acknowledgements

The evaluation team would like to thank all the sites for their participation, facilitating site visits, responding to emails, and taking part in focus groups. Gratitude is extended to the research staff who worked on this project, namely Ms. Olivia Cagney and Dr Elaine Meehan.

Furthermore, the team would like to thank all the patients, staff and bereaved relatives for contributing to this evaluation and making it a representative and comprehensive report on a very important and impactful programme.
The Evaluation Team
Dr Nicola Cornally (PI) ¹
Dr Serena FitzGerald (Co-PI)¹
Ms Olivia Cagney (Research Assistant)
Dr Aileen Burton¹
Dr Alice Coffey ²
Ms Caroline Dalton¹
Dr Irene Hartigan¹
Dr Jim Harrison³
Dr Margaret Murphy¹
Dr Daniel Nuzum⁴
Ms Yvonne Pennisi⁵
Professor Eileen Savage¹
Dr Catherine Sweeney⁶
Dr Suzanne Timmons⁷
Dr Patricia Leahy Warren¹

Recommended Citation

Contact person for communication:
Dr Nicola Cornally (PI)
Email: n.cornally@ucc.ie
Tel: +353-21-4901478

¹ Catherine McAuley School of Nursing and Midwifery, University College Cork
² School of Nursing and Midwifery, University Limerick
³ Cork Centre for Architectural Education
⁴ Pastoral Care, Marymount University Hospital and Hospice Department of Obstetrics and Gynaecology, University College Cork.
⁵ Occupational Science and Occupational Therapies, University College Cork
⁶ School of Medicine University College Cork & Marymount University Hospital and Hospice
⁷ Centre for Gerontology and Rehabilitation, University College Cork
Foreword

On behalf of the Irish Hospice Foundation (IHF), I am honoured to provide the foreword to this report, which also marks the announcement of our fourth round of Design & Dignity Projects.

Design & Dignity was launched in 2010 and at the time of this publication over 40 projects have been funded across Ireland.

The vision of Design & Dignity is that every adult, pediatric and maternity hospital in Ireland has warm and welcoming spaces to enable dignity and respect for patients and families facing dying, death and bereavement.

It is clear from the impact of the various projects described in this report alongside the evaluation by the UCC Research Team that Design & Dignity has succeeded in one of its major aims to create end-of-life sanctuaries for patients, families and staff at an extremely difficult time. In human terms, the impact of hearing bad news or saying farewell to a loved one in a space that is sensitively designed, appropriate and calm cannot be underestimated.

I am particularly struck by how this flagship project is significantly shaping the overall culture of end-of-life care in Irish hospitals. It is truly wonderful to see the level of pride that staff feel having played a vital role in bringing their Design & Dignity projects to fruition. I know their vision, dedication and tenacity to improving the standard of end-of-life care will be a source of inspiration and stimulation for others considering the Programme.

The success of Design & Dignity is due to a strong and long-lasting partnership between the IHF and HSE Estates. The IHF, through its dedicated administrative function and design expertise, has enabled this work to be prioritised but without the HSE Estates’ leadership and commitment these projects could not have been completed.

Much has been achieved through Design & Dignity but improvements are still needed. Together with HSE Estates, hospital staff and our Design & Dignity Committee, we will continue to pave the way for rooms and other spaces which are places of beauty and comfort for people and their families in Irish Hospitals. We commit to continue our work to create oases of calm, privacy and peace for families and staff throughout Ireland.

Jean McKiernan; Chairperson of the Board of the Irish Hospice Foundation
Foreword

On behalf of HSE HBS Estates, I welcome this evaluation report by University College Cork (UCC) on the Design & Dignity initiative, which HBS Estates delivers in partnership with the Irish Hospice Foundation.

HBS Estates, the Estates unit within the HSE, is responsible for the development and management of the healthcare estate to enhance wellness in our patients and clients and to enable and encourage our healthcare staff. HBS Estates is also responsible for ensuring that the healthcare infrastructure supports the efficient delivery of services and delivers value for money.

In the past, all too often the focus of capital development and investment in healthcare has been on the provision of bed numbers and the expansion and improvement of clinical areas. The introduction and roll out of the Design & Dignity initiative and concept is challenging us to ensure that end-of-life care takes centre stage in the projects delivered by the initiative. As part of this, we aim to provide much needed private, respectful, dignified and comfortable spaces for patients and families within the wider hospital environment, during difficult times. HBS Estates is proud to have adopted the Design & Dignity style guidelines in all new building and refurbishments projects relating to end-of-life care in hospitals that we work in.

This evaluation report highlights the success of the Design & Dignity initiative in delivering a significant number of projects that deliver on the key aims and objectives of the initiative; to transform the way hospital spaces are designed for people at the end-of-life and their families, to foster ownership of these spaces by involving staff in their design and ultimately to create exemplar end-of-life facilities for patients and families.

The Design & Dignity initiative continues to develop and be driven by the experiences of the projects to date and from the expertise and input of both project stakeholders and the Design & Dignity committee. A lot can, and will, be taken and learnt from this evaluation report to further improve and strengthen the delivery of future projects part of the Design & Dignity initiative.

I would like to take this opportunity to thank all of those staff, stakeholders and designers who have invested time and resources, ideas and passion into the projects to date. We are committed to continuing to work with our wide range of internal and external stakeholders to support and deliver the objectives of Design & Dignity in partnership with the Irish Hospice Foundation.

John Browner, Assistant National Director, Capital Property, HSE HBS Estates
Executive Summary

The Design & Dignity Programme, in partnership with the Irish Hospice Foundation (IHF) and Health Service Executive (HSE), was launched in 2010 to create a model or ‘exemplar’ projects within acute hospital facilities.

Through the use of the Design & Dignity guidelines this programme has provided support and funding for over 40 projects throughout Ireland. Hospital spaces have been redesigned in areas such as family rooms, mortuaries, viewing rooms and bereavement suites. This programme has ensured that hospitals offer quiet and peaceful places for family members and friends to avail of when someone close to them is dying. Empirical research has repeatedly highlighted the impact of evidence-based design in end-of-life acute care settings. Key factors associated with improved outcomes include the use of efficient space allocation, providing user friendly spaces and ensuring privacy for patients and their families. Homely environments, where personalisation and social interaction can occur is of key importance as well as having contact with nature, low noise levels and the option to avail of either single or mixed occupancy rooms.

The aim was to independently evaluate the Design & Dignity programme with a focus on establishing impact of Design & Dignity projects on patients, their families and acute hospital staff. The evaluation utilised a post occupancy framework which incorporated indicative and investigative data collection methods. To achieve this 18 site visits were conducted and data was collected on; physical dimensions (meters), light (lux) and noise (decibels), IHF audit tools and qualitative field notes. This report presents an evaluation of the impact of the first two rounds of Design & Dignity funded projects. These projects involved the development of nine family rooms, five mortuaries, an emergency department bereavement suite and three rooms to support families in maternity services. An in-depth evaluation was also undertaken in five key hospital sites; Roscommon Hospital, Mater Misericordiae University Hospital Dublin, Beaumont Hospital Dublin, St. James’s Hospital Dublin and St. Luke’s Hospital Kilkenny. These case studies were informed by focus groups with staff (n=18), patient/relative interviews (n=4) and real-time comment cards. This was in addition to site visits and analysis of facility documents.

The provision of these facilities was seen to positively impact on the end-of-life culture in acute hospitals, families, staff and patients. Firstly, providing these forms of facilities sent out a clear message that end-of-life care in acute care hospitals matters; these facilities impacted on the culture of care ensuring that the death of an individual and supporting the families involved was viewed as an important aspect of acute care within hospital facilities. Being able to provide appropriate end of life supports to families instilled great pride in staff who previously had been embarrassed at having to support families on corridors or other public places. The facilities developed as a result of the Design & Dignity Grant Scheme, provided staff with a dignified and private environment in which they could engage in caring, compassionate interactions with family members. These spaces provided an oasis of calm for families at difficult times in their lives. Families and patients had access to a secluded and serene environment, while crucially, remaining in close proximity to their loved ones, within the hospital setting. On a practical level, it gave families somewhere to go while the care needs of their loved one were being met and helped reduce the financial burden often experienced by these families by providing a facility where they could have freely available refreshments.
Project level challenges were identified by staff across all the sites, with common issues such as securing corporate commitment, negotiating timelines with contractors, educating staff on the function and use of the space. Many spoke about the facilitators to overcoming these issues and frequently referred to the support from the IHF, particularly in terms of the style guidelines and the architect. Having a dedicated committee with a genuine focus on improving end-of-life care in acute care was the facilitator for real progression and ensured on-going governance and sustainability. Once all levels of staff could see and experience the impact the new space had, a rippling effect took place throughout the organisation.

This report makes a number of recommendations for future builds including that the Design & Dignity facilities should be the norm, not a luxury. Such facilities should be included in the planning of all new builds, closely involving architects with an interest in this field from the outset. High quality furnishings and artwork should be available in these rooms and all rooms should be fully serviced and future-proofed to keep abreast with new technologies. Both the establishment of multi-disciplinary end-of-life care committees, as well as the development and implementation of staff education programmes on the use of these facilities is a key requirement in acute hospital settings.

In conclusion the Design & Dignity projects were described as symbolic of compassion and demonstrated that the organisation valued the experience of those grieving. Design & Dignity grants not only transformed physical spaces but, according to staff, transformed end-of-life care and have been the catalyst for dignified care in acute care settings. The new spaces have ensured that these principles are no longer aspirational but rather rooted in the culture of end-of-life care.

“the space is very important but it's the philosophy of valuing the experience and acknowledging the importance of this death that is happening... this is really important” (Clinical Staff)
# Table of Contents

**Chapter 1: Background**

1.1 Introduction .............................................................................................................02
1.2 The Design & Dignity Programme .................................................................................03
   1.2.1 Funded projects directory...............................................................................04
1.3 Evidence-Based Healthcare Design...............................................................................05

**Chapter 2: External Evaluation**

2.1 Introduction .............................................................................................................08
2.2 Methodology ...............................................................................................................09
   2.2.1 Post occupancy evaluation .............................................................................09
   2.2.2 Indicative level ..............................................................................................09
   2.2.3 Investigative level ..........................................................................................10
   2.2.4 Healthcare and Support Staff .........................................................................10
   2.2.5 Participants and Procedure .............................................................................10
   2.2.6 Bereaved Relatives ........................................................................................10
   2.2.7 Comment Boxes ............................................................................................11
2.3 Overview of Design & Dignity Projects ...........................................................................11
   2.3.1 Beaumont Hospital, Dublin – Family Room .......................................................14
   2.3.2 Connolly Hospital, Dublin – Family Room .........................................................15
   2.3.3 Galway University Hospital – An Seomra Ciun Maternity Ward .......................16
   2.3.4 Mercy University Hospital, Cork – Mortuary ......................................................17
   2.3.5 Mayo University Hospital – Family Room ..........................................................18
   2.3.6 Mid-Western Regional Hospital, Nenagh – Family Room ...................................19
   2.3.7 Mid-Western Regional Hospital, Limerick – Mortuary .......................................20
   2.3.8 Our Lady’s Hospital, Navan – Family Room .......................................................21
   2.3.9 Portiuncula Hospital, Galway – Family Room .....................................................22
   2.3.10 Sligo Hospital – Mortuary ...............................................................................23
   2.3.11 St John’s Hospital Limerick – Family Room ......................................................24
   2.3.12 University Maternity Hospital, Limerick – Maternity Room ................................25
2.4 Indicative Level Summary Analysis ..............................................................................26
   2.4.1 Mortuary measurements and audit tool results ................................................26
   2.4.2 Family room ..................................................................................................28
   2.4.3 Bereavement suite (viewing suites and maternity units) .....................................30
2.5 Five Case Studies .......................................................................................................32
   2.5.1 St. Luke’s Maternity Hospital – Maternity Room ...............................................32
   2.5.2 Mater Misericordiae University Hospital – Family Room ..................................34
   2.5.3 Beaumont Hospital – Mortuary .......................................................................36
   2.5.4 St. James’s Hospital Emergency Department – Bereavement Suite ....................38
   2.5.5 Roscommon Hospital – Mortuary ....................................................................40
Chapter 1: Background
1.1 Introduction

In Ireland, on average, only 26% of 28,000 deaths each year take place in the home, while 43% occur in the hospital setting (Murray et al., 2013).

The environment in which people die can have a huge impact on the individual’s experience as well as their relatives’ memories of the death.

The Design & Dignity Grants Scheme was officially launched in 2010 to highlight the importance of the often-overlooked physical environment in providing dignified end-of-life care to patients, their families and friends. The scheme endeavoured to create model or “exemplar” projects within hospital facilities to guide the development of future facilities related to end-of-life care. It also sought to enhance the culture surrounding end of life issues.

This report describes the work of eighteen hospital projects throughout the Republic of Ireland, which were created as part of the Design & Dignity Programme. The eighteen projects were developed to enhance the physical environment to support end-of-life care. This report was designed to evaluate the Design & Dignity Programme, with a focus on establishing impact of projects on patients, their families and acute hospital staff. The report is divided into three chapters:

■ Chapter one will introduce the Design & Dignity Programme and provide a background to its scope and purpose including an overview of evidence-based design in end-of-life care in acute care settings.

■ Chapter two will present each of the facilities involved in the evaluation. The facilities will be presented with photographs to capture its detail and design features and includes indicative level analysis. This chapter also will give in-depth evaluation of the experiences of staff and relatives who have used the Design & Dignity spaces.

■ Chapter three will discuss the key challenges and lessons learnt together with recommendations for future and existing Design & Dignity spaces.
1.2 The Design & Dignity Programme

The Design & Dignity Programme established by the Irish Hospice Foundation (IHF) and Health Service Executive (HSE) aims to ensure that hospitals offer quiet and peaceful spaces for family members and friends to help them cope when someone close to them is dying.

It highlights the importance of the often-overlooked physical environment in providing dignified end-of-life care to patients, their families and friends.

A review carried out in 2007 by Tribal Consulting on behalf of the IHF found hospital facilities were lacking in terms of care, death and bereavement care across Ireland (Irish Hospice Foundation, 2007). Specifically, the review highlighted concern in the following areas:

- an absence of facilities to have private and sensitive conversations
- a lack of dedicated family areas
- shortage of single patient room accommodation for those at end of life
- rundown mortuary facilities and family rooms
- little attention to detail or natural surroundings
- inflexible facilities for different religions and cultures

In October 2010 the Design & Dignity Grants Scheme was officially launched. Since its inception, the Design & Dignity programme has provided support to over 40 projects throughout Ireland. Such projects have created relaxing, spacious family rooms within busy acute wards, upgraded mortuaries into welcoming, respectful environments and redesigned dreary facilities into spaces of tranquillity. Areas in which projects have been completed include acute wards, mortuaries, emergency departments, waiting areas and maternity units.
### 1.2.1 Funded projects directory

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Project Type</th>
<th>Artwork type and Artist details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Beaumont Hospital, Dublin</td>
<td>Family Room</td>
<td>Artwork Yvonne Coomber, Gaslamp Gallery <a href="http://www.thegaslampgallery.com">www.thegaslampgallery.com</a></td>
</tr>
<tr>
<td>2 Beaumont Hospital, Dublin</td>
<td>Mortuary</td>
<td>Glass Art Michelle O’Donnell, Glasshammer studio, <a href="mailto:info@glashammer.ie">info@glashammer.ie</a></td>
</tr>
<tr>
<td>3 Connolly Hospital Blanchardstown, Dublin</td>
<td>Family Room</td>
<td>Eunan Sweeney Photography 087 648 8660</td>
</tr>
<tr>
<td>4 Mater Misericordiae University Hospital</td>
<td>Family Room</td>
<td>Artwork Rebeka Khan <a href="http://www.rebekakahnartwear.com">www.rebekakahnartwear.com</a></td>
</tr>
<tr>
<td>5 Mayo University Hospital</td>
<td>Family Room</td>
<td>Artwork Francois Gunning <a href="http://www.franciosgunning.com">www.franciosgunning.com</a></td>
</tr>
<tr>
<td>6 Mercy University Hospital Cork</td>
<td>Mortuary</td>
<td>Existing stained glass windows, interiors by Reddy Architects, wallpaper stock images</td>
</tr>
<tr>
<td>7 Mid-Western Regional Hospital, Limerick</td>
<td>Mortuary</td>
<td>Monika Mulhall <a href="mailto:monikamulhall@gmail.com">monikamulhall@gmail.com</a></td>
</tr>
<tr>
<td>8 Nenagh General Hospital, Tipperary</td>
<td>Family Room</td>
<td>Gareth MCCormack <a href="http://www.garethmccormack.com">www.garethmccormack.com</a></td>
</tr>
<tr>
<td>9 Our Lady’s Hospital, Navan</td>
<td>Family Room</td>
<td>Ceramic Artwork Diane McCormick <a href="http://www.dianemccormick.co.uk">www.dianemccormick.co.uk</a></td>
</tr>
<tr>
<td>10 Portiuncula Hospital Ballinasloe, Galway</td>
<td>Family Room</td>
<td>Patrick McKeown Photographer <a href="http://mckeonphotography.com">mckeonphotography.com</a></td>
</tr>
<tr>
<td>11 Roscommon University Hospital</td>
<td>Family Room</td>
<td>Shutterfever Photography <a href="mailto:info@shutterfeverphotography.ie">info@shutterfeverphotography.ie</a></td>
</tr>
<tr>
<td>12 Roscommon University Hospital</td>
<td>Mortuary</td>
<td>Orla Kennelly <a href="mailto:okennelly@taylorarchitects.ie">okennelly@taylorarchitects.ie</a></td>
</tr>
<tr>
<td>13 Sligo General Hospital</td>
<td>Mortuary</td>
<td>Vera Gaffney Prints, Quilt by local Yeats Country Quilters, Breda McNeil, Glass butterflies by Anna’s Gift gallery. Framed poem by WB Yeats</td>
</tr>
<tr>
<td>14 St. James’s Hospital, Dublin</td>
<td>Bereavement Suite</td>
<td>Artwork and Feature Panels Michelle O’Donnell, Glasshammer studio, <a href="http://www.glashammer.ie">www.glashammer.ie</a></td>
</tr>
<tr>
<td>15 St. Johns Limerick</td>
<td>Family Room</td>
<td>Artwork Kilkenny Design Shop, Dublin</td>
</tr>
<tr>
<td>16 St. Luke’s General Hospital Kilkenny</td>
<td>Maternity Family Room</td>
<td>Stained Glass Paschal Fitzmaurice 087 202 1633</td>
</tr>
<tr>
<td>17 University Hospital Galway,</td>
<td>Maternity Inpatients Room</td>
<td>Marielle Macleman <a href="mailto:Mariellemacleman@googleemail.com">Mariellemacleman@googleemail.com</a></td>
</tr>
<tr>
<td>18 University Maternity Hospital Limerick</td>
<td>Maternity OPD Meeting Room</td>
<td>Artist not known</td>
</tr>
</tbody>
</table>
1.3 Evidence-Based Healthcare Design

From 2007 to 2012, a total of 32 acute public hospitals, and 18 community hospitals were actively involved with the Hospice Friendly Hospitals (HfH) programme (Clarke and Graham, 2013).

As a result of this programme a working group including senior nurses, palliative care specialists, healthcare quality experts, HfH programme staff and consultant architects developed a set of guidelines for Physical Environments of Hospitals Supporting End-of-life care. Central to the programme is The Design & Dignity Scheme (Clarke and Graham, 2013, Walsh, 2013), a partnership programme between the Irish Hospice Foundation and Health Service Executive Estates. The HfH programme seeks to create positive change in the manner in which people die in acute hospitals. In Ireland, only 26% of 28,000 deaths each year take place in the home, while 43% occur in the hospital setting (Murray et al., 2013).

The Design & Dignity scheme aims to bring design excellence to hospitals at a critical time at the end of life for the person who is dying, their family and for hospital staff. Support has been provided to 40 projects throughout Ireland e.g. hospitals have created relaxing, spacious family rooms within busy acute wards, upgraded mortuaries into welcoming, respectful environments and redesigned viewing rooms in emergency departments and mortuaries. Feedback from families and staff has been positive demonstrating that, with relatively small investments a difference can be made (Walsh, 2013).

Design & Dignity guidelines aim to create a warm and welcoming environment for those being cared for at the end of their lives in a hospital setting (Irish Hospice Foundation, 2014). Current evidence indicates that the physical characteristics of a hospital environment influences patient’s quality of care (McKeown et al., 2010). Practice guidance on design, dignity and privacy in care has highlighted key recommendations in several areas to improve care and attention to detail of hospital environments (Irish Hospice Foundation, 2007). Among these include sizing and reconfiguration of single rooms, accessible facilities, natural light, visitor considerations and multi-denominational use of space (Irish Hospice Foundation, 2007).
The establishment of a dedicated hospital space can provide both privacy and family proximity at end of life for individuals who are unable to die at home (Slatyer et al., 2015). Control, comfort, sensitive communication, peace and family inclusion have been identified as influential factors that improve the quality of death and dying (Stajduhar et al., 2011, Willard and Luker, 2006). In addition, a sense of homeliness and aesthetic influences can encourage positive emotions (Timmermann et al., 2015).

Despite policy initiatives to enhance end-of-life care in the community, many individuals also require end-of-life care in hospital settings (Brereton et al., 2012). Empirical research continues to reflect on a consistent interrelationship between the patient, hospital environment and improved health outcomes (Timmermann et al., 2015). Yet, there is limited evidence with regard to the optimum physical hospital environment for patients and their families at end of life (Gardiner et al., 2011). Research has focused on patient, family members, and healthcare professional’s experiences and perceptions of physical hospital environments. Despite concerns regarding the layout and design of hospital environments, there is little evidence to determine the impact of newly designed hospital spaces for individuals, their families, and staff at end of life, hence the importance of this evaluation. A review of the empirical and grey literature was conducted to inform the impact and outcomes of evidence-based design on end-of-life care in acute settings. Findings from the review informed data collection methods and provided context for future recommendations. For an overview of the empirical and grey literature see Appendix 1.
Chapter 2: External Evaluation
2.1 Introduction

This section describes the methodology used to evaluate the Design & Dignity Programme.

As specified by the Irish Hospice Foundation, the aim was to independently evaluate the Design & Dignity programme with a focus on establishing impact of projects on patients, their families and acute hospital staff. In order to meet this aim, two objectives were proposed. The first, and primary objective was to assess the impact of evidence-based design from the perspectives of patients, families and staff (including frontline staff and HSE Estates), specifically focusing on: a) the impact on the culture of care, b) the impact on the organisation of care, c) the design features of the new facilities which have the most impact and d) knock-on and unforeseen benefits/challenges emerging from the projects. The secondary objective was to determine likely factors contributing to the successful completion and maintenance of Design & Dignity spaces. A total of 18 facilities were included in the evaluation illustrated in Figure 1. The type of facilities ranged from family rooms, maternity rooms, mortuaries and emergency department bereavement suites.

Figure 1. List of hospitals included in evaluation
2.2 Methodology

2.2.1 Post occupancy evaluation

The design of this evaluation involved multiple case study research informed by best practice in Post Occupancy Evaluation (POE). The core aim of POE is to gain feedback on the success of the build from the perspective of the end-users following a period of intended use (Fronczek-Munter, 2013). Battisto and Franqui (2013) propose a best practice framework for evaluating evidence-based healthcare design which encompasses a two-phased facility-based case study approach; facility documentation followed by a POE (Battisto and Franqui, 2013). Facility documentation ensures that the design attributes of a build are captured and that information regarding the anticipated outcomes of the project can be determined and subsequently measured as part of the POE. As part of the POE framework a multi-case study approach was applied. Illustrated in Figure 2, the POE has a two levelled approach. Level 1 described as Indicative is a basic evaluation of the facility whereas Level 2, Investigative is a more in-depth evaluation.

<table>
<thead>
<tr>
<th>Design</th>
<th>Focus</th>
<th>Multi-Case Study/Approach</th>
<th>Study Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility</td>
<td>Generic</td>
<td>Documentary Analysis of Project Overview File including photographs and site maps</td>
<td>Informs study objectives 1 (a-c)</td>
</tr>
<tr>
<td>Documentation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Outcomes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Overview of design attributes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Provides data on outcome measures and photographic evidence to inform observation assessments, focus groups and semi-structured interviews at indicative and investigative level</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Overall informs standardised framework of in-depth case studies</td>
<td></td>
</tr>
<tr>
<td>Res Post</td>
<td>Level 1</td>
<td>Walk through, observation checklist</td>
<td>Meets study objectives 1 (a-d) &amp; 2 (limited)</td>
</tr>
<tr>
<td>Occupancy</td>
<td>Indicative</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Outcomes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Overview of the positive and negative aspects of the building performance and usage within the use of limited resources</td>
<td></td>
</tr>
<tr>
<td>Res Post</td>
<td>Level 2</td>
<td>Behavioral observation, focus groups, semi structured interviews, benchmarking with literature and state of the art facilities</td>
<td>Meets study objectives 1 (a-d) &amp; 2 (comprehensive)</td>
</tr>
<tr>
<td>Occupancy</td>
<td>Investigative</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Outcomes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Results is in-depth evaluation of the facility</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2. Facility Documentation and POE per site and relationship to study objective

2.2.2 Indicative level

Indicative level evaluation involved a “walk-through” of all eighteen Design & Dignity spaces (while unoccupied) using a GoPro camera to capture detail on setting appearance and contents. In order to compare with universal standards, measures were taken of the spaces physical dimensions (meters), its light content (lux) and noise content (decibels). Additionally, IHF audit tools (on setting appearance and contents – see appendix 2 a-c). Qualitative field notes were taken by the researchers to describe what they saw, smelt, heard and felt during site visits.
2.2.3 Investigative level

Investigative level was in-depth evaluation of five key hospital sites; Roscommon Hospital, Mater Misericordiae University Hospital Dublin, Beaumont Hospital Dublin, St. James’s Hospital Dublin and St. Luke’s Hospital Kilkenny. Investigative data collection included focus groups with staff members, semi-structured telephone interviews with bereaved relatives and comment boxes, where appropriate. Ethical approval was gained from three separate ethics boards nationally; Clinical Research Ethics Committee of the Cork Teaching Hospitals (CREC), Tallaght University Hospital/St. James’s Hospital Joint Research Ethics Committee and Research Ethics Committee HSE South East.

2.2.4 Healthcare and Support Staff

Focus groups were held with healthcare and support staff who were involved in the Design & Dignity project or who currently use the space in their day to day work. A total of 18 staff members participated (see Table 2 for more detail). Stakeholders were recruited by the End-of-life Care Coordinators or Clinical Nurse Managers at each hospital site via an invitation letter. Focus groups were conducted on site and navigated using a topic guide (see appendix 3). The purpose was to gain insight into staff perspectives of the impact of the spaces. Each focus group was audio-recorded, and participants were asked to give written consent prior to beginning.

2.2.5 Participants and Procedure

Table 2. Total number of participants per site

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Staff Members (focus Group)</th>
<th>Relatives (interviews)</th>
<th>Comment Cards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beaumont</td>
<td>4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mater</td>
<td>2</td>
<td>-</td>
<td>17</td>
</tr>
<tr>
<td>Roscommon</td>
<td>8</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>St. Luke’s</td>
<td>4</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>St. James’s</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18</strong></td>
<td><strong>4</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

2.2.6 Bereaved Relatives

Semi-structured audio recorded phone interviews were held with bereaved relatives who made use of the end-of-life care facilities (i.e. family room/mortuary/bereavement suite) in the respective hospitals. Participants were screened via the End-of-Life Care Coordinator or Clinical Nurse Manager at each of the five hospital sites. If the hospital had a family room, the health-care records of patients who died on the ward where the family room was located were accessed to retrieve Next of Kin contact details. If the hospital had a mortuary or bereavement suite, the health care records of patients who had been reposed there were accessed to retrieve Next of Kin contact details. Once a list of potential participants was drawn, the End-of-Life Care Coordinator or equivalent (Co-Principle Investigator) sent a

---

8 Unfortunately, due to circumstances outside the control of staff on the unit in St. James, staff were unable to participate in the focus groups. Given the nature of the site, it was also deemed inappropriate to contact relatives and/or place comment cards in the area.
letter of invitation, information leaflet and consent form to the bereaved relatives advising that a study was being conducted in consultation with colleagues in UCC and if they would like to participate they could send the consent form with their name, address and phone number and time preference to the Principle Investigator in UCC. On receipt of consent form, the Principle Investigator in UCC arranged a phone interview with the participant based on their time preference. Each hospital sent this letter to approximately twenty relatives to aim to achieve a sample size of no less than 3-5 participants, taking into account response rate and attrition. Unfortunately, only 2 sites received indications from relatives that they wished to be interviewed and all respondents were subsequently included (n=4 relatives/patients).

2.2.7 Comment Boxes

To reach the wider population and obtain information from “real time” a concealed and secured comment box (and comment cards) was mounted in two of the case example spaces. Seventeen responses were received from one site, and no responses from the second data collection site. Other sites were deemed inappropriate to have a comment box in place, for example emergency departments or mortuaries.

2.3 Overview of Design & Dignity Projects

This section provides a summary of each of the projects included in the evaluation.

Photographs of before and after the Design & Dignity project will highlight each of the site’s transformation process and their key design features.

**Figure 3. Overview of project types**

The projects included

- A bereavement suite in an Emergency Department
- Five mortuaries
- Nine Family Rooms
- Three Maternity Rooms
Firstly, the data extracted from the facility documentation will be presented followed by a summary of each project. This will be based on the facility documentation provided by each of the teams when originally applying for the Design & Dignity grants. Additionally, field notes and observations taken by the researchers during site visits provide a narrative of how the spaces look and feel today.

**Facility Documentation**

At the request of the Irish Hospice Foundation, there was a deliberate focus on Mortuaries and Family Rooms. Data was extracted from facility documentation of 12 sites. Details were extracted on makeup of project team, duration of project, budget, design concepts, use of Design & Dignity guidelines, input from family/patients, design attributes and anticipated benefits. Descriptions of the latter two areas are integrated into the site profiles sections.

**Project teams** included General Hospital Managers, Director or Assistant Director of Nursing, Clinical Prof/Clinical Staff, Risk Manager, Mortuary Manager, End-of-life care Co-Ordinator, Social Worker and Maintenance Manager.

**Project timelines** varied depending on the need to change the infrastructure of a space with some projects taking 7 weeks to complete while others took over 18 months. Most projects ran over time taking longer than anticipated.

**Project cost** also varied from €30,000 to over €376,000, again depending on the type of build i.e. structural versus aesthetics. Funding was provided by HSE Estates (& National lottery grant), the IHF and individual hospital contributions.

**Design concepts, attributes and anticipated benefits** are listed below per type of build and demonstrate the desire from project conception to ensure the new space would provide dignity, sanctuary, inclusivity and foster staff pride.

### Mortuary and Bereavement Suites

**Inclusive**
- St. James’s: “to meet multicultural beliefs of individual patients/relatives”
- Mercy: “embracing multicultural faiths”
- Roscommon: “the room would be inclusive of multinational faiths”

**Sanctuary**
- Roscommon: “serene atmosphere gives respect and reassurance rather than clinical ward”
- St. James’s: “to shield families from busy ward environments”
- Mercy: “to make the mortuary a place of ‘reverence & respect’”
- Portinuncula: “calm room”
- Sligo: “allow for a place of death that is reverent and respectful”

**Privacy**
- Beaumont: “meeting needs of more than one family”
- Portinuncula: “quiet, private space for families”
- Roscommon: “private from rest of hospital”

**Dignity**
- Roscommon: “to create a respectful/dignified area for the deceased where their loved ones can spend as long as necessary”
- St. James’s “to shield families from the business of everyday hospital life”
- Sligo: “seeks to improve the dignity of death for their patients and loved ones”
- Mercy: “enhancing standard of care for patients and increasing hospitality for their families”
### Family Rooms

**Accessible**
Nenagh: “24hr access” “visible as to its whereabouts”
Connolly: “self-contained, toilets, refreshments”
Navan: “wheelchair/bed bound accessible” “light box for way finding” “exit onto garden, so you don’t have to exit onto busy ward”
Mayo: “visible on ward” “a room that is soundproof”

### Maternity Suites

**Pride**
Limerick: “staff no longer ashamed” “less stress on staff because can accommodate appropriately”

**Privacy**
Limerick: private, sensitive discussions with staff” “gentle, safe environment”
St. Luke’s: “peaceful/private for discussions of bad news; counselling”

**Atmosphere**
Limerick: “compassionate atmosphere gives feeling you’re cared for” “soft lighting, changing floor material, including soft furnishings and art”.
St. Luke’s, Kilkenny: “aesthetic (furnished, natural colours) to provide sense of calm”

---

**Figure 4. Anticipated Benefits from Facility Documentation**
2.3.1 Beaumont Hospital, Dublin – Family Room

Beaumont Hospital’s second project was the Family Room upgrade in the General Intensive Care Unit (GICU). The two adjacent relative’s rooms that existed on the ward were very clinical and limited in terms of hospitality.

The team’s aim was to convert the two relative’s rooms into a space where families could find comfort, relax and have some privacy from the busy ward. Moreover, the aim was to install refreshment facilities to allow families to prepare food, shower and sleep over night. The project hoped to include features such as plentiful natural light, dimmed lighting fixtures, black out blinds for families sleeping overnight, a kitchenette, a second room for private discussions, upgrading the existing bathroom, TV, high quality furniture, wood panelling and an outside garden. The team involved made up many various disciplines – both clinical and non-clinical making up a sub-committee of the End of Life Steering Committee.

Today, the rooms are bright and colourful spaces. There is access to an outdoor patio area featuring plants. High quality furniture with bright colours (purple, green) are one of the key features, with overnight facilities on one of the rooms. Beautiful art work of flower scenes decorates the walls and reflect the colour schemes. A kitchenette exists allowing families to make a snack or cup of tea. Other features include a TV, dimmed lighting features and black out blinds. The space is private and tucked away from the ward and invites a welcoming atmosphere.
2.3.2 Connolly Hospital, Dublin – Family Room

The Connolly Hospital team wanted a space for family bereavement and counselling to be used by the Social Work Department. At the time of submitting the proposal the hospital had approximately 250 deaths per annum. The team felt the introduction of the space was necessary as often news was broken on the corridors of the hospital. The proposals aim outlined a space which allowed for patients and relatives to relax and feel comfortable. The objective of the interior was to create a feeling of homeliness and relaxation. Tea making facilities would be incorporated as well as an accessible en suite facility.

Today, the “Bluebell Room” is bright with natural light and high ceilings. Natural light comes through glass doors which look onto an outside patio area with foliage and flowers. The colour schemes are light blue, dark blue and green giving it a calming feel. The furnishings are of high quality and adaptable to sleepover beds. Art work of nature scenes (bluebells, cherry blossoms) decorate the walls. On the west wall is a kitchenette with blue and wood cabinets. Shelves contain bereavement leaflets, toys and glass vases. The en suite is cleverly disguised with the blue panelling and its dimensions make it widely accessible.
2.3.3 Galway University Hospital – An Seomra Ciúin Maternity Ward

The development of the private room now named An Semora Ciúin began as the team believed those experiencing early pregnancy loss of up to 24 weeks gestation deserved a private space to process the emotions associated with miscarriage. The room was hoped to also provide for those who have received a terminal diagnosis to be in comfortable and dignified surroundings with their loved ones during end of life. The team decided to convert the Clinical Nurse Manager’s office, which was in a quiet area at the end of the ward but in proximity to the midwife’s/nurse’s station.

The aim of the room was to structurally convert the office into a bedroom and attached ensuite bathroom. The bedroom had to have medical equipment such as medical gas and suction equipment to deliver safe emergency care. However, the team wanted to the room to look less clinical with design features such as art work of sea scenes or nature art. Overall the team’s aim was for a space that was homely, warm and peaceful.

Today, the room is a bright and homely space with beautiful art work. The muted blue colours are calming and one walls features wallpaper which illustrates birds of Ireland.

A main design feature of the room door is the frosted shutters, which are adjustable from the outside – so nurses can check on the patient with minimal disturbance. Structurally, the ceiling has acoustic features which absorb echoes. The ceiling lights are adjustable as well as a light panel above the patient bed which is also adjustable. High quality furniture which changes into a futon also features. A small kitchenette provides tea making facilities. The ensuite contains a shower and shower chair.
2.3.4 Mercy University Hospital, Cork – Mortuary

At the time of application, the Mercy Hospital’s mortuary was in a semi derelict condition. Staff, while delivering effective care, felt dignified care was not possible when the patient left the clinical area and was transferred to the mortuary. This was due to not only the lack of facilities but the mortuary’s location, adjacent to waste disposal.

The ward environment was not an appropriate place for families and did not allow them privacy or dedicated time with their loved one. The team’s aim was to create a space where families could spend time with their loved one privately.

The team wanted the mortuary to be a space of reverence and respect for the dead and the bereaved. The team also wanted to improve the pathway from hospital to mortuary.

Now the mortuary sits in a quiet and separate area from the hospital marked by an entrance with the end-of-life symbol. The area is decorated with plants and a water feature, which can be heard in the mortuary giving a soothing effect or the idea that one is close to nature.

Inside the mortuary is a small foyer with a remembrance book and bathroom facility. Off the foyer are two viewing rooms. The main east suite features stained glass that was kept from the original build, giving the room lots of natural light. Wood panels with shelves decorate the room and give it a polished finish. The west suite is a smaller viewing room but increases the building’s accessibility and can host two families at one time if necessary.
2.3.5 Mayo University Hospital – Family Room

The staff at Mayo University Hospital believed families needed a place for reassurance, a space to rest and feel comforted. The proposal outlined research that reported relatives can often feel devalued, dehumanised or disempowered when they do not receive adequate support. The team wanted to create an area that would be central to increase accessibility for families. An office space was proposed as the optimal location for the renovation, existing on a floor close to stairs, a lift and several main wards including ICU. The team wanted a space that could offer refreshment facilities and places to rest. Moreover, the room would be an appropriate space to have private conversations with families rather than corridors. Overall, the proposal outlined a desire for a space that would send a message of its commitment to improve end-of-life care to families and the multidisciplinary team alike.

Today the space is located on the ward, marked by brightly coloured glass panels beside the door frame. Inside is a large space with the east wall featuring windows with primary coloured panels (blue, green, red, yellow).

Four leather couches sit beside the windows separated into two sections by a panel creating two private areas. Within the sections the couches face one another and can be made into beds.

A TV hangs on the wall for one the sections. A kitchenette and table allow families to prepare food. Art work of squares are painted directly onto the walls.
2.3.6 Mid-Western Regional Hospital, Nenagh – Family Room

The team felt it was important to introduce a space for spirituality based on research highlighting its importance in aiding the bereavement process. The team wanted a room for family members where they could find privacy, quiet, comfort and peace and was flexible to multi-denominational faiths and cultures. The proposal outlined plans to convert a store room into the multi-faith room.

Sleepover facilities would be incorporated into the space to cater for families staying overnight, with 24-hour access. The location was chosen to be at the front of the hospital – to highlight their support for the Hospice friendly Hospitals programme and translate a message of care for all those at end of life. The project proposal outlined their hopes for a positive cultural change within the hospital organisation allowing for improved end-of-life care.

Today, the room is a bright and airy space with the colour green and blue decorating throughout. A beautiful image of a nature scene behind glass contributes the natural serenity of the room. A blue couch which adapts into a bed features against a green wall and a white couch against a white wall. The room has a Burco boiler for tea making facilities. Leaflets for the IHF feature on the window sill.
2.3.7 Mid-Western Regional Hospital, Limerick – Mortuary

The staff at MWRH Limerick wanted to renovate the walkway from hospital to mortuary. At the time of the proposal, the walkway was indirect and poor in appearance with families having to walk through an unofficial smoking area littered with cigarette butts, cups and rubbish bags. Moreover, the mortuary itself did not meet Design & Dignity standards.

The aim of the proposal was to create an alternative walkway for families that would be visible, easy to understand and respectful of family’s bereavement. The mortuary was proposed to have a store room converted into a second Chapel of Rest, a counselling/family room and refreshment facilities. The family room was proposed to accommodate private conversation with family with counsellors, Gardai or chaplains. An enclosed urban garden was suggested by the team to exist inside the build to allow individuals to see nature while in the waiting room. Designated parking facilities were also needed.

Today the space is accessed via a direct route from the hospital with clear signposting (featuring the end-of-life symbol) and art work. The mortuary is a modern building with parking facilities surrounding. Stepping inside is a large open space featuring glass panels looking onto a small garden which allows in natural light and invites nature into the space. Two green couches, a small kitchenette and art work of leaf scenes feature. The viewing room itself is to the right of the entrance and includes 12 chairs lining the wall with dimmed lighting. Candles, flowers and triskel symbols decorate the area. Finally, a family room which is accessed at the west of the space through a coded door (with a frosted end-of-life symbol) is private and removed from the space. The room is decorated with art work in abstract and muted colours and one yellow and one green couch.
2.3.8 Our Lady’s Hospital, Navan – Family Room

The team wanted to update their “Day Room” into a private, accessible and therapeutic environment. The Day Room was situated in the centre of the hospital and adjacent to an outside area, which the team felt could be enhanced by creating a garden area with seating. Support for the project was received by local management, End-of-life care Committee, the Louth/Meath Hospital Senior Management Team and support of Local Management.

The proposal’s aim was to use the room as a place where staff could speak privately with families or break bad news in an environment that supports end-of-life care. By improving the physical space, the team hoped it would enhance the quality of end-of-life care for patients and their families. Providing an area to connect with nature would provide a sense of calm for families and patients at end of life.

Today the room is a private quiet space with comforting surroundings. The room is decorated with natural wood finishing’s and high quality furniture. Artwork, lamps and dim lighting make the room feel homely and personal. Attached to the room is an en suite toilet and a kitchenette complete with microwave, kettle and refrigerator. The outside area has seating which is partially enclosed making it more private.
2.3.9 Portiuncula Hospital, Galway – Family Room

The project proposal was to refurbish the Family/Pastoral Care room into a private and dignified area for families of patients on all general wards (including ICU, paediatric unit).

The staff wanted the room to be dedicated to families whose loved ones were at end of life, to provide sleepover and refreshment facilities. Those involved included front line staff, senior management and a family member who was invited by the hospital. The particular individual had experienced two bereavements and her perspective was important to the team.

Aims outlined in the proposal included; a room which could seat up to 12 individuals; sleepover facilities/sofa bed, a kitchenette, natural light, colours and furnishings to provide a calm atmosphere, TV/reading materials.

Today, the room is located beside the pastoral care room tucked in a private corridor off the ward. The room is full of natural light and vibrant colours. The green couches are spacious and convert to sleepover beds. Decorated with purple cushions, the green colour scheme mirrors nature and gives a relaxing atmosphere. Art decorates the walls depicting nature scenes. A kitchenette provides tea making facilities. A TV and reading materials are provided.
2.3.10 Sligo Hospital – Mortuary

The mortuary at Sligo General Hospital provided excellent post mortem facilities, however the facilities for families were lacking in terms of space for grieving families and friends to congregate and view the deceased. The Slan Project was developed by the End-of-life care Committee and represents key stakeholders from Sligo General Hospital and North West Hospice.

The team’s aim was to create a mortuary that provides an atmosphere of reverence and respect for “life, death and bereavement”. The new build hoped to improve accessibility to the Mortuary from the main hospital and remove Portacabins near by the Mortuary to create a sensory garden.

The new design of the mortuary now includes an accessible route from the main hospital. The entrance of the Mortuary is clean, modern, well signposted and features nature. Inside the mortuary is separated into two distinct areas; one for the death of a child, one for the death of an adult. The largest space is dedicated to the adult mortuary and features two rooms - an open plan space with a kitchen and attached a smaller viewing room. The open space is bright and features a back wall of glass doors looking onto a courtyard.

Attached to this space is a smaller viewing room with dimly lit lights, blinds on the windows and candles enhancing the atmosphere of reverence and peace. The paediatric mortuary includes a play area for young families, changing facilities and a small kitchenette and stove. The viewing area creates an ambiance of peace with natural light, soft lighting and features beautiful glass artwork of butterflies and angels.
2.3.11 St John’s Hospital, Limerick – Family Room

The team wanted to transform the space into a welcoming calming environment for families to relax or rest. The aim was to include overnight and en suite facilities. In addition to the Design & Dignity programme, Friends of St. Johns Hospital a voluntary fundraising group were committed to supporting the project. Overall it was felt that a family patient focused initiative was needed.

The team’s aim was to renovate the space into a self-contained private Family Room with an outside space featuring patio doors and decking area overlooking a green space. Inside the space would feature refreshment facilities and designed in a way that maintains privacy whilst evoking peace and quietness.

A green and orange palette is used throughout the room. Bamboo on the patio outside is reflected in the design of the room including the green nature themed carpet. Attention to detail is seen in the orange ceramic lamps as well as the high-quality material of the couches. A TV features in the room as well as a kitchenette with microwave, fridge and kettle. An en-suite bathroom and storage cupboard for bedding are neatly built into the adjoining hallway making the whole space feel like a self-contained unit.
2.3.12 University Maternity Hospital, Limerick – Maternity Room

The staff at the hospital wanted to renovate the then existing “Rose Room”. The Rose Room is situated between the scan department and antenatal clinic.

Often if an abnormality is identified in an ultrasound scan or a diagnostic test, the room is used for private and compassionate conversations with women/couples. The proposal wanted to renovate the space to provide a message of sensitivity and compassion to women and their families when receiving bad news.

Design ideas outlined included fresh paint, new flooring, soft lighting, new furniture and art work. The aim was to create an atmosphere of dignity, respect and privacy in gentle surroundings.

The renovation has added depth and colour to the space. Although small, the high ceilings and natural light lift the room. A pale pink decorates the wall giving it a calming atmosphere. Two large pieces of artwork of nature and butterflies decorate the walls along with a painting of a rose. Two couches and a small espresso machine are provided on a wooden linoleum floor.
2.4 Indicative Level Summary Analysis

The indicative level evaluation involved measuring each space in terms of physical dimensions (meters), light (lux) and noise content (decibels). Additionally, an audit checklist on setting, appearance and content was also completed. The following section provides an overview of measurements, audit tool results, and researcher field notes from each of the 18 projects. See Appendix 4 for a guide to light and noise levels recommended for a hospital setting9.

2.4.1 Mortuary measurements and audit tool results

During five site visits, seven mortuary rooms (Site A-E) were included in the indicative analysis. Of the seven mortuary rooms visited the light (lux) measurements ranged from $2^{10} \text{ to } 43^{10}$, while sounds levels ranged from 56.6 to 76.6 decibels. Room area varied greatly from readings of 11.54m² to 148.91m². From a possible score of 28, the mortuary audit assessment tools based on the Design & Dignity Style Book Guidelines (2014) scored between 21 and 27. The best example of a mortuary that was visited included one which was in line with the Design & Dignity Style Book Guidelines (2014). Based on measurement data, audit assessment tools scores, and field note analysis (see 2.4.1.2) an exemplar type mortuary should ensure the following:

- Be located within the hospital and avoids clinical traffic
- Have ease of access to all visitors, including those with disability and cognitive impairments
- Have suitable privacy signage
- Provide adequate space, with a viewing area and adjacent family room with facilities
- Provide adequate parking
- Have access to toilet facilities
- Exclude external noise where possible
- Include bariatric room where possible
- Have natural light, ventilation, and suitable artwork for positive distraction
- Identify as a non/multi-denominational area

For a full overview of measurement results and audit tool assessments for the mortuary see Table 3.

---

9 Recommendation guidelines include a maximum noise level of 45 dB(A) in hospitals (day) and 30 to 40 dB(A) in patients’ rooms (night). Recommended level of lighting in patient care areas include 100 Lux for ward areas and 200 Lux for toilets and waiting areas.
## Table 3: Indicative measurements/audit tool scores per mortuary site

<table>
<thead>
<tr>
<th>Site Visit</th>
<th>Area</th>
<th>Light (Lux)*</th>
<th>Sound (Decibels)</th>
<th>Audit Tool Score</th>
<th>Summary of shortfalls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site A – Beaumont Hospital</td>
<td>09.05.2018</td>
<td>148.91m²</td>
<td>23²¹⁰</td>
<td>58.2</td>
<td>27/28</td>
</tr>
<tr>
<td>· Mortuary Room</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No vacant/engaged signage</td>
</tr>
<tr>
<td>Site B – Sligo General Hospital</td>
<td>24.05.2018</td>
<td>19.86m²</td>
<td>11²¹⁰</td>
<td>75.9</td>
<td>27/28</td>
</tr>
<tr>
<td>· Adult Mortuary (viewing room)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No vacant/engaged signage</td>
</tr>
<tr>
<td>· Child Mortuary (viewing room)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No vacant/engaged signage</td>
</tr>
<tr>
<td>Site C – Roscommon Hospital</td>
<td>25.05.2018</td>
<td>37.34m²</td>
<td>19²¹⁰</td>
<td>77.0</td>
<td>24/28</td>
</tr>
<tr>
<td>· Mortuary Room</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Minimal parking; no adjoining family room</td>
</tr>
<tr>
<td>Site D – Mercy University Hospital</td>
<td>26.05.2018</td>
<td>18.47m²</td>
<td>43²¹⁰</td>
<td>76.6</td>
<td>Unavailable</td>
</tr>
<tr>
<td>· Mortuary 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Unavailable</td>
</tr>
<tr>
<td>· Mortuary 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Unavailable</td>
</tr>
<tr>
<td>Site E – University Hospital Limerick</td>
<td>23.07.2018</td>
<td>30.25m²</td>
<td>2²¹⁰</td>
<td>56.6</td>
<td>21/28</td>
</tr>
<tr>
<td>· Mortuary Room</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Clinical/high traffic area; minimal space for two families; room unable to maintain room temperature; no natural ventilation</td>
</tr>
</tbody>
</table>

* Measurement was set at a medium range of 20,000 Lux. This measurement is recorded at 10 times the value of the reading i.e x10; 1lux=1 lumen per square metre.
2.4.1.1 Mortuary field notes

Field notes were taken on the ‘walk through’ of each site and the audit team evaluated the sound and feel of each space. Overall the Mortuary sites were described positively as feeling peaceful and comfortable, with minimal noise except for occasional voices and white noise from appliances. See figure 5 for the most commonly used terms to describe what was felt and heard from the mortuary field notes.

![Figure 5. Field note synthesis of key terms used for the mortuary sites](image)

2.4.2 Family room

Nine family rooms (Site F-N) were also included in the indicative analysis. Light (lux) measurements ranged from 8x10 – 114x10, while sounds levels ranged from 50.8 to 75.5 decibels. Room areas measured between 12.32m² to 33.01m². A family room assessment tool (based on the Design & Dignity Style Book Guidelines, 2014) was used to audit all sites. From a possible score of 30, the family rooms scored between 23.5 and 30. An exemplar family room based on measurement data, audit assessment tools scores, and field note analysis (see 2.4.2.1) has been identified as requiring:

- A location within the ward setting
- Be accessible and clearly signposted
- Adequate space to facilitate larger families
- Have high quality sleeping and refreshment facilities
- Decorated to a high standard with suitable artwork for positive distraction
- Include IT infrastructure
- Have natural light, ventilation and access to nature where possible
- Have toilet and shower room facilities
- Be clean and fully serviced
- Provide a homely, non-clinical, quiet, and private atmosphere

For a full overview of measurement results and audit tool assessments for the family rooms see Table 4.
<table>
<thead>
<tr>
<th>Site Visit Area</th>
<th>Light (Lux)*</th>
<th>Sound (Decibels)</th>
<th>Audit Tool Score</th>
<th>Summary of shortfalls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site F - Mater Misericordiae University Hospital</td>
<td>03.04.2018</td>
<td>15.71 m²</td>
<td>114x10</td>
<td>67.0</td>
</tr>
<tr>
<td>Site G - Nenagh General Hospital</td>
<td>20.04.2018</td>
<td>13.07 m²</td>
<td>31x10</td>
<td>57.7</td>
</tr>
<tr>
<td>Site H - Our Lady’s Hospital Navan</td>
<td>04.05.2018</td>
<td>25.98 m²</td>
<td>48x10</td>
<td>72.0</td>
</tr>
<tr>
<td>Site I - Connolly Hospital</td>
<td>09.05.2018</td>
<td>18.24 m²</td>
<td>16x10</td>
<td>75.5</td>
</tr>
<tr>
<td>Site J - Portiuncula Hospital</td>
<td>23.05.2018</td>
<td>13.09 m²</td>
<td>39x10</td>
<td>63.4</td>
</tr>
<tr>
<td>Site K - Mayo University Hospital</td>
<td>23.05.2018</td>
<td>33.01 m²</td>
<td>53x10</td>
<td>50.8</td>
</tr>
<tr>
<td>Site L - Roscommon Hospital</td>
<td>25.05.2018</td>
<td>14.23 m²</td>
<td>91x10</td>
<td>63.5</td>
</tr>
<tr>
<td>Site M - St John’s Hospital Limerick</td>
<td>23.07.2018</td>
<td>12.32 m²</td>
<td>8x10</td>
<td>63.5</td>
</tr>
<tr>
<td>Site N - University Hospital Limerick</td>
<td>23.07.2018</td>
<td>14.93 m²</td>
<td>14x10</td>
<td>75.4</td>
</tr>
</tbody>
</table>

* Measurement was set at a medium range of 20,000 Lux. This measurement is recorded at 10 times the value of the reading i.e x10; 1lux=1 lumen per square metre.


2.4.2.1 Family room field notes

The family rooms mainly conveyed a feeling of calm, privacy, and peacefulness. Few sites were described as claustrophobic, yet the description of noise levels varied in terms of hearing individual’s voices, catering trollies and air vents. See Figure 6 the most commonly used terms to describe what was felt and heard from the family room field notes.

![Figure 6. Field note synthesis of key terms used to describe the family room sites](image)

2.4.3 Bereavement suite (viewing suites and maternity units)

Within the five bereavement suites (Site O-R), the light (lux) measurements ranged from $12^{10} - 69^{10}$. Sound ranges varied from 57.6 to 85.5 decibels. The room area measured between $6.88^{m2}$ to $26.95^{m2}$. From the bereavement suite assessment tool (used on one site only- See Table 5) a score of 20 was identified from a potential score of 30. Based on measurement data, audit assessment tools scores, and field note analysis (see 2.4.2.1) an exemplar bereavement suite should facilitate the following:

- Be located within the hospital and avoids clinical traffic
- Have ease of access to all visitors, including those with disability and cognitive impairments
- Have suitable privacy signage on all door entering room
- Provide adequate space, with a viewing area and adjacent family room with facilities
- Exclude external noise and soundproof where possible
- Have natural light, ventilation, and suitable artwork for positive distraction
- Identify as a non/multi-denominational area
- Provide a non-clinical atmosphere

For a full overview of measurement results and audit tool assessments for the bereavement suites see Table 5

---

**What do I feel?**
- Peaceful
- Calm
- Homely
- Safe
- Discreet
- Breathable

**What do I hear?**
- Quietness
- Birds
- Generator
- Airconditioning
- Catering trolley
- Voices/Laughing

- Spacious
- Warm
- Private
- Content
- Claustrophobic
- Energy
- Outside traffic
- Ward Corridor
- Air vents
- White noise
- Relaxing views
- Spacious
- Warm
- Private
- Content
- Claustrophobic
- Energy
### Table 5. Indicative measurements/audit tool scores per bereavement suite site

<table>
<thead>
<tr>
<th>Site Visit Area</th>
<th>Site Visit Date</th>
<th>Area 1 (m²)</th>
<th>Area 2 (m²)</th>
<th>Light (Lux) *</th>
<th>Sound (Decibels)</th>
<th>Audit Tool Score</th>
<th>Summary of shortfalls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site 0 – St. James’s Hospital Dublin</td>
<td>09.05.2018</td>
<td>19.02²</td>
<td>19.75²</td>
<td>25⁺²⁰</td>
<td>85.5</td>
<td>20/30</td>
<td>High clinical traffic area; No vacant/engaged signage; external noise; room unable to maintain room temperature; no access to natural light; worn furniture</td>
</tr>
<tr>
<td>Site 0 – St. James’s Hospital Dublin</td>
<td>09.05.2018</td>
<td>19.02²</td>
<td>19.75²</td>
<td>36⁺²⁰</td>
<td>72.1</td>
<td>20/30</td>
<td></td>
</tr>
<tr>
<td>Site P – St. Luke’s Hospital Kilkenny</td>
<td>28.05.2018</td>
<td>26.95²</td>
<td>26.95²</td>
<td>26⁻²⁰</td>
<td>71.3</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Site Q – University Maternity Hospital</td>
<td>23.07.2018</td>
<td>6.88²</td>
<td>6.88²</td>
<td>12⁻²⁰</td>
<td>82.2</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Site R – Galway University Hospital</td>
<td>30.08.2018</td>
<td>15.91²</td>
<td>15.91²</td>
<td>69⁻²⁰</td>
<td>57.6</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

* Measurement was set at a medium range of 20,000 Lux. This measurement is recorded at 10 times the value of the reading i.e x10; 1lux=1 lumen per square metre.

### 2.4.3.1 Bereavement suite field notes

From the researcher’s field note the bereavement suites were primarily described as private and comfortable, with minimal noise except for catering trolleys within the ward setting. See figure 7 for the most commonly used terms to describe what was felt and heard from the bereavement suite field notes.

#### What do I feel?
- Private
- Homely
- Safe
- Comfortable
- Calm
- Uplifted

#### What do I hear?
- Claustrophobic
- Luxurious
- Peaceful
- Positive (Art distraction)
- Quiet
- Voices/Laughing
- Outside traffic
- Catering trolley
- Generators

![Figure 7. Field note synthesis of key terms used for the bereavement suite sites](image)

In additional to the above data the next section presents a purposefully-developed rating scale, which gives rooms a score of 1 – 5 for thirteen aspects of their design, including lighting, art-work, layout, accessibility, and overall comfort, was used for each of the five cases.
2.5 Five Case Studies

2.5.1 St. Luke’s Maternity Hospital – Maternity Room

From the facility documentation it was clear that the hospital team in St. Luke’s Maternity Hospital wanted a room near the Early Pregnancy Assessment Unit. The proposal outlined the need for a space or counselling room in which to break bad news or provide privacy to women and partners experiencing the loss of a baby.

The proposal explained that bad news was often shared with women in the scanning room, an environment which did not provide comfort or consideration. The team recognised the need for this space to allow for private family time, or for blessing and baptismal ceremonies prior to burial. The outlines for the room considered design aspects such as natural colours to evoke feelings of calm, peace and privacy.

They also felt the space needed to accommodate larger families. Today, the space is off the ward situated in a quiet area beside the stairs. The wall in which it is located is decorated with a bluebell scene and indicates whether the room is in use using a triskel symbol. Inside, the room is large and contains natural light. A kitchenette and table with couches lining the wall give the room a comfortable accessible feel.

A green couch sits in the right corner beside a beautiful stained-glass feature. The glass is lit by dimmed lighting and depicts a sunset and water scene. Similarly, other art work is presented in small lit shelves adding depth to the space. The wood finishes and colours give the room a calm and relaxing feeling.

St Luke’s Maternity Room makes excellent use of lighting, with multiple windows along one wall allowing for an abundance of natural light to shine in. The choice of colours and the addition of multiple pieces of art work on one wall contribute to the overall peaceful feeling and relaxed atmosphere in the room. The location of the room was well-planned and enables easy access for patients and their loved ones in an area that is private and quiet, away from the hustle and bustle of the hospital, while also allowing easy access to outdoors if desired. With ample space and a kitchenette, it allows women and their partners to be surrounded by their friends and families when experiencing a pregnancy loss, should they wish. The level of comfort could be improved with the addition of softer seating.
Evaluation of the Design & Dignity Programme

Case Study
St. Luke’s Maternity Hospital
Maternity Room

Rating

<table>
<thead>
<tr>
<th>Feature</th>
<th>Rating</th>
<th>Adjustable</th>
<th>Not Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artificial Light</td>
<td>Fixed ★★★★★☆</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Light</td>
<td>Fixed ★★★★★☆</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furniture Layout Flexibility(^\text{10})</td>
<td>Limited ★★★★★☆</td>
<td>Extensive</td>
<td>Not Available</td>
</tr>
<tr>
<td>Meal/Tea Preparation</td>
<td>Limited ★★★★★☆</td>
<td>Extensive</td>
<td>Not Available</td>
</tr>
<tr>
<td>Accessibility(^\text{11})</td>
<td>Inaccessible ★★★★★☆</td>
<td>Accessible</td>
<td>Not Available</td>
</tr>
<tr>
<td>Art Use</td>
<td>Random ★★★★★☆</td>
<td>Themed</td>
<td>Not Available</td>
</tr>
<tr>
<td>Colour Use</td>
<td>Random ★★★★★☆</td>
<td>Themed</td>
<td>Not Available</td>
</tr>
<tr>
<td>Access to Nature</td>
<td>Indirect ★★★★★☆</td>
<td>Direct</td>
<td>Not Available</td>
</tr>
<tr>
<td>Pathway/Signage Design</td>
<td>Difficult ★★★★★☆</td>
<td>Intuitive</td>
<td>Not Available</td>
</tr>
<tr>
<td>Privacy</td>
<td>Public ★★★★★☆</td>
<td>Private</td>
<td>Not Available</td>
</tr>
<tr>
<td>Acoustics</td>
<td>Bustling ★★★★★☆</td>
<td>Tranquil</td>
<td>Not Available</td>
</tr>
<tr>
<td>Comfort</td>
<td>Low ★★★★★☆</td>
<td>High</td>
<td>Not Available</td>
</tr>
<tr>
<td>Feel</td>
<td>Clinical ★★★★★☆</td>
<td>Non-Clinical</td>
<td>Not Available</td>
</tr>
<tr>
<td>Ambiance</td>
<td>Chaotic ★★★★★☆</td>
<td>Peaceful</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

\(^{10}\) Refers to ability to move furniture to create different configurations, if and when required.

\(^{11}\) Refers to movement and space in and around the area, including wheelchair accessibility around tables and furniture.
2.5.2 Mater Misericordiae University Hospital – Family Room

St. Teresa’s Ward is an acute neurological ward with 31 patient beds. Due to the acute and complicated medical conditions on the ward, many patients receive end-of-life care support. Four rooms on the ward are multi-occupancy accommodating six individuals at a time. Due to this, the team felt a Family Room was necessary to support not only end of life patients, but those patients in the multi-occupancy rooms and their family members.

The Family Room at the time of the proposal was tired and worn and was sometimes used for storing medical equipment. The room was co-funded by a Design & Dignity grant and fundraising by staff and the Mater Foundation. The team’s aim was to design the room and decorate in such a way that would lift individual’s mood and enhance their care experience. Features outlined in the proposal included; a kitchenette, a wall mounted TV, three chairs/settees around a coffee table; a family room sign which was informal in nature to indicate the room is open to all and is a comfortable space.

Today, the room is clearly signposted on the ward and leads you into a quiet comfortable space. In the room are three high quality couches in red and beige providing seating for eight people, one of which is a sofa bed allowing a family member stay overnight on the ward if their relative is seriously ill or dying. There is a kitchenette with tea coffee making facilities.

Views outside the window fill the room with natural light. Art work decorates the walls depicting scenes of hot air balloons, birds and nature. The bright wall colours of the space and the use of wood effect flooring and artwork lift the room and give the room a non-clinical feel.

The Mater family room is filled with natural light, and offers families a bright and airy space where they can relax and make a cup of tea or coffee away from the main hospital ward. It makes good use of colours and the view of the outdoors makes it a nice, relaxing space. The room is located in the heart of the ward so that it is accessible to patients and their families. The family room has a door sign to indicate ‘in use’ to facilitate privacy when required. The furniture in the room is firm but functional and there is little scope to change its layout in the current space available. As such, it may not be suited to larger groups of more than eight people.
### Case Study

**Mater Misericordiae University Hospital**  
**Family Room**

#### Rating

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artificial Light</td>
<td>4</td>
<td>Adjustable</td>
</tr>
<tr>
<td>Natural Light</td>
<td>4</td>
<td>Adjustable</td>
</tr>
<tr>
<td>Furniture Layout Flexibility</td>
<td>2</td>
<td>Extensive</td>
</tr>
<tr>
<td>Meal/Tea Preparation</td>
<td>4</td>
<td>Extensive</td>
</tr>
<tr>
<td>Accessibility</td>
<td>2</td>
<td>Accessible</td>
</tr>
<tr>
<td>Art Use</td>
<td>3</td>
<td>Themed</td>
</tr>
<tr>
<td>Colour Use</td>
<td>3</td>
<td>Themed</td>
</tr>
<tr>
<td>Access to Nature</td>
<td>3</td>
<td>Direct</td>
</tr>
<tr>
<td>Pathway/Signage Design</td>
<td>4</td>
<td>Intuitive</td>
</tr>
<tr>
<td>Privacy</td>
<td>3</td>
<td>Private</td>
</tr>
<tr>
<td>Acoustics</td>
<td>3</td>
<td>Tranquil</td>
</tr>
<tr>
<td>Comfort</td>
<td>3</td>
<td>High</td>
</tr>
<tr>
<td>Feel</td>
<td>4</td>
<td>Non-Clinical</td>
</tr>
<tr>
<td>Ambiance</td>
<td>4</td>
<td>Peaceful</td>
</tr>
</tbody>
</table>

Drawing: Yvonne Pennisi and Jim Harrison, UCC
2.5.3 Beaumont Hospital – Mortuary

At the time when Beaumont Hospital applied for the Design & Dignity grant, the hospital’s mortuary represented 3% of the annual statistics for deaths in Ireland (approximately 1,000 deaths per year). The mortuary urgently needed a second viewing room to expand the services as often the mortuary facilitated several removals a day.

No facilities existed for families such as a space for formal identification or ceremonies to take place. Parking was an issue and families often had to park in another facility ten minutes walk away. Overall, the team wanted a serene, intimate family space that would provide for the requirements of the bereaved.

After the Design & Dignity project, the mortuary has been renovated into an open space with great amounts of natural light. The large family area is open and comforting, with green armchairs to sit and gather. A garden patio area has been built onto the east side of the room, accessed by sliding doors, to allow families to go into nature. From the family area is the main viewing room, also accessed by hinged doors and lit by a large sky light giving the room a bright, airy feel. Blue glass art work decorates all three walls in the viewing area.

A second family room and viewing area is built onto the west side of the build. Again, this area is bright airy and features high quality furniture (green) and the blue glass artwork – continuing the design throughout the build.

The design of the Beaumont Hospital Mortuary allows for huge amounts of natural light to shine in, which together with the carefully-selected pieces of art and paint colours and the views of the outdoors, provides a calm, serene setting for loved ones. Situated away from the main hospital the space is quiet and offers loved ones privacy at a very difficult time. It is easily accessible, with sufficient space for larger groups to come together. The addition of more comfortable seating increases the overall comfort of the area.
Case Study
Beaumont Hospital Mortuary

Rating

<table>
<thead>
<tr>
<th>Feature</th>
<th>Rating</th>
<th>Adjustability</th>
<th>Accessibility</th>
<th>Art Use</th>
<th>Colour Use</th>
<th>Access to Nature</th>
<th>Pathway/Signage Design</th>
<th>Privacy</th>
<th>Acoustics</th>
<th>Comfort</th>
<th>Feel</th>
<th>Ambiance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artificial Light</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Light</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furniture Layout Flexibility</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meal/Tea Preparation</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accessibility</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art Use</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colour Use</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to Nature</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pathway/Signage Design</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Privacy</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acoustics</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comfort</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feel</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambiance</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Drawing: Yvonne Pennisi and Jim Harrison, UCC
2.5.4 St. James’s Hospital Emergency Department – Bereavement Suite

At the time of the grant application, the Emergency Department (ED) of St. James's had over 150 deaths per year. The ED was lacking in private areas for families to view their loved one. The family room and viewing room were two separate spaces and families would have to walk down a busy corridor to access both. The team wanted to create a private space to shield families from the busy hospital atmosphere. They proposed the build of two family/viewing rooms. Staff felt embarrassed of the space and believed a new space was pivotal to help enhance staff support of families during a traumatic time of their lives.

Today, the two Bereavement suites are separate spaces off the busy ward. Both suites contain a relative’s room and viewing area separated by wooden sliding doors that can be pulled back expanding the space if necessary. Each relative’s room contains a black leather couch and armchair and three stained glass art works that are reminiscent of a sea scape in blues and greens.

Inside the viewing area is a trolley with a purple drape and white end-of-life symbol. Beside the trolley is a cabinet decorated with flowers and candles.

The Bereavement Suite at St. James’s Hospital ED offers some privacy and a comfortable space away from the ED for loved ones going through bereavement. There is good use of artwork, but the room lacks natural light. However, to ensure privacy in bereavement suite designs it may not be appropriate to have windows, unless frosted and or elevated. Noise can be heard from the ED, and this combined with the artificial lighting and choice of colours creates a space that still feels quite clinical and not very relaxing. Improved lighting and use of brighter colours, as well as the provision of more comfortable non black leather seating options would make this a more welcoming space for families. A kitchenette would also be a welcome addition.
### Case Study
James’s Hospital
Emergency Department
Bereavement Suite

#### Rating

<table>
<thead>
<tr>
<th>Feature</th>
<th>Rating</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artificial Light</td>
<td>Fixed</td>
<td><img src="image" alt="Stars" /> Adjustable Not Available</td>
</tr>
<tr>
<td>Natural Light&lt;sup&gt;12&lt;/sup&gt;</td>
<td>Fixed</td>
<td><img src="image" alt="Stars" /> Adjustable Not Available</td>
</tr>
<tr>
<td>Furniture Layout Flexibility</td>
<td>Limited</td>
<td><img src="image" alt="Stars" /> Extensive Not Available</td>
</tr>
<tr>
<td>Meal/Tea Preparation&lt;sup&gt;13&lt;/sup&gt;</td>
<td>Limited</td>
<td><img src="image" alt="Stars" /> Extensive Not Available</td>
</tr>
<tr>
<td>Accessibility</td>
<td>Inaccessible</td>
<td><img src="image" alt="Stars" /> Accessible Not Available</td>
</tr>
<tr>
<td>Art Use</td>
<td>Random</td>
<td><img src="image" alt="Stars" /> Themed Not Available</td>
</tr>
<tr>
<td>Colour Use</td>
<td>Random</td>
<td><img src="image" alt="Stars" /> Themed Not Available</td>
</tr>
<tr>
<td>Access to Nature&lt;sup&gt;14&lt;/sup&gt;</td>
<td>Indirect</td>
<td><img src="image" alt="Stars" /> Direct Not Available</td>
</tr>
<tr>
<td>Pathway/Signage Design</td>
<td>Difficult</td>
<td><img src="image" alt="Stars" /> Intuitive Not Available</td>
</tr>
<tr>
<td>Privacy</td>
<td>Public</td>
<td><img src="image" alt="Stars" /> Private Not Available</td>
</tr>
<tr>
<td>Acoustics</td>
<td>Bustling</td>
<td><img src="image" alt="Stars" /> Tranquil Not Available</td>
</tr>
<tr>
<td>Comfort</td>
<td>Low</td>
<td><img src="image" alt="Stars" /> High Not Available</td>
</tr>
<tr>
<td>Feel</td>
<td>Clinical</td>
<td><img src="image" alt="Stars" /> Non-Clinical Not Available</td>
</tr>
<tr>
<td>Ambiance</td>
<td>Chaotic</td>
<td><img src="image" alt="Stars" /> Peaceful Not Available</td>
</tr>
</tbody>
</table>

---

<sup>12</sup> Difficult to have windows as it may not be appropriate unless frosted or elevated
<sup>13</sup> Catering staff provide tea and coffee to families, if and when required
<sup>14</sup> Refers to indoor plants or direct access to an outdoor area
2.5.5 Roscommon Hospital – Mortuary

The Mortuary in Roscommon is designated to the entire county and is therefore often used for sudden deaths in the community. In this circumstance, families accompany their loved ones to the mortuary. The team felt a dignified space was pivotal to support families during their shock and grief at this time. The team also wanted to space to be used for individuals who pass away in the hospital.

At the time of the proposal the viewing room was accessed directly from the environment and was of poor aesthetic quality. The team wanted a space that would create an atmosphere of reverence and respect by using adjustable lighting, natural light and art work. A toilet on site would be built and sign posting would be clear.

Today, the space is a private area separate from the hospital. A small corridor featuring a sky light separates you from the viewing room and gives you access to a bathroom. Within the viewing room, the main feature is the stained-glass reflecting colours of purples, blues and greens. The purple is featured throughout the room seen in the couch, the viewing table and the end-of-life symbol framed on a shelf. The soft lighting and wood floors give it a non-clinical look and respectful atmosphere. Sign posts are used to show if the room is in use.

Roscommon mortuary scored well in certain areas in terms of star rating. Accessibility and to the area and the full access to natural light was a bonus. The colour scheme was beautifully themed and there was a feeling of privacy and peace in the space. While there was a green area outside the mortuary this was a public and open space. Tea making facilities were also lacking.
### Case Study

Roscommon Hospital Mortuary

### Rating

<table>
<thead>
<tr>
<th>Rating</th>
<th>Artificial Light</th>
<th>Natural Light</th>
<th>Furniture Layout Flexibility</th>
<th>Meal/Tea Preparation</th>
<th>Accessibility</th>
<th>Art Use</th>
<th>Colour Use</th>
<th>Access to Nature</th>
<th>Pathway/Signage Design</th>
<th>Privacy</th>
<th>Acoustics</th>
<th>Comfort</th>
<th>Feel</th>
<th>Ambiance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fixed ++</td>
<td>Fixed ++</td>
<td>Limited ++</td>
<td>Limited ++</td>
<td>Inaccessible ++</td>
<td>Random ++</td>
<td>Random ++</td>
<td>Indirect ++</td>
<td>Difficult ++</td>
<td>Public ++</td>
<td>Bustling ++</td>
<td>Low ++</td>
<td>Clinical ++</td>
<td>Chaotic ++</td>
</tr>
<tr>
<td></td>
<td>Adjustable Not Available</td>
<td>Adjustable Not Available</td>
<td>Extensive Not Available</td>
<td>Extensive Not Available</td>
<td>Accessible Not Available</td>
<td>Themed Not Available</td>
<td>Themed Not Available</td>
<td>Direct Not Available</td>
<td>Intuitive Not Available</td>
<td>Private Not Available</td>
<td>Tranquil Not Available</td>
<td>High ++</td>
<td>Non-Clinical ++</td>
<td>Peaceful Not Available</td>
</tr>
</tbody>
</table>
2.6 Overarching Themes

2.6.1 Investigative Level – Staff Focus Groups

For the investigative level, four staff focus groups were conducted in sites identified by the Irish Hospice Foundation, based on type of project and geographical spread. As the analysis was a deductive thematic analysis, the themes are partially informed by the topic guide which was developed to address the key objectives of this evaluation.

Four overarching themes were identified from the focus groups and these are reflective of the evaluation objectives; accessibility, design feature, meaningful change and purpose. These themes were composed of a number of subthemes and codes (See appendix 5).

At the commencement of each focus group, staff were asked to describe in one word the new space that was created as a result of the Design & Dignity programme.

Words used to describe the spaces by staff members

- welcoming
- peaceful
- comforting
- calm
- non-clinical
- safe
- tranquil
- positive
- reflect
- relaxing
- sensitive
- clinical
- oasis
- calming
- warm
- warmly
- respectful
- breath
- comfortable

2.6.1.1 Accessibility

Accessibility to the space was a key feature of the focus group discussions. Within this there were three subthemes and these related to assessing who gets to use the room, security measures and the use of signage. With regards the family rooms there appeared to be an informal triage system used by staff on the wards to assess which family the room should be prioritised for when more than two patients are nearing the end of life. This system took into account the age of the core family members, distance to travel and the assessment of which patient was the most acutely unwell. Staff noted that while the space was in constant demand there were never issues with dual use as this was usually managed informally, using the criteria outlined and also a pragmatic ‘first come, first serve’ approach. The use of a sign in sheet was discouraged as staff felt it created a sense of surveillance and conflicted with the idea of user-friendliness.

The use of occupied/unoccupied sign outside the door was favoured over a lock on the door; both from a health and safety perspective and negating the need for families to remember to return keys to staff, reducing the risk of keys going missing. Furthermore, there was a fear that if a room could be locked from the inside then this would constitute a ‘risk’, if evacuation of the facility was required or if an incident occurred in the room and it was inaccessible from the outside. Nonetheless, it was found that some occupied signs were broken and staff in some areas felt that a family should be able to lock the door at night to ensure privacy.
Finally, finding the room and proper use of signage was discussed among the focus groups. Some rooms were located in the centre of the ward and were easily accessible, with a large wall sign stating, ‘family room’.

Others were less easy to locate and often required staff to escort family to the room, through a series of corridors. There were a number of trade-offs considered when discussing the location. For example, having the family room on the ward allowed family to be near but yet relocate from the bed-side to a non-clinical space, if even only for a few minutes, to reflect and have a cup of tea. However, ward sounds such as trolleys, clinical smells and staff chatter were still present.

Less accessible rooms located off the ward created a better sense of calm, oasis and serenity, and were more conducive to facilitating family wishing to stay overnight or for longer periods. There were strong arguments for both types of family rooms in the one hospital setting.

“Signing in and out creates surveillance around their use– And you don’t want them to feel like that because they might not want you to know when they’re coming and going” Staff Member

“That the room is open and accessible, you know, that it’s not under lock and key, that people can feel they can go in and out – and obviously you do have an “in use” sign on the door because there are times when people can’t go in, you know when there is a family meeting with a patient or staff meeting with a patient and family and you don’t want people interrupting those sensitive times. And that’s worked really well having that sign on the door so that people know “Oh yeah – don’t disturb”. Staff Member
2.6.1.2 Design Features

During the focus groups staff were asked which design feature they liked the most and that had the greatest impact. Conversely, they were also asked to describe and discuss features that they liked the least or would change if they could do it all again. Reflective of the literature, most agreed that artwork was a key design feature to get right and one that had real impact. This was closely followed by themed colour use, a self-contained area and sense of space. Finally, a core feature was to create an environment that had a non-clinical, homely feel.

Artwork
Across the sites artwork varied greatly, nonetheless staff all agreed that it was one of the features that had the potential to create a positive memory for families in a not so positive situation.

Vibrant artwork, which was abstract in style, was described as most appealing. All staff were hugely complimentary of the local and national artist/designers, with many stating that the art work created a ‘wow’ factor in the room, exemplifying a facilitator of positive distraction. Non-denominational art was also recommended in order to portray organisational support for inclusivity.

Non-Clinical Environment
The use of non-white paint and wooden effect flooring also supported the desired ambience of a non-clinical space. Staff vocalised that soft quality furnishings, TV, kitchenette and artwork all led to the homely feel. It was essential that no clinical devices or equipment such as oxygen ports were on the wall, to further create an environment that was distinct to the ward/bed side area.

Themed Colour Scheme
From the focus group discussions, it was evident that much debate and time went in to deciding on the type of colours to use within the space. The design guide published by the IHF was found to be very useful in determining colours with many opting for lime green and purple colours palette. These colours were described as having a calming effect and were bright and fresh. Furthermore, some staff felt that vibrant colours helped to distinguish between the typical hospital ward colour of white and that purple/lime paint added to a warm and welcoming feel.

\[ "I would often just go in and look at the picture and there is something about the high-tech clinical unit and then coming into a very family, homely space. And they are side by side..."
\]
\[ Staff Member \]

Sense of Space
Access to nature, natural light and a roomy area to move, containing various types of furniture, was described as creating the optimum environment. Low ceilings, large furniture and a feeling of clutter was discouraged and represented much of what was previously available for families. Staff agreed that the advice and guidance provided by the IHF
architect was crucial to ensuring that maximum access to natural light was obtained and planned for in the redesign. The use of indoor plants also allowed for indirect access to nature where it wasn’t possible to walk outside, particularly if the room was located in the heart of a multi-storey building. All of these aspects created a sense of space.

“\[\text{I think the amount of openness now with the big windows, big patio area and just the fact that it opens a whole area up, allows light in you know so it's kind of a nice feel.}\]”
Staff Member

“\[\text{I think the brightness of the room; it's a very bright room. In winter when you come in it just seems kind of - there's a warmth in the room. Even though it's a sad experience still there's warmth when you come in, I don't know is it the lighting maybe as well? The lights coming in, naturally light coming in, helps.}\]”
Staff Member

Self-Contained
A positive design feature of family rooms or bereavements suites was the fact that they were largely self-contained. Most had sleeping facilities and a kitchenette. The ability to make a cup of tea was fed back to staff as a ‘godsend’ and fostered independence. This of course was followed by the need to ensure that rooms were maintained by household staff and fully serviced daily to ensure stocks of milk, coffee etc. did not deplete.

“\[\text{Functionality, homely. It's what people need, they need to charge their phones, they need to be able to eat and drink, rest. Gather.}\]”
Staff Member

Some spaces also had shower facilities connected to the family room, while others were reliant on shared toilet facilities only. Many staff from sites with the latter facilities articulated that if they had a bigger budget and access to more space they ideally would have integrated an ensuite type section to the family room, thus creating a space almost like a ‘mini apartment’.

Roscommon family room was an excellent example of self-containment, as depicted in the above sketch.
2.6.1.3 Meaningful Change

Central to each focus group discussion was the impact of the Design & Dignity project on family, staff and culture of care. These subthemes are reflective of the secondary objectives of the evaluation.

"When I'm talking about the D&D projects that I've been involved in I would often describe them as the things that I'm most proud of in my career because they are tangible as well, something really – you might do a policy and it's sitting there and people aren't following it and you get frustrated. But you can walk - I get a sense of pride every time I bring a group into the mortuary" Staff Member

Impact on staff

Seven codes were generated under this theme and associated themes. These ranged from reducing embarrassment to enabling open conversations about dying in acute care. Staff pride in the Design & Dignity programme and the resulting space in their workplace were palpable across all focus groups. Interestingly staff also reported that the space demonstrated to patients, family and the broader healthcare team that there was a corporate commitment to end-of-life care. An increase in staff morale was also evident from the interviews. Most projects were part funded and although it was an initial challenge to convince senior management, in some instances, to relinquish a private room, when this commitment was made it sent a clear message, that end-of-life care, in acute care, matters. This was seen as a very positive message to portray and helped staff to feel that further applications for end of life spaces would be supported, where possible.

Figure 8. Impact on staff
The new space also enabled staff to spend more time with family without interruptions. Prior to the refurbishment many staff would have brief conversations in the nurses’ station or on the corridor where disturbances such as call bells and the phone ringing were plentiful. Now they had a space where they could listen, think and talk in a calm, supportive environment with relatives at a very vulnerable and sad time in their lives.

**Impact on Family**

Staff in the focus groups were asked to reflect on the impact that the project may have had on family that used the space. Many recalled feedback they received, all of which was extremely positive. Families had identified to staff that the room had given them something positive to look back on. The space was described as somewhere to escape to following long vigils at their loved ones’ bed side. The seclusion and serenity that the room offered to family was relayed by staff, with many commenting on the fact that family were ‘never too far away’, if the patient deteriorated rapidly, unlike before, where family would have gone home to have a shower or to get some sleep, often missing the moment that their loved one passed away.

**Impact on Culture of Care**

The impact that the projects had on the culture of the organisation and how care at end of life was valued by all clearly emerged as important themes from all five discussions with staff.

Staff also spoke about the desire of families to give something back. Families gave donations of microwaves, hairdryers, toiletries etc. in appreciation for having this space and in the hope that others would benefit from its existence. Some felt it should be a protected space and wanted to contribute to ensure the sustainability of high standards.

**Summary**

The projects were described as symbolic of compassion and demonstrated that the organisation valued the experience of those grieving, something that only hospices were previously adept at. Acute care is traditionally associated with a culture of cure despite over 40% of deaths occurring in our public hospitals. However, the Design & Dignity programme not only transformed physical spaces but, according to staff, transformed end-of-life care and has been the catalyst for dignified care in acute care settings. Of great significance to staff was also the reduction in what they termed ‘corridor care’ or ‘corridor conversations’. This type of practice often left staff feeling uncompassionate and was at odds with their desire to provide privacy, dignity and confidentiality. The new spaces have ensured that these principles are no longer aspirational but rather rooted in the culture of end-of-life care.

“The space is very important but it’s the philosophy of valuing this experience and acknowledging the importance of this death that is happening that is really important. The environment helps that. There is no doubt about that. Having a space to bring people and have a cup of tea – I mean it’s so basic. But yet so important, it’s everything.”

Staff Member

“"To have a place rather than leaving them on a corridor to wait for a consultant or – you can bring them in here for them to let their grief out, let their tears out. You know to give them the time. And there is no pressure on them – they can stay in the room for as long as they want.”

Staff Member
2.6.1.4 Purpose

As part of the evaluation we were interested in determining if the rooms were being used for their intended purpose and indeed what purpose they were serving. Three subthemes emerged reflecting the use of the rooms.

The primary function of the family rooms was to provide a space for family to come together and have protected time to talk, plan and make decisions regarding end of life and after death. Not only did the room provide a place for families to meet with one another, it also facilitated meetings between and with the healthcare team and often the patient. Owing to the private setting the room was described by staff as a suitable environment for having difficult conversations, including breaking bad news. None of the rooms were described as multi-purpose and were policed and protected by staff on the wards. Staff discussed how initially when the rooms were built, members of the multidisciplinary team (MDT) needed to be educated on their use, as sometimes it was used for education or taking phone calls etc. Once everyone saw the value of protecting rooms for end of life matters they were never used for storage or staff respite and soon became a very sacred place.

2.6.2 Investigative Level – Family and Patient Feedback

For the investigative level, feedback was received from 16 relatives and 3 patients who had used a Design & Dignity space, specifically a family room or maternity bereavement suite. Feedback was given either in real time, using a comment card left in the room, or after the death of a loved one via telephone or face-to-face interview with a member of the research team. An overview of the comment box responses can be reviewed in Appendix 6. Impact on the family and positive design features were the core themes to emerge. Within these a number of subthemes are described – Figure 9.
Impact on Family
The positive impact on family was clearly evident from the interviews and comment cards left by family members. The family rooms provided a private space, created a positive memory, supported uninterrupted time, facilitated a break from the bedside and reduced the feeling of being in the way. These subthemes will be described sequentially.

✓ Provided a peaceful, protected space

Many described the family room as a protected space to support and facilitate reflection, a place to be with family, a place to be alone and a room to bring visitors. The privacy and ability to think was seen as invaluable. Participants commented on how the space provided somewhere to host family meetings, talk, sleep, regroup and freshen up.

Other participants noted that they didn’t really have expectations and were surprised and pleased to find that this space existed. Once they saw the benefits of using the space participants questioned why a hospital would not have an end of life space for patient and families to use. It was described as innovative yet essential.

The seclusion that the room brought was something that families reflected on, noting that without the space they would have to go outside the building for a walk or sit in their car to get some peace.

“I think it was just a space that allowed us to kind of centre ourselves or to take a breath and just you know over time as well like ourselves as well come to terms with the situation.” Relative

✓ Supported private, uninterrupted time

Owing to the busyness of a hospital it was important for family to feel they had a place where they were uninterrupted by other families or staff. Many revered the fact that they were the sole users of the family room. Some stated that they would not like the idea of competing for time and private space in the room and therefore proposed that there should be a number of family rooms in each hospital.

Furthermore, a suggestion was made to have a more public type family room off the ward where you could sit and relax, make tea but also interact with families going through the same thing. This could be in addition to a number of private family rooms with sole occupancy encouraged, to sleep and have privacy as a family unit. Some described themselves as being lucky if they were the only family who needed the room.

“One of our principles for the family room in the hospital is that it’s a room for patients and families and the use is around meeting a patient and a family or meeting with a family but not necessarily for any other purpose other than that”. Staff Member

“It was like an oasis of calm to be honest. In the middle of these emotions and sickness, doctors and nurses, which is all an integral part of the day, you know it’s a busy busy hospital. Here is this place that you could just close the door and kind of say “oh peace” Relative

“There were occasions where there were other people there as it happens most of the time when we were there weren’t other people using it so that was nice from our point of view naturally we were pleased with that” Relative
Families described how they had a huge desire to be by the bedside of their loved one, however this was not sustainable over long periods of time. Many stated that the room allowed them to take a break and switch off momentarily, away from the bedside in a separate environment. Simple things like watching TV or listening to the radio helped them cope with the situation, and still feel they were present.

Not only did it facilitate a break from the bedside it also helped to form positive memories in a not so positive situation. One person described that when she looked back on the death of her loved one she remembered the family room as being a positive memory during a very emotionally bad time. This positive memory was created from the different feelings and smells that the family room brought compared to the bedside. The room was described as providing dignity to family members.

All too often families find themselves on the corridors of wards while their loved ones are receiving care and treatments from healthcare professionals. The room ensured that family had somewhere to go during this time and helped them to feel less in the way of trolleys and staff in a busy clinical setting.

“It probably got us out of their way a little bit when they needed to come in and do em, you know what they needed to do with Mom because we could just go down when the medical staff or the nurses or the carers came in instead of having to stand around in the corridors waiting for them to finish we could just go down and use that time to sit and to talk with each other.”
Relative

“It was brilliant. There was more dignity to it as well. You weren't all standing in a corridor you know and disturbing other people as well? It was just... you could come away.”
Relative

“You know the way you don't want to leave the hospital - you don't want to go too far away but at the same time like you needed a break? Or you just needed to get out to clear your head for a few minutes it was just somewhere to go... just where you could you know go, but yet you were near. You could be back in a minute if you needed to be.”
Relative

“All too often families find themselves on the corridors of wards while their loved ones are receiving care and treatments from healthcare professionals. The room ensured that family had somewhere to go during this time and helped them to feel less in the way of trolleys and staff in a busy clinical setting.

“It actually went beyond our expectations and I'm not trying to make it sound glorified but many - it really meant an awful lot. We wouldn't have managed without it. You couldn't. We wouldn't have all been allowed stay. That wouldn't have been possible or fair. It allowed us to stay... it allowed us to be with him till the end.”
Relative
DESIGN FEATURES

✓ Non-clinical, homely feel

It is undisputed that a non-clinical environment is desirable for a family room, as this allows family to separate from the bedside and busy ward to a place they can gather their thoughts and take a break. Further enhancing the non-clinical feel was having a room away from the ward or sound proofed from the typical clinical noises such as bleeps, monitor alarms, phones and trolleys.

One family member stated that the room thoughtfully used the Design & Dignity scheme, showing value for money while remaining welcoming. Indicators of family satisfaction with the room were cleanliness, it being aesthetically pleasing, and fully serviced. The room was also described by some as a nice place to return to with a familiar and comforting smell, and a room that resonated feelings of peace and serenity. Little things like having a plant or luxury toiletries were seen as tasteful and created a feeling of home not a hospital.

✓ Accessibility

Access to the rooms and being told that the room exists was very important. One family member noted that they only found the room by chance when walking down the corridor. Others complimented the signage used in the space, stating that it was easy to find once you were shown by staff the first time. Another family member said they had been to the hospital previously in a similar circumstance and not offered the room, which made them question room allocation and usage. Participants felt that room allocation needed to be transparent.

✓ Artwork & themed colour

Findings from the staff focus group are echoed by relatives who stated that the artwork created a positive distraction. Relatives were highly complimentary of the glass work that helped to facilitate an environment of serenity. Family distinctly remembered the use of nice colours with some commenting specifically on the green and purple, which were described as pretty and earthly, helping one feel connected to nature. The use of this colour palette appeared to have a calming effect and was distinct from the standard white walls on the wards, further supporting the non-clinical feel, described earlier.

““The dynamic or the feeling of the room was very different to your standard hospital feeling where you can kind of almost you know the corridors, the wards are more clinical, the room was I guess more homely”.” Relative

““Because the hospital is quite old and it’s quite clinical - it’s a hospital and some of the rooms and places in there can feel a bit like a prison ward – not that I’ve been to prison – but like it can be, it’s kind of a horrible hospital. I do remember thinking “Wow this is nice”. “This is a nice room in the hospital”.” Patient
Kitchenette

The kitchenette was labelled as a positive design feature by all. The convenience of being able to make your own cup of tea was described as something that provided great solace and negated the need for family to leave the hospital to get refreshments or sit in a noisy canteen within the hospital. Furthermore, it reduced cost for families, particularly if they were there for a number of days.

“Convenience was something that was really important, just being able to make a cup of tea. The fact that it was a space that was quiet actually that was something that I found very good about it, just being able to go someplace that was yes physically still very close to where my mother was so that we could be back up there in a few seconds if we needed to…” Relative

Furniture and layout

Comfortable seats were described as essential and something that was appreciated by families who used the space. The spacious area was compared favourably to sitting at the side of a bed or on a chair in the corridor. The balance between the number of seats/couches versus large floor space to pace/walk was notably important to family members. The rooms were described as having a practical layout with proportionate furniture. A number of suggestions included having a recliner and higher seats for impaired visitors. To improve the homely feel the inclusion of cushions was also mentioned.

Functional distractions

Most families mentioned the use of electronics in the context of a positive distraction. Where a TV was not present families voiced the need for a TV to be included going forward. Other devices such as a radio was described as important to help distract from negative internal discourse. Having large windows to look out of also acted as a source of distraction. For some, knowing that the world was carrying on outside created feelings of sadness, but for others it was a reminder that life goes on.

Figure 9. Family and Patient Perspectives

- Provided a peaceful, protected space
- Supported private, uninterrupted time
- Facilitated a break from the bedside and reduced feeling of being in the way
- Enabled family to be present

- Non-clinical homely feel
- Accessibility
- Artwork and themed colour
- Kitchenette
- Furniture and layout
- Functional Distraction
Chapter 3: Recommendations & Reflections
3.1 Key Challenges and Lessons Learned

3.1.1 Project Level Challenges:

All staff reported on the challenges they encountered at the initial stages of the project design and development. The most frequently reported challenge was securing funding, this was closely followed by time related issues and adhering to hospital policies.

**Lead in time** for each project varied across the sites from 18 months to over 2 years. The most time-consuming aspects were setting up a project committee or team, applying for the Design & Dignity grant and appointing a contractor.

**Liaising with contractors** was also noted to be difficult during the planning stages. This was further compounded if the hospital team lacked building expertise or if there was a fluctuation in the project committee membership.

**Changing the function of the room** by moving from a multi-purpose room to a protected family room required numerous information sessions with staff in the area, to ensure the purpose and use of the space was adhered to and creating ‘conscious awareness’ for staff that end-of-life matters.

**Securing funding** both from hospital management and the Design & Dignity grant was time consuming and challenging. Most sites also sourced funding from several other sources such as donors or fundraising events. These activities were sometimes met with negative attitudes, as other areas in the hospital were seen as more important or other competing fundraising was taking place for vital medical equipment. The lack of capital budget for family rooms or bereavement suites was described as a contributing factor to the slow roll out of similar projects hospital wide.

**Figure 10. Project Challenges**
Securing corporate commitment and convincing hospital management to give up space and sometimes a private room with a guaranteed revenue stream, was difficult and required numerous meetings and board presentations. Inextricably linked to this was committing to support personnel to undertake this project as part of their role in the hospital.

Adhering to infection control and health and safety policies was a challenge for staff, particularly when the desire was to create a homely non-clinical feel. For example, soft furnishings and floor type required negotiation, moving from standard hospital lino to wooden/laminate flooring.

3.1.2 Project Level Facilitators:

There were six main facilitators identified at project planning phase, leading to a successful project. These included:

1. Establishment of multi-disciplinary committee where members are involved throughout the process from project inception to launch
2. Incorporating Design & Dignity Style Guidelines and principles from the start
3. Use of an outside architect with an interest in evidence-based healthcare design
4. Involvement of all staff in naming the room to support ownership and hospital wide interest in the space
5. Attending presentations from other Design & Dignity projects facilitated by the IHF or conducting site visits to view completed project
6. Promoting organisational philosophy of end-of-life care

3.2 Recommendations

Pages 56-59 provides a comprehensive account per project type, followed by organisation level for Design & Dignity projects going forward. Recommendations have been informed by site visits, focus groups, evidence-based literature and relative’s feedback. The following are recommendations for sustained standards in practice and/or areas for future consideration and are mostly in addition to those contained in the Design & Dignity Style Guide (Irish Hospice Foundation, 2014).
3.2.1 Project Type Level: Mortuary, Family Rooms and Bereavement Suites

**Future Mortuary Design**

- As part of new builds it is recommended that mortuaries are located at the centre of the hospital site with a directly linked corridor, so families don’t have to go outside to enter the mortuary.

- When planning the location of a mortuary consideration should be given to a location which is not adjacent to the hospital’s rubbish processing area or supplies depot, to ensure a respectful passage.

- Direct access to nature with an outdoor seating area should be considered in the planning phase.

- A hangout area for younger children or teenagers with electronic charging facilities and age-appropriate seating is recommended.

- Where possible a large porch outside the mortuary should be considered to protect mourners from various weather conditions.

- Mortuaries should provide for all customs and rituals where possible and multi-denominational ‘packs’ should be easily accessible at each site.

- Protected parking spaces are essential, and provision should be made to support numerous spaces during times of funeral services.

- Clear signage for the mortuary needs to be in place from the main entrance to the hospital.
Family Room Recommendations

Type of family room

Development of two types of family room in acute care is recommended

- One at the heart of each ward for families that need a break from the bedside but which are still close enough if there is a change in their loved ones’ condition. Also, this room could facilitate family meetings with medical and allied healthcare staff, and permit tea/coffee making facilities.

- A second larger room off the ward is recommended, but still within the hospital building, that is fully-serviced and self-contained for families to stay over, have larger family meetings, shower and have sustenance. A centrally located larger rooms also facilitates a family to meet other families going through something similar.

Sources of distraction

- Within the family room there is a need to provide sources of positive distraction including a TV, selection of music with radio/CD equipment and books.

- Artwork was described as one of the top features and it is recommended that artwork be maintained and updated to align to new trends over time.

- Fish tanks could also be integrated into new projects together with different types of plants/flowers of a non-artificial nature.

Future proofing

- Situated within the technology era it is important to ensure that the rooms have good Wi-Fi that supports browsing and the ability to use video conferencing such as Skype or Zoom to connect to family abroad.

- The integration of docking stations and charging units for electronic devices is also recommended.

Soft furnishings, accessories and utensils

- Fold-up chairs or recliners for overnight stay in additional to couch beds.

- Age-appropriate seating is required, as some couch beds can be very deep for older persons or people with a disability, therefore armchairs or higher seating is recommended.

- Beanbags or bespoke seats for children and teenagers to lounge and relax on are also recommended.
Family Room Recommendations Continued

- The seating layout needs to be balanced with maintaining a sense of space and accessibility.

- All furniture needs to be durable, functional, yet comfortable and in line with the Design & Dignity Style Guide.

- Non-fixed lighting, such as reading lamps, should be assessed for fire risk and positioned away from leather seating and accessories.

- Where tea and coffee making facilities are available there should be domestic crockery available to create a homely feel. Styrofoam cups and plastic cutlery are discouraged.

- Accessories such as cushions and non-slip floor rugs/mats are recommended to enhance the homely feel and soften acoustics of the room.

- Battery operated candles or aroma diffusers should be available to create a calming atmosphere and a relaxing fragrant non-clinical feel to the environment.

Fully serviced area

- Rooms should be part of the daily rota for household staff, ensuring plentiful supply of freshly stocked linen and refreshments. Daily cleaning of the fridge, floors, counters and bathroom facilities is recommended.

- Cleaning products should be stocked in the kitchenette so that families have the option to clean up after they use crockery etc. These should be stored in a high cupboard and out of risk/sight of young children – in line with hospital policy.

- Electrical appliances such as a microwave, toaster, fridge and kettle are recommended as essential features in family rooms but their maintenance should be checked on a routine basis to ensure they are functioning properly and do not pose a risk.

- Bathroom/shower areas should have personal amenities/products such as toothpaste, shower gel and shampoo freely available.
Bereavement Suites in Emergency Departments

Many of the recommendations pertinent to the family room are transferable to bereavements suites, with the addition of the following three areas:

- Bereavement Suites in Emergency Departments should be located off the main ward to ensure that family don’t have to walk through a busy clinical area.
- Direct access to outdoor space with additional seating is advisable.
- A large space for family to gather and have refreshments with self-contained bathroom facilities should be directly adjacent to a viewing area.

3.2.2 Organisational Level

Generic to all projects, regardless of project type, there are several recommendations proposed.

- Establishment of a multi-disciplinary, end-of-life care committee whose terms of reference include the financial sustainability of Design & Dignity spaces by setting up a fundraising stream to support the maintenance and replacement of soft furnishing and aesthetic aspects of the rooms such as painting, furniture and electrical items. The function of the committee would also be to support staff in applying for future Design & Dignity grants and seeking corporate support. Furthermore, the committee could assess/triage internal proposals from staff and assist in prioritising areas that require improvement to deliver dignified end-of-life care.

- Development and implementation of a staff education programme on the use of family rooms and the Design & Dignity grant scheme to create awareness, ownership and facilitate a culture that protects and promotes end-of-life care spaces should be considered.

- Publicity/awareness raising campaign to raise funds for additional projects.

- Continuation and further expansion of the Design & Dignity programme as this is a major catalyst for change, as one project can have a rippling effect across the entire organisation.

- Central to successful projects is early consultation with an architect who specifically understands the space and the end user. Where possible, early and on-going, consultation with the Design & Dignity Architect is recommended.

- Engaging staff at all levels, family and patient representatives at application and development stage is highly recommended.
Recommendations at a glance

Norm not a luxury
- Family room on every ward in acute care
- National agenda to support Design & Dignity Programme

Fully Serviced Rooms
- Routine cleaning schedule
- Always fully stocked (tea, cups, refreshments, etc.)

Future Proof
- Wifi ready
- Charging station
- Video conferencing facilities (e.g. Skype)

Part of New Builds
- Family room or bereavement suite part of new builds
- Mortuary situated away from bins and supplies areas

Looking to the Future

High Quality Furnishings
- Spend money on quality durable furniture with non-clinical feel
- Furniture for all ages (Beanbags to armchairs)

Architect
- Architect engaged early
- Architect who understands the space and has healthcare experience

IHF Role
- Continuation of the D&D Grants Scheme
- Further roll out of the programme to other clinical settings
- On-going leadership in evidence based design

D&D PAG
- To ensure corporate agenda on end-of-life care
- To manage and support fundraising for sustainability
3.2.3 Irish Hospice Foundation Reflection on the Design & Dignity Programme

For the Irish Hospice Foundation, whose core objective is to improve end-of-life care for all, this has been a flagship project for the last number of years. They acknowledged that incorporating the Design & Dignity guidelines requires a huge amount of support and resources. However, it has a direct positive impact on patients and their families, and is very worthwhile.

“Operating on a small and local scale with limited investments, this project is making a very real difference to people at the most difficult time in their lives.”

“It requires huge support, grit and determination but it has been worth it!”

Factors that have contributed to the success of this project from the IHF’s perspective include having a multidisciplinary project team and a strong relationship between the IHF and HSE Estates. Buy-in from management was also identified as a key factor in the success of this project, and any other project like this.

“Changes in management can set a project back. In one hospital, their new build has family rooms but some have been hijacked by medical teams”

“Changeover of hospital management can have a negative impact”

The importance of design features such as art work, natural light, high quality furniture and soft furnishings was recognised. These all have a significant impact on patient and family experiences and should be taken into account when the budget is being created.

“The last 10% of the budget has the most impact”

The IHF recognise that even thought this project is well-established, hospitals still require significant support, including behind the scenes support, as well as financial support if the vision of having end of life sanctuaries in every adult, paediatric and maternity hospital in Ireland is to be achieved.

“I think we’ve made amazing strides however there are still many new builds outside the grants scheme which are not incorporating the D&D guidelines despite them adopted by the HSE”

The knock-on effect of Design & Dignity can also be seen across many hospitals. Following the creation of the first Design & Dignity family room in the Mater Hospital, staff from another ward fundraised and developed a family room replicating the Design & Dignity funded room. In addition, the hospital used the ‘Design & Dignity Assessment Tool for Family Rooms’ to assess the remaining family rooms and established a family room campaign. To date they have a total of 13 new family rooms and two comfort care family suites to enhance the provision of end-of-life care.
In the Mid-Western region, the HSE Estates Manager involved in the development of the family room in Nenagh Hospital seized an opportunity to create a family room within a new development in Ennis Hospital. As this room was incorporated within a new development and replicated the Design & Dignity model, it cost one third of the price of the Nenagh Room. It has also been reported more generally that Estates Managers are very proud to be associated with Design & Dignity and are increasingly feeling more ownership of the projects.

The hospital projects are also enhancing team work and staff morale. Without exception, staff have reported on the overwhelmingly positive reactions across their sites and that they are very proud to be able to offer well-designed dignified spaces to families at such difficult times and as one Palliative Care Nurse wrote ‘honestly, I can’t describe the benefit of the room. You can see the stress lift from relatives when they come into the room …. It has given us all great pride in our work and in our caring for these families.’ The projects are also enhancing the culture of care across hospitals. In some hospitals the development of the new facilities has been the catalyst for the launch of the Hospice Friendly Hospitals Programme. During the opening of a new ICU waiting area, a Consultant Anaesthetist admitted that, prior to the renovation of the waiting area, he had never considered the impact of the physical environment for relatives of critically ill patients and, as one bereaved relative described it, “knowing that our Mum was critical and may not make it – waiting in that waiting room outside the ICU only added to our trauma. It was cold, it was uncomfortable…it was totally impersonal” (Ó Coimín et al. 2017, p.72).

There have also been peripheral benefits, for example the newly refurbished mortuary in Sligo is described by staff as the ‘nicest building in the hospital’ and is used for choir practice as well as Hospice Friendly Hospital Committee meetings. Designed by the IHF Architectural Advisor, it won The Healthcare Building of the Year Award in April 2018. Another notable success has been the HSE’s adoption of the Design & Dignity Guidelines, which were developed by the Project Team, for all new and refurbishment work.

Mary Lovegrove, Manager, Design & Dignity Programme & Ronan Rose Roberts, Design & Dignity Architecture Advisor, November 2018
Evaluation of the Design & Dignity Programme

Bibliography


BOSCH, S., BLEDSOE, T. & JENZARLI, A. 2012. Staff Perceptions Before and After Adding Single-Family Rooms in the NICU. Herd, 5, 64-75.


PARKER, S. 2017. How Irish Hospitals are Transforming Spaces for Patients and Families at the End of Life. Dublin: IHF.


QUALITY ASSESSMENT AND IMPROVEMENT 2014b. Person Centred Care and Support. Supporting services to deliver quality healthcare: Workbook 1. Dublin: HSE.


RIGBY, J., PAYNE, S. & FROGGATT, K. 2010. Review: what evidence is there about the specific environmental needs of older people who are near the end of life and are cared for in hospices or similar institutions? A literature review. *Palliat Med*, 24, 268-85.


Appendices

Appendix 1 Summary of Empirical & Grey Literature

Summary of Empirical Evidence

Key findings from some of the research found specific evidence-based design features that yielded positive results. Single patient rooms were found to generate greater positive outcomes for families and staff in healthcare facilities (Bosch et al., 2012, Kotzer et al., 2011, Rashid, 2014a, Rashid, 2014b, Rigby et al., 2010, Trochelman et al., 2012). Design features such as extra space and furnishings such as a futon in patient rooms accommodated families and allowed for improved privacy, connection and dignity for families and patients (Trochelman et al., 2012, Vesely et al., 2017). Other positive outcomes that single rooms accommodated were greater peace (less noise disturbance) and control over the room environment (temperature/lighting) (Ferri et al., 2015, Kotzer et al., 2011, Slatyer et al., 2015, Trochelman et al., 2012). Although important for privacy, shared rooms can enhance social interactions and provide companionship (Gardiner et al., 2011, Rowlands and Noble, 2008, Sagha Zadeh et al., 2018). Patients in an oncology unit found that although some participants believed single rooms increased privacy, others felt single rooms created feelings of hopelessness (Rowlands and Noble, 2008). Additionally, another factor to consider in providing privacy is to ensure the level of concealment does not interfere with visibility between patient and staff (Sagha Zadeh et al., 2018). Private rooms also allowed for personalisation of the space with pictures etc., creating a homely and domestic atmosphere as opposed to a clinical atmosphere (Gardiner et al., 2011, Rigby et al., 2010, Sagha Zadeh et al., 2018, Vesely et al., 2017).

Personalising patient space in a healthcare setting can improve comfort and satisfaction for patients/families (Sagha Zadeh et al., 2018, Tofle, 2009, Vesely et al., 2017) whilst increasing staff’s ability to connect with patient by viewing them as an individual (Rigby et al., 2010). Attaching personal meaning to the physical space and having the ability to control it empowered patients (Tofle, 2009). Although homeliness is an important feature it is difficult to obtain with clinical regulations for infection control and patient safety (Gardiner et al., 2011, Rigby et al., 2010). Ensuring ambient environment measures were adjustable (temperature, lighting, noise) increased patient satisfaction and boosted positive moods in patients (Sagha Zadeh et al., 2018). Other factors that were found to improve patient satisfaction in healthcare environments were small wards that were bright, airy and clean and had an environment of friendliness (Rowlands and Noble, 2008). Smaller spaces were reported to give a feeling of comfort in hospices as opposed to larger spaces (Rigby et al., 2010). Lastly, experiencing the environment through a variety of senses comforted patients (Rowlands and Noble, 2008).

Use of evidence-based design (EBD) in healthcare settings also improved outcomes for staff. Staff perceptions on the renovations of a neonatal intensive care unit (NICU) found improved work satisfaction and greater quality of services for NICU patients (Bosch et al., 2012). Other reports of staff satisfaction with EBD builds included greater amenities for staff (storage/workspace), layout designs, aesthetics and natural light (Kotzer et al., 2011, Rashid, 2014a, Rashid, 2014b). Spaces need flexible configurations in order to maximise the safety of the build (Ferri et al., 2015, Trochelman et al., 2012) and reduce walking time between nurses and patients in (ICUs) (Rashid, 2014a, Vesely et al., 2017). Larger spaces associated with EBD allowed for greater family presence and perceptions of greater quality of care (Ferri et al., 2015, Vesely et al., 2017). Similarly, staff attitude such as humour, kindness and competency appeared to create an environment of wellbeing more than the physical
environment (Lowton, 2009, Rowlands and Noble, 2008). Therefore, end-of-life care environments need to be designed to facilitate multiple forms of social interaction among different groups such as patients, families, and staff and to allow connections to the outside world i.e. papers/ radios (Sagha Zadeh et al., 2018). Family facilities need to be improved such as viewing rooms and renovations to mortuary facilities, which in turn may reduce stress for staff also (Gardiner et al., 2011). Despite staff reporting that they would recommend the use of an end-of-life care space (Vesely et al., 2017). It was noted that some staff felt they had little input into the design concept of a space (Beckstrand et al., 2012).

Accessibility was another key finding that was increased with EBD. Amenities such as Wi-Fi (Ferri et al., 2015), parking and accessibility to the hospital via public transport increased user satisfaction in healthcare facilities (Rashid, 2014a, Rigby et al., 2010). Ease of access to outdoor areas was also highlighted in the research (Naderi and Shin, 2008, Pasha, 2013). Nature is beneficial to well-being and therefore can improve health in patients, family and staff (Pasha, 2013). Outdoor areas for staff are necessary for creating a private and quiet space for staff to relax and thus improve the quality of implemented healthcare. Nature is consistently mentioned as a positive feature in healthcare environments (Gardiner et al., 2011, Rowlands and Noble, 2008, Sagha Zadeh et al., 2018, Tofle, 2009). Direct views of nature, bright and natural light and access to outdoor areas were seen as pivotal. If direct views of nature were not possible, creation of nature through ambient lighting or art/plants were mentioned (Rowlands and Noble, 2008, Sagha Zadeh et al., 2018). Previous EBD designs can be reused and govern the way for future EBD builds (Rashid, 2014a). In all it seems the key findings suggest that use of EBD can allow for better outcomes for staff and for patients.
Literature Review at a glance

Key components associated with improved outcomes

- Supports social interaction
- Privacy
- Contact with nature
- Low noise levels & soundproofing
- Personalisation and homely environments
- Single & Mixed rooms
- User friendly & efficient space allocation
Summary of Grey Literature

Grey literature was sourced to review unpublished empirical studies, policy or guidance documents, annual reports and service plans in relation to evidence-based design in end-of-life or palliative care. The countries which were included in this scoping review were based on the volume of empirical research outputs. Grey literature was examined from key palliative and government healthcare websites in Ireland, the United Kingdom (UK) and United States of America (USA). Findings from the grey literature will be presented through a narrative synthesis of each country, with a focus on key design features and components associated with improved outcomes. Resource implications and enablers and barriers to the development and sustainability of EBD will also be examined where applicable.

Ireland

In the Irish context, the majority of literature relating to evidence-based design in end-of-life care has been published by the Irish Hospice Foundation (IHF). In 2007, a baseline review published by the IHF and Tribal Group UK developed a physical environment assessment framework with the hospitals participating in the Design & Dignity programme. This report highlighted that despite there being clear guidance on the standardisation of certain hospital settings, there was a dearth of guidance regarding the build of a physical environment for those receiving end-of-life care (Irish Hospice Foundation, 2007). Recommendation from the assessment framework that created a baseline standard for future sites to improve the physical build in end-of-life care included accessibility for patients, staff and their families, privacy and confidentiality, having environmental control, as well as ensuring cultural adaptability, orientation, and wayfinding. Ambience, functionality, service adjacencies, communication, specific mortuary facilities, and external spaces were also discussed in detail and highlighted as key areas to improve patient and relative’s experiences (Irish Hospice Foundation, 2007). Similar findings were echoed in the End-of-life care for Older People in an Acute and Long Stay Care Setting in Ireland report (O’Shea et al., 2008), which identified that the physical environment in end-of-life care was identified as a place where people both live and die, and the availability and use of single room and family facilities was recommended.

Following from this, the IHF published Design & Dignity guidelines in 2008 which provided necessary guidance for the design and planning of end-of-life facilities within acute hospitals (Irish Hospice Foundation, 2008). This guidance document provided rationale for supporting the guidelines and identified the key principles underpinning their development; dignity, privacy, sanctuary, choice and control, safety and universal access. The Hospice Friendly Hospitals (HfH) programme guidelines encouraged development in the areas of arrival; waiting and wayfinding; internal wards and departments including patient accommodation and workstations; multi-functional communal spaces providing art and music, multi-faith areas, gardens and facilities for relatives and staff. Guidance on ensuring a respectful and reassuring atmosphere within a mortuary and bereavement suite was also provided.

Since the development of these guidelines, the IHF in collaboration with the HSE launched the Design & Dignity Style Book: Transforming End-of-Life Care in Hospitals One Room at a Time (Irish Hospice Foundation, 2014). The purpose of this style book was to support the development of end-of-life spaces for all professionals involved in project builds, including patient representatives, hospital staff, and architects. In terms of practicalities, a number of recommendations were made, including the benefits in use of acoustic floor finishes, PVC foil wrapped cabinet doors, and careful consideration in the selection of artwork. Family rooms within an acute setting should provide a three-pronged approach to development. Firstly, a dedicated private space should be available to patients and their families. Secondly, overnight accommodation or a place of rest should be available to family members when visiting their relative. Finally, each area should have a kitchenette with appropriate facilities and appliances. Location, way signage, aesthetic, physical and sensory environment of each dedicated space also needs careful consideration. It was recommended that each Emergency Department should have a...
bereavement suite, comprising of a family room and adjoining and viewing room. In a time that is often traumatic for families, the bereavement suite should generate a respectful and peaceful clinical environment. External noise, location, soft acoustics, temperature, ventilation furnishings, and the signage and naming of the suite should all be considered in the build of this environment. Mortuaries, viewing rooms, and garden settings were also highlighted as key areas which require a guided refurbishment in both their concept and creation. It is worth noting that a multi-faith room is required to meet the needs of families from multi-cultural backgrounds.

Prior to the development of the style book the IHF, supported by The Atlantic Philanthropies, and the HSE published a “Quality Standards for End-of-Life Care in Hospitals: Making end-of-life care central to hospital care” (Irish Hospice Foundation, 2010). This report identified four main quality standards that hospital groups should adhere to, to ensure positive outcomes for patients and their families receiving end of life. These standards are based on four key principles. Firstly, the mission of each hospital is to ensure that systems are in place to meet the needs of patients. Secondly, that staff are supported in their roles within the system through training and development opportunities. Thirdly, that patients’ needs are met and finally that each family is supported, informed and kept informed. To continue to improve outcomes the use of single rooms, areas for privacy, prayer, personal hygiene and refreshments should be made available to patients and their families (Irish Hospice Foundation, 2010).

To ensure that these standards are met and that end-of-life care supports dignity and privacy the use of the ‘Design & Dignity Guidelines for Physical Environments of Hospitals Supporting End-of-Life Care’ is encouraged (Irish Hospice Foundation, 2008). Walsh (2013) published an overview of the HfH hospital programme from 2007-2013, concurring with a planned approach to improving end-of-life care settings with the use of the Design & Dignity guidelines. The physical environment was reviewed under the HfH programme’s audit and standard activities, emphasising that the development of these guidelines informed quality standards and generated awareness of the significance of the physical environment for patients and their families end-of-life care. Resource implications regarding the maintenance, development and administration of this programme and exemplar sites was recognised, with ongoing support and commitment required from the HSE estates and grant schemes.

The “Hospice Friendly Hospitals Programme Guidance document for using the end of life symbol” guides use of the end of life symbol throughout hospitals (Irish Hospice Foundation, 2015). The symbol - a three stranded white spiral on a purple background symbolises the cycle of birth, life and death. The roots of the symbol stem from Irish history and are not associated with any spiritual denomination. Displaying the symbol after someone dies can be helpful in reminding staff to facilitate a quiet and respectful atmosphere. Where to display the symbol must be consistent throughout the hospital with the document suggesting a display at the entrance of where an individual has died; at nurse’s workstations; at the door of the room where an individual has died (after discussion with their family) and in bereavement suites and mortuaries. Public use of the symbol in the main entrance, information stands, waiting areas throughout the hospital informs individuals of the hospital link to the HfH programme.

The Hospice Friendly Hospitals Programme commissioned an audit titled “A National Audit of End-of-Life Care in Hospitals in Ireland, 2008/9” evaluating the quality of health care in hospitals in Ireland – specifically in the last week of life (McKeown et al., 2010). The audit lists four standards relating to staff, patients, families and hospitals as a whole. Not only providing standards in hospitals, the audit hopes the standards will be incorporated to support end-of-life within hospices, long term settings and in the home. Standard 1.3 refers to the physical environment and three aspects were found to be of statistical significance to care at the end of life. The three aspects were where the patient died (either in single patient room or multi-bedded ward); the condition of the room/ward where the patient spent the last week of their life; the standard of the mortuary in which they were reposed. The audit explains that despite advantages to
single patient rooms they represent on average only 15% of beds in acute hospitals. Symptom management and symptom experience are better in single patient rooms. The audit reports that coping with a patient’s death is improved in a single room according to families. Analysis of the report showed the condition of the room or ward where the patient died made an impact on the quality of care. The environment where patients spent their final days was assessed by nurses who rated the environment based on privacy, dignity, the environment (nature, light, noise), and control (having ability to alter the surrounding environment). The dignity of a room had statistical significance on the quality of care. Dignity was found to improve symptom management, patient care, and coping with a patient’s death. Healthcare could be improved with increased use of single patient rooms and improving physical environment of wards containing multi-beds. Overall, the audit confirms the positive impact of single patient rooms on care outcomes for individuals at end of life. They are illustrated to improve staff communication with relatives as well facilitating relatives to stay overnight and be “present at the moment of death” (McKeown et al., 2010).

“How Irish Hospitals are Transforming Spaces for Patients and Families at the End of Life” is a case study report on behalf of the Irish Hospice Foundation (Parker, 2017). The case study focused on four hospitals from city and rural settings to illustrate their experiences, challenges and success. Several points of recommendation were summarised based on their key learning experiences. Some of the case studies found they were met with staff resistance when implementing the project due to its requirement for staff to alter the way they work. Allocating a “key champion” or team lead/manager to boost staff morale, support upkeep of the project and make key decisions is essential. Securing an architect who understands the purpose of the project is recommended; reviewing architect drawings can ensure their understanding of the project. Allocation of sufficient funding to high quality furniture and art pieces is recommended. Specifically, the report suggests 1% of the overall budget should be spent on art pieces alone. Involvement of staff members from the onset of the project can help inform decision-making; as staff give an insider perspective and understanding of how the environment must work for patients and staff alike. Involving infection control teams from the onset of the project is additionally encouraged. Another key learning point is to expect delays as often teams found the project more time consuming than originally anticipated. Pacing the project ensures high quality is maintained which is particularly important for the finishing art work and furnishings. The case studies reported that if projects were rushed towards the end this resulted in low-quality furniture which undid the quality of work. Lastly, the case studies highlight the importance of ensuring the room is being used for its intended purpose.

As well as report and guidance documents, one unpublished literature review explored Design & Dignity and the cost effectiveness at end-of-life care in hospital (Hugodot and Normand, 2007). Details regarding hospital structures such as the benefits of single versus shared rooms and the importance of internal environments with a focus on control, mobility, homeliness and access to outside environments are not dissimilar to the empirical findings of this current review. Hugodot and Normand (2007) concluded that functional environments improve patient outcomes, staff satisfaction, cost effectiveness and support patients dealing with illness.

The Health Service Executive (HSE) published four documents relating to guidelines for supporting services to give quality healthcare. Two workbooks were published as part of Quality Assessment and Improvement to implement standards by a process of continuous improvement. Workbook 1 titled “Person Centred Care and Support” includes guidelines to support staff to achieve high quality care. Regarding the physical environment, standard 1.6 outlines the importance of reviewing healthcare facilities and environments to ensure their efficiency in providing privacy and dignity through appropriate “design and management” (pg.18). This standard is categorised at a level of continuous improvement suggesting more improvements could be made (Quality Assessment and Improvement, 2014b). Workbook 2 titled “Effective Care and Quality Support” describes the physical environment as a mediator.
in delivering effective care. Standard 2.7 describes that within palliative health care the physical environment must support the effective management of services as well as protecting the patient’s privacy and dignity (Quality Assessment and Improvement, 2014a).

The HSE National Standards for Bereavement Care following Pregnancy Loss and Perinatal Death highlights design adaptations for a maternity setting. Drawing upon the IHF Design & Dignity guidelines, the report outlines features such as overnight rooms and refreshment facilities. Spaces dedicated to bereavement care need to be designed with comfort, quietness and privacy in mind. The report highlights the need for funding to support Bereavement Care specific to a maternity setting (Health Service Executive, 2016).

A report outlining plans for the Mater Hospital National Paediatric Centre Tertiary Centre (NPH) outlines the centre’s aims to organise efficient delivery of services within the hospital. With a focus on family support, the Family Resource Centre is described as an important feature of the NPH Tertiary Centre (Health Service Executive, 2007). The Resource Centre aims to provide a retreat and resource for families for patients. Other ambitions for the Centre are to include facilities such as showers, personal care facilities for disabled children/adolescents, baby feeding, nappy changing, storage for buggies/prams, lounge and dining areas as well as reflection/prayer rooms. The design framework for the hospital is to feature external areas for peaceful reflection as well as areas to accommodate larger gatherings. Moreover, wards should facilitate flexible bed allocation. The benefits of single patient rooms are debated within the report, with advantages such as increased privacy, infection control, operational flexibility (designated wards) and disadvantages such as feelings of isolation for the children and observation obstructions for nursing staff. Key recommendations for designing paediatric patient rooms include the following: space for the child’s needs (sleep, play and education); space for clinical staff as well as hand wash facilities and monitoring; space for parents to sleep overnight; space for parents to store personal items without impeding clinical staff and space for attached en suite facilities. Natural light as well as views from the patient bed are suggested by the report.

**United Kingdom**

The majority of grey literature from the United Kingdom has been published by the King’s Fund and the National Health Service (NHS). Similar to the Design & Dignity Programme, the Enhancing the Healing Environment “is a programme that works to encourage and enable local teams, led by clinical staff, to work in partnership with service users in order to improve the environment in which they deliver care” (The King’s Fund, 2011, pg. 9). Since its launch in 2000 by the King’s Fund charity, the programme has provided support to over 202 teams from 143 NHS trusts in settings such as hospices, hospitals and prisons. The programme comprises of two main functions – the first is a development programme to support multidisciplinary teams as well as training and education support. The second function is to provide project grants to aid teams in physically enhancing the patient environment. The programme also encourages users of the environment – those receiving and giving care – to be a direct part of creating and implementing the design project.

An evaluation was carried out by the Sue Ryder Care Centre at the University of Nottingham which was jointly funded by the Department of Health and The Kings Fund (The King’s Fund, 2011). The evaluation comprised of 25 projects throughout the UK ranging from bereavement suites, mortuaries, gardens and palliative care facilities. Findings from the main evaluation took particular focus on mortuaries and bereavement facilities to provide standards and recommendations for the NHS health building guidance. Six recommendations were outlined to apply to the refurbishment of bereavement facilities. Architecturally the build is recommended to have a “stylish contemporary feel” with cultural/religious neutrality and to achieve an atmosphere of “calm contemplation” to reassure (p.86). In terms of location, the facility should be in a quiet area away from the busy hospital areas. Signage and accessibility are important – in particular car parking and private reception areas. Nature should be inserted into bereavement spaces in
the form of outdoor areas at the entrance or exit of the facility as a “relaxing transitional space” (p.86). Body viewing suites should allow space for either side body viewing and where possible a one-track circulation route out to a garden or courtyard. This will minimise interruptions for families making their way into the entry in dual use facilities. These facilities must also ensure any clinical areas are separate from viewing areas such as clinical corridors where staff may access the facility or bodies may be moved. High quality furniture is recommended as well as light and neutrality. Throughout this space should feature accent pieces such as individual art work, stained glass or decorative textiles. Viewing facilities should make use of top-lighting to provide focus in the room and create a serene and contemplative atmosphere. Environmental conditions must be considered and noise must be excluded within the body viewing area. Negative air pressure, with ventilation in the body viewing area is recommended to ensure odours to not escape from the clinical areas. High quality air seals around access doors to clinical areas are recommended.

The key findings of the evaluation included the following; feedback from visitors and service users in terms of support; challenges; project completion and funding. A common remark was the peacefulness users experienced in the space was often in contrast to the clinical and busy nature of the wider hospital. Every team felt supported by their sponsors and defined this support as proactive or reactive. Many teams described challenges they faced. The most common was securing resources, followed by limited time, issues with location, issues with building and finally attitudes within teams. Challenges in terms of project completion varied from securing additional funding, securing admission to spaces, unforeseen structural issues, revising designs and weather disruptions (garden projects). Finally, the estimate of funding for the initial projects increased from £45,000 to £117,000, with a total estimated cost across the projects of £2.6 million.

A report titled “Improving environments for care at end of life” (The King’s Fund, 2008) refers to a pilot study for the Environment for Care at End of Life (ECEL). The pilot was an adaptation of the King’s Fund’s Enhancing the Healing Environment (EHE) programme which is still currently ongoing with the most recent evaluation report in 2011 (See above). This pilot study focused on the environment of care for those at end of life and consists of eight projects in hospices and hospitals throughout England and Scotland. Mortuary and viewing facilities made up half of the projects whereas the other four consisted of redesigning a bereavement suite, transforming a visitor’s room, palliative care rooms and renovating hospice patient rooms. Key recommendations emerging from the study suggest all end-of-life facilities should include the following: a designated room for private discussions between patients and families; optional single-patient rooms designed to evoke a sense of homeliness as well as room features which can be controlled by the patient; sleep over facilities for families/friends which have catering and internet facilities; spaces where families and patients can gather and meet with staff in an informal way and appropriate viewing spaces for families to spend time with their loved ones once they have passed away.

Due to emerging findings from the pilot study and the literature research of the ECEL Programme, the King’s Fund recommends further academic research into the following; how features within the physical environment impacts on individuals receiving end-of-life care; language and signage use symbolic of end-of-life care facilities; initiatives to involve terminally ill individuals in the design and delivery of palliative services and designating end-of-life care facilities within acute wards. Moreover, based on discussions with site teams a pattern has emerged in the last decade regarding individuals use of mortuary facilities. Although undocumented, participants group sizes visiting mortuaries has increased (up to 20). Mortuary facilities will need to adjust to this change in terms of the location, environmental design and maintenance of the facility. It is important to realise that, for many families visiting the bereavement facilities, this might be their last and only interaction with the ECEL programme and thus it is important for the health care environment to make a lasting impression.
A “how-to” guide published by the NHS aims to support healthcare staff in transforming end-of-life care in acute settings (National Health Service England, 2015). The guide draws on “The route to success in end-of-life care – achieving quality in acute hospitals” (National Health Service England, 2010) which highlighted best practice models developed by acute hospital trusts and supported by The National End-of-life care Programme (now part of NHS Improving Quality). It provides a comprehensive framework to enable acute hospitals to deliver high-quality person-centred care at the end of life. The guide outlines the need for the healthcare environment to support discussions with patients as the end of life approaches. It reports that acute settings need to incorporate spaces that facilitate private discussions between staff and patients in a safe and secure way. Providing privacy can facilitate individuals and their families to initiate open and honest discussions and form the basis of advance care plans. Ward environments must provide dignity and respect for individuals and their families. Lastly, the report states the importance of encouraging feedback by use of comments and complaints to maintain a respectful ward environment.

The Environmental Design Audit Tool (2007) funded by the Kings Fund and the Prince’s Foundation in the UK was designed based on the results of a Hospice Design competition. The ten principles described were extracted from the competition and help inform design principles in health care environments which can be applied to older individuals and those at end of life. The ten principles are as follows. Nature should be “carefully threaded” into all aspects of the design builds from outside areas to inside plants as the “landscape has a deeply profound effect on people” (The Kings Fund & Prince’s Foundation, 2007, pg.3). The area should use nontoxic building materials that are grown from the ground. These materials age beautifully with time. The Elements: refers to ventilation and natural light access which should be incorporated where possible and controllable (opening windows). The report also recommends the use of moving water and the observation of lit flames through a medium such as glass. The facility should be organised that makes it clear whether an area is public or private via “natural thresholds and devices that allow people to navigate easily around the building” (The Kings Fund & Prince’s Foundation, 2007, pg.3). The design of the build should portray dignity for its users via organisation of private versus public areas of the building. Comfort should be enhanced by allowing people to interact with the design and by use of homely décor that are domestic as opposed to clinical. The building should be made of materials that are robust as well as using a design that is economic. Art or craft pieces should be chosen throughout the hospital that give a message of love, compassion and caring. All areas of the hospital should respect the way people perceive time; some may want to pass time if in pain whereas other might want to slow time to enjoy their last moments. The build must be beautiful in its relationship with nature, through the use of fine proportions, simple harmonic relationships and proportioning systems (The Kings Find & Prince’s Foundation, 2007).

The final report from the United Kingdom is a review of the Liverpool Care Pathways (LCP) - developed by the Royal Liverpool University Hospital and the Marie Curie Hospice in Liverpool for the care of terminally ill cancer patients (Department of Health and Social Care, 2013). In reviewing experiences of the LCP, the environment in which individuals die was a concerning theme and some recommendations are outlined. Private rooms should be a priority for those who are dying. Understandably this is not always possible. In these circumstances, if the wishes of the patient are known, best efforts should be made to fulfil these such as playing music, decorating with flowers, pictures or other wishes which can accommodate both their comfort and emotional well-being. Additionally, extra chairs should be made available beside the patient bed and clear signposting to areas where families can spend time privately/get refreshments. Carers and family members should be granted request for private rooms for their loved ones, featuring windows to the outside world/views which can open to allow fresh air, if air-conditioning is not satisfactory.
USA

The Agency for Healthcare Research and Quality (AHRQ) defines evidence-based design (EBD) as “a term used to describe how the physical design of health care environments affects patients and staff” (Agency for Healthcare Research and Quality, 2007, p.2). Single-patient rooms, enhanced design layout for patients and staff, greater accessibility to staff workstations and use of noise-reducing construction materials were defined as key examples of EBD in healthcare settings. The report describes design features which increase patient satisfaction. Enablers for patient satisfaction are single-patient rooms featuring noise-absorbing ceilings and limited invasive noises (intercoms) as they improve the healing environment. Additionally, reduced noise can improve patients sleep quality thus increasing overall wellbeing and reducing depression.

Improved way-finding in hospitals reduces stress, anxiety and feelings of helplessness among patients. Design features that increase way-finding include improved corridor layouts and signage. Additionally, design features such as natural light, art works and views of nature improve the healing environment for patients. The AHRQ reported evidence which found increased patient satisfaction when provided with adequate space for family interaction within patient rooms.

Additional to patient satisfaction, EBD has been shown to reduce staff burnout rates by limiting physical demands on staff. Design features such acuity-adaptable rooms, decentralising nursing stations and designing patient beds to reduce burden on staff improve workflow and relieve physical demands on staff. Evidence in support of single-patient rooms (improved patient quality outcomes) led the American Institute of Architecture in 2006 to recommend single-patient rooms in construction guidelines for healthcare design standards.
## Overview of grey literature recommendations

<table>
<thead>
<tr>
<th>IRELAND</th>
<th>United Kingdom</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Accessibility for patients, staff and their families</td>
<td>■ Encourage end users to be involved in the development of the design</td>
<td>■ Provide single-patient rooms where possible</td>
</tr>
<tr>
<td>■ Incorporate privacy and confidentiality</td>
<td>■ Include stylish, contemporary and homely interior, with cultural neutrality and aspects of nature</td>
<td>■ Ensure an enhanced design layout for patients and families</td>
</tr>
<tr>
<td>■ Ensuring cultural adaptability, orientation, and wayfinding</td>
<td>■ Provide signage and ensure the area is accessible</td>
<td>■ Reduce noise to enhance healing environment</td>
</tr>
<tr>
<td>■ Integrate environmental choice, control and safety</td>
<td>■ Private and dignified rooms should be away from the busy hospital environment</td>
<td>■ Increase way finding through improved corridor layouts and signage</td>
</tr>
<tr>
<td>■ Provide an aesthetic, physical and sensory environment</td>
<td>■ Minimise family interruptions through viewing suites</td>
<td>■ Incorporate design features such as natural light, art works and views of nature</td>
</tr>
<tr>
<td>■ Use of the end-of-life symbol throughout hospitals</td>
<td>■ High quality furniture is recommended as well as light and neutrality</td>
<td>■ Decentralise nursing stations and improve workflow incorporating acuity-adaptable rooms</td>
</tr>
<tr>
<td>■ Personal hygiene and refreshments should be made available to patients and families</td>
<td>■ Incorporate art work, stained glass or decorative textiles</td>
<td></td>
</tr>
<tr>
<td>■ Ensure quality standards using Design &amp; Dignity Guidelines and Style Book</td>
<td>■ Environmental conditions must be considered such as noise, air pressure and ventilation</td>
<td></td>
</tr>
<tr>
<td>■ Incorporate specific recommendation for key areas such as mortuaries, emergency departments, bereavement suites, paediatric areas, viewing rooms and garden settings</td>
<td>■ Include designated rooms for private discussions between patients and families</td>
<td></td>
</tr>
<tr>
<td>■ Allocate project champions, sufficient funding and ensure staff involvement</td>
<td>■ Ensure high standards are maintained through the use of “how to” guidelines published by the NHS</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 2a Emergency Department Bereavement Suite Assessment Tool

This tool is designed to assist hospitals to assess the standard of bereavement suites in line with the Design & Dignity Guidelines. These Guidelines have been adopted by the HSE for all new building and refurbishment projects.

<table>
<thead>
<tr>
<th>Design &amp; Dignity Criteria</th>
<th>Weighted score</th>
<th>Assessment score</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a bereavement suite available.</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The bereavement suite is located within the emergency department.</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The bereavement suite avoids crossing clinical or highly trafficked areas.</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visitors to the bereavement suite do not have to return through the reception area.</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suitable vacant/engaged signage is used at the door to the room.</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The bereavement suite maintains privacy.</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The bereavement suite is accessible for people with physical &amp; cognitive impairment</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The bereavement suite comprises of a viewing area where the deceased person’s body is laid out and adjoining family room.</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The bereavement suite and adjoining family room are separated by a folding partition.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The bereavement suite provides adequate space for a family group to gather.</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The bereavement suite excludes external noise as far as possible.</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The temperature in the bereavement suite can be maintained at room temperature.</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The bereavement suite has access to natural light.</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural ventilation can be accessed via opening windows.</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The bereavement suite can facilitate individual cultural, spiritual and religious wishes</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Summary of assessment

<table>
<thead>
<tr>
<th>Design &amp; Dignity Criteria</th>
<th>Weighted score</th>
<th>Assessment score</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>The bereavement suite aesthetic finish makes it a respectful, protective and a non-clinical environment.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The bereavement suite contains high quality furniture in good condition.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The bereavement suite contains suitable art-work which enhances the environment.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High quality lighting fixtures are controllable particularly for the area over the deceased person’s body</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The bereavement suite and has access to a toilet.</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refreshment facilities including tea, coffee and water can be provided for in the adjoining family room</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bereavement suite supporting for paediatric deaths have a range of bed sizes/cots available.</td>
<td>1 (n/a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extra paediatric beds / cots can be stored and locked out of sight of families and visitors</td>
<td>1 (n/a)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Overall Score (out of 30)

<table>
<thead>
<tr>
<th>Paediatric score (out of 32)</th>
</tr>
</thead>
</table>

### Summary of shortfalls
## Appendix 2b Mortuary Assessment Tool

This tool is designed to assist hospital to assess the standard of mortuaries in line with the Design & Dignity Guidelines. These Guidelines have been adopted by the HSE for all new building and refurbishment projects.

<table>
<thead>
<tr>
<th>Design &amp; Dignity Criteria</th>
<th>Weight Score</th>
<th>Assessment Score</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a mortuary available</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mortuary is located within the hospital</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mortuary avoids crossing clinical or highly trafficked areas</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visitors to the mortuary do not have to return through the reception areas</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suitable vacant/engaged signage is used at the door to the room</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mortuary maintains privacy</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mortuary is accessible for people with physical and cognitive impairment</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mortuary comprises of a viewing area where the deceased persons body is laid out with an adjoining family room</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mortuary facility provides adequate parking</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mortuary provides adequate space for a family group to gather</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mortuary provides adequate space for two families groups to use the facility simultaneously</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mortuary excludes external noise as far as possible</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Name of Hospital
## Design & Dignity Criteria

<table>
<thead>
<tr>
<th>Design &amp; Dignity Criteria</th>
<th>Weight Score</th>
<th>Assessment Score</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>The temperature in the mortuary can be maintained at room temperature</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mortuary has access to natural light</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural ventilation can be accessed via opening windows</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mortuary can facilitate individual cultural, spiritual and religious wishes</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mortuary aesthetic finish makes it a respectful, protective and a non-clinical environment</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mortuary contains high quality furniture in good condition</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mortuary contains suitable art work which enhances the environment</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High quality lighting fixtures are controllable particularly for the area over the deceased persons body</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mortuary has access to a toilet</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Summary of assessment

| Overall Score (out of 28)                  |                  |
| Paediatric score                           |                  |
| Summary of shortfalls                      |                  |
Appendix 2c Family Room Assessment Tool

This tool is designed to assist hospitals to assess the standard of family rooms in line with the Design & Dignity Guidelines. **These Guidelines have been adopted by the HSE for all new building and refurbishment projects.**

<table>
<thead>
<tr>
<th>Name of ward</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Speciality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No of patient beds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No of single rooms</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Design &amp; Dignity Criteria</th>
<th>Weighted score</th>
<th>Assessment score</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a family room available</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family room is located within the ward itself or as close to the ward as possible</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family room is clearly signposted</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suitable vacant/engaged signage is used at the door to the room</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family room can accommodate 8 people comfortably</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family room has sofa bed/sleepover facilities</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family room has kitchenette including kettle, fridge, toaster, microwave</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room maintains privacy</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TV is available</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room contains high quality furniture (including sofas) in good condition</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family room contains suitable art-work which enhances the environment</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lighting fixtures are controllable</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family room has access to a toilet and shower</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family room has access to natural light</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family room is accessible to patients &amp; families at all times</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family room is painted / decorated which makes it warm and welcoming</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Summary of assessment**

<table>
<thead>
<tr>
<th>Overall Score (out of 30)</th>
<th></th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Summary of shortfalls</th>
<th></th>
<th></th>
</tr>
</thead>
</table>
### Appendix 3 Topic Guides

**Topic Guide for Bereaved Relatives/Friends/ NOK Semi Structured Interviews**

**OPENING**
1. (ESTABLISH RAPPORT) Introductions e.g. my name is ....
2. (PURPOSE) I would like to talk to you about the Bereavement Suite
3. (TIMELINE) The interview will take approximately 30 minutes
4. (CONSENT) Complete Informed Consent

Opening Question: Can you tell us about your experience of using the Bereavement Suite?

<table>
<thead>
<tr>
<th>Questions (in categories)</th>
<th>Prompt Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Design Features for dignified care</strong></td>
<td>Art features? Paint colours? Lighting?</td>
</tr>
<tr>
<td>· What were the positives aspects of the design space?</td>
<td>Too small? Windows/natural light? Calming effect? Could you pause for breath there?</td>
</tr>
<tr>
<td>· What design features do you like best and why?</td>
<td>e.g. for family room features</td>
</tr>
<tr>
<td>· What were the negatives aspects of the design space?</td>
<td>· Private?</td>
</tr>
<tr>
<td>· What design features do you not like and why?</td>
<td>· Self-contained</td>
</tr>
<tr>
<td>· In what way did those design features impact on you or affect you?</td>
<td>e.g. for mortuary</td>
</tr>
<tr>
<td>· Did the Design &amp; Dignity space meet your needs during this time? And if not, what features do you believe are required to meet the needs of future families or friends? Has the Design &amp; Dignity space achieved this?</td>
<td>· Was there enough space for all family?</td>
</tr>
<tr>
<td><strong>Accessible/Use</strong></td>
<td>Facilities</td>
</tr>
<tr>
<td>· How accessible was the space?</td>
<td>Toilets/entrances/parking</td>
</tr>
<tr>
<td>· Was it clear where the location of the space was?</td>
<td>Signage</td>
</tr>
<tr>
<td>· Do you feel the room was fit for purpose? Did it fulfil that purpose?</td>
<td>Are signs clear? Are directions clear?</td>
</tr>
<tr>
<td></td>
<td>Where is it located?</td>
</tr>
<tr>
<td></td>
<td>To what extent is it being used? Is it being used by its intended group?</td>
</tr>
<tr>
<td></td>
<td>If not, why?</td>
</tr>
<tr>
<td><strong>Atmosphere</strong></td>
<td>Sanctuary, private, dignified</td>
</tr>
<tr>
<td><strong>Social &amp; emotional aspects</strong></td>
<td>Art, colours, nature, views</td>
</tr>
<tr>
<td>· What kind of atmosphere or ambience does the room give?</td>
<td></td>
</tr>
<tr>
<td>· What features, do you think give it this ambience?</td>
<td></td>
</tr>
<tr>
<td><strong>Culture of Care</strong></td>
<td>Could you clarify?</td>
</tr>
<tr>
<td>· How did the space affect your interaction with the healthcare care providers, family, friends and other people using the room?</td>
<td>Could you give me an example?</td>
</tr>
<tr>
<td>· If you had a spiritual belief did you feel the room was inclusive of it?</td>
<td>Could you please elaborate?</td>
</tr>
<tr>
<td>· Was the room neutral of faiths? Did it have relics of certain religions (e.g. cross)</td>
<td>If so, how?</td>
</tr>
<tr>
<td></td>
<td>Can you give us an example?</td>
</tr>
</tbody>
</table>

Closing question: Is there anything we haven’t raised during the interview that you think is important for us to hear about the build…/ Design & Dignity project?
Appendix 3 Topic Guides continued

Topic guide for Healthcare and Support Staff Focus Group

OPENING
1. (ESTABLISH RAPPORT) Introductions e.g. my name is ....
2. (PURPOSE) I would like to talk to you about the Design & Dignity space
3. (TIMELINE) The interview will take approximately 60 mins
4. (CONSENT) Confirm Informed Consent with participants

Opening Question(s): Can you tell us about your involvement in the Design & Dignity Project? What was your role in the Design & Dignity project? What was your experience of using the Design & Dignity space?

<table>
<thead>
<tr>
<th>Questions (in categories)</th>
<th>Prompt Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Culture of care</strong></td>
<td></td>
</tr>
<tr>
<td>Open question: How would you describe culture of end-of-life care here at (Insert hospital name)</td>
<td>Pride? Confidence or abilities?</td>
</tr>
<tr>
<td>- Specific examples (cases) e.g. Bereavement Suite, Family Room, Mortuary, ED Suite, Maternity Bereavement Suite.</td>
<td>Use case probes to elaborate and clarify</td>
</tr>
<tr>
<td>- In what way has the project improved care here in (name) for your patients at end of life and their families or friends, if at all?</td>
<td>Enhanced your ability to support families?</td>
</tr>
<tr>
<td>- In what way has the project improved the culture/atmosphere for yourselves and other colleagues, if at all?</td>
<td>Better communication? Family and patient have opportunities to have more privacy/intimacy</td>
</tr>
<tr>
<td>- How have things changed since you developed/the development of this new space/room, if at all?</td>
<td>Does it have relics of certain religions which can be removed (e.g. cross)</td>
</tr>
<tr>
<td>- Have any patients/family members or their friends said anything to you about this space? If so, what?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Questions (in categories)</th>
<th>Prompt Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inclusive/spirituality</strong></td>
<td></td>
</tr>
<tr>
<td>- Does it have relics of certain religions which can be removed (e.g. cross)</td>
<td>E.g. no television. computer, shower, garden, landline, microwave, toaster, other art work</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Questions (in categories)</th>
<th>Prompt Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Design Features for dignified care</strong></td>
<td></td>
</tr>
<tr>
<td>- What specific modifications were made to accommodate patients/family needs in their end-of-life care?</td>
<td>Design features that support privacy? Kitchenette support nourishment. Sofa bed for rest. Art work for distraction/uplift Views of nature, natural light? Colours, furnishings, art</td>
</tr>
<tr>
<td>- What specific design features are important in this space?</td>
<td>E.g. no television. computer, shower, garden, landline, microwave, toaster, other art work</td>
</tr>
<tr>
<td>- What design features do you like best (if any) and why?</td>
<td></td>
</tr>
<tr>
<td>- Are there other design features which you think should be incorporated in the Design &amp; Dignity guidelines for (insert case specific e.g. Bereavement Suite, Family Room, Mortuary, ED Suite, Maternity Bereavement Suite)</td>
<td></td>
</tr>
<tr>
<td>- What design features/aspects of the room/space do you like least (if any) and why?</td>
<td></td>
</tr>
<tr>
<td>- Do these differences affect you in how you work and if so, how? What have you noticed?</td>
<td></td>
</tr>
</tbody>
</table>
### Appendix 3 Topic Guides continued

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Is the facility located where it should be and how easy is it to access for patients/family or their friends?</td>
<td></td>
</tr>
<tr>
<td>• Is it clear where the location of the facility is?</td>
<td></td>
</tr>
<tr>
<td><strong>Intended versus actual use</strong></td>
<td></td>
</tr>
<tr>
<td>• With regard to the Design &amp; Dignity space, how is it being used? Is it being used the way it was planned or intended? In what other ways is the space being used that’s unrelated to end-of-life care?</td>
<td></td>
</tr>
<tr>
<td><strong>Sustainability</strong></td>
<td>A fund to replace furniture, Standard Operational Procedures for cleaning, maintenance etc.</td>
</tr>
<tr>
<td>• What did you see as important for ensuring the space is properly looked after/maintained?</td>
<td></td>
</tr>
<tr>
<td>• Are there any other improvements needed, if so, what are they? (See below)</td>
<td></td>
</tr>
<tr>
<td>• If you had further resources/money, how would you improve features?</td>
<td></td>
</tr>
<tr>
<td>• Would you have done anything differently if you were involved in the project?</td>
<td></td>
</tr>
<tr>
<td>• If involved - would you change anything if you had the chance to do it again?</td>
<td></td>
</tr>
<tr>
<td><strong>Atmosphere</strong></td>
<td>Sanctuary, private, dignified colours, art, nature</td>
</tr>
<tr>
<td>• What kind of atmosphere or ambience does the room give?</td>
<td></td>
</tr>
<tr>
<td>• What features give it this ambience?</td>
<td></td>
</tr>
<tr>
<td><strong>Overall impact</strong></td>
<td></td>
</tr>
<tr>
<td>• What has been the overall impact in this project, on? (1) patient care  (2) family care  (3) you as a staff member,  (4) the overall culture within the ward/department</td>
<td></td>
</tr>
<tr>
<td>• Have there been any knock-on effects across the ward/hospital?</td>
<td></td>
</tr>
<tr>
<td>• Do you consider the hospital environment differently having been involved in this project?</td>
<td></td>
</tr>
</tbody>
</table>

**Closing question:**

Is there anything we haven’t raised during the interview that you think is important for us to hear about the build.../ Design & Dignity project?

Has there been any knock on effects of the build or any unforeseen changes? (Gives staff the opportunity to tell narrative)
## Appendix 4 Light and Sound Recommendations for Hospital Settings

### Sound (Decibels)

<table>
<thead>
<tr>
<th>Reference</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Environmental Protection Agency (EPA) (1974) Information on levels of environmental noise requisite to protect public health and welfare with an adequate margin of safety, Government Printing Office, Washington, DC</td>
<td>✓ Maximum noise levels of 45 dB(A) in hospitals (day)(^1).</td>
</tr>
<tr>
<td>2. World Health Organisation (2009) Night Noise Guidelines for Europe. WHO Regional Office for Europe, Denmark</td>
<td>✓ Maximum levels of 30 to 40 dB(A) in patients’ rooms (night)(^2).</td>
</tr>
</tbody>
</table>

### Light (lux)

<table>
<thead>
<tr>
<th>Hospital Area</th>
<th>Recommended level of lighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wards/ Patient caring areas</td>
<td>General lighting in wards: 100 Lux, Reading lamps: 200-300 Lux, Examination lighting: 500-750 Lux, Night lighting: 5 Lux, Nursing station: 200-300 Lux</td>
</tr>
<tr>
<td>Lighting for special rooms</td>
<td>OT: 8000 to 10000 Lux, Recovery room: 400 Lux, MRI centre: 100 Lux, Ophthalm dept: 300-1000 Lux, Delivery suit: 750-1000 Lux</td>
</tr>
<tr>
<td>Service areas</td>
<td>Manifold: 300 Lux, CSSD and laundry: 200 Lux, Kitchen: 200 Lux, Mortuary: 100-1000 Lux</td>
</tr>
<tr>
<td>Circulation/ Other common areas</td>
<td>Corridors: 100-200 Lux, Stairs: 100 Lux, Lifts: 100 Lux</td>
</tr>
</tbody>
</table>

Reference:

### Appendix 5 Qualitative Themes, Subthemes and Codes

#### Theme 1: Meaningful Change

<table>
<thead>
<tr>
<th>Subtheme</th>
<th>Impact on Family</th>
<th>Impact of Staff</th>
<th>Impact of Care Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>• Happy to return · Positively looking back · Nice place to get away from it all (escape/seclusion) · Somewhere to rest and reflect · Desire to give back · Close proximity to the ward/ Never too far away · No ward smells · Sense of comfort · Safe, sensitive environment</td>
<td>• Staff Pride · Reduced embarrassment · Opens conversations · Spend more time with family · An exemplar to show to visitors · Generate hospital wide interest in private spaces · Corporate commitment to end-of-life care</td>
<td>• Facilitates kindness · Represents symbol of compassion · Valuing the experience of those grieving · No more corridor care or conversations · A place for privacy, dignity and confidentiality · Catalyst for dignified care · Providing the best care environment · Transformed care at end-of-life</td>
</tr>
</tbody>
</table>

#### Theme 2: Design Features

<table>
<thead>
<tr>
<th>Subthemes</th>
<th>Self-contained</th>
<th>Artwork</th>
<th>Themed Colour Use</th>
<th>Sense of Space</th>
<th>Non-Clinical Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>• Sleeping facility · Functional · Kitchenette · Shower</td>
<td>• Non-denominational · Considerate · Vibrant · Calming · Abstract</td>
<td>• Softer colour themes · Bright · Calming colour palette (lime green and purple)</td>
<td>• Access to nature · Spacious · Natural light · Flow</td>
<td>• Feeling of home · Quality soft furnishings · TV · Spiritual feel</td>
</tr>
</tbody>
</table>

#### Theme 3: Accessibility

<table>
<thead>
<tr>
<th>Subthemes</th>
<th>Needs assessment</th>
<th>Security</th>
<th>Signage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>• First come, first serve approach · Prioritise those traveling · Negotiating the shared space</td>
<td>• Surveillance versus open access · Security of locking the door · Local Policy</td>
<td>• Well sign posted · Intuitive way finding</td>
</tr>
</tbody>
</table>

#### Theme 4: Purpose

<table>
<thead>
<tr>
<th>Subtheme</th>
<th>Meetings</th>
<th>Dedicated space for refuge</th>
<th>Respecting dignity and privacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>• Family meetings · Not for ward meetings · MDT use · Not multi-purpose meetings</td>
<td>• Dedicated space for family and patients · A quiet place for patients to go · Family can sleep over · To provide refreshments</td>
<td>• Environment for breaking bad news · Dedicated space for difficult conversations · Space for open disclosure · Place to have an end-of-life conversation</td>
</tr>
</tbody>
</table>
Appendix 6 Comment box responses

Participants
In total 17 comment cards were collected from the Mater Misericordiae University Hospital, Dublin. Those who completed a comment card included family members (n=13: 76.4%), patients (n=3: 17.6%) and staff (n=1: 5.9%).

Positive Aspects of the Family Room
Family members described the atmosphere as calming and relaxing (n=3); quiet and peaceful (n=2); non clinical (n=1); spacious (n=1) and welcoming (n=1). They also described it as a place to be alone (n=1); a place to be with family (n=1); a room to bring visitors together away from the ward (n=1); and a nice space (n=2). One family member stated that the room thoughtfully used the design and dignity scheme, showing value for money while remaining welcoming. In terms of the physical feature the couches were identified as comfortable (n=1); and suitably long (n=1); and the kitchenette homely (n=2); with the added benefits of having access to a fridge (n=1). The room had a practical layout with proportionate furniture (n=1); a classic colour scheme (n=2); beautiful artwork (n=1); and artwork applicable to all ages (n=1). Patients identified the room as a space to talk with family members (n=1) and additional room which they could reside in (n=1). One staff member described the room as relaxing, clean and fresh (n=1).

Negative Aspects of the Family Room
Family members identified the need for additional space (n=2). With regard to usability and the physical features family members highlighted issues with a broken kettle (n=4); having no access to a TV (n=2); cutlery (n=1); or microwave (n=1). The room also requires a bigger fridge (n=1) and additional catering supplies (n=1). One family member reported that no bedding was available (n=1). Patients also highlighted issues in relation to the kettle not working (n=1) and room cleanliness (n=1). One staff member suggested incorporating a TV into the space (n=1).

Areas for Improvement
Family members identified the need for a TV (n=4); additional space (n=1); the removal of styrofoam cups (n=1); incorporation of a fish tank for relaxation purposes (n=1); and fold out chairs for overnight stays (n=1). It was also suggested that the room should have higher seated chairs for impaired visitors (n=1); cushions for sofas (n=1); access to a microwave (n=1) and a toaster (n=1). Providing a selection of music (n=1) and supplying cleaning products for visitors (n=1) were also advised. Patients also provided recommendations for including a TV (n=2) and a microwave (n=1), as well as providing additional complimentary items (n=1).

Quality Improvements undertaken on foot of feedback: a wall mounted TV is being fitted along with the provision of a paper towel dispenser and cleaning supplies. The kettle which was broken during a week of the data collection period of this study was replaced immediately and a supply of Delph cups replacing those that were removed were also purchased.
The Evaluation of the Design & Dignity Programme was commissioned by the Irish Hospice Foundation through the All Ireland Institute of Hospice and Palliative Care and carried out by University College Cork. Published 2019.