ECG Memento© - An Innovative Approach to Adult Bereavement Care: A Pilot Study

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Research Team
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Rita Simmons RN, BSN, CCRN
Background

- Before ICUs, people died at home, and prepared for death, said good-bye and created memories.

- Most bereavement interventions for families are derived from the pediatric arena. Current theories now focus to assist people with establishing a continuing bond, so that bond is a connection with the deceased.

- One method of maintaining a bond is through transitional objects or object linking, yet there is no clinical–based research to support these interventions among adults.
Purpose/Aims

- The aim of this descriptive pilot study was to determine the family response to the ECG Memento®, a protected ECG strip mounted inside a note card as a transitional object for families who had experienced the loss of a loved one.

- A secondary aim was to evaluate the nurses’ perception of the grief process and their perception of the patients’ dying experience, moment of death and medical care.
Design

- Prospective, descriptive study used a post-test survey to describe the effect of the ECG Memento© on the anticipated bereavement of 50 patient/family dyads in the ICUs.

Inclusion criteria:

- Patients with Do Not Resuscitate (DNR), Comfort Care
- Palliative/Hospice orders or recently deceased

Instruments

- Satisfaction with Bereavement Experience Questionnaire (SBEQ)
- Quality Dying and Death (QODD) for ICU Nurses
- Charlson Co-Morbidity Index (CCI) for severity of illness
Family Recruitment Brochure

ECG MEMENTO® AN INNOVATIVE APPROACH TO ADULT BEREAVEMENT CARE: A DESCRIPTIVE RESEARCH STUDY #378-14

INTENSIVE CARE AND INTERMEDIATE CARE MONITORING UNITS

Background
At Long Beach Memorial, we strive to provide excellence across care at all stages of life. Most services at the hospital are geared towards making patients better so they can go home.

Our Bereavement Services are specially designed for families who have experienced the loss of a loved one at our hospital.

Our Innovative Approach
Cardiac Care nurses at Long Beach Memorial have initiated a research study to examine the effect of the ECG Memento® as a new bereavement tool to assist families during a time of loss.

“We believe this new and innovative tool will provide families with something tangible to hold onto that symbolizes the life force of their loved one who is in the final stage of life or has recently passed away.”

Nurses Care About Your Hospital Care and Experience!

THE ECG MEMENTO®

This heart beat is an image of your loved one’s life force.
May this ECG Memento bring comfort to you and your family.
The love felt never dies.

Who is Eligible to participate in the ECG Memento® Research Study?
- Any family member/or surrogate whose loved one is on comfort care/or receiving End-of-Life Care in the intensive care unit (ICU) or Intermediate Cardiac Care Units (ICCU).
- Families who have just lost a loved one in the ICU/ICCU.

What Does My Participation Include?
- Allow the study team to create and provide an ECG Memento with a heart tracing from your loved one.
- Participate in a follow up Bereavement Survey 5-6 weeks later about your hospital care.

We have 3 options on how to complete the survey:
- An online survey.
- Return a printed copy of the completed survey.
- Telephone interview.

Receive a $5 Starbucks gift card at completion of the Survey, as a token of appreciation.
Results

- 28/50 respondents returned the Satisfaction with Bereavement Experience Questionnaire (SBEQ).

- **Characteristics of the patients:**
  - 56% male; mean age 72
  - Mean-ICU stay 9.5 days; 54% > 7 days
  - CCI [prediction mortality ±5=85% risk of dying]
    - adjusted CCI mean (SD) 9.4 (3.8), range: 2-17

- **Comorbidities:** Cardiovascular 82%, Hematologic 62%, Infection/Sepsis 48%, respiratory failure 44%

- **Characteristics of the respondents:**
  - 89.3% female
  - 46.4% spouses
  - 46.4% children
  - Age range 60-69 years
The results showed that family members were highly satisfied in all 4 areas.
Results: How did families perceive the ECG Memento©

- 61% (28/50) of families felt the ECG Memento© was extremely/very helpful; 41% viewed it daily.
- 25% somewhat/slightly helpful.
- 14% never looked at it or found it helpful.
- 100% of nurses (27) found it well received by families during the final hours.
## Results: Nurse Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Valid N Answered</th>
<th>Total N= 38</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years worked in nursing, mean (SD)</td>
<td>N=27</td>
<td>16.1 years (10.8) range 1-35 yrs.</td>
</tr>
<tr>
<td>Years worked in Critical Care nursing, mean (SD)</td>
<td>N=27</td>
<td>11.3 years (10.8) range 0-34 yrs.</td>
</tr>
<tr>
<td>Nursing Education, highest degree, valid%:</td>
<td>N=27</td>
<td></td>
</tr>
<tr>
<td>Associate Degree</td>
<td></td>
<td>29.6% (8/27)</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td></td>
<td>63.0% (17/27)</td>
</tr>
<tr>
<td>Masters in Nursing</td>
<td></td>
<td>7.4% (2/27)</td>
</tr>
<tr>
<td>Training on End of Life Topics, valid%:</td>
<td>N=27</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
<td>40.7% (11/27)</td>
</tr>
<tr>
<td>Continuing Education in end of life topics for &lt;6 hrs.</td>
<td></td>
<td>40.7% (11/27)</td>
</tr>
<tr>
<td>Continuing Education in end of life topics for &gt;=6 hrs.</td>
<td></td>
<td>11.1% (3/27)</td>
</tr>
<tr>
<td>End of Life Nursing Education Consortium Project (ELNEC)</td>
<td></td>
<td>3.7% (1/27)</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>3/7% (1/27)</td>
</tr>
</tbody>
</table>
## Results: Nurses rating of Quality of Death Experience (QODD)

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>%Nurses Score =10</th>
<th>Mean (SD)</th>
<th>Median [IQR]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Having control of his/her pain</td>
<td>25</td>
<td>8.0%</td>
<td>7.6 (2.0)</td>
<td>8 [7-9]</td>
</tr>
<tr>
<td>2. Having control over what was going on around him/her</td>
<td>21</td>
<td>28.6%</td>
<td>7.2 (2.7)</td>
<td>7 [5-10]</td>
</tr>
<tr>
<td>3. Breathing comfortably</td>
<td>34</td>
<td>17.6%</td>
<td>7.4 (2.7)</td>
<td>8 [6-9]</td>
</tr>
<tr>
<td>4. Keeping his/her dignity and self-respect</td>
<td>35</td>
<td>48.6%</td>
<td>8.7 (2.1)</td>
<td>9 [8-10]</td>
</tr>
<tr>
<td>5. Spending time with his/her spouse/partner</td>
<td>25</td>
<td>52%</td>
<td>8.8 (1.9)</td>
<td>10 [9-10]</td>
</tr>
<tr>
<td>6. Spending time with his/her children</td>
<td>29</td>
<td>58.6%</td>
<td>9.0 (2.1)</td>
<td>10 [9-10]</td>
</tr>
<tr>
<td>7. Spending time with other family/friends</td>
<td>32</td>
<td>59.4%</td>
<td>9.3 (1.2)</td>
<td>10 [9-10]</td>
</tr>
<tr>
<td>8. Being touched/hugged by loved ones</td>
<td>33</td>
<td>60.6%</td>
<td>9.1 (1.3)</td>
<td>10 [8-10]</td>
</tr>
<tr>
<td>9. Having one or more visits from a religious or spiritual advisor</td>
<td>21</td>
<td>52.4%</td>
<td>9.1 (1.5)</td>
<td>10 [9-10]</td>
</tr>
<tr>
<td>10. Having a spiritual service or ceremony before his/her death</td>
<td>14</td>
<td>57.1%</td>
<td>9.0 (1.5)</td>
<td>10 [8-10]</td>
</tr>
<tr>
<td>RN QOD (0-10) scale</td>
<td>36</td>
<td>38.9%</td>
<td>8.5 (1.5)</td>
<td>8.9 [7.7-9.6]</td>
</tr>
<tr>
<td>RN QODs (1-100 point scale)</td>
<td></td>
<td></td>
<td>84.8 (15.4)</td>
<td>88.6 [76.9-96.3]</td>
</tr>
</tbody>
</table>
# Nurses rating of Medical Care for patients:

<table>
<thead>
<tr>
<th>Description</th>
<th>N Answered/ Applicable</th>
<th>% Nurses Score = 10</th>
<th>Mean (SD)</th>
<th>Median [IQR]</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Dying experience for patients regarding family, friends or staff who were present at moment of their death.</td>
<td>27</td>
<td>48.1%</td>
<td>8.6 (2.2)</td>
<td>9.0 [8-10]</td>
</tr>
<tr>
<td>b. Dying experience for patients who at the moment before their death were:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Awake</td>
<td>1</td>
<td>30%</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>• Asleep</td>
<td>0</td>
<td>0%</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>• In a coma or unconscious</td>
<td>20</td>
<td>45.0%</td>
<td>8.5 (2.4)</td>
<td>9.0 [7.5-10]</td>
</tr>
<tr>
<td>• Don’t know</td>
<td>4</td>
<td>25%</td>
<td>6.8 (2.4)</td>
<td>6.0 [5-8.5]</td>
</tr>
<tr>
<td>c. Dying experience for patients on mechanical ventilation during his/her stay in ICU.</td>
<td>24</td>
<td>25%</td>
<td>7.7 (2.7)</td>
<td>8.5 [7.9]</td>
</tr>
<tr>
<td>d. Dying experience for patients who they felt received the right amount of sedation during his/her stay in the ICU.</td>
<td>28</td>
<td>39.3%</td>
<td>8.7 (1.4)</td>
<td>9 [8-10]</td>
</tr>
</tbody>
</table>
Family Comments with implementation

- “That is great or wonderful”.
- “I’ve never heard of anything like this”.
- “We will treasure it later”.
- “That is cool”.

- “Present moment awareness”
- “Grateful gaze” or “Sampeah” greeting.
Nurse Feedback

- “It allowed me to provide the family with a valuable/small memory and comfort in their time of despair”.

- Nice remembrance and sense of closure. Made providing bereavement package much easier.

- “Gave me a connection with the family and patient. And a sense of closure.

- “It did help me to know that we could give something to the family, that they can bring home and treasure. It is something that I would appreciate myself.”
Conclusions

➢ A majority, (86%) of grieving families found the ECG Memento© provides a tangible link to assist their mourning process, yet larger studies are needed.

➢ 100% nurses described the ECG Memento© as well received, however, only 40% felt patient symptoms were controlled.

➢ Study findings identified a gap in our EOL/Bereavement care, creating an opportunity for us to develop a more robust approach to Bereavement care.
This heart beat tracing provides a tangible connection to the past of their loved one, capturing the image of their life force, to temporally aid in the transition for the family as they continue their life without their loved one.
Next Steps…

- Form a small interdisciplinary task force in collaboration with Pastoral Services, to develop a more robust ICU bereavement program.
- Implementation in CCU/ICCU as “standard work” for bereavement care.
- Develop methodology for continuous evaluation of the positive impact on family/nurse outcomes.
- Outline a blueprint for staff education on EOL Care and how to provide support to bereaved families.
- Manuscript in review.

We would like to thank the MemorialCare Medical Foundation for funding this project # 801001-R937814
Questions? Comments?

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