

-----TUESDAY, MAY 17-----

## **PALLIATIVE CARE**

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## **INTERVENTIONS**

Cook D, Swinton M, Toledo F, Clarke F, Rose T, Hand-Breckenridge T, Boyle A, Woods A, Zytaruk N, Heels-Ansdell D, Sheppard R. **Personalizing death in the intensive care unit: The 3 Wishes Project.** *Annals of Internal Medicine.* 2015;163:271-279.

### **Summary**

End of life care in the technology-centered ICU environment can be dehumanizing for patients, stressful for families, and induce clinician burnout. The authors performed an uncontrolled “3 Wishes” intervention study in a single ICU. Three wishes designed to honor a patient with a probability of ICU death >95% were generated by 40 patients, 50 family members, 120 clinicians, and study staff. Most wishes came from clinicians (52%) with few from patients themselves (7%). 98% of wishes were successfully implemented, half before death and most with little expense. Wishes could be categorized as: humanizing the environment, personal tributes, family reconnections, rituals and observances, and “paying it forward” (e.g., organ donation, etc.). Quality of End-of-Life Care-10 scale scores were favorable at 3-month family interviews. Qualitative analysis of interviews identified three central domains reflecting how the 3 Wishes intervention personalized care: dignifying the patient, giving the family a voice, and fostering clinician compassion. Touching and tear-inducing participant quotes vividly illustrated how the intervention elicited self-awareness, reflection, conversation, listening, remembrance, celebration, and realization. As a bonus, the accompanying editorial by Hansen-Flaaschen is wonderful.

### **Comments**

1. Eliciting and then implementing 3 simple wishes for dying ICU patients resulted in a more humanistic experience for patients, families, and clinicians alike.
2. This is a remarkably compassionate work that convincingly demonstrates how relatively simple (but exceedingly creative) interventions and study designs can nonetheless be among the most powerful and persuasive research approaches when applied thoughtfully.
3. The authors’ highly successful strategy of emphasizing narrative over statistical analysis regarding intervention impact is worth noting.
4. This is a great example of a palliative care intervention led by generalists (i.e., ICU team) in contrast to specialist-led palliative care.
5. The 3 Wishes intervention has seemingly few logistical barriers to broader implementation across care settings, though further study among other providers and populations would be helpful.

Curtis JR, Treece PD, Nielsen EL, Gold J, Ciechanowski PS, Shannon SE, Khandelwal N, Young JP, Engelberg RA. **Randomized trial of communication facilitators to reduce family distress and intensity of end-of-life care.** *Am J Respir Crit Care Med.* 2016;193:154-162.

### **Summary**

There is extensive documentation about suboptimal state of communication quality in ICUs and its negative impact on family outcomes. In an effort to move beyond specialist-driven interventions (e.g., palliative care, ethics consultants), the authors conducted a two-center RCT in an ICU setting comparing a “communication facilitator” to usual care among family members of patients with >30% expected hospital mortality. The communication facilitator’s role was to align clinicians with family members’ needs and communication characteristics through informal and formal (i.e., family meetings) interactions. Facilitators also offered support tailored to a family member’s specific attachment style. 156 family

members were randomized to control and 150 to the intervention; 131 (43%) were lost to follow up by 6 months. Primary outcomes of depression, anxiety, and post-traumatic stress disorder (PTSD) symptoms did not differ at 3- and 6-month follow up, with the exception of 6-month depression symptoms (2.3-unit group-based difference in PHQ-9 score;  $p < 0.017$ ). Mortality rates did not differ statistically by group. The intervention was associated with a ~3-week reduction in both ICU and hospital length of stay ( $p = 0.001$ ) among decedents, not survivors, a reporting strategy that while uncommon in RCTs has some precedence in a palliative care setting. The accompanying Kentish-Barnes/Azoulay editorial is a nice addition.

### Comments

1. A proactive communication facilitator intervention did not decrease family members' 6-month psychological distress symptoms to a magnitude of minimal clinical importance, though it was associated with reduced length of stay among decedents.
2. Or viewed differently, trained non-physician providers external to the ICU team substantially reduced the intensity of care at the end of life among a very broad group of patients—without worsening family members' distress.
3. Limitations include a high dropout rate and the potential difficulties of intervention scaling.
4. As with other trials in the field of ICU-based palliative care, the results should be considered within the intense emotional context that makes their execution—particularly long-term follow up after the recent death of a loved one—challenging.

Braus N, Campbell TC, Kwekkeboom KL, Ferguson S, Harvey C, Krupp AE, Lohmeier T, Repplinger MD, Westergaard RP, Jacobs EA, Roberts KF, Ehlenbach WJ. **Prospective study of a proactive palliative care rounding intervention in a medical ICU.** *Intensive Care Med.* 2016;42:54-62.

### Summary

This single center before/after design study examined the impact of an intervention in which a palliative care clinician interacted with the ICU team on daily rounds. The intervention focused on identifying patients at high risk of mortality, morbidity, and unmet palliative care needs using 'palliative care triggers'. The palliative care specialist, generally a nurse, would make suggestions about addressing needs and recommend timely family meetings. 100 and 103 patients were enrolled in the before and after, respectively. Formal palliative care consultation was provided to ~20% of all patients. ICU length of stay (LOS) did not differ significantly between the two groups overall, though intervention group decedents has a 19% reduction in comparison to before patients. Hospital LOS was 26% shorter in the intervention group. Although family meeting conduct within 3 days was more common in the after group (59% vs. 35%), 56% of all patients had no family meeting documented. PTSD symptoms were not statistically different by group, though were numerically less in the intervention group (9% vs. 21%). Mortality, family depressive symptoms, satisfaction, and quality of dying and death did not differ between groups.

### Comments

1. A novel integrative palliative care intervention was associated with more timely family meetings and lower hospital LOS.
2. The intervention was triggered by simple clinical criteria and conducted primarily by a non-physician provider.
3. The hospital LOS reduction among decedents associated with this less intensive intervention are comparable to more complex, structured ICU-based palliative care interventions.
4. This study shows the importance of crafting interventions that complement hospital culture and clinician workflow.
5. Limitations are the relatively small sample size, the single center design, the before/after methodology, and the potential difficulty scaling.

### PROCESSES OF CARE

Hart JL, Harhay MO, Gabler NB, Ratcliffe SJ, Quill CM, Halpern SD. **Variability among US intensive care units in managing the care of patients admitted with preexisting limits on life-sustaining therapies.** *JAMA Internal Medicine.* 2015;175:1019-1026.

## Summary

To explore differences in end of life care, these authors conducted a retrospective cohort study of 277,693 ICU patient visits during a 7-year time period in the Project IMPACT database. A total of 4.8% of patients, on average very elderly (median 78 years) and dependent (60% with care needs), were admitted to 141 ICUs with previously established life sustaining treatment limitations (77% of these were “do not resuscitate”). The proportion of patients admitted with limitations ranged by ICU from <1% to 21% (median 4%). Most with treatment limitations (65%) survived the ICU stay. Among survivors, 18% experienced reversals of limitations in ICUs, while 11% had new limits added. Frequency ranges for care escalation among sites were broad for cardiopulmonary resuscitation (median 38%; range 4-92%) and new forms of life support (median 30%; range 6-84%). The editorial by Barnato and Dzung is an extremely thoughtful companion piece.

## Comments

1. There is substantial and concerning hospital-based variability in how often aggressive measures are provided to patients with treatment limitations.
2. Site characteristics couldn't explain these findings, suggesting that differences in clinician-level practice approaches, patient- or family-level factors, or ICU cultural norms (including the quality of palliative care / ICU integration) might be at play.
3. Extending point 2, the reader should also note in this section the work of Dzung *et al.* re: institutional culture and DNARs; Choi *et al.* re: chaplain use.
4. A few grains of interpretational salt with this very novel series of analyses: what are appropriate frequencies of limitation reversal? To what extent were reversals informed with good quality shared decision making? Did patients differ in unmeasured (but important) ways by site? Is 2016 practice different than that studied here (2001-2008)?
5. Despite these limitations, this study provides compelling evidence that the task of broadly improving the quality of ICU-based palliative care delivery remains an important intervention target.

## HOSPITAL CULTURE

Dzung E, Colaianni A, Roland M, et al. **Influence of institutional culture and policies on do-not-resuscitate (DNR) decision making at the end of life.** *JAMA Internal Medicine.* 2015;175:812-819.

## Summary

It is unclear how institutional culture may shape physicians' approaches to DNR decision making at the end of life. Cultures that emphasize autonomy could oversimplify decision making, leaving patients unsupported. Yet cultures that emphasize beneficence could lead to physician-centered decision making that is biased against certain patient groups. To address these issues, the authors conducted qualitative analyses of 58 semi-structured, open-ended interviews of internal medicine physicians from 4 geographically diverse academic centers in the U.S. and U.K. Physicians were purposively sampled by age, experience, and specialty. The 4 sites were also purposively sampled by policy and culture, with two sites reflecting prioritization of patient autonomy in decision making (located in Northeast and Mid-Atlantic U.S.) and two prioritizing patient best interest (Pacific Northwest U.S., Eastern England U.K.). Physicians were asked about their understanding of hospital culture and policy regarding DNR orders, as well as their own beliefs and attitudes about this practice. Physicians in autonomy-prioritizing hospitals generally endorsed the primacy of this ideal. However, in best-interest hospitals, physicians had broader interpretations of their capacity to apply principles of both autonomy and best interest in decision making. Experienced physicians across all sites and trainees in best-interest sites were comfortable engaging in best-interest decision making when resuscitation was unlikely to be effective. In contrast, trainees in autonomy-focused reported that they were obligated to offer a choice of resuscitation in cases of apparent futility.

## Comments

1. Hospital policy and culture may influence physicians' approaches in DNR decision making.
2. While experienced physicians' approach to perceived futility did not differ by the type of hospital culture in which they practiced, trainees in similar situations at autonomy-focused hospitals were

uncomfortable using their personal judgment.

3. Given how common DNR discussions are in hospitals—and how often trainees conduct them—these novel analyses suggest that a new medical intervention target has now been defined.

## **SPIRITUAL SUPPORT**

Choi PJ, Curlin FA, Cox CE. **"The Patient is Dying, Please Call the Chaplain": The Activities of Chaplains in One Medical Center's Intensive Care Units.** *J Pain Symptom Manage.* 2015;50:501-506.

### **Summary**

Patients and family members highly value spirituality, faith, and religion; particularly so at times of stress such as that entailed by ICU care. While spiritual support is a palliative care quality metric, little has been published on the epidemiology of chaplain care in an ICU setting. To address this deficiency, the authors conducted a retrospective cohort study at a single academic medical center. The EHR was used to identify all adult ICU patients admitted during a 6-month period who had at least one encounter note signed by a member of the hospital chaplaincy staff. Among 4,169 admissions to study ICUs, 248 (5.9%) patients/families received an initial chaplain visit and 133 (54%) had at least one subsequent visit. Chaplain encounters were most common in the medical ICU (13% of all admissions) and least common in the cardiothoracic ICU (2% of admissions). 79% of patients who received chaplain visits died. The median time from ICU admission to first chaplain visit was 2 days, whereas the median time between the first chaplain visit and death was 1 day. Many initial encounters occurred after patient death. Only 4% of chaplain visits were initiated by physicians. Chaplains documented communication with ICU physicians in only 6% of encounters (though there is a prompt for data field in the EHR chaplain note template).

### **Comments**

1. This study suggests that the spiritual needs of patients and families may be poorly addressed at some centers.
2. Clinicians may conceptualize chaplains' role as largely providing support after death, rather than proactively supporting families' spiritual needs throughout ICU care.
3. Chaplain encounters were uncommon even though the study medical center has an active hospital chaplaincy training program and a prominent Divinity School.
4. Limitations include the retrospective single center design and authors' inability to determine how frequently families received spiritual support from a local faith leader.
5. Note also the topically-related work of Ernecoff *et al.* in the **Other Articles of Interest** section.

## **OTHER ARTICLES OF INTEREST**

### **INTERVENTION STUDIES**

El-Jawahri A, Mitchell SL, Paasche-Orlow MK, et al. **A Randomized Controlled Trial of a CPR and Intubation Video Decision Support Tool for Hospitalized Patients.** *J Gen Intern Med.* 2015;30:1071-1080. PMC4510229

Campbell ML, Yarandi HN, Mendez M. **A Two-Group Trial of a Terminal Ventilator Withdrawal Algorithm: Pilot Testing.** *J Palliat Med.* 2015;18:781-785.

Jenko M, Adams JA, Johnson CM, et al. **Facilitating Palliative Care Referrals in the Intensive Care Unit: A Pilot Project.** *Dimens Crit Care Nurs.* 2015;34:329-339.

### **OBSERVATIONAL STUDIES**

Kentish-Barnes N, Chaize M, Seegers V, et al. **Complicated grief after death of a relative in the intensive care unit.** *Eur Respir J.* 2015;45:1341-1352.

McKenzie MS, Auriemma CL, Olenik J, et al. **An Observational Study of Decision Making by Medical Intensivists.** *Crit Care Med.* 2015;43:1660-1668.

Ernecoff NC, Curlin FA, Buddadhumaruk P, White DB. **Health Care Professionals' Responses to Religious or Spiritual Statements by Surrogate Decision Makers During Goals-of-Care Discussions.** *JAMA Intern Med.* 2015;175:1662-1669.

Creutzfeldt CJ, Engelberg RA, Healey L, et al. **Palliative care needs in the neuro-ICU.** *Crit Care Med.* 2015;43:1677-1684.

Stotts NA, Arai SR, Cooper BA, et al. **Predictors of thirst in intensive care unit patients.** *J Pain Symptom Manage.* 2015;49:530-538. PMC4324384

Lee JJ, Long AC, Curtis JR, Engelberg RA. **The Influence of Race/Ethnicity and Education on Family Ratings of the Quality of Dying in the ICU.** *J Pain Symptom Manage.* 2016;51:9-16.

Lautrette A, Garrouste-Orgeas M, Bertrand PM, et al. **Respective impact of no escalation of treatment, withholding and withdrawal of life-sustaining treatment on ICU patients' prognosis.** *Intensive Care Med.* 2015;41:1763-1772.

Wright AA, Keating NL, Ayanian JZ, et al. **Family perspectives on aggressive cancer care near the end of life.** *JAMA.* 2016;315:284-292.

Chiarchiaro J, Schuster RA, Ernecoff NC, et al. **Developing a simulation to study conflict in intensive care units.** *Ann Am Thorac Soc.* 2015;12:526-532.

Colman R, Singer LG, Barua R, Downar J. **Outcomes of lung transplant candidates referred for co-management by palliative care: A retrospective case series.** *Palliat Med.* 2015;29:429-435.

Nunez ER, Schenker Y, Joel ID, et al. **Acutely Bereaved Surrogates' Stories About the Decision to Limit Life Support in the ICU.** *Crit Care Med.* 2015;43:2387-2393. PMC4607641

Mitchell IA, Schuster AL, Lynch T, et al. **Why don't end-of-life conversations go viral? A review of videos on YouTube.** *BMJ supportive & palliative care.* 2015. 10.1136/bmjspcare-2014-000805

Miller SJ, Desai N, Pattison N, et al. **Quality of transition to end-of-life care for cancer patients in the intensive care unit.** *Annals of intensive care.* 2015;5:59.

Long AC, Muni S, Treece PD, et al. **Time to Death after Terminal Withdrawal of Mechanical Ventilation: Specific Respiratory and Physiologic Parameters May Inform Physician Predictions.** *J Palliat Med.* 2015;18:1040-1047.

Ganzini L, Rakoski A, Cohn S, Mularski RA. **Family members' views on the benefits of harp music vigils for terminally-ill or dying loved ones.** *Palliat Support Care.* 2015;13:41-44.

Heyland DK, Ilan R, Jiang X, et al. **The prevalence of medical error related to end-of-life communication in Canadian hospitals: results of a multicentre observational study.** *BMJ Qual Saf.* 2015.

## SYSTEMATIC REVIEWS

Khandelwal N, Kross EK, Engelberg RA, et al. **Estimating the effect of palliative care interventions and advance care planning on ICU utilization: a systematic review.** *Crit Care Med.* 2015;43:1102-1111. 4499326

Mark NM, Rayner SG, Lee NJ, Curtis JR. **Global variability in withholding and withdrawal of life-sustaining treatment in the intensive care unit: a systematic review.** *Intensive Care Med.* 2015;41:1572-1585.

Hinkle LJ, Bosslet GT, Torke AM. **Factors Associated With Family Satisfaction With End-of-Life Care in the ICU: A Systematic Review.** *Chest.* 2015;147:82-93.

#### **EDITORIALS / THOUGHT PIECES**

Angus DC, Truog RD. **Toward better ICU use at the end of life.** *JAMA.* 2016;315:255-256.

Cox CE, Curtis JR. **Using Technology to Create a More Humanistic Approach to Integrating Palliative Care into the Intensive Care Unit.** *Am J Respir Crit Care Med.* 2016;193:242-250.

Halpern SD. **Toward Evidence-Based End-of-Life Care.** *N Engl J Med.* 2015;373:2001-2003.

Hansen-Flaschen J. **A Practical Approach to Humanizing Care for Patients Who Are Expected to Die in an Intensive Care Unit.** *Annals of Internal Medicine.* 2015;163:318-319.