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"Adequacy of Health Care Advance Directives in Patients Admitted to the Intensive Care Unit"

Introduction: Advance directives (AD) allow patients to state their wishes regarding medical care when unable to do so by using a living will and/or power of attorney (POA). A recent study concluded that patients who have a Do Not Resuscitate (DNR) status and are admitted to the Intensive Care Unit (ICU) have a higher mortality rate. Research indicates that care received by patients in the ICU does not always align with their wishes; one study found that 11% of healthcare providers use chest compressions if a DNR patient sustains cardiopulmonary arrest. These results indicated that in-depth analysis of the frequency, adequacy, and efficacy of ICU admission for DNR patients could potentially improve the quality and influence of ADs.

The main objectives of this study were to determine the number of patients admitted to the ICU with an AD and if they outlined specific wishes. We also observed life support measures given with regards to the AD, and if having an AD limits the number of futile procedures that the patients receive.

Methods: A retrospective chart review of 1134 patients admitted to the University Medical Center of New Orleans (UMCNO) was completed. Inclusion criteria were patients age 18 or older and treated in the UMCNO ICU between August 2015 and March 2019. We identified patients with an AD, POA, or both, demographic information, and their specific wishes in regard to life support measures. All statistical analyses were carried out in SAS 9.4. Fisher's exact and Pearson chi-square tests were used to assess the associations between categorical variables. We assessed the associations between presence of ADs and potential sociodemographic factors such as gender and race using logistic regression and calculated odds ratios (OR).

Results: Our study population consisted of 1134 patients, 697 of those males. There were 68% Black, 25% White, 4% Hispanic, <1% Asian, 3 <1% American Indian, 2.7% other, and 1.6%declined. At time of admission to the ICU, 383 had an AD and 90 had a POA; only 24 AD and 46 POA stated specific wishes. Out of 383 patients with an AD, 47 received care aligned with their wishes and 2 did not. Comparing ADs among males vs. females, the odds of having an AD were 0.742 with a CI 0.584 to 1.454, and blacks vs. whites had the odds of 0.743 with a Cl of 0.451 to 1.224. Life support measures were given to 153 patients with an AD and 188 out of 750 without an AD. Chi-squared analysis showed that the chi-square value was 26.6859; p-value was 2.39392e-7.

Conclusion: Out of the 1134 patients admitted to the ICU, 383 had an AD and 90 had a POA while only 24 AD and 46 POA stated exact wants. Almost all of the patients that required a more intense level of care received exactly as desired, with 40 ADs followed correctly. It was found that blacks were more likely to have an AD than whites, males were less likely to have an AD than females, and it was found that there is an association between having an AD and the likelihood of receiving life support measures; if a patient has an AD, they are more likely to not receive life support measures.