# Accepted Manuscript


Advance Directive Status in the Greater Than 65-Year-Old Emergency Department Population

Kelsey Grace, Michelle Carson MD, August Grace, David Betten MD

DOI: 10.15404/msrj/02.2018.0152

Reference: MSRJ

To appear in: *Medical Student Research Journal*

Received Date: 25 June 2017

Revised Date: 20 January 2018

Accepted Date: 22 January 2018

Please cite this article as: Grace, K., Carson, M., Grace, A. et al. Advance Directive Status in the Greater Than 65-Year-Old Emergency Department Population, *Medical Student Research Journal* (2018).

# Advance Directive Status in the Greater Than 65-Year-Old Emergency Department Population

Kelsey Grace, Michelle Carson MD, August Grace, David Betten MD



**Corresponding author:**

Kelsey Grace

gracekel@msu.edu

# Advance Directive Status in the Greater Than 65-Year-Old Emergency Department Population

Researchers: Kelsey Grace, Michelle Carson MD, August Grace, David Betten MD

Department and Institution: Sparrow Hospital Department of Emergency Medicine

Objective: To assess the status of Advance Directives of elderly patients who present to the Emergency Department including their knowledge of the topic, what documents are in place, and how they were produced.

Abstract: Advance directives are an important aspect of medical care for the elderly given the uncertainty of health and longevity. In their absence, family and physicians are often left with questions regarding what patient's wishes would entail if they become incapacitated. Individuals >65 years presenting to the ED were surveyed during the months of June-September 2015 by study investigators regarding their knowledge and utilization of advance directives. 168 patient surveys were completed with a mean age of 77.2 (SD ±7.45 years; range 65-97). Of those, 91% were either "very familiar" or "somewhat familiar" with Advance Directives with 76.1% having some form of documented advance directives in place. Of those who felt family were aware of their wishes, 84.9% had assigned a Medical Durable Power of Attorney. Only a small minority had developed advance directives with their physician's assistance (6.8%). The majority of patients stated that they had prepared their end of life documents with a Lawyer (72%). Only 35.8% of patients sampled had even mentioned the topic or their specific wishes with their primary care or ED physician. Overall rates of formalized advance directives would appear to be highly utilized in this patient population with little variation based upon respondents' self-assessment of physical health. A surprising finding was how minor of a role physicians appear to play in the development of ADs. This provides an opportunity to enhance the physician-patient relationship and improve patient education regarding end of care discussions. Physicians should take initiative and begin having these conversations, in order to ensure that patients are making educated decisions and that proper documentation is occurring.

Introduction: End of life decisions are a difficult topic for many patients to think about, but they are becoming increasingly more important as modern medicine advances. These decisions are expressed to physicians via Advance Directive (AD) documents. Without these documents, treatment decisions for incapacitated patients are left to family members and the health care team. This could potentially result in certain types of medical care being performed against the patient's wishes. To combat lack of knowledge on the topic of ADs, a federal law called the Patient Self Determination Act was passed in 1991. This law states that health care institutions are required to provide patients with information about end of life decisions, document their decisions properly, and not discriminate against patients for whether they have ADs in place (1). Despite this law being passed, rates of ADs in both primary care practice and the Emergency Department (ED) are exceedingly low (2,3). In addition, the amount of research that has been done on this topic, specifically in the Emergency Department (ED), is very limited (5,6). In this

study, we sought to establish the rates in which three types of ADs were previously established by patients over 65 years of age who presented to the ED: Medical Durable Power of Attorney, Living Will, and Do Not Resuscitate orders. We believe that finding correlations between certain patient characteristics and the presence of these documents could help uncover reasoning behind why rates are so low. Previous studies over a decade old have also shown that very few primary care physicians are directly involved in establishing advance directives with their older patients (5,6). One study specifically found that only 5% of their surveyed population had discussed the topic of ADs with their doctor (6). Research has also shown that patients would like their physician to be the one to initiate the conversation (7,8). We wanted to determine if these discoveries have resulted in any changes in the conversation between physician and patient or the utilization of ADs in those >65 years of age.

Methods: *Design and Setting*: A cross-sectional survey was performed of a convenience sample of patients over the age of 65 that presented to the ED at Sparrow Hospital, a large community based academic hospital which sees over 100,000 ED patients per year. Patients were sampled during the months of July, August, and September of 2015. The population included patients over the age of 65 who could answer questions. Patients who were unresponsive, incompetent or were suffering from immediate, life threatening terminal illnesses were not included in the sample. Patients were surveyed during a convenience sample performed by a medical student and a resident researcher during respective morning and afternoon shifts. A total of 168 patients met inclusion criteria for this study. The Institutional Review Board of Sparrow Hospital approved study.

*Survey:* The surveys were either given directly to the patient, their family (if they were knowledgeable of the patient's wishes and wished to participate), or read to them by the participating researcher. All participants were informed that the survey was optional and it would not affect their plan of care. Verbal and written consent was received prior to beginning the questionnaire, and the survey was provided in English. The presence of advance directives that were included in the study questions were Medical Durable Power of Attorney, defined as written documentation of an individual they appointed to make medical treatment decisions and related personal care decisions when they can no longer make the decisions for themselves, Living Will, defined as a written document informing doctors, family members and others what type of medical care they wish to receive should they become terminally ill or permanently unconscious, and Do Not Resuscitate (DNR) Order, defined as a written document that states wishes to not be resuscitated should they go into cardiac or respiratory arrest. Additional questions in the survey included: age, gender, ethnicity, number of hospital admissions in past year, insurance type, primary care physician, frequency of visits to primary care doctor, understanding of ADs (very familiar, somewhat, not at all), how well family members know the patient's wishes (very knowledgeable, somewhat, very limited), presence of a Medical Durable Power of Attorney, presence of Living Will, presence of Do Not Resuscitate Order, if ADs were discussed with their Primary Care Physician (PCP), how ADs were produced (with a lawyer, on

their own with a premade form, on their own written in a free text, or established with their PCP), why ADs are not present, and if they would like additional information on ADs.

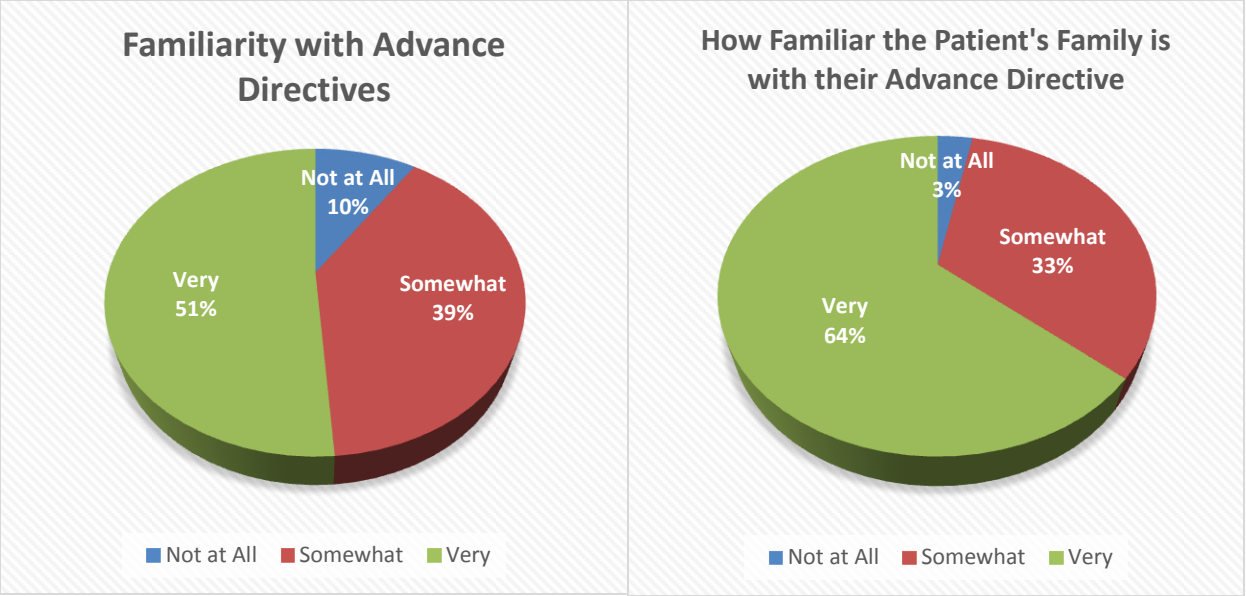
Results: Demographics of the population sampled are shown below, with the majority of patients being Caucasian and Female (Figure 1). The mean age of the population was 77.2 with a range of 65-97 years, and 56% of the population being female. Ethnicity was predominantly Caucasian, followed by African American, Hispanic, and "other".

Figure 1: Ethnicity and Sex of All Patients Surveyed.

| | | |
|---|---|---|
| **Sex** | Male | 42% |
| | Female | 58% |
| **Ethnicity of Patients** | Caucasian | 92% |
| | African American | 3% |
| | Hispanic | 3% |
| | Indian | 1% |
| | Native American | 1% |

*Familiarity with Advance Directives*: The overwhelming majority of patients sampled were at least somewhat familiar with ADs, with 91% being either "very familiar" (51%) or "somewhat familiar" (40%). Only 9% were "unfamiliar". Of note, a large number of patients did not know what the words "Advance Directives" themselves meant, but once words like "Medical Power of Attorney" or "DNR" were mentioned, they quickly expressed familiarity of "Advance Directives". These patient's answers were recorded after the explanation. Of the patients that answered either "very familiar" or "somewhat familiar", 76.1% of these had some form of documented AD in place (Durable Power of Medical Attorney, Living Willing and/or DNR status).

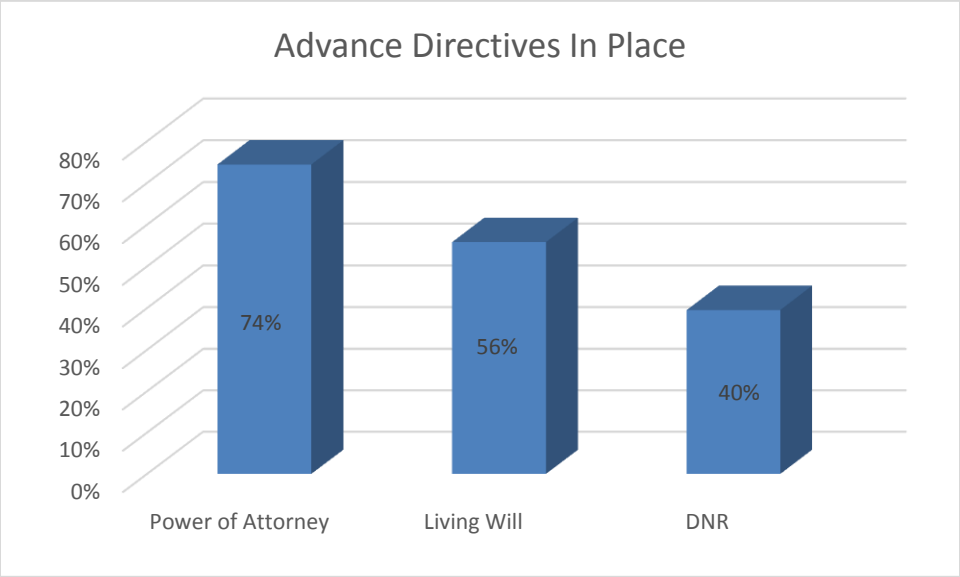
Figure 2: Patient familiarity with ADs and family familiarity with the patients AD.




*Familial Awareness of Wishes*: Only about 64% of patients felt that their family was very familiar with their wishes for end of life care. Of those who felt family were aware of their wishes, 84.9% had assigned a Medical Durable Power of Attorney.

*Overall Advance Directive Status:* In our population, 74.4% of patients had a documented Durable Power of Attorney, 55.8% of patients had a documented living will, and 39.5% had documented DNR orders. Overall, 77% had at least one of these options in place. Of the patient's that didn't have any, the most common reason given was "I don't want to think about dying", followed by "I will worry about that when I am older", and "I don't know enough about it".

Figure 3: Advance Directive Status in Overall ED Population



*Impact of Health on Advance Directives:* Those who considered themselves to be in "excellent, very good, or good" health were equally as likely to have some form of advance directives as those who considered themselves to have "fair or poor" health (74.1% vs 80.40%; p=0.89). Similarly, the number of previous hospitalizations within the past 12 months (those with ≥3 or <3) did not result in differences in rates of ADs (75.8% vs 77.8%; p=0.99).

Figure 4: Patients Perspective of Their Own Health vs. Advance Directive Status

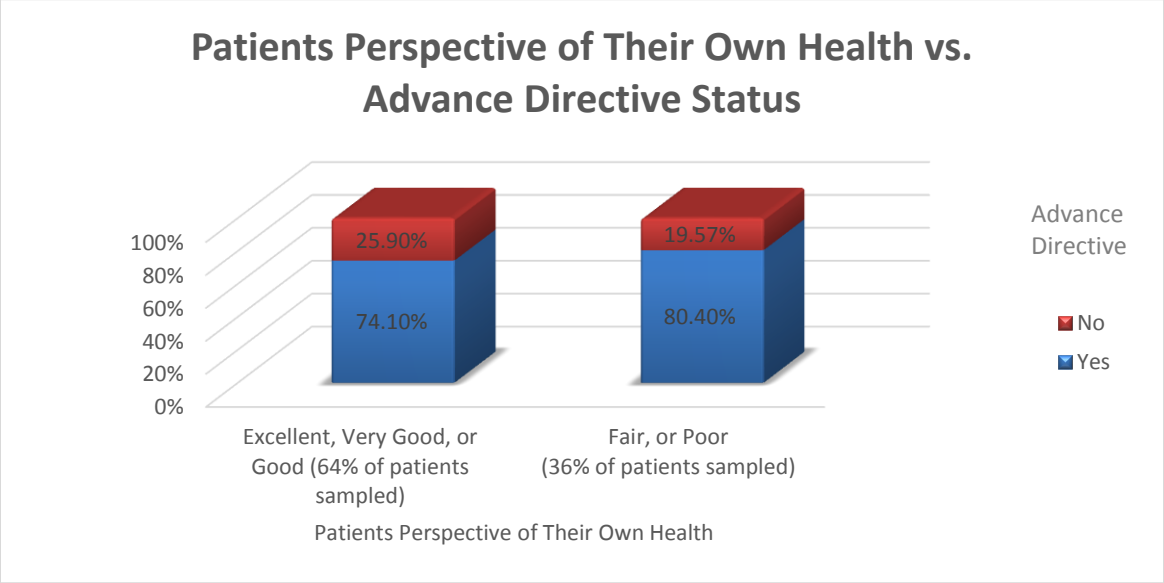
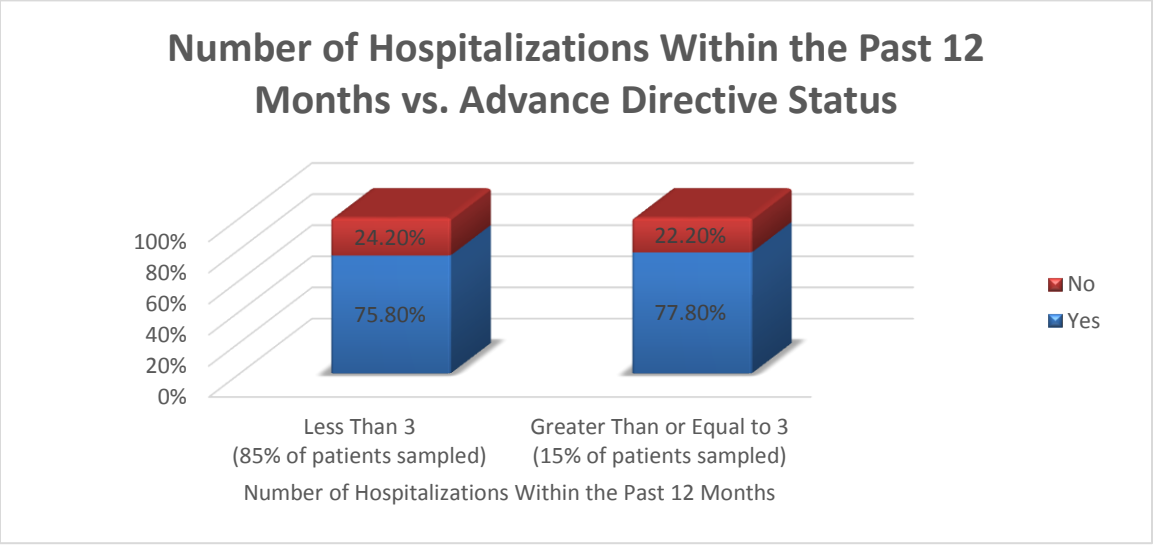
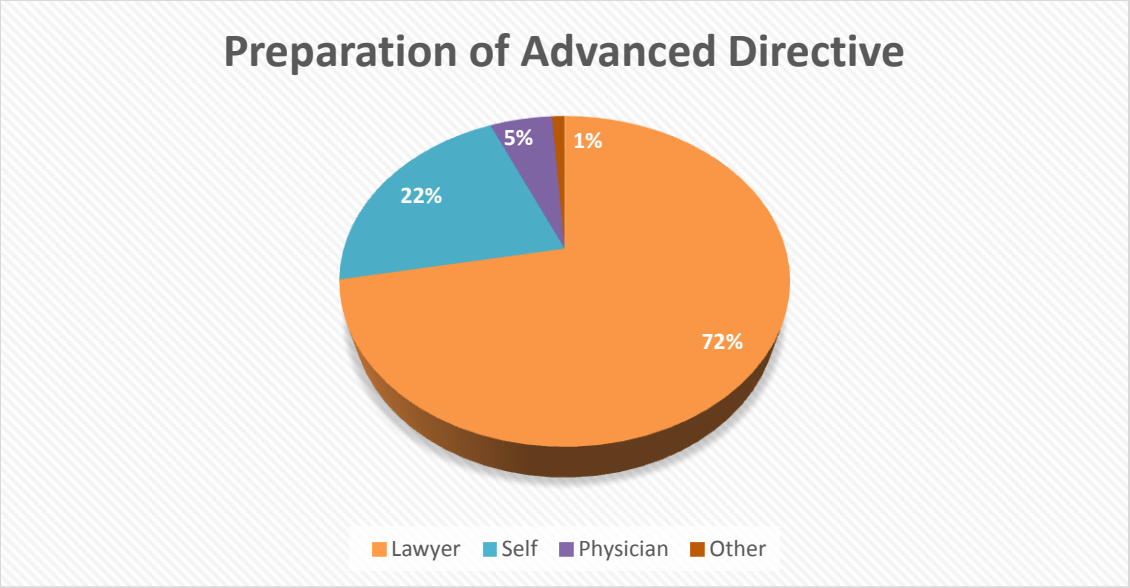



Figure 5: Number of Hospitalizations Within the Past 12 Months vs. Advance Directive Status




*Preparation of Advance Directives:* The majority of patients stated that they had prepared their End of Life documents with a Lawyer (72%), whereas only 22% had made them with a physician, 5% on their own, and 1% other (Figure 1).

Figure 6: Preparation of Advance Directive




*Physician Involvement in End of Life Decisions:* Most surprisingly, regardless of knowledge or status of ADs, only 35.8% of patients sampled had discussed the topic or their specific wishes with their primary care or ED physician.

Discussion: Overall, our study showed that a large number of patients in our convenience sample at this single institution were aware of ADs in order to express their wishes about end of life decisions. Our sample had a higher utilization of advance directives than that found by O'Sullivan et al in a review of 6 studies from 1996-2012 that found in patients >65 years old rates of AD completion varied between 21% and 46% (2). This is substantially less than the 77% of ED patients in our population who had at least one AD in place, suggesting that more people are beginning to utilize these documents. Also, contrary to previous studies, this study found that patients with poor physical health and more hospitalizations were no more likely to have ADs in place than their healthier peers (2,3).

A surprising finding of our study was how minor of a role physicians appear to play in the development of ADs. In 1991 Emanuel et. al. determined only 5% of their survey population had discussed the topic of ADs with their physician (6). Today, our data shows that this number has increased to 35.8%. Although progress has been made, we still have a long way to go. A very important aspect in helping to build the physician-patient relationship should be a conversation about end of life wishes. Studies have shown that patients prefer physicians to initiate the conversation, but physicians cite not wanting to make the patient feel uncomfortable and thus wait for them to raise the topic (7). Regardless of the reasons, these important conversations are occurring much less frequently than they should. This brings up a great opportunity for physicians to take initiative and begin having these conversations, in order to ensure that patients are making educated decisions and that proper documentation is occurring.

*Limitations*: This study represents a convenience sample with the accompanied possible bias that not all patients over 65 years of age presenting to the ED were included. Further, because the survey was not offered in other languages, and the majority of survey responders were Caucasian, it may not have been representative of the true ethnic diversity of the ED. Individuals may have been inaccurate in their answers, wanting to appear that they were more aware of ADs then they truly were as no proof of this AD documentation was required.

*Conclusion:* Our study has uncovered some promising Advancements in the utilization of ADs. Far more patients are becoming familiar with these documents and putting them in place to ease the burden on their families. However, a surprising number of patients have not created ADs with their physician, nor have they involved their physician in the decision, or even informed them that such documents are in place. This exposes some new potential areas for patient and physician education. Patients should be encouraged to let all providers know about these wishes, and physicians should be asking these questions to get the conversation started.

1. Koch, K. Patient Self-Determination Act. J Fla Med Assoc. 1992. 79:240–243.

2. O'Sullivan, R., Malio, K., Angeles, R., Agarwal, G. Advance directives: survey of primary care patients. Can Fam Physicians. 2015. 61(4):353-356.

3. Oulton, J., Rhodes, S., Howe, C., et al. Advanced directives for older adults in the emergency department: a systematic review. J Pallait Med. 2015. 18(6):500-505.

4. Llovera, I., Ward, M., Ryan, J., et al. Why don't emergency department patients have Advanced directives? Academic Emergency Medicine. 1999. 6(10):1054-1060.

5. Ishihara KK, Wrenn K, Wright SW, Socha CM, Cross M. Advance directives in the emergency department: too few, too late. Acad Emerg Med. 1996. 3:50–53.

6. Emanuel LL, Barry MJ, Stoeckle JD, Ettelson LM, Emanuel EJ. Advance directives for medical care—a case for greater use. New Engl J Med. 1991;324(13):889–895.

7. Spoelhof GD, Elliott B. Implementing Advance directives in office practice. Am Fam Physician. 2012. 85(5):461–466.

8. Edinger W, Smucker DR. Outpatients' attitudes regarding Advance directives. J Fam Pract. 1992. 35(6):650–653.

9. Tierney WM, Dexter PR, Gramelspacher GP, Perkins AJ, Zhou XH, Wolinsky FD. The effect of discussions about Advance directives on patients' satisfaction with primary care. J Gen Intern Med. 2001;16(1):32–40. (Patient satisfaction with physicians increases if directives are discussed).