

Prevalence of use of advance directives, health care proxy, legal guardian, and living will in 512 patients hospitalized in a cardiac care unit/intensive care unit in 2 community hospitals

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Abstract

Introduction: The prevalence of use of any advance directives was 26% in 112 patients hospitalized in a cardiac care unit (CCU)/intensive care unit (ICU) in an academic medical center.

Material and methods: We investigated in 2 community hospitals the prevalence of use of advance directives (AD), health care proxy (HCP), legal guardian (LG), and living will (LW) in 512 patients hospitalized in a CCU/ ICU approached for AD and HCP.

Results: The use of AD was 22%, of HCP was 19%, of LG was 16%, and of LW was 5%.

Conclusions: The use of AD was 22%, of HCP was 19%, of LG was 16%, and of LW was 5% in patients hospitalized in a CCU/ICU. Educational programs on use of AD and of HCP need to be part of cardiovascular training programs and of cardiovascular continuing medical education.

Key words: advance directives, health care proxy.

Introduction

Cardiovascular disease is the number one cause of death in the United States [1-9]. American College of Cardiology/American Heart Association guidelines recommend the discussion of advance directives with patients who have congestive heart failure [10]. The federal Patient Self-Determination Act passed on November 5, 1990 mandates discussion of advance directives with all hospitalized adults [11]. One study found the prevalence of use of any advance directives in 112 patients hospitalized in a cardiac care unit in an academic medical center was 26% [12]. The present study reports the prevalence of use of advance directives, health care proxy, legal guardian, and living will in 512 patients hospitalized in a cardiac care unit/intensive care unit in 2 community hospitals.

Material and methods

We performed a chart review investigating the prevalence of use of advance directives, health care proxy, legal guardian, and living will in 312 patients hospitalized in the cardiac care unit/intensive care unit at Sound Shore Medical Center in New Rochelle, New York and in 200 patients hospitalized in the cardiac care unit/intensive care unit at Prince George's Hospital Center in Cheverly, Maryland who were approached for the use of advance directives and health care proxy. The 512 patients included 290 men and 222 women, mean age 61 ± 19 years. Of the 512 patients, 242 (47%) were whites, and 270 (53%) were nonwhites. Of the 512 patients, 279 (55%) were younger than 65 years, 141 (28%) were aged 65-79 years, and 92 (18%) were aged ≥ 80 years. This study has been approved by our Institutional Review Boards.

Results

Table I shows the prevalence of use of advance directives, health care proxy, legal guardian, and living will in the 512 patients hospitalized in a cardiac care unit/intensive care unit. Table II shows the prevalence of use of advance directives, health care proxy, legal guardian, and living will in

290 men and 222 women hospitalized in a cardiac care unit/intensive care unit. No significant differences were found.

Table III shows the prevalence of use of advance directives, health care proxy, legal guardian, and living will in 242 whites and 270 nonwhites hospitalized in a cardiac care unit/intensive care unit. Table III also lists levels of statistical significance. Table IV shows the prevalence of use of advance directives, health care proxy, legal guardian, and living will in 279 patients younger than 65 years, in 141 patients aged 65-79 years, and in 92 patients aged ≥ 80 years hospitalized in a cardiac care unit/intensive care unit. Table IV also lists levels of statistical significance.

Table I. Prevalence of use of advance directives, health care proxy, legal guardian, and living will in 512 patients hospitalized in a cardiac care unit/intensive care unit

Variable	Number (%)
Advance directives	114 (22%)
Health care proxy	97 (19%)
Legal guardian	80 (16%)
Living will	23 (5%)

Table II. Prevalence of use of advance directives, health care proxy, legal guardian, and living will in men versus women hospitalized in a cardiac care unit/intensive care unit

Variable	Men (n = 290)	Women (n = 222)	Value of p
Advance directives	60 (21%)	54 (24%)	Not significant
Health care proxy	53 (18%)	44 (20%)	Not significant
Legal guardian	48 (17%)	32 (14%)	Not significant
Living will	12 (4%)	11 (5%)	Not significant

Table III. Prevalence of use of advance directives, health care proxy, legal guardian, and living will in whites versus nonwhites hospitalized in a cardiac care unit/intensive care unit

Variable	Whites (n = 242)	Nonwhites (n = 270)	Value of p
Advance directives	70 (29%)	44 (16%)	< 0.001
Health care proxy	36 (15%)	61 (23%)	< 0.05
Legal guardian	29 (12%)	51 (19%)	< 0.05
Living will	19 (8%)	4 (2%)	< 0.001

Table IV. Prevalence of use of advance directives, health care proxy, legal guardian, and living will in patients aged < 65 years, 65-79 years, and ≥ 80 years hospitalized in a cardiac care unit/intensive care unit

Variable	< 65 Years (n = 279)	65-79 Years (n = 141)	≥ 80 Years (n = 92)
Advance directives	50 (18%)	35 (25%)	29 (32%)
Health care proxy	53 (19%)	28 (20%)	16 (17%)
Legal guardian	42 (15%)	20 (14%)	18 (20%)
Living will	6 (2%)	12 (9%)	5 (5%)

For advance directives, $p < 0.01$ comparing ≥ 80 years with < 65 years. For living will, $p < 0.005$ comparing 65-79 years with < 65 years

Discussion

Cardiovascular disease is the number one cause of death in the United States [1-9]. Advance directives would seem to be an important part of cardiovascular disease management. Heart failure has a worse prognosis than many cancers [13]. Half of heart failure patients die from sudden cardiac death and half from pump failure [14]. Advance directives may be more important for care of heart failure patients than for cancer patients in whom a terminal phase is identified [14]. Advance directives should be a part of management of patients with heart failure [10, 15] and other cardiovascular disorders. Barriers to creating and documenting advance directives include reluctance of physicians and discomfort of physicians in discussing advance directives with patients and their families [16].

Of 112 patients, mean age 58 years, hospitalized in a cardiac care unit in an academic medical center, 29 patients (26%) had any advance directives [12]. Seven of the 112 patients (6%) had a living will as their advance directives. This low prevalence of use of advance directives occurred despite the federal Patient Self-Determination Act of 1990 mandating that all hospitalized adults be given the opportunity to have advance directives [11].

The present study of 512 patients hospitalized in a cardiac care unit/intensive care unit in 2 community hospitals showed that the prevalence of use of advance directives was 22%, of a health care proxy was 19%, of a legal guardian was 16%, and of a living will was 5%. The prevalence of use of advance directives, of a health care proxy, of a legal guardian, and of a living will was not significantly different between hospitalized men and women. Whites were significantly more likely to have advance directives and a living will than nonwhites. Nonwhites were significantly more likely to have a health care proxy and a legal guardian than whites. Patients aged ≥ 80 years were significantly more likely to have advance directives than patients younger than 65 years. Patients aged 65-79 years were significantly more likely to have a living will than patients younger than 65 years.

The results from the present study and a smaller previously published study [12] showed a low prevalence of use of advance directives. To the best of our knowledge, there are no other published studies showing the prevalence of use of advance directives in a cardiac care unit/intensive care unit. Cardiovascular training programs and cardiovascular continuing medical education programs need to include discussions on advance directives, especially with the population of elderly cardiovascular disease patients growing. Physicians should be educated to try to obtain advance directives in all patients hospitalized in a cardiac care unit/intensive care

unit. A copy of advance directives if available should be sent with the patient whenever transferred to a hospital or emergency department. An association between advance directives and quality of end-of-life care has been reported [17].

None of the authors have any conflicts of interest.

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