

Supplementary Online Content

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eAPPENDIX 1. Case Stems

eAPPENDIX 2. Responses to All Cases and Questions

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eAPPENDIX 1. Case Stems

Case 1. A 73-year-old man, who previously underwent implantation of an implantable cardioverter-defibrillator (ICD) for abnormally fast and potentially lethal heart rhythms, was recently diagnosed with terminal lung cancer. He now presents with pain due to widely metastatic disease and requests that his ICD be turned off. While going through the dying process, he does not want to experience uncomfortable “shocks” generated by the ICD if it detects abnormal heart rhythms. You explain to the patient that turning off the ICD likely will not result in immediate death and leaving it on will not prolong his life should he die from complications of lung cancer. However, should he experience a dangerously fast heart rhythm, he will likely die from this rhythm because the ICD will no longer be functioning. Two physicians counsel the patient on the consequences of turning off the ICD, yet he remains steadfast in his request. He says that he wishes for a fast heart rhythm to precipitate death and allow him to escape from his present state of suffering. A psychiatrist has determined that the patient has decision-making capacity.

Case 2. A 73-year-old man, who previously underwent pacemaker implantation for a slow heart rhythm caused by alcoholic cardiomyopathy (heart muscle disease), was recently diagnosed with terminal lung cancer. Notably, his alcoholism is in remission. He now presents with pain due to widely metastatic disease and requests that his pacemaker be turned off. Pacemaker interrogation (checking device settings and functions) reveals that the pacemaker is rarely needed. In other words, he is not dependent on the pacemaker in order to live. You explain to the patient that turning off the pacemaker will not likely result in immediate death and leaving it on will not prolong his life should he die from complications of lung cancer. Two physicians counsel the patient on the consequences of turning off the pacemaker, yet he remains steadfast in his request. He says that he hopes a slow heart rhythm will precipitate death and allow him to escape from his present state of suffering. A psychiatrist has determined that the patient has decision-making capacity.

Case 3. A 73-year-old man, who had a pacemaker implanted previously for complete heart block caused by alcoholic cardiomyopathy (an abnormally slow heart rhythm that is potentially fatal caused by heart muscle disease), was recently diagnosed with terminal lung cancer. Notably, his alcoholism is in remission. He now presents with pain due to widely metastatic disease and requests that his pacemaker be turned off. Notably, he is pacemaker-dependent (he would die within minutes if the pacemaker were to suddenly not work). You explain to him that if the pacemaker is turned off, he would likely die in a short period of time and leaving it on will not prolong his life should he die from complications of lung cancer. Two physicians counsel the patient on the consequences of turning off the pacemaker, yet he remains steadfast in his request. He says that he hopes the slow heart rhythm will precipitate death and allow him to escape from his present state of suffering. A psychiatrist has determined that the patient has decision-making capacity.

Case 4. A 73-year-old man, who is the identical twin brother of the patient described in the previous case, also was recently diagnosed with terminal lung cancer. Unlike his brother, he never abused alcohol and does not have heart disease or a pacemaker. He learns that his brother will be able to end his pain and suffering by having his pacemaker turned off. Since he does not have a pacemaker, he requests that you administer a lethal injection of a medication that will stop or slow his heartbeat to a point such that he will die (as will happen to his brother when the pacemaker is turned off).

Case 5. A 73-year-old man has recently been diagnosed with stage IV adenocarcinoma of the lungs (advanced lung cancer that has spread to the body). He has been battling severe pain for the last two weeks. About three years ago, the patient had a heart attack that resulted in abnormally fast heart rhythms and required placement of a defibrillator (a device that shocks the heart back to a normal rhythm when a dangerously fast heart rhythm from the lower heart chambers is detected). The patient now comes to you asking that the defibrillator be turned off. You explain to the patient that if the device is now turned off and he experiences a dangerously fast heart rhythm, he will likely die from this as the defibrillator will no longer be functioning and cannot save his life. Another physician in your practice also counsels the patient on the risk of turning off the defibrillator. Despite these conversations, the patient insists that you turn off the device as he is suffering and wishes that his heart will go out of rhythm so that he can die and not experience his severe pain and suffering (his words). You meet with the patient and explain to him that sometimes if the heart goes out of rhythm, he may not die but can suffer injury to his brain (stroke) that can worsen his suffering. He again insists that you turn off his device.

eAPPENDIX 2. Responses to All Cases and Questions

	Medical professionals (n=339)				Legal professionals (n=73)				Patients (n=246)				Overall (N=658)			
	A	N	D	NR	A	N	D	NR	A	N	D	NR	A	N	D	NR
CASE 1. Withdrawal of ICD Therapy																
Turning off ICD akin to physician-assisted suicide or euthanasia	9 (3)	8 (2)	317 (95)	5 (1)	7 (10)	3 (4)	60 (87)	3 (4)	47 (20)	23 (10)	166 (70)	10 (4)	63 (10)	34 (5)	543 (85)	18 (3)
Turn off because of patient's right to refuse therapy	330 (98)	1 (0)	5 (1)	3 (1)	63 (90)	3 (4)	4 (6)	3 (4)	200 (85)	20 (8)	16 (7)	10 (4)	593 (92)	24 (4)	25 (4)	16 (2)
Turn off because it is in the patient's best interests	153 (48)	129 (40)	40 (12)	17 (5)	11 (18)	28 (45)	23 (37)	11 (15)	101 (44)	85 (37)	41 (18)	19 (8)	265 (43)	242 (40)	104 (17)	47 (7)
CASE 2. Withdrawal of PM Therapy in a Non-PM-Dependent Patient																
Turning off PM akin to physician-assisted suicide or euthanasia	22 (7)	22 (7)	290 (87)	5 (1)	6 (9)	6 (9)	58 (83)	3 (4)	50 (21)	27 (11)	159 (67)	10 (4)	78 (12)	55 (8)	507 (77)	18 (3)
Turn off because of patient's right to refuse therapy	294 (87)	16 (5)	27 (8)	2 (1)	62 (89)	3 (4)	5 (7)	3 (4)	188 (79)	27 (11)	22 (9)	9 (4)	544 (84)	46 (7)	54 (8)	14 (2)
Turn off because it is in the patient's best interests	72 (23)	159 (50)	88 (28)	20 (6)	7 (11)	27 (44)	27 (44)	12 (16)	83 (36)	92 (39)	58 (25)	13 (5)	162 (26)	278 (45)	173 (28)	45 (7)
CASE 3. Withdrawal of PM Therapy in a PM-Dependent Patient																
Turning off PM akin to physician-assisted suicide or euthanasia	124 (37)	43 (13)	164 (50)	8 (2)	11 (15)	8 (11)	52 (73)	2 (3)	77 (34)	32 (14)	118 (52)	19 (8)	212 (34)	83 (13)	334 (53)	29 (4)
Turn off because of patient's right to refuse therapy	190 (58)	42 (13)	96 (29)	11 (3)	57 (81)	5 (7)	8 (11)	3 (4)	157 (68)	32 (14)	41 (18)	16 (7)	404 (64)	79 (13)	145 (23)	30 (5)
Turn off because it is in the patient's best interests	45 (14)	134 (42)	140 (44)	20 (6)	5 (8)	27 (44)	29 (48)	12 (16)	74 (32)	87 (38)	67 (29)	18 (7)	124 (20)	248 (41)	236 (39)	50 (8)
CASE 4. Administration of Rate-Slowing Medication to Terminally Ill Patient																
Explain that you cannot administer medication solely to cause death	333 (99)	1 (0)	4 (1)	1 (0)	62 (86)	6 (8)	4 (6)	1 (1)	204 (91)	10 (4)	11 (5)	21 (9)	599 (94)	17 (3)	19 (3)	23 (3)
Patient's request justifiable because of clinical scenario	34 (10)	33 (10)	264 (80)	8 (2)	18 (25)	13 (18)	41 (57)	1 (1)	30 (13)	30 (13)	166 (73)	20 (8)	82 (13)	76 (12)	471 (75)	29 (4)
Patient's request justifiable because of brother's ability to turn off PM	11 (3)	13 (4)	308 (93)	7 (2)	3 (4)	3 (4)	66 (92)	1 (1)	12 (5)	20 (9)	193 (86)	21 (9)	26 (4)	36 (6)	567 (90)	29 (4)
Prescribe a medication that will result in a slow heart rhythm and death	4 (1)	8 (2)	322 (96)	5 (1)	12 (18)	10 (15)	46 (68)	5 (7)	12 (5)	19 (9)	191 (86)	24 (10)	28 (4)	37 (6)	559 (90)	34 (5)
CASE 5. Withdrawal of ICD Therapy When Against Physician Beliefs																
Explain you cannot turn off the device as it is physician-assisted suicide and against the law	20 (6)	14 (4)	297 (90)	8 (2)	10 (14)	6 (9)	53 (77)	4 (5)	83 (37)	18 (8)	122 (55)	23 (9)	113 (18)	38 (6)	472 (76)	35 (5)
Explain you cannot turn off the device as it is against your personal beliefs	20 (6)	20 (6)	283 (88)	16 (5)	10 (14)	6 (9)	53 (77)	4 (5)	60 (27)	31 (14)	130 (59)	25 (10)	90 (15)	57 (9)	466 (76)	45 (7)
Obtain court order to avoid having to turn off the device	4 (1)	11 (3)	314 (95)	10 (3)	2 (3)	2 (3)	67 (94)	2 (3)	19 (9)	34 (15)	167 (76)	26 (11)	25 (4)	47 (8)	548 (88)	38 (6)
Turn off the ICD anyway as per patient wishes	287 (88)	23 (7)	18 (5)	11 (3)	47 (68)	8 (12)	14 (20)	4 (5)	133 (59)	29 (13)	62 (28)	22 (9)	467 (75)	60 (10)	94 (15)	37 (6)
Do not turn off the ICD because against personal beliefs and refer patient to somebody else	43 (13)	43 (13)	233 (73)	20 (6)	36 (51)	10 (14)	24 (34)	3 (4)	66 (30)	36 (17)	116 (53)	28 (11)	145 (24)	89 (15)	373 (61)	51 (8)

Data are provided as the number (percentage) of respondents expressing agreement (A), neutrality (N), or disagreement (D) with the given statement, excluding nonresponders (NRs). The number (percentage) of NRs is also provided. ICD = implantable cardioverter-defibrillator; PM = pacemaker.