

Supplemental Material

Table S1. Normalization of Vignette Photos.

	White Man Photo		African-American Man Photo	
	Median (Interquartile Range)		Median (Interquartile Range)	
Age	65.00	(60.00-69.00)	65.00	(60.00-68.00)
Healthy	4.00	(2.20-6.10)	4.10	(2.00-6.40)
Attractive	5.00	(3.80-6.40)	5.60	(4.10-6.70)
Intelligent	6.00	(5.00-7.00)	6.30	(5.30-7.30)
Trustworthy	5.70	(4.80-6.80)	6.10	(5.00-7.10)
Neutral	5.90	(4.50-7.70)	6.50	(5.10-8.10)
Happy	3.20	(1.50-4.90)	4.60	(2.90-6.10)
Sad	5.60	(3.30-7.10)	4.00	(2.00-5.80)
Threatening	3.80	(1.70-6.10)	3.00	(1.10-5.30)

Values represent estimated patient age and Likert scale ratings (1-10, strongly disagree to strongly agree) among international participants (n=784 White man, n=790 African-American man) who were randomized to photos selected for these vignettes in a separate study conducted by (KB, SS, LL, KHT, LZ). Participants were told that the patients had heart failure.

Table S2. Headshot photograph of White or African-American man. The photographs are available upon request.

<p>History of Present Illness: Mr. Greg Jones is a 63 year old Non-Hispanic White man with a history of dilated non-ischemic cardiomyopathy ---OR---Mr. Jamal Jones is a 63 year old Non-Hispanic African-American man with a history of dilated non-ischemic cardiomyopathy (left ventricular ejection fraction 20%, Left Ventricle End Diastolic Dimension 7.5cm), chronic kidney disease stage III (Cr 1.8mg/dL, GFR 42 ml/min/1.73m²*L), diabetes (HgbA1c 7.5%), depression, and moderate asymptomatic peripheral arterial disease who has had 4 hospitalizations in the past 6 months for acute on chronic heart failure exacerbation. He experiences dyspnea and lightheadedness walking across the room (5 feet). He has been shocked for ventricular tachycardia once in the past 12 months.</p>
<p>Height/Weight/Body Mass Index: 183 cm (6.0 feet) / 115kg (254 lb) / 34.3</p>
<p>Insurance Type: Medicaid</p>
<p>Blood Type: 0+ PRA Class I: 0%, Class II: 10%</p>
<p>Cardiac History:</p> <ul style="list-style-type: none"> • Diagnosed 2017 with dilated non-ischemic cardiomyopathy • 4 heart failure hospitalizations in the past 6 months • LHC 2/2017: non-obstructive disease, 40% mid left anterior descending artery, 30% distal Left circumflex, 30% distal right coronary artery, left ventricular end diastolic pressure 35 • Single chamber Implantable Cardioverter Defibrillator 6/2017 with one documented episode of sustained ventricular tachycardia responding to defibrillation, several non-sustained ventricular tachycardia events no longer than 10 seconds • No prior cardiac surgery
<p>New York Heart Association Functional Class: III-IV Vital Signs: BP 85/62, HR 110, Respiratory Rate 15, Pulse Ox 98% room air</p>
<p>Medications: asa 81mg daily, spironolactone 25mg, bumex 4mg twice a day, glargine 30units nightly, lispro 10units three times a day before meals plus sliding scale, sertraline 50mg daily, atorvastatin 40mg nightly, intolerable of angiotensin converting enzyme inhibitors/ angiotensin receptor blocker/ angiotensin receptor-neprilysin inhibitor/ Beta blockers due to hypotension</p> <p>Allergies: none</p>
<p>Past Other Medical History:</p> <ul style="list-style-type: none"> • Chronic Kidney Disease Stage III (Baseline Cr 1.8mg/dL, 42 ml/min/1.73m²*L) • Diabetes Mellitus II (HgbA1c 7.5%) on insulin for past 5 years (no retinopathy nor neuropathy) • Peripheral arterial disease found during work-up: Right Ankle brachial index moderate 0.70, monophasic posterior tibial and dorsalis pedis, Normal Left ankle brachial index, <50% stenosis right carotid, 70% stenosis left carotid

- Depression controlled on sertraline
- Obesity

Past Surgery:

None

Social History: lost job working for United Postal Services 6 months ago due to worsening heart failure symptoms, has a 10 year old and 15 year old living at home, seeking disability insurance, has one vehicle for the family, final year of education was 10th grade

Marital Status: married, spouse is working full-time as a retail clerk

Tobacco: never

Ethanol: occasional beers on special occasions

Recreational Drug Use: remote marijuana use when 20+ years of age

Adherence: Lost to follow-up for a couple years when he did not have healthcare insurance. Missed last 2 consecutive appointments due to car trouble otherwise follows regularly. Appears to take medications as prescribed. Typically calls when medications run out. Does not understand the reasons for taking each medication. Occasional dietary indiscretions.

Cardiac Diagnostic Testing:

Left Heart Catheterization: (2/2017) non-obstructive disease, 40% mid left anterior descending artery, 30% distal Left circumflex, 30% distal right coronary artery, left ventricular end diastolic pressure 35

Transthoracic Echocardiogram: (3/2018) severely dilated left ventricle with global left ventricular dysfunction (Left Ventricular Ejection Fraction 20%, Left Ventricle End Diastolic Dimension 7.5cm), mildly dilated right ventricle with mildly reduced function (Tricuspid annular plane systolic excursion 19 mm), mild mitral regurgitation, mild tricuspid regurgitation, mild aortic regurgitation, right ventricular systolic pressure 40mmHg

Cardiopulmonary Exercise Test: (3/2018) peak V02 8.2ml/kg/min, VE/VC02 46, RER 1.3

6min walk: 175 meters

ECG: sinus tachycardia, left anterior fascicular block (QRS 120ms)

Right Heart Catheterization:	No continuous drips:	Nitroprusside 1mcg/kg/min:
Central Venous Pressure	9	
Pulmonary Artery (systolic/diastolic/mean)	56/25/35	35/10/20
Wedge	30	15
Pulmonary Artery Saturation	30%	38%
Fick Cardiac Output/Cardiac Index	3.31/1.37	3.75/1.55
Pulmonary Vascular Resistance	1.51	1.33
Systemic Blood Pressure	86/60	78/50

Pulmonary:

Pulmonary Function Test: FEV1 3.18 (94% predicted), FVC 4.37 (88% predicted), FEV1/FVC 73%, DLCO normal. Normal spirometry

General Laboratory: (4/2018)

Complete Blood Count: white blood cell 7.5 K/MM3; Hemoglobin 11 g/dL; platelet 210 K/MM3

Chemistry: Sodium 125 mmol/L; Potassium 4 mmol/L; Chloride 99mmol/L; CO2 28 mmol/L;

BUN 40 mg/dL; Creatinine 1.8 mg/dL; Glucose 150 mg/dL

Liver: AST 41 U/L, ALT 56 U/L, alkaline phosphatase 35 U/L, total bilirubin 3 mg/dL, albumin 2.8 gm/dL

Iron Studies: ferritin 250 ng/mL, transferrin saturation 20%

Coagulation: INR 1.2, PT 14 seconds

HgbA1c: 7.5%

TSH: 0.9mIU/L

Vitamin D 25OH: 50 ng/mL

Urine drug screen/ethanol/nicotine: negative

Urine albumin/creatinine ratio: 25mg/g

Renal ultrasound: medical-renal disease

Liver ultrasound: congestive hepatopathy

Liver biopsy: negative for cirrhosis

Infectious Disease:

Hepatitis A negative

CMV/EBV negative

HSV 1/2 negative/positive

Hepatitis B surface Antigen negative

Measles immune

Zoster negative

Hepatitis B surface Antibody negative

Mumps immune

HIV negative

Hepatitis C Antibody negative

Rubella immune

RPR negative

Coccidioidomycosis negative

Chagas negative

Histoplasmosis negative

Quantiferon negative

Cancer Screens:

Colonoscopy: hemorrhoids, diverticulosis last performed 2 years ago

Prostate-specific antigen: within normal limits

Table S3. Demographics of Think-Aloud Interview Participants.

	White Man Vignette n=22 No. (%)	African-American Man Vignette n=22 No. (%)	P Value*
Age Years			0.67
Less than 40 years	9 (40.9)	7 (31.8)	
40+ years	12 (54.5)	15 (68.2)	
Unknown	1 (4.5)	0 (0.0)	
Sex			0.46
Men	11 (50.0)	15 (68.2)	
Women	10 (45.5)	7 (31.8)	
Unknown	1 (4.5)	0 (0.0)	
Ethnicity			0.50
Minority	7 (31.8)	11 (50.0)	
Non-Hispanic White	13 (59.1)	11 (50.0)	
Unknown	2 (9.1)	0 (0.0)	
Position			0.41**
Non-cardiologist	5 (22.7)	2 (9.1)	
Cardiologist or CT surgeon	17 (77.3)	20 (90.9)	
Years Past Training			1.00
Less than 11 years	11 (50.0)	12 (54.5)	
11+ years	11 (50.0)	10 (45.5)	
UNOS Region			0.85**
1	1 (4.5)	2 (9.1)	
2	3 (13.6)	2 (9.1)	
3	1 (4.5)	0 (0.0)	
4	1 (4.5)	1 (4.5)	
5	6 (27.3)	5 (22.7)	
6	0 (0.0)	0 (0.0)	
7	1 (4.5)	2 (9.1)	
8	5 (22.7)	2 (9.1)	
9	1 (4.5)	1 (4.5)	
10	1 (4.5)	2 (9.1)	
11	2 (9.1)	5 (22.7)	

*Chi-squared test for p value excludes unknowns since small values of unknown provide inaccurate approximation. For this reason, the **position and United Network for Organ Sharing, UNOS, region p value approximation may be inaccurate. CT indicates cardiothoracic.

Table S4. Think-Aloud Interview Participants Survey Recommendations.

Recommendation	White Man Vignette Mean (95% CI)	African-American Man Vignette Mean (95% CI)
Heart transplant	7.71 (6.68 , 8.74)	7.40 (6.37 , 8.43)
Bridge to transplant VAD	7.70 (6.66 , 8.74)	8.19 (7.49 , 8.89)
Destination therapy VAD	7.13 (6.03 , 8.22)	7.37 (6.16 , 8.58)
Not candidate for therapies	2.05 (1.48 , 2.61)	1.77 (1.27 , 2.27)

All p-values for comparison were greater than 0.4.

Figure S1. UNOS Regions.

