Article:
Witte, KK orcid.org/0000-0002-7146-7105, Drozd, M orcid.org/0000-0003-0255-4624, Walker, AMN et al. (9 more authors) (2018) Mortality Reduction Associated With β-Adrenoceptor Inhibition in Chronic Heart Failure Is Greater in Patients With Diabetes. Diabetes Care, 41 (1). pp. 136-142. ISSN 0149-5992

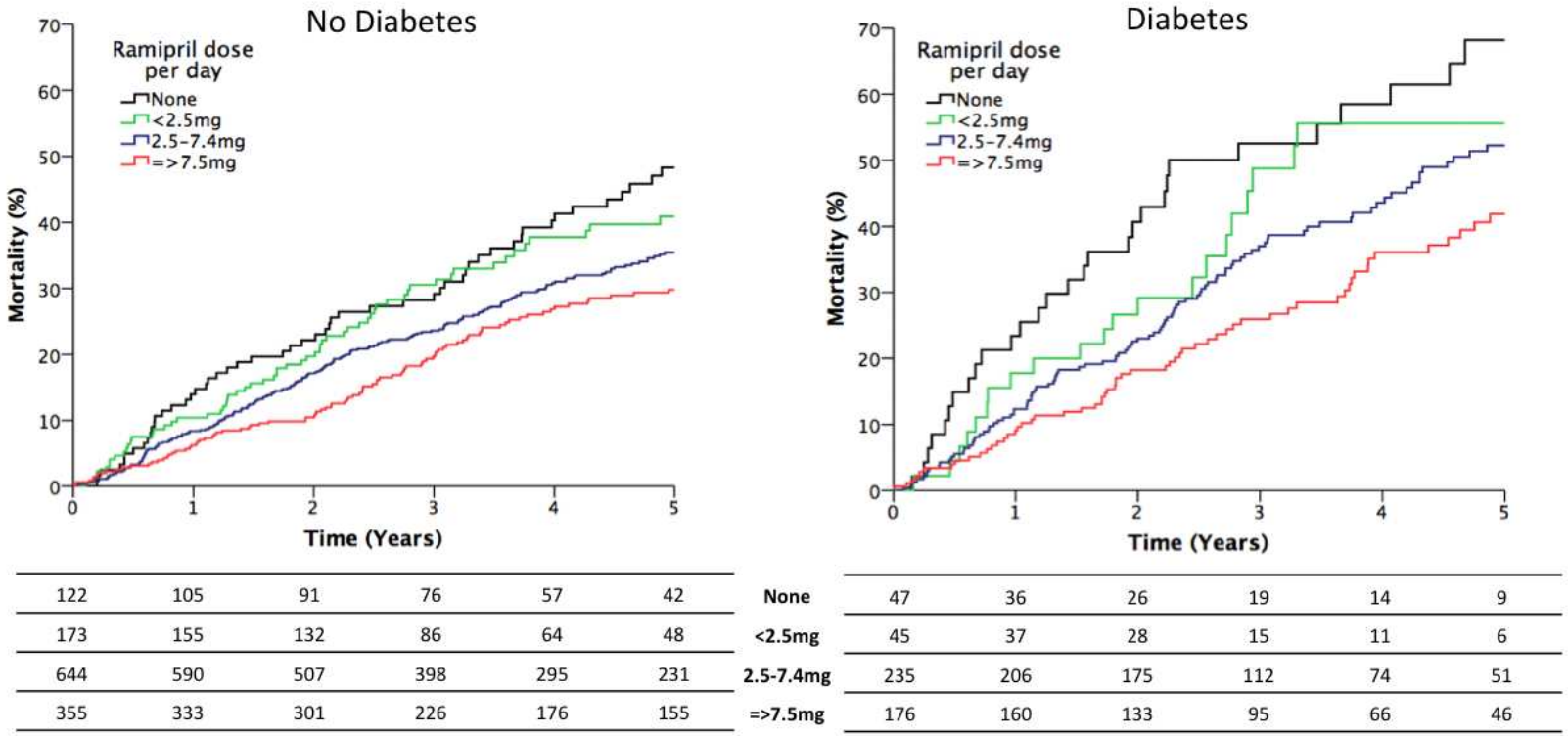
https://doi.org/10.2337/dc17-1406

	No Diabetes				Diabetes			
Ramipril equivalent dose (mg/day)	**None (n=122)**	**<2.5mg (n=173)**	**2.5-7.4mg (n=644)**	**≥7.5mg (n=355)**	**None (n=47)**	**<2.5mg (n=45)**	**2.5-7.4mg (n=235)**	**≥7.5mg (n=176)**
Age (years)	74.2 (1)**	71.5 (1)	69 (0.5)	67.5 (0.7)	71.8 (1.5)	72.2 (1.7)	70.2 (0.7)	69.2 (0.8)
Heart Rate (bpm)	78 (1.9)*	76.6 (1.5)	75.6 (0.7)	73.1 (1)	74.9 (2.3)	78.9 (3.4)	76 (1.2)	73.6 (1.2)
Systolic BP (mmHg)	122 (2)	120.3 (2)	121 (1)	122.7 (1.1)	122.4 (2.9)	128.4 (3.8)	123.9 (1.6)	126.6 (1.7)
RPP (bpm x mmHg)	9302 (260)	9175 (253)	9166 (124)	8831 (158)	9080 (322)	9744 (473)	9309 (216)	9297 (220)
QRS duration (ms)	121 (3)	123 (2)	124 (1)	125 (2)	119 (6)	124 (5)	121 (2)	123 (2)
Hemoglobin (g/dL)	13.1 (0.2)**	13.4 (0.1)	13.7 (0.1)	13.9 (0.1)	12.5 (0.3)	12.6 (0.3)	13 (0.1)	13.1 (0.1)
eGFR (ml/min/1.73m^2)	48.7 (2)**	58.7 (1.5)	60.2 (0.7)	60.8 (0.9)	44.2 (3.3)**	50.8 (2.9)	54.2 (1.3)	58.2 (1.5)
LVEDD (mm)	56 (1)*	58 (1)	57 (1)	58 (1)	56 (1)	55 (1)	56 (1)	57 (1)
LVEF (%)	33 (1)	31 (1)	32 (1)	31 (1)	31 (1)	34 (1)	33 (1)	34 (1)
Bisoprolol (mg/day)	2.9 (0.3)**	3.1 (0.2)	3.6 (0.1)	4.6 (0.2)	3.4 (0.5)**	3 (0.4)	3.9 (0.2)	5.2 (0.3)
Ramipril (mg/day)	0**	1.2 (0.01)	3.9 (0.05)	9.8 (0.04)	0**	1.2 (0.02)	3.8 (0.08)	9.9 (0.04)
Furosemide (mg/day)	46.6 (4.6)	44.6 (3.5)	43.9 (1.8)	45.2 (2.2)	85.1 (9.2)	62 (7.4)	66.8 (3.5)	67.3 (4.3)
Male sex (% [n])	65.6 (80)*	71.1 (123)	70.7 (455)	77.2 (274)	63.8 (30)*	66.7 (30)	77 (181)	80.7 (142)
IHD etiology (% [n])	59 (72)	54.3 (94)	52.5 (338)	58 (206)	78.7 (37)	64.4 (29)	72.8 (171)	66.5 (117)
ICD in situ (% [n])	8.2 (10)	14.5 (25)	10.1 (65)	14.6 (52)	10.6 (5)	6.7 (3)	12.8 (30)	11.4 (20)
CRT in situ (% [n])	19.7 (24)	27.2 (47)	23.9 (154)	29.6 (105)	27.7 (13)	15.6 (7)	23 (54)	29 (51)
NYHA III/IV (% [n])	36.1 (44)*	22 (38)	30.3 (195)	25.4 (90)	66 (31)**	42.2 (19)	38.3 (90)	26.7 (47)

Supplemental Table 1. Characteristics of patient cohort divided into patients with and without diabetes, according to angiotensin converting enzyme inhibitor (Ramipril) daily dose. Data presented as mean (SEM) or % (n). P value separately compares dose

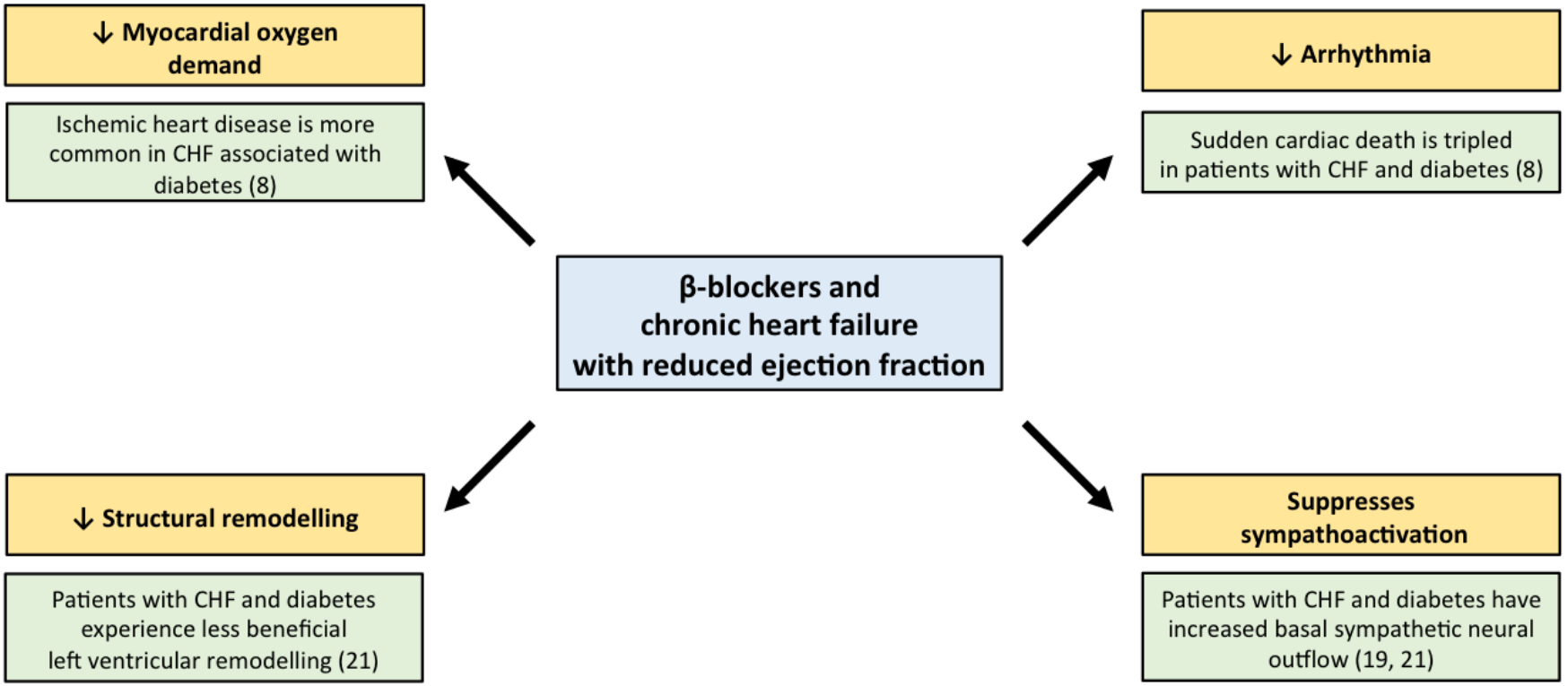
groups for patients with and without diabetes with ANOVA or chi-squared tests (*P<0.05, **P<0.005). BP=blood pressure, RPP=rate-pressure product, eGFR=estimated glomerular filtration rate, LVEDD=left ventricular end diastolic diameter, LVEF=left ventricular ejection fraction, ICD=implantable cardioverter defibrillator, CRT=cardiac resynchronisation therapy, NYHA=New York Heart Association.

Supplemental Figures



122	105	91	76	57	42	None	47	36	26	19	14	9
173	155	132	86	64	48	<2.5mg	45	37	28	15	11	6
644	590	507	398	295	231	2.5-7.4mg	235	206	175	112	74	51
355	333	301	226	176	155	=>7.5mg	176	160	133	95	66	46

Supplemental Figure 1. Kaplan-Meier curves showing 5-year all-cause mortality according to dose of ACEI in patients with (p=0.002 across groups by log-rank test) and without diabetes (p<0.001 across groups by log-rank test)**.** The number of patients remaining in each group (i.e. those alive and non-censored) after each year of follow-up is listed below the corresponding figure.



Supplemental Figure 2. Potential mechanisms by which β-blockers improve outcomes in patients with CHF (yellow boxes), along with potential impact of diabetes on these mechanisms (green boxes). References are provided in parentheses.