

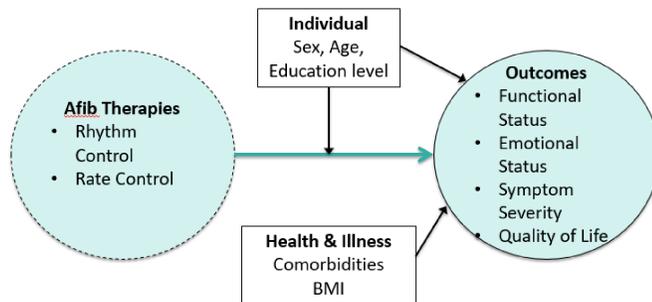
Rate and Rhythm Control Medications for Atrial Fibrillation: Do Adverse Effects Outweigh Benefits?

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BACKGROUND

Guidelines for managing atrial fibrillation (AF) currently recommend rhythm and rate control for individuals who report bothersome symptoms of AF. However, rate control and rhythm control medication often cause adverse effects, including dizziness and fatigue. Do these adverse effects outweigh the positive effects of sinus rhythm and rate control?

OBJECTIVE



METHODS

The PaTH AF Longitudinal Cohort Study recruited participants (N=953) with an AF diagnosis and age ≥18 years across 4 academic medical centers. We performed multiple linear regressions on propensity-matched cohorts to determine the association of AF therapies and individual characteristics on patient-reported outcomes reported in a one-year time span following the AF therapy (figure 1).

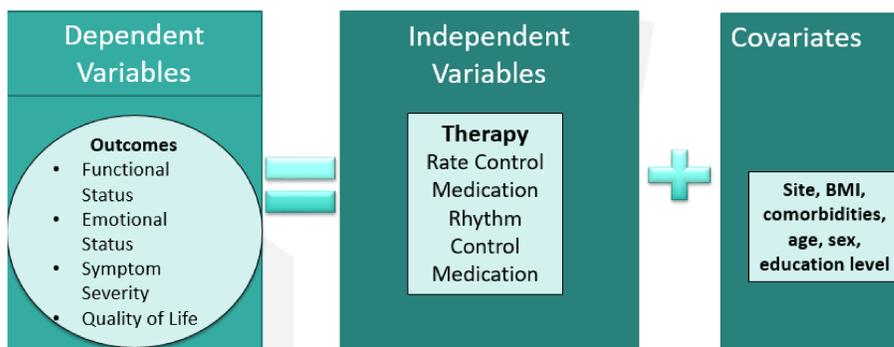
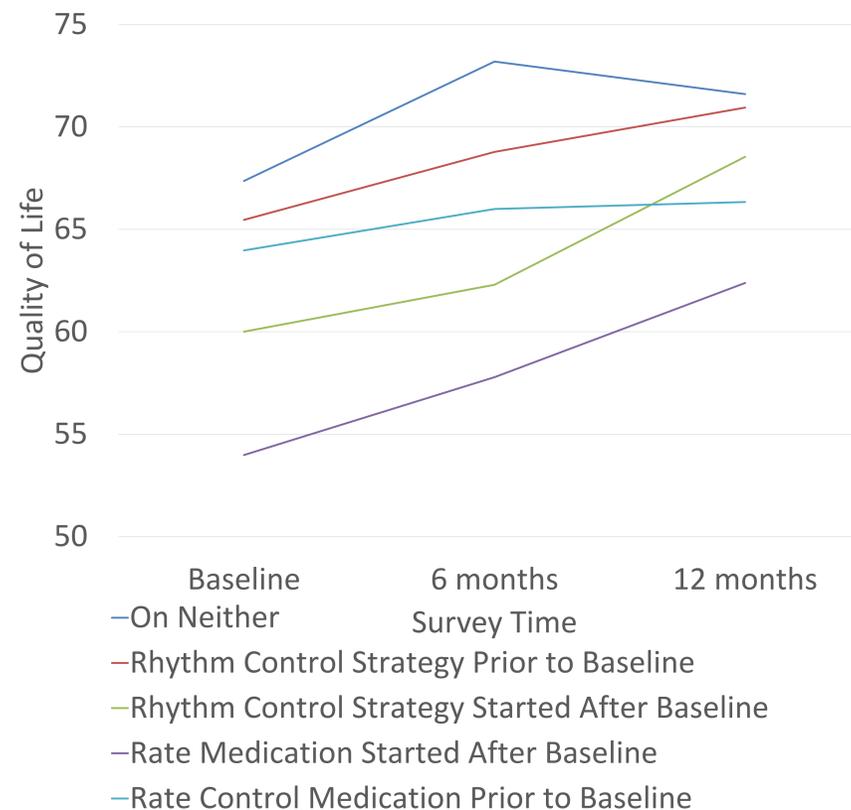


Figure 1. Propensity-score matched model used to determine association between Patient-reported outcomes and AF therapies

	Total	Women 35% (n=337)	Men 65% (n=616)	OR/β (95% CI)
Age, Mean (SD)	71.7 (10)	71 (11)	72 (10)	0.98 (0.97, 1)
Education, % (n)				
>than college	40 (358)	30 (107)	38 (251)	Ref
College	22 (198)	20 (60)	25 (138)	1.02 (0.70, 1.49)
Some college	23 (200)	27 (81)	23 (119)	1.60 (1.11, 2.29)
High School or <	14 (130)	23 (60)	15 (70)	2.01 (1.33, 3.04)
Charlson Index, % (n)				
0	40 (374)	43 (144)	37 (230)	Ref
1	21 (195)	20 (65)	21 (130)	0.82 (0.57, 1.17)
2	39 (369)	36 (122)	40 (247)	0.79 (0.59, 1.07)
Body Mass Index, % (n)				
Normal	21 (193)	26 (85)	18 (108)	Ref
Overweight	35 (324)	28 (93)	39 (231)	0.56 (0.38, 0.82)
Obese	44 (408)	46 (152)	43 (256)	0.82 (0.58, 1.16)

Sample characteristics stratified by sex, women were less likely to be obese and have higher levels of education

Atrial Fibrillation Related Quality of Life and Therapies



RESULTS

The sample (n=953) was 35% female with a mean age of 72±10. In the propensity-score matched subsamples, AF therapies were not associated with more favorable patient-reported outcomes. Prescription of rate control medication was associated with poorer functional status (β -3.68, 95% CI: -5.29, -2.07) and higher symptoms of depression (β 1.78, 95% CI: 0.24, 3.31). Prescription of rhythm control medication was associated with comparatively poorer AF-related quality of life (β -5.71, 95% CI: -10.38, -1.04).

CONCLUSION

In propensity-score matched samples controlling for BMI and comorbidities, prescriptions of rate and rhythm control medication were associated with less favorable patient-reported outcomes following the therapy. The adverse effects of AF therapies may outweigh the positive effects of sinus rhythm and rate control.



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