Atrial Fibrillation Clinics in BC and the use of Dronedarone

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Background

•Dronedarone is an antiarrhythmic for treatment of atrial fibrillation (AF) available in Canada since 2009
•Marketed as an alternative to amiodarone; having less adverse-effects and shorter half-life relative to amiodarone
•Canadian Cardiovascular Society (CCS) 2010 AF guidelines list dronedarone as first line therapy. This was followed by published warnings of safety concerns with dronedarone (ie. hepatotoxicity)
•CCS 2012 Focused Update narrowed recommendations based on the PALLAS trial
•Cardiac Services BC established the AF Clinics (AFCs) program in 2009. These clinics are multi-disciplinary, seeing patients that are referred often because they failed standard AF therapy or for cardioversion or ablation management of their AF

Objectives

•Evaluate the safety and efficacy of dronedarone along the continuum of the AF diagnosis
•Describe prescribing patterns when switched from dronedarone to other agents, particularly in response to the recent Health Canada warnings
•Identify patient characteristics or factors that may contribute to patients continuing or discontinuing dronedarone

Methods

•Retrospective chart review from August to January 2011 of patients who were treated with dronedarone in three AFCs in BC
•Descriptive statistics used to identify potential predictors of continued or discontinued dronedarone treatment
•Multivariate logistic regression analysis to identify independent predictors of dronedarone success and failure
  •All potential patient characteristics identified from the univariate analysis with a p-value <0.10 were used in the multivariate logistic regression analysis

Definitions

•**Continued trial**: no change or improvement in the CCS Severity of AF (CCS-SAF) score, ≥3 months on dronedarone, and no AF-related hospitalizations or ER visits
  •CCS-SAF: symptom severity scale that assesses the impact of AF symptoms and therapy on overall quality of life and patient functioning. Score ranges from 0 (no impact) to 4 (severe impact)
•**Discontinued trial**: Received at least one dose of dronedarone and subsequently discontinued

Table 1. Baseline Characteristics

	Entire Cohort (N=254)	Continued (N=125)	Discontinued (N=129)
Age (yrs)	61.1	60.9	61.5
Female (%)	28.3	29.6	27.1
CCS-SAF baseline (median)	2	2	2
CCS-SAF change (median)	0	0	-1
Type of AF (%)			
Paroxysmal AF	59.7	63.2	52.7
Persistent AF	22.0	16.0	27.9
Permanent AF	8.7	8.8	8.5
Medical History (%)			
Valvular heart disease	8.7	8.0	9.3
CAD	16.9	18.4	15.5
HTN	55.9	52.8	58.9
Diabetes Mellitus	13.8	14.4	13.2
LVEF <0.45	11.0	8.0	14.0
LAD >41mm	55.5	52.8	58.1
Prior cardioversion	65.7	64.0	67.4
Prior ablation	22.5	24.8	20.8
Prior antiarrhythmic	68.1	60.4	64.0
Prior amiodarone	22.8	17.6	27.9

Results

- 254 charts reviewed at three AFC: SPH (64.6%), VGH 44 (17.3%), RCH 46 (18.1%)
- Adverse events (N=89): Fatigue 12.6%, Diarrhea 7.5%, Nausea 6.7%, Bradycardia 5.5%, LFT >3x ULN 2.5%, Rash 2.0%, SrCr Increase by 30% 0.8%, QTc prolonged >500msec 0.4%
  - In prospective studies, GI upset and bradycardia were the most common AE reported
- Each AFC contacted patients in permanent AF on dronedarone when the PALLAS trial results were released; 17 patients were identified
  - 13 of the 17 were switched a rate control strategy [beta-blocker or non-DHB CCB]
  - Rate of permanent AF was equally distributed in each cohort

Figure 1. Reason for Discontinuing Dronedarone

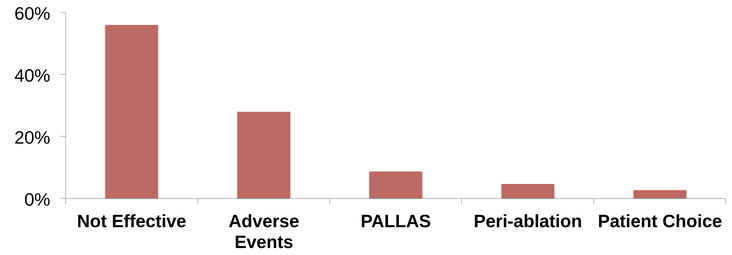

Table 2. Univariate Analysis

Characteristic	Entire Cohort	Continued	Discontinued	p-value
Cardioversion on dronedarone (%)	26.4	16.8	35.7	0.001
Ablation on dronedarone (%)	19.7	24.8	14.7	0.044
Years since diagnosis	6.4	7.1	5.7	0.004
Duration on dronedarone (mo)	7.2	9.7	4.8	0.004

*only variables with p<0.05 listed

Figure 2. AF Medication After Dronedarone

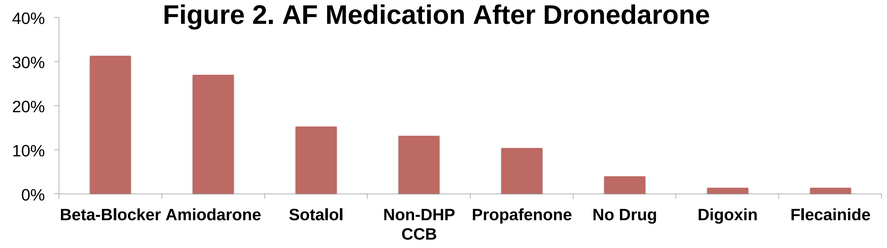

Table 3. Logistic Regression

Variable	Odds Ratio For Continuing Dronedarone	95% CI
Yrs since diagnosis	0.94	[0.90-0.99]
Cardioversion on dronedarone	0.33	[0.18-0.61]
Ablation on dronedarone	2.44	[1.22-4.76]
Prior antiarrhythmic	0.50	[0.28-0.90]

*only variables from univariate analysis with p<0.10 included in logistic regression

Conclusions

- Undergoing ablation while on dronedarone was the only significant independent predictor of continuing dronedarone therapy for at least 3 months
- Cardioversion, prior antiarrhythmic therapy, and longer duration of AF were associated with a lower likelihood of continuing dronedarone therapy for 3 months
- After discontinuing dronedarone rate control was the most common regimen, particularly for patients who discontinued after PALLAS results