



Triggers of Paroxysmal AF

- Vinson DR. Redressing the underrecognition of “Cold Drink Heart”: Patients teaching physicians about atrial fibrillation triggered by cold drink and food. *Perm J.* 2020;24:19.238. [pdf](#)
- Marcus GM, et al. Acute consumption of alcohol and discrete AF events. *Ann Intern Med.* 2021 Aug 31 [online ahead of print].
- Voskoboinik A, Marcus GM. The impact of alcohol intake on AF. *Curr Cardiol Rep.* 2020;22(10):111. [pdf](#)
- Voskoboinik A, et al. Caffeine and arrhythmias: time to grind the data. *JACC Clin Electrophysiol.* 2018;4(4):425-432. [pdf](#) (Coffee is not a trigger and may actually be protective)
- Kim EJ, et al. Coffee consumption and incident tachyarrhythmias. *JAMA Intern Med.* 2021;181(9):1185-1193. [pdf](#)

Society AF Guidelines

- Stiell IG, et al. 2021 CAEP Acute AFF Best Practices. *CJEM.* 2021 Aug 12 [online ahead of print].
- January CT, et al. 2014 AHA/ACC/HRS Guideline for the management of pts c AF. *J Amer Coll Cardiol.* 2014;64(21):e1-76. [pdf](#)
 - Candidates for rhythm control strategy: section 6, p. e32
 - Stroke prevention in pts undergoing cardioversion: section 6.1.1, p. e33
 - Methods to improve success of DCCV: section 6.1, p. e34
- January CT, et al. 2019 AHA/ACC/HRS Focused Update of the 2014 AHA/ACC/HRS Guideline for AF. *Circ.* 2019;140:e125–e151. [pdf](#) Nothing new was added on cardioversion; see 2014 above.
- Hindricks G, et al. 2020 ESC Guidelines for the diagnosis and management of AF. *Eur Heart J.* 2020 Aug 29 [online ahead of print]. [pdf](#)
- Andrade JG, et al. The 2020 Canadian Cardiovascular Society/Canadian Heart Rhythm Society Comprehensive Guidelines for the Management of AF. *Can J Cardiol.* 2020;36(12):1847-1948. [pdf](#)

Sustained Rate Reduction

Early Oral Long-acting Rate-reducing Meds Facilitate Home Discharge

- Zimetbaum P, et al. Impact of a practice guideline for pts with AF on medical resource utilization and costs. *Am J Cardiol.* 2003;92:677–681. [pdf](#)



RISTRA AF References



- De Leon E, et al. Impact of standardizing management of AF with rapid HR in the ED. *Perm J.* 2018;22:17-049. [pdf](#)
- DeMeester S, et al. Implementation of a novel algorithm to decrease unnecessary hospitalizations in pts presenting to a community ED with AF. *Acad Emerg Med.* 2018;25(6):642-649. [pdf](#)

Adjunct IV MgSO₄ Improves Sustained Rate Reduction

- Boudia W, et al. Low-dose mag vs high dose in the early management of rapid AF: Randomized controlled double-blind study. *Acad Emerg Med.* 2019;26(2):183-191. [pdf](#)
- Davey MJ, Teubner D. A randomized controlled trial of magnesium sulfate, in addition to usual care, for rate control in AF. *Ann Emerg Med.* 2005;45(4):347-53. [pdf](#)

Rate Reduction Reduces Effectiveness of Cardioversion

- Blecher GE, et al. Rate control meds before ED cardioversion of recent-onset AF or flutter reduces success. *CJEM.* 2012;14(3):169-77. [pdf](#)

Good rate control and effective cardioversion a/w reduced hospitalization in KPNC EDs.

- Kea B, et al. Predictors of acute atrial fibrillation and flutter hospitalization across 7 U.S. emergency departments: a prospective study. *JAF.* 2021 May 8 [Epub ahead of print]. [pdf](#)

Electrical Cardioversion

- Stiell IG, et al. Electrical vs pharmacological cardioversion for ED pts w/ acute AF. *Lancet.* 2020;395:339-349. [pdf](#)
- Scheuermeyer FX, et al. Chemical-first or electrical-first cardioversion strategy for uncomplicated acute AF. *Acad Emerg Med.* 2019;26(9):969-981. [pdf](#)
- Ramirez FD, et al. The Ottawa AF Cardioversion Protocol. *Europace.* 2019;21(5):708-715. [pdf](#)
- Vinson DR, et al. Improving first shock success in pts with AF undergoing electrical cardioversion. *Europace.* 2019;21(5):833. [pdf](#)
- Voskoboinik A, et al. Cardioversion of AF in obese pts. *J Cardiovasc Electrophysiol.* 2019;30(2):155-161. [pdf](#)
- Vinson DR, et al. Managing ED patients with recent-onset AF. *J Emerg Med.* 2012;42(2):139-48. [pdf](#)



RISTRA AF References



- Ballard DW, et al. ED management of AFF and patient quality of life at one month postvisit. *Ann Emerg Med.* 2015;66(6):646-654. [pdf](#)

Pharmacologic Cardioversion

Procainamide Effectiveness and Safety in Canadian and KPNC EDs

- Stiell IG, et al. Electrical vs pharmacological cardioversion for ED pts with acute AF. *Lancet.* 2020;395:339-349. [pdf](#)
- Vinson DR, et al. Emergency department cardioversion of acute AF. *Lancet.* 2020;396(10255):885. [pdf](#)
- Stiell I, et al. Canadian Assn of Emerg Physicians AFF Best Practices Checklist. *CJEM.* 2018;20(3):334-342. [pdf](#)
- Stiell IG, et al. Association of the Ottawa Aggressive Protocol with rapid discharge of ED pts with recent-onset AF or flutter. *CJEM.* 2010;12(3):181-91. [pdf](#)
- Lugovskaya N, et al. Effectiveness and safety of procainamide in the cardioversion of AFF [abstract]. *Ann Emerg Med.* 2016;68(4S):S40. [pdf](#)
- Vinson DR, et al. Procainamide vs ibutilide in the cardioversion of recent-onset AFF [abstract]. *Ann Emerg Med.* 2019;74(4S):S7-8. [pdf](#)

Ibutilide in KPNC EDs

- Vinson DR, et al. Ibutilide effectiveness and safety in the cardioversion of AF and flutter in the community ED. *Ann Emerg Med.* 2018;71(1):96-108. [pdf](#)
- Le DD, et al. ECG diagnosis: ibutilide-induced torsade de pointes. *Perm J.* 2019;23:18-187. [pdf](#)

Amiodarone in KPNC EDs

- Nagam MR, et al. Patient selection, dosing patterns, safety, and delayed time to effect of IV amiodarone in the cardioversion of AF and flutter in 13 U.S. community EDs [abstract]. *Acad Emerg Med.* 2018;25(S1):S224. [pdf](#)

Oral Flecainide and Propafenone

- Alboni P, et al. Outpatient treatment of recent-onset AF with the "pill-in-the-pocket" approach. *N Engl J Med.* 2004;351(23):2384-91. [pdf](#)



RISTRA AF References



Systematic Review (limited to trial data, thereby underrepresenting procainamide)

- deSouza IS, et al. Pharmacologic cardioversion of recent-onset AF and Flutter in the ED: A systematic review and network meta-analysis. *Ann Emerg Med.* 2020;76(1):14-30. [pdf](#)

The Timing Debate re: Cardioversion: Today or Tomorrow?

- Pluymaekers NA, et al. Early or delayed cardioversion in recent-onset AF. *N Engl J Med.* 2019;380(16):1499-1508. [pdf](#)
- Vinson DR, Atzema CL. Response to Pluymaekers. *N Engl J Med.* 2019;381(4):386-387. [pdf](#)
- Boriani G, et al. Managing AF: editorial on Pluymaekers. *Intern Emerg Med.* 2020;15(1):9-12. [pdf](#)
- Botto GL, et al. Is delayed cardioversion better? Yes. *Intern Emerg Med.* 2020;15(1):1-4. [pdf](#)
- Capucci A, et al. Is delayed cardioversion better? No. *Intern Emerg Med.* 2020;15(1):5-7. [pdf](#)
- Vinson DR, et al. Managing ED patients with recent-onset AF. *J Emerg Med.* 2012;42(2):139-48. [pdf](#)
- Nuotio I, et al. Time to cardioversion for acute AF and thromboembolic complications. *JAMA.* 2014;312(6):647-9. [pdf](#)
- Pluymaekers NA, et al. Frequency and determinants of spontaneous conversion to sinus rhythm in patients presenting to the emergency department with recent-onset atrial fibrillation: A systematic review. *Arrhythm Electrophysiol Rev.* 2020;9(4):195-201. [pdf](#)
- Pluymaekers NA, et al. Clinical determinants of early spontaneous conversion to sinus rhythm in patients with atrial fibrillation. *Neth Heart J.* 2021. [pdf](#)

Anticoagulation after ED Cardioversion

- Lip G, et al. Antithrombotic therapy for AF: CHEST Guideline and Expert Panel Report. *Chest.* 2018;154(5):1121-1201. [pdf](#)
- Andrade JG, et al. Periprocedural anticoagulation for cardioversion of acute onset AFF: evidence base for current guidelines. *Can J Cardiol.* 2019;35(10):1301-1310. [pdf](#)

HAS-BLED Score



RISTRA AF References



- Lip GY, Lane DA. Bleeding risk assessment in atrial fibrillation: observations on the use and misuse of bleeding risk scores. *J Thromb Haemost.* 2016;14(9):1711-4. [pdf](#)
- Pisters R, et al. A novel user-friendly score (HAS-BLED) to assess 1-year risk of major bleeding in patients with atrial fibrillation: the Euro Heart Survey. *Chest.* 2010;138(5):1093-100. [pdf](#)

The Long-term Benefits of an Early Rhythm-control Strategy in Select Pts

- Kirchhof P, et al; EAST-AFNET 4 Trial Investigators. Early Rhythm-control therapy in patients with atrial fibrillation. *N Engl J Med.* 2020;383:1305-1316. [pdf](#) Using catheter ablation (19%) and antiarrhythmic drugs in patients beginning within their first year of AF diagnosis.