

# Pharmacology of Antiarrhythmics and Antihypertensives

Sara Haney Shields

Rachel M. Holland

Benjamin Small

## REFERENCES

- Knollmann BC, Roden DM: Chapter 30. Antiarrhythmic drugs, in Brunton LL, Hilal-Dandan R, Knollmann BC (eds): *Goodman & Gilman's The Pharmacological Basis of Therapeutics*, 13th ed. New York: McGraw-Hill; 2018.
- Nattel S, Andrade J, Macle L, et al: New directions in cardiac arrhythmia management: present challenges and future solutions. *Can J Cardiol* 30: S420, 2014. [PMID: 25432137]
- The Cardiac Arrhythmia Suppression Trial (CAST) Investigators: Preliminary report: effect of encainide and flecainide on mortality in a randomized trial of arrhythmia suppression after myocardial infarction. *N Engl J Med* 321: 406, 1989. [PMID: 2473403]
- Waldo AL, Camm AJ, deRuiter H, et al: Effect of d-sotalol on mortality in patients with left ventricular dysfunction after recent and remote myocardial infarction. The SWORD Investigators. Survival with oral sotalol. *Lancet* 348: 7, 1996. [PMID: 8691967]
- Connolly SJ, Camm AJ, Halperin JL, et al: Dronedronarone in high-risk permanent atrial fibrillation. *N Engl J Med* 365: 2268, 2011. [PMID: 22082198]
- <http://accessmedicine.mhmedical.com/drugs.aspx>. (Access Medicine: Drug Monograph, McGraw-Hill.) Accessed May 1, 2018.
- Ortiz M, Martín A, Arribas F, et al: Randomized comparison of intravenous procainamide vs. intravenous amiodarone for the acute treatment of tolerated wide QRS tachycardia: the PROCAMIO study. *Eur Heart J* 38: 1329, 2017. [PMID: 27354046]
- Link MS, Berkow LC, Kudenchuk PJ, et al: Part 7: Adult Advanced Cardiovascular Life Support: 2015 American Heart Association guidelines update for cardiopulmonary resuscitation and emergency cardiovascular care. *Circulation* 132: S444, 2015. [PMID: 26472995]
- Page RL, O'Bryant CL, Cheng D, et al: Drugs that may cause of exacerbate heart failure. *Circulation* 134: e32, 2016. [PMID: 27400984]
- Stiell A, Clemet CM, Perry JJ, et al: Association of the Ottawa Aggressive Protocol with Rapid discharge of Emergency Department Patients with recent-onset atrial fibrillation or flutter. *Can J Emerg Med* 12: 181, 2010. [PMID: 20522282]
- January CT, Wann LS, Alpert JS, et al: 2014 AHA/ACC/HRS guideline for the management of patients with atrial fibrillation: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines and the Heart Rhythm Society. *J Am Coll Cardiol* 64: e1, 2014. [PMID: 24682348]
- Myerburg RJ, Mitrani R, Interian A Jr: Interpretation of outcomes of antiarrhythmic clinical trials. Design features and population impact. *Circulation* 97: 1514, 1998. [PMID: 9576433]
- Yancy CW, Jessup M, Bozkurt B, et al: 2017 ACC/AHA/HFSA focused update of the 2013 ACCF/AHA guideline for the management of heart failure: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Failure Society of America. *Circulation* 136: e137, 2017. [PMID: 28455343]
- Desai AD, Chun S, Sung RJ: The role of intravenous amiodarone in the management of cardiac arrhythmias. *Ann Intern Med* 127: 294, 1997. [PMID: 9265430]
- Wyeth: Product Information: Cordarone® IV, Amiodarone. Philadelphia, PA: Wyeth Laboratories; 2002.
- Baxter Healthcare: Nexterone Amiodarone IV® [package insert]. Deerfield, IL: Baxter Healthcare Corporation; 1985.
- Dorian P, Cass D, Schwartz B, et al: Amiodarone as compared with lidocaine for shock-resistant ventricular fibrillation. *N Engl J Med* 346: 884, 2002. [PMID: 11907287]
- Kudenchuk PJ, Cobb LA, Copass MK, et al: Amiodarone for resuscitation after out-of-hospital cardiac arrest due to ventricular fibrillation. *N Engl J Med* 341: 871, 1999. [PMID: 10486418]
- Heldal M, Atar D: Pharmacologic conversion of recent-onset atrial fibrillation: a systematic review. *Scand Cardiovasc J* 47: 2, 2013. [PMID: 23067130]
- Trissel LA: *Handbook on Injectable Drugs*. Bethesda, MD: American Society of Health-System Pharmacists; 2016.
- Goldschlager N, Epstein AE, Naccarelli GV, et al: Practical guide for clinicians who treat patients with amiodarone. *Heart Rhythm* 4: 1250, 2007. [PMID: 17765636]
- Hohnloser SH, Klingenhoven T, Singh BN: Amiodarone-associated proarrhythmic effects. *Ann Intern Med* 121: 529, 1994. [PMID: 8067651]
- Sanofi-Aventis: Multaq® [package insert]. Bridgewater, NJ: Sanofi-Aventis U.S., LLC; 2009.
- Apotex: Sotalol® [package insert]. Weston, FL: Apotex Corp.; 2004.
- <https://www.fda.gov/Drugs/DrugSafety/ucm489271.htm> (Information for Tikosyn [dofetilide].) Accessed May 22, 2018.
- Vinson DR, Lugovskaya N, Warton M, et al: Ibutilide effectiveness and safety in cardioversion of atrial fibrillation and flutter in the community emergency department. *Ann Emerg Med* 71: 96, 2018. [PMID: 28969929]
- <https://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientandProviders/ucm489271.htm>. (Drug safety information for Tikosyn [dofetilide].) Accessed December 2, 2017.
- Akel T, Lafferty J: Efficacy and safety of intravenous vernakalant for the rapid conversion of recent-onset atrial fibrillation: a meta-analysis. *Ann Noninvasive Electrocardiol* 23: e12508, 2018. [PMID: 29105209]
- Savelieva I, Graydon R, Camm AJ: Pharmacological cardioversion of atrial fibrillation with vernakalant: evidence in support of the ESC guidelines. *Europace* 16: 162, 2014. [PMID: 24108230]
- Alabed A, Sabouni A, Providencia R, et al: Adenosine versus intravenous calcium channel antagonists for supraventricular tachycardia. *Cochrane Database Syst Rev* 10: CD005154, 2017. [PMID: 29025197]
- Herroeder S, Scho ME, De Hert SG, Hollmann MW: Magnesium—essentials for anesthesiologists. *Anesthesiology* 114: 971, 2011. [PMID: 21364460]
- Reynolds MR: Outcomes with digoxin in atrial fibrillation: more data, no answers. *J Am Coll Cardiol* 64: 669, 2014. [PMID: 25125297]
- Friberg L, Hammar N, Rosenqvist M: Digoxin in atrial fibrillation: report from the Stockholm Cohort study of Atrial Fibrillation (SCAF). *Heart* 96: 275, 2010. [PMID: 19710030]
- Gheorghiadu M, Fonarow GC, van Veldhuisen DJ, et al: Lack of evidence of increased mortality among patients with atrial fibrillation taking digoxin: findings from post hoc propensity-matched analysis of the AFFIRM trial. *Eur Heart J* 34: 1489, 2013. [PMID: 23592708]
- Turakhia MP, Santangeli P, Winkelmayer WC, et al: Increased mortality associated with digoxin in contemporary patients with atrial fibrillation: findings from the TREAT-AF study. *J Am Coll Cardiol* 64: 660, 2014. [PMID: 25125296]
- Shah M, Avgil Tsadok M, Jackevicius CA, et al: Relation of digoxin use in atrial fibrillation and the risk of all-cause mortality in patients ≥65 years of age with versus without heart failure. *Am J Cardiol* 114: 401, 2014. [PMID: 24950677]
- Whelton PK, Carey RM, Aronow WS, et al: 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APHA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: Executive Summary: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *J Am Coll Cardiol* 71: 2199, 2018. [PMID: 29133354]
- Buller CE, Nogareda JC, Ramanathan K, et al: The profile of cardiac patients with renal artery stenosis. *J Am Coll Cardiol* 43: 1606, 2004. [PMID: 15120819]
- Committee on Obstetric Practice. Committee Opinion No. 692: Emergent Therapy for Acute-Onset, Severe Hypertension During Pregnancy and the Postpartum Period. *Obstet Gynecol* 129: e90, 2017. [PMID: 28333820]