

Curriculum Vitae – Alan K. Woelfel, M.D.

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Educational Background:

Fellowship in Clinical Electrophysiology	University of North Carolina School of Medicine Chapel Hill, NC	1982-1983
Fellowship in Cardiovascular Disease	University of North Carolina School of Medicine Chapel Hill, NC	1980-1982
Internship and Residency in Internal Medicine	North Carolina Memorial Hospital Chapel Hill, NC	1977-1980
M.D.	University of Texas Southwestern Medical School Dallas, TX	1977
B.A.	Rice University Houston, TX	1973

Certification:

Michigan Medical License, 1991

American Board of Internal Medicine

- Clinical Electrophysiology Subspecialty Examination, 1992 & 2003
- Cardiovascular Diseases Subspecialty Examination, 1985
- Internal Medicine Specialty Examination, 1980

North Carolina Medical License, 1977

Professional Services:

2012-present: [B. H. Barkalow & Associates, LLC](#), Newaygo, MI. **Senior Electrophysiology Consulting Expert.** NN

1991-present: [West Michigan Heart](#), Grand Rapids, MI. **Electrophysiologist.**

1988-1991: [North Carolina Memorial Hospital](#), Chapel Hill, NC. **Director,** Clinical Electrophysiology Laboratory.

1983-1991: [North Carolina Memorial Hospital](#), Chapel Hill, NC. **Medical Director,** Arrhythmia Surgery Service.

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1983-1991: *North Carolina Memorial Hospital*, Chapel Hill, NC. **Medical Director**, Holter Monitor Laboratory.

1986-1991: [*University of North Carolina School of Medicine*](#), Chapel Hill, NC. **Assistant Professor of Medicine**.

1984-1986: *University of North Carolina School of Medicine*, Chapel Hill, NC. **Clinical Assistant Professor of Medicine**.

1983-1984: *University of North Carolina School of Medicine*, Chapel Hill, NC. **Clinical Instructor of Medicine**.

Professional Organizations:

[American College of Cardiology](#) (Fellow)

[American Heart Association](#)

Hospital Affiliations:

[Spectrum Health Hospitals](#), Grand Rapids, Michigan

[Holland Hospital](#), Holland, Michigan

Honors/Awards:

Chief Cardiovascular Fellow, University of North Carolina, 1981-1982

Alpha Omega Alpha, 1977

Phi Beta Kappa, 1973

Summa cum laude, Rice University, 1973

National Merit Scholar, 1969

Publications:

Elmouchi D, Woelfel A. Erosion of an implantable cardioverter-defibrillator. *J Am Coll Cardiol*. 59(24): e47, 2012.

Chow T, Kereiakes DJ, Onufer J, Woelfel A, Gursoy S, Peterson BJ, Brown ML, Pu W, Benditt DG; MASTER Trial Investigators. Does microvolt T-wave alternans testing predict ventricular tachyarrhythmias in patients with ischemic cardiomyopathy and prophylactic defibrillators? The MASTER (Microvolt T Wave Alternans Testing for Risk Stratification of Post-Myocardial Infarction Patients) trial. *J Am Coll Cardiol*. 52(20): 1607-15, 2008.

Woelfel A, Gettes LS. Conduction disturbances: temporary and permanent pacing in patients with acute myocardial infarction. In Gersh BJ, Rahimtoola SH, eds. *Acute Myocardial Infarction*, 2nd ed. New York: Chapman & Hall, 1997; 354-367.

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Olson PJ, Woelfel A, Simpson RJ Jr, Foster JR. Stratification of sudden death risk in patients receiving long-term Amiodarone treatment for sustained ventricular tachycardia or ventricular fibrillation. *Am J Cardiol.* 71(10): 823-6, 1993.

Woelfel A, Weaver DE, Jenkins M, Woelfel LP, Herbst MC. Lack of correlation between the signal-averaged electrocardiogram and regional wall motion abnormalities in coronary artery disease. *Am J Cardiol.* 69(4): 415-7, 1992.

Sapin PM, Woelfel AK, Foster JR. Unexpected ventricular tachyarrhythmias soon after cardiac surgery. *Am J Cardiol.* 68(10): 1099-100, 1991.

Woelfel A, Gettes LS. Tachyarrhythmias during acute myocardial infarction. In Gersh BJ, Rahimtoola SH, eds. *Acute Myocardial Infarction*. New York: Elsevier, 1991; 235-248.

Woelfel A, Wohns DHW, Foster JR. Implications of sustained monomorphic ventricular tachycardia associated with myocardial injury. *Ann Int Med.* 112(2): 141-143, 1990.

Woelfel A, Surgery for expected ventricular tachycardia. *Am J Cardiol.* 64(12): 832-33, 1989. Reply to a letter to the editor.

Woelfel A, Cascio W, Smith SW. Cerebral embolization in two young patients with fascioscapulohumeral muscular dystrophy and atrial dysrhythmias. *Am Heart J.* 118(3): 632-33, 1989.

Williams ML, Woelfel A, Cascio W, Simpson RJ Jr, Gettes LS Foster JR. Intravenous Amiodarone during prolonged resuscitation from cardiac arrest. *Ann Int Med.* 110(10): 839-842, 1989.

Woelfel A, Gettes LS. Assessment and intervention by catheter techniques: The patient with known or suspect arrhythmia. In Pepine CJ, ed. *Diagnostic and Therapeutic Cardiac Catheterization*. Baltimore: Williams and Wilkins, 1989; 523-543.

Simpson RJ Jr, Amara I, Foster JR, Woelfel A, Gettes LS. Thresholds, refractory periods and conduction times of the normal diseased human atrium. *Am Heart J.* 116(4): 1080-1090, 1988.

Woelfel A, Foster JR, Rowe WW, Jain A, Gettes LS. Induction of ventricular tachycardia in patients with left ventricular aneurysms and no history of arrhythmia. *Am J Cardiol.* 62(10 Pt 1): 814-816, 1988.

Simpson RJ Jr, Amara I, Foster JR, Woelfel A, Gettes LS. Thresholds, refractory periods, and conduction times of the normal and diseased human atrium. *Am Heart J.* 116(4): 1080-90, 1988.

Cascio WE, Woelfel A, Buchanan JW, Foster JR, Gettes LS. Use dependence of Amiodarone during the sinus tachycardia of exercise. *Am J Cardiol.* 61(13): 1042-1045, 1988.

Curtis JL, Foster JR, Gettes LS, Simpson RJ Jr., Woelfel A. Initial presentation of sustained ventricular tachycardia after resection of left ventricular aneurysm. *Am J Cardiol.* 58(6): 560-561, 1986.

Simpson RJ Jr, Foster JR, Woelfel AK, Gettes LS. Management of atrial fibrillation and flutter. A reappraisal of digitalis therapy. *Postgrad Med.* 79(8): 241-253, 1986.

Woelfel A. Exercise-induced ventricular tachycardia. *Primary Cardiol.* 12(12): 35-42, 1986.

Woelfel A. Palpitations: When to reassure, when to treat. *Modern Medicine.* 53: 74-111, 1985.

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Woelfel A, Foster JR, McAllister RG Jr, Simpson RJ Jr, Gettes LS. Efficacy of Verapamil in exercise-induced ventricular tachycardia. *Am J Cardiol.* 56(4): 292-297, 1985.

Woelfel A, Simpson RJ Jr, Gettes LS, Foster JR. Exercise-induced atrioventricular block. *J Am Coll Cardiol.* 4(5): 1068-1069, 1984. Reply to a letter to the editor.

Woelfel A, Simpson RJ Jr, Foster JR. Functional type 1-like distal atrioventricular block induced by atrial pacing. *Am J Cardiol.* 54(10): 1363-1364, 1984.

Woelfel A, Foster JR, Simpson RJ Jr, Gettes LS. Reproducibility and treatment of exercise-induced ventricular tachycardia. *Am J Cardiol.* 53(6): 751-756, 1984.

Woelfel AK, Simpson RJ Jr, Gettes LS, Foster JR. Exercise-induced distal atrioventricular block. *J Am Coll Cardiol.* 2(3): 578-581, 1983.

Woelfel AK, Kaplan RA, Pak CYC. Effect of hydrochlorothiazide therapy on the crystallization of calcium oxalate in urine. *Metabolism.* 26(2): 201-205, 1977.

Musher DM, Griffith DP, Tyler M, Woelfel AK. Potentiation of the antibacterial effect of Methenamine by Acetohydroxamic acid. *Antimicrob Agents Chemother.* 5(2): 101-105, 1974.

Presentations:

Olson PJ, Woelfel AK, Simpson JR Jr, Foster JR. Do any patients treated with Amiodarone for sustained ventricular tachycardia/ventricular fibrillation have an acceptably low risk of sudden death? Presented at the 63rd Scientific Sessions of the American Heart Association, November, 1990.

Cascio WE, Woelfel AK, Kniseley SB, Foster JR. Amiodarone induced rate-related QRS widening during myocardial ischemia in man. Presented at the 39th Scientific Sessions of the American College of Cardiology, March, 1990.

Williams ML, Cascio WE, Woelfel AK, Simpson RJ Jr, Foster JR, Gettes LS. Survival after intravenous Amiodarone in prolonged cardiac resuscitation. Presented at the 60th Scientific Sessions of the American Heart Association, November, 1987.

Woelfel A, Starek PJK, Foster JR, Noneman JW, Nichols TC, Gettes LS. Induction of ventricular tachycardia in patients with left ventricular aneurysms and no history of arrhythmia. Presented at the 36th Scientific Sessions of the American College of Cardiology, March, 1987.

Cascio W, Buchanan J, Simpson RJ Jr, Woelfel A, Gettes L, Foster J. Use-dependence of Amiodarone during sinus tachycardia of exercise. Presented at the 59th Scientific Sessions of the American Heart Association, November, 1986.

Simpson RJ Jr, Foster JR, Woelfel AK, Gettes LS. Divergent effects of hypothermia, Quinidine, and Procainamide on conduction of early and late premature beats in the normal canine atria. Presented at the 35th Scientific Sessions of the American College of Cardiology, March, 1986.

Simpson RJ Jr, Amara I, Foster JR, Woelfel Ak, Gettes LS. Electrophysiological correlates of atrial fibrillation. Presented at the 57th Scientific Sessions of the American Heart Association, November, 1984.

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Simpson RJ Jr, Foster JR, Woelfel AK, Gettes LS. Characteristics of the human atrial relative refractory period. Presented at the 57th Scientific Sessions of the American Heart Association, November, 1984.

Woelfel AK, Foster JR, Gettes LS. Use of Verapamil in exercise-induced ventricular tachycardia. Presented at the 56th Scientific Sessions of the American Heart Association, November, 1983.

Woelfel AK, Foster JR, Simpson RJ Jr, Gettes LS. Reproducibility and treatment of exercise-induced ventricular tachycardia. Presented at the 55th Scientific Sessions of the American Heart Association, November, 1982.

Research:

MASTER, Microvolt T Wave Alternans Testing for Risk Stratification of Post MI Patients. Master I: Trial to demonstrate that the life-threatening ventricular tachyarrhythmic event (LTVTE) free survival probability is greater in patients with a baseline MTWA negative result as compared to patients with a baseline MTWA non-negative (positive or indeterminate) result. Master II: Trial to demonstrate that the life-threatening ventricular tachyarrhythmic event (LTVTE) free survival probability is greater in patients with a baseline MTWA negative result as compared to patients with a baseline MTWA positive result. November 19, 2007. Investigator: Alan Woelfel, MD.

MAPP, Molecular Biomarkers for Risk Stratification of Post MI Patients, A Sub Study of the MASTER Study. Trial to determine if ICD patients with at least one life threatening ventricular tachyarrhythmic event (LTVTE arm) have gene markers (SNPs) associated with arrhythmia by comparison to ICD patients without LTVTEs (control arm). December 31, 2007. Investigator: Alan Woelfel, MD.

Professional and Character References:

Available upon request.