CURRICULUM VITAE

**Harlan M. Krumholz, MD, SM**

**Education**

1980 BS Yale College

1985 MD Harvard Medical School

1992 SM Harvard School of Public Health

**Clinical Training**

1985-1986 Internship, Internal Medicine

University of California, San Francisco

1986-1988 Residency, Internal Medicine

University of California, San Francisco

1988-1989 Chief Resident, Moffitt Hospital

University of California, San Francisco

1989-1992 Cardiology Fellow, Beth Israel Hospital

Harvard Medical School

**Academic Career**

1992-1997 Assistant Professor of Medicine (Cardiology)

and Epidemiology and Public Health

Yale University School of Medicine

1997-2002 Associate Professor of Medicine (Cardiology)

and Epidemiology and Public Health

Yale University School of Medicine

2002- Professor of Medicine (Cardiology)

and Epidemiology and Public Health

Yale University School of Medicine

2005- Harold H. Hines, Jr. Professor of Medicine

and Epidemiology and Public Health

Yale University School of Medicine

**Directorships**

1995- Founder and Director, Center for Outcomes Research and Evaluation

Yale-New Haven Hospital

1996-2003 Co-Director, Robert Wood Johnson

Clinical Scholars Program

Yale University School of Medicine

2003- Director, Robert Wood Johnson

Clinical Scholars Program

Yale University School of Medicine

**Licensure**

1988 California License #G060120

1989 Massachusetts License #71212

1992- Connecticut License #032590

**Certification**

1988- ABIM Diplomate in Internal Medicine

1991- ABIM Diplomate in Cardiovascular Disease (recertified 2002, 2012)

**Awards and Honors**

1980 Magna Cum Laude, Honors in Biology, Yale

1983 Harvard Community Service Award

1984 Finalist, Innovations in Health, US Department of

Health and Human Services

Most Outstanding Medical Intern, University of

California, San Francisco

1987-1988 Teaching Award, University of California,

San Francisco School of Medicine

1992 Finalist, American Heart Association

Young Investigator Award

1996 William Harvey Award for Medical Journalism

1996-1999 Paul Beeson Faculty Scholar

2000 American Society for Clinical Investigation

2003 Best Doctors in America

2004 Association of American Physicians

2007 Award of Meritorious Achievement, American Heart Association

2007 Institute of Medicine of the National Academies

2008 Connecticut Academy of Science and Engineering

2010 Distinguished Scientist Award, American Heart Association

2011 Distinguished Achievement Award, American Heart Association

2013 QCOR Outstanding Achievement Award, American Heart Association

2014 Friendship Award, People’s Republic of China

**National Committees**

|  |  |
| --- | --- |
| 1994-1998 | Biological and Clinical Aging Review Committee, National Institute on Aging |
| 1996 | Research Effectiveness Task Force, New York Academy of Sciences |
| 1997 | Co-Chair, Targeted Research Program Outcomes Research for Risk Factor Management Committee, American Heart Association |
| 1997 | Co-Chair, Beta-Blocker Subcommittee of the Guidelines for Uniform Reporting of Risk Reduction Outcomes Project, American Heart Association |
| 1997 | Prevention Coordinating Committee, American Heart Association |
| 1997-1998 | Planning Committee, Scientific Conference on Existing Databases, and Executive Steering Committee, Cardiovascular Disease in the Elderly, American Heart Association |
| 1997-2000 | Acute Coronary Syndromes Subcommittee, and the Database Research and Development Committee, American College of Cardiology |
| 1997-2000 | Cardiovascular Measurement Advisory Panel, National Committee for Quality Assurance |
| 1997-2003 | Care Standards Committee, Heart Failure Society of America |
| 1998 | Steering Committee, Prevention V Conference, American Heart Association |
| 1998 | Chair, Special Emphasis Panel Review Committee, National Institute on Aging |
| 1998 | Grant Review Committee, Aetna Foundation |
| 1998-2000 | Task Force on Performance Measures, American College of Cardiology |
| 1998-2000 | Population Science Committee, American Heart Association |
| 1998-2004 | Board of Directors, Society of Geriatric Cardiology |
| 1998-2005 | Co-Founder and Chair, Annual Scientific Forum on Quality of Care and Outcomes Research in Cardiovascular Disease and Stroke Steering Committee, American Heart Association |
| 1998- | National Spokespersons Panel, American Heart Association |
| 1999 | Co-Chair, Beta-Blocker Therapy after Myocardial Infarction, Spotlight on Quality Project, Health Care Quality Alliance |
| 1999-2000 | Working Group on Adherence to Medical and Lifestyle Interventions, National Heart, Lung, and Blood Institute |
| 1999-2000 | Scientific Organizing Committee for the Millennium Symposium, Society of Geriatric Cardiology |
| 1999-2001 | National Chairperson, Clinical Advantage for AMI, VHA, Inc. |
| 1999-2001 | Chair, Cardiovascular Conditions Clinical Advisory Panel, Joint Commission on Accreditation of Healthcare Organizations |
| 1999-2002 | Clinical Coordinator, National Project for Myocardial Infarction (Cooperative Cardiovascular Project), Centers for Medicare & Medicaid Services |
| 1999-2002 | Special Advisor, National Project for Heart Failure, Centers for Medicare & Medicaid Services |
| 2000-2001 | Cardiovascular Expert Panel of the Performance Measurement Coordinating Council, American Medical Association, Joint Commission on the Accreditation of Healthcare Organizations, and the National Committee for Quality Assurance |
| 2000-2001 | Chair, Technical Expert Panel for Public Reporting, Centers for Medicare & Medicaid Services |
| 2000-2002 | Steering Committee for the 33rd Bethesda Conference, American College of Cardiology |
| 2000-2002 | Clinical Coordinator, Hospital Core Performance Measurement Project, Centers for Medicare & Medicaid Services |
| 2000-2005 | Member, Joint Task Force on Performance Measures, American College of Cardiology/American Heart Association |
| 2000- | Chair, Writing Committee to Develop Performance Measures for STEMI/NSTEMI, American College of Cardiology/American Heart Association |
| 2001 | Task Force on Science and Quality of Care, American College of Cardiology |
| 2001 | Chair, National Peer Review Committee for Outcomes Research, American Heart Association |
| 2001-2004 | National Scientific Advisory Council, American Federation for Aging Research |
| 2001-2008 | Executive Council, Heart Failure Society of America |
| 2001-2010 | Policy Advisory Committee, The Patrick and Catherine Weldon Donaghue Medical Research Foundation |
| 2002-2004 | Clinical Coordinator, National Heart Care Project, Centers for Medicare & Medicaid Services |
| 2002-2004 | Chair, Quality of Care and Outcomes Research Interdisciplinary Working Group, American Heart Association |
| 2002-2005 | Chair, Writing Group for Research Agenda for Outcomes Research, National Heart, Lung, and Blood Institute |
| 2002-2007 | Task Force on Practice Guidelines, Writing Committee to Revise the 1999 Guideline for the Management of Patients with Acute Myocardial Infarction, American College of Cardiology/American Heart Association |
| 2002-2010 | Clinical Chair, CEO Workgroup AMI Project, VHA, Inc. |
| 2003 | Yale Medical School Representative, Academic Health Centers Clinical Research Forum |
| 2003 | External Advisory Committee, VERITAS Project (Veterans Reminder Trial in Atherosclerosis), Emory Center for Outcomes Research |
| 2003-2004 | Steering Committee and Writing Group, Discovering the Full Spectrum of Cardiovascular Disease – the Ethnic Implications Conference, American Heart Association |
| 2003-2004 | Quality Indicators Work Group, National Kidney Disease Education Program, National Institutes of Health |
| 2003-2010 | Advocacy Committee, Heart Failure Society of America |
| 2004 | Scientific Advisory and Coordinating Committee, American Heart Association |
| 2004 | Outcomes: Impact from Observational Studies Writing Group from the Disparities Conference, American Heart Association |
| 2004 | Expert Panel, Division of Diabetes Translation, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention |
| 2004-2006 | Standards for Statistical Models Used for Public Reporting of Outcomes Writing Group, American Heart Association |
| 2005 | Case Study Development Group of the Committee to Evaluate Measures of Health Benefits for Environmental, Health, and Safety Regulation, Institute of Medicine |
| 2005-2006 | Co-Chair, Quality in Cardiovascular Imaging Working Group, American College of Cardiology |
| 2005-2006 | Appropriateness Criteria for Nuclear Imaging Project Technical Panel, American College of Cardiology |
| 2005-2006 | Advisory Panel, Gender Differences in Cardiovascular Care Feasibility Study, National Committee for Quality Assurance |
| 2005-2006 | Co-Chair, Heart IT Taskforce, American Heart Association |
| 2005-2006 | Research Advisory Council, National Committee for Quality Assurance |
| 2005-2006 | Disease Management Taxonomy Writing Group, American College of Cardiology |
| 2005-2006 | Reimbursement/Coverage/Access Policy Development Workgroup, American Heart Association |
| 2005-2006 | Ad Hoc Influenza Committee, American Heart Association |
| 2005-2007 | Advocacy Coordinating Committee, American Heart Association |
| 2005-2007 | Acute Coronary Syndromes Registry Workgroup, American College of Cardiology |
| 2005-2009 | Chair, Standardizing Ambulatory Care Performance Measures Composite Measures Technical Advisory Panel, National Quality Forum |
| 2005-2014 | Executive Committees of the Ischemic Heart Disease Group and the Congestive Heart Failure Group, Quality Enhancement Research Initiative (QUERI), Department of Veterans Affairs |
| 2005- | Chair, Cardiac Scientific Advisory Board, UnitedHealth |
| 2006 | Heart Failure and Hypertrophy Working Group, National Heart, Lung, and Blood Institute |
| 2006 | Translation, Implementation, and Community Research Working Group, National Heart, Lung, and Blood Institute |
| 2006 | Pay for Performance (P4P) Workgroup, American College of Cardiology |
| 2006-2007 | Co-Chair, Gaps/Barriers/Implications Writing Group of the Development of Systems of Care for ST-segment Elevation Myocardial Infarction Patients conference, American Heart Association |
| 2006-2007 | Science Advisory and Coordinating Committee, American Heart Association |
| 2006-2007 | Acute Coronary Syndrome Collaborative Workgroup, American College of Cardiology |
| 2006-2008 | 2008 Annual Scientific Session Program Committee, American College of Cardiology |
| 2006-2008 | Chair, D2B Quality Alliance Steering Committee, American College of Cardiology |
| 2006-2008 | Acute Coronary Syndromes/Coronary Artery Disease Clinical Data Standards Writing Committee, American College of Cardiology/American Heart Association |
| 2006-2008 | Writing Group to Update the 2004 Guidelines for the Management of Patients with ST-Elevation Myocardial Infarction, of the June 2007 Focused Update of the 2004 Guidelines for the Management of Patients with ST-Elevation Myocardial Infarction, American College of Cardiology/American Heart Association |
| 2006-2009 | Scientific Oversight Committee, American College of Cardiology National Cardiovascular Data Registry |
| 2006-2009 | Task Force on Practice Guidelines, American College of Cardiology/American Heart Association |
| 2006-2010 | Registries for Evaluating Patient Outcomes Writing Group, Agency for Healthcare Research and Quality |
| 2006-2012 | Science Oversight Subcommittee, American College of Cardiology |
| 2007 | Review Panel, 2007 Rippel Scholars Award, Fannie E. Rippel Foundation |
| 2007 | 2020 Goals and Measures Sub-Group, American Heart Association |
| 2007 | Liaison to the Peer Review Working Group of the Advisory Committee to the Director, National Institutes of Health |
| 2007-2008 | Improving Continuous Cardiac Care (IC3) Program Committee, American College of Cardiology |
| 2007-2008 | Annual Scientific Session Program Committee – Practice Innovation: Driving Revenue, Quality, and Value – Spotlight Planning Committee, American College of Cardiology |
| 2007-2008 | Co-Chair, Annual Scientific Session Program Committee – Quality of Care and Access Spotlight Planning, American College of Cardiology |
| 2007-2008 | Chair, Standards for Measures Used for Public Reporting of Efficiency and Value in Health Care Writing Group, American Heart Association |
| 2007-2008 | Implementation and Integration of Pre-hospital Electrocardiogram Programs into Systems of Care for Acute Coronary Syndrome Writing Group, American Heart Association |
| 2007-2009 | Task Force Reviewer, Guideline for the Management of Patients with Stable Ischemic Heart Disease (SIHD), American College of Cardiology/American Heart Association |
| 2007-2009 | Workgroup on Guideline Strategy, American College of Cardiology/American Heart Association |
| 2007-2009 | Guideline Process Workgroup, American College of Cardiology/American Heart Association |
| 2007-2010 | ICD Longitudinal Study Planning Subcommittee, American College of Cardiology |
| 2007- | Scientific Advisory Committee, Canadian Cardiovascular Outcomes Research Team |
| 2007- | Take ACTION Campaign Planning Subcommittee, American College of Cardiology |
| 2007-2008 | Advisory Panel to the Cardiovascular Diseases Expert Working Group of the Global Burden of Disease Study, Centers for Disease Control and Prevention |
| 2007-2009 | Contributor, HealthCare Week Magazine and HealthCare Week News Service |
| 2007- | Blue Ribbon Task Force on Health System Reform, American College of Cardiology |
| 2008-2010 | Methodology for the Selection and Creation of Performance Measures for Quantifying the Quality of Cardiovascular Care Writing Committee, American College of Cardiology/American Heart Association |
| 2008-2010 | Evidentiary Recommendations for Qualification of Surrogate Endpoints for Chronic Disease Risk Committee, Institute of Medicine |
| 2008-2010 | HbA1c Expert Advisory Panel, National Committee for Quality Assurance |
| 2008-2010 | Clinical Advisory Group, VHA, Inc. |
| 2008-2011 | Chair, Quality Programs and Products Subcommittee of the Clinical Quality Committee, American College of Cardiology |
| 2008-2011 | Quality Strategic Directions Committee, American College of Cardiology |
| 2008-2011 | Quality of Care and Outcomes Research Interdisciplinary Working Group Steering Committee (Editor Liaison: *Circulation: Cardiovascular Quality and Outcomes*), American Heart Association |
| 2008-2011 | International Strategy Work Group, National Cardiovascular Data Registry |
| 2008-2011 | Task Force on Public Reporting of Hospital-Level Cardiovascular Outcomes Measures, American College of Cardiology |
| 2008- | Writing Group to Update the ACC/AHA Guidelines for ST-Elevated Myocardial Infarction, American College of Cardiology/American Heart Association |
| 2008- | Expert Panel on Integrated CVD Risk Reduction in Adults and the Guidelines Implementation Work Group, National Heart, Lung, and Blood Institute |
| 2008- | Correspondent, Committee on Human Rights, National Academy of Sciences, National Academy of Engineering, and the Institute of Medicine |
| 2009 | Science Classification Task Force, American Heart Association |
| 2009 | Report Review Coordinator, Preventing the Global Epidemic of Cardiovascular Disease: Meeting the Challenges in Developing Countries, Institute of Medicine |
| 2009-2010 | IC3 Workgroup Performance Improvement Subcommittee, American College of Cardiology |
| 2009-2010 | Clinical Quality Committee (CQC) Quality Programs and Projects (QP2) Subcommittee, American College of Cardiology |
| 2009-2011 | Expanding Applications of Existing and Future Clinical Registries Policy Statement Writing Group, American Heart Association |
| 2009-2012 | Chair, Scientific Advisory Group, Institute for Healthcare Improvement |
|  |  |
| 2009-2013 | Chair, Steering Committee of the Hospital to Home (H2H) Initiative, American College of Cardiology |
| 2009-2015 | Clinical Quality Committee Steering Committee, American College of Cardiology |
| 2009- | Quality in Pediatric Cardiology Workgroup (Performance Indicators), American College of Cardiology |
| 2009-2012 | Advisory Board, Foundation for Art & Healing |
| 2010-2011 | Special Medical Advisory Group, United States Department of Veterans Affairs |
| 2010-2012 | Advanced Heart Failure: Prognosis, Communication, and Decision Making Writing Group, American Heart Association |
| 2010-2012 | Value Based Purchasing Advisory Panel, VHA, Inc. |
|  |  |
| 2010-2013 | Ex-Officio member, NCDR Science Oversight Committee |
| 2010-2015 | Board of Directors, American Board of Internal Medicine |
| 2010- | Board of Trustees, American College of Cardiology |
| 2010- | Board of Governors, Patient-Centered Outcomes Research Institute (PCORI) |
| 2011-2013 | Approaches to Enhancing Radiation Safety in Cardiac Imaging Writing Group, American Heart Association |
| 2011-2013 | Risk Adjustment for Stroke Outcome Measures Writing Group, American Heart Association |
| 2011-2013 | International Advisor, Centre of Research Excellence for Overcoming Disadvantage in Heart Disease, Australia |
| 2011- | Distinguished Scientists Selection Committee, American Heart Association |
| 2012-2014 | Center for Applied Healthcare Studies External Advisory Board, VHA, Inc. |
| 2012- | Heart Care Technical Expert Panel, Centers for Medicare & Medicaid Services and the Oklahoma Foundation for Medical Quality |
| 2012- | Lifelong Learning Oversight Committee, American College of Cardiology |
| 2012- | Chair, Assessment 2020 Task Force, American Board of Internal Medicine |
| 2013- | 2008 Recommendations for Training in Adult Cardiovascular Medicine Core Cardiology Training (COCATS) Task Force 7: CV Research and Scholarly Activity, American College of Cardiology, American Heart Association, and American College of Physicians |
| 2013- | Strategic Planning Task Force, American College of Cardiology |
| 2013- | Data Transparency Health Policy Statement Writing Committee, American College of Cardiology |
| 2014- | Acute Myocardial Infarctions in Women Writing Committee, American Heart Association |

**Local Committees**

|  |  |
| --- | --- |
| 1997-1998 | Medical Management Task Force, Yale-New Haven Hospital |
| 1997-1998 | Task Force on Biostatistics, Yale School of Medicine |
| 1997-1998 | Catheterization Lab Quality Assurance Committee, Yale School of Medicine |
| 1997-2000 | Quality Improvement Coordinating Council, Yale-New Haven Hospital |
| 1997-2000 | Faculty Evaluation Committee, Department of Epidemiology and Public Health |
| 1997-2005 | Echocardiography Lab Quality Assurance Committee, Yale School of Medicine |
| 1998 | Cardiovascular Services Planning Steering Committee, Yale-New Haven Hospital |
| 1998-2000 | Performance Improvement Leadership Group, Yale-New Haven Hospital |
| 1998-2000 | Appointments and Promotions Committee, Yale School of Medicine |
| 1998-2004 | Friendly Hearts Benefit Committee |
| 1999-2003 | Provost’s Standing Advisory and Appointments Committee, Yale School of Nursing |
| 1999-2010 | Graduate Program in Investigative Medicine Doctoral Committee, Yale School of Medicine |
| 2000-2005 | Co-Chair, Patient Safety Initiative, Yale-New Haven Hospital |
| 2000-2007 | Heart Center Quality Assurance Committee, Yale-New Haven Hospital |
| 2001-2002 | Neurovascular Search Committee, Yale School of Medicine |
| 2001-2002 | Space Allocation Committee, Yale School of Medicine |
| 2001-2004 | MD/PhD Program Faculty Evaluation Committee, Yale School of Medicine |
| 2002-2004 | Clinical Quality and Patient Safety Report Steering Committee, Yale-New Haven Hospital |
| 2002-2010 | Standing Advisory and Appointments Committee, School of Public Health |
| 2003-2004 | Clinical Investigation Committee, Yale School of Medicine |
| 2003-2005 | Yale-China Health Program Advisory Committee, Yale School of Medicine |
| 2003-2005 | Epidemiology and Public Health Review Committee, Yale School of Medicine |
| 2003-2006 | Yale-Howard Partnership Scientific Review Committee, Yale School of Nursing |
| 2003-2009 | K12 Mentored Clinical Research Scholar Award Program Executive Advisory Board, Yale School of Medicine |
| 2003- | External Advisory Committee, Center for Self and Family Management Interventions for Vulnerable Populations, Yale School of Nursing |
| 2004 | Community Health Educational Series Program Steering Committee, Yale-New Haven Hospital |
| 2004 | Clinical and Population-Based Research Committee, Yale School of Medicine |
| 2004-2006 | Review Committee, Translational and Interdisciplinary Research, Yale School of Medicine |
| 2005 | Faculty Search Committee for the Recruitment of Director, Public Health Practice, Epidemiology and Public Health |
| 2005-2007 | Health Studies Advisory Committee, Yale University |
| 2005- | Advisory Board, Child Health Research Career Development Program, Yale School of Medicine |
| 2006-2007 | Cardiac Care Data Committee, State of Connecticut |
| 2007- | MD-MHS Advisory Committee, Yale School of Medicine |
| 2008-2009 | IT Steering Committee, Yale School of Medicine |
| 2010-2012 | Heart and Vascular Center Quality Committee, Yale-New Haven Hospital |
| 2012-2013 | System Implementation Steering Committee, Yale-New Haven Hospital |
| 2012-2013 | Clinical Redesign Steering Committee, Yale-New Haven Hospital |
| 2012-2013 | Community and Emergency Care Assessment Steering Committee, Yale-New Haven Hospital |

**Editorships**

|  |  |
| --- | --- |
| 1996-1999 | Journal Watch: Women's Health (Associate Editor) |
| 1996-2000 | Journal Watch for Cardiology (Associate Editor) |
| 2000- | Journal Watch for Cardiology (Editor-in-Chief) |
| 2003- | Circulation (Associate Editor) |
| 2008- | Circulation: Cardiovascular Quality and Outcomes (Editor) |
| 2010- | CardioExchange, a NEJM Online Community (Editor) |

**Editorial Boards**

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| --- | --- |
| 1997- | American Journal of Medicine |
| 1999-2003 | Journal of the American College of Cardiology |
| 2000-2005 | American Heart Journal |
| 2000-2013 | Congestive Heart Failure |
| 2002- | Critical Pathways in Cardiology |
| 2003- | American Journal of Managed Care |
| 2003- | Journal of Cardiovascular Medicine, formerly the  Italian Heart Journal (International Scientific Board) |
| 2005- | Central European Journal of Medicine |
| 2006- | Current Cardiovascular Risk Reports |
| 2007- | Archives of Medical Science |
| 2007- | JACC: Cardiovascular Imaging (Senior Consulting Editor) |
| 2013- | BMJ.com/US (Advisory Board) |

**Primary Publications**

1. **Krumholz HM**,Sande MA, Lo B. Community-acquired bacteremia in patients with acquired immunodeficiency syndrome: clinical presentation, bacteriology, and outcome. Am J Med 1989;86:776-779. PMID: 2729338
2. **Krumholz HM**, Cummings S, York M. Blood culture phlebotomy: switching needles does not prevent contamination. Ann Intern Med 1990;113:290-292. PMID: 2375564
3. **Krumholz HM**, Goldberger AL. Systemic arterial vasospastic syndrome: familial occurrence with variant angina. Am J Med 1992;92:334-335. PMID: 1546733
4. **Krumholz HM**,Douglas PS, Lauer MS, Pasternak RC. Selection of patients for coronary angiography and coronary revascularization early after myocardial infarction: is there evidence for a gender bias? Ann Intern Med 1992;116:785-790. PMID: 1567092
5. **Krumholz HM**, Pasternak RC, Weinstein MC, Friesinger GC, Ridker PM, Tosteson AN, Goldman L. Cost-effectiveness of thrombolytic therapy with streptokinase in elderly patients with suspected acute myocardial infarction. N Engl J Med 1992;327:7-13. PMID: 1598117
6. Manning WJ, Silverman DI, Gordon SP, **Krumholz HM**, Douglas PS. Cardioversion from atrial fibrillation without prolonged anticoagulation with use of transesophageal echocardiography to exclude the presence of atrial thrombi. N Engl J Med 1993;328:750-755. PMID: 8437595
7. **Krumholz HM**, Larson M, Levy D. Sex differences in cardiac adaptation to isolated systolic hypertension. Am J Cardiol 1993;72:310-313. PMID: 8342510
8. **Krumholz HM**,Cohen BJ, Tsevat J, Pasternak RC, Weinstein MC. Cost-effectiveness of a smoking cessation program after myocardial infarction. J Am Coll Cardiol 1993;22:1697-1702. PMID: 8227841
9. **Krumholz HM**, Forman DE, Kuntz RE, Baim DS, Wei JY. Coronary revascularization after myocardial infarction in the very elderly: outcomes and long-term follow-up. Ann Intern Med 1993;119:1084-1090. PMID: 8239227
10. **Krumholz HM**, Friesinger GC, Cook EF, Lee TH, Rouan GW, Goldman L. Relationship of age with eligibility for thrombolytic therapy and mortality among patients with suspected acute myocardial infarction. J Am Geriatr Soc 1994;42:127-131. PMID: 8126322
11. **Krumholz HM**,Douglas PS, Goldman L, Waksmonski C. Clinical utility of transthoracic two-dimensional and Doppler echocardiography. J Am Coll Cardiol 1994;24:125-131. PMID: 8006255
12. **Krumholz HM**, Seeman TE, Merrill SS, Mendes de Leon CF, Vaccarino V, Silverman DI, Tsukahara R, Ostfeld AM, Berkman LF. Lack of association between cholesterol and coronary heart disease mortality and morbidity and all-cause mortality in persons older than 70 years. JAMA 1994;272:1335-1340. PMID: 7772105
13. Hennen J, **Krumholz HM**, Radford MJ. Twenty most frequent DRG groups among Medicare inpatients age 65 or older in Connecticut hospitals, fiscal years 1991, 1992, and 1993. Conn Med 1995;59:11-15. PMID: 7859443
14. Lacey KO, Meier GH, **Krumholz HM**, Gusberg RJ. Outcomes after major vascular surgery: the patients’ perspective. J Vasc Nurs 1995;13:8-13. PMID: 7742256
15. Hennen J, **Krumholz HM**, Radford MJ. Mortality experience, 30-days and 365-days after admission, for the 20 most frequent DRG groups among Medicare inpatients aged 65 or older in Connecticut hospitals, fiscal years 1991, 1992, and 1993. Conn Med 1995;59:137-142. PMID: 7729135
16. **Krumholz HM**,Larson M, Levy D. Prognosis of left ventricular geometric patterns in the Framingham Heart Study. J Am Coll Cardiol 1995;25:879-884. PMID: 7884091
17. Vaccarino V, **Krumholz HM**, Berkman LF, Horwitz RI. Sex differences in mortality after myocardial infarction. Is there evidence for an increased risk for women? Circulation 1995;91:1861-1871. PMID: 7882498
18. Hennen J, **Krumholz HM**, Radford MJ, Meehan TP. Readmission rates, 30 days and 365 days postdischarge, among the 20 most frequent DRG groups, Medicare inpatients age 65 or older in Connecticut hospitals, fiscal years 1991, 1992, and 1993. Conn Med 1995;59:263-270. PMID: 7600797
19. Ellerbeck EF, Jencks SF, Radford MJ, Kresowik TF, Craig AS, Gold JA, **Krumholz HM**, Vogel RA. Quality of care for Medicare patients with acute myocardial infarction. A four-state pilot study from the Cooperative Cardiovascular Project. JAMA 1995;273:1509-1514. PMID: 7739077
20. Kalish SC, Gurwitz JH, **Krumholz HM**, Avorn J. A cost-effectiveness model of thrombolytic therapy for acute myocardial infarction. J Gen Intern Med 1995;10:321-330. PMID: 7562123
21. Cohen DJ, **Krumholz HM**, Sukin CA, Ho KK, Siegrist RB, Cleman M, Heuser RR, Brinker JA, Moses JW, Savage MP, Detre K, Leon MB, Baim DS. In-hospital and one-year economic outcomes after coronary stenting or balloon angioplasty. Results from a randomized clinical trial. Stent Restenosis Study Investigators. Circulation 1995;92:2480-2487. PMID: 7586348
22. **Krumholz HM**, Radford MJ, Ellerbeck EF, Hennen J, Meehan TP, Petrillo MK, Wang Y, Kresowik TF, Jencks SF. Aspirin in the treatment of acute myocardial infarction in elderly Medicare beneficiaries. Patterns of use and outcomes. Circulation 1995;92:2841-2847. PMID: 7586250
23. **Krumholz HM**, Radford MJ, Ellerbeck EF, Hennen J, Meehan TP, Petrillo MK, Wang Y, Jencks SF. Aspirin for secondary prevention after acute myocardial infarction in the elderly: prescribed use and outcomes. Ann Intern Med 1996;124:292-298. PMID: 8554223
24. van Royen N, Jaffe CC, **Krumholz HM**, Johnson KM, Lynch PJ, Natale D, Atkinson P, Deman P, Wackers FJ. Comparison and reproducibility of visual echocardiographic and quantitative radionuclide left ventricular ejection fractions. Am J Cardiol 1996;77:843-850. PMID: 8623737
25. **Krumholz HM**, McHorney CA, Clark L, Levesque M, Baim DS, Goldman L. Changes in health after elective percutaneous coronary revascularization. A comparison of generic and specific measures. Med Care 1996;34:754-759. PMID: 8709657
26. Haering JM, Comunale ME, Parker RA, Lowenstein E, Douglas PS, **Krumholz HM**, Manning WJ. Cardiac risk of noncardiac surgery in patients with asymmetric septal hypertrophy. Anesthesiology 1996;85:254-259. PMID: 8712439
27. Vaccarino V, **Krumholz HM**, Mendes de Leon CF, Holford TR, Seeman TE, Horwitz RI, Berkman LF. Sex differences in survival after myocardial infarction in older adults: a community-based approach. J Am Geriatr Soc 1996;44:1174-1182. PMID: 8855995
28. **Krumholz HM**, Parent EM, Tu N, Vaccarino V, Wang Y, Radford MJ, Hennen J. Readmission after hospitalization for congestive heart failure among Medicare beneficiaries. Arch Intern Med 1997;157:99-104. PMID: 8996046
29. Goldberg DJ, Radford MJ, **Krumholz HM**. Reporting ejection fraction after myocardial infarction: an opportunity for quality improvement in echocardiography. Conn Med 1997;61:143-145. PMID: 9097485
30. Meehan TP, Radford MJ, Vaccarino LV, Gottlieb LD, McGovern-Hughes B, Herman MV, Revkin JH, Therrien ML, Petrillo MK, **Krumholz HM**. A collaborative project in Connecticut to improve the care of patients with acute myocardial infarction. Jt Comm J Qual Improv 1996;22:751-761. PMID: 8937949
31. **Krumholz HM**, Vaccarino V, Ellerbeck EF, Kiefe C, Hennen J, Kresowik TF, Gold JA, Jencks SF, Radford MJ. Determinants of appropriate use of angiotensin-converting enzyme inhibitors after acute myocardial infarction in persons U>U65 years of age. Am J Cardiol 1997;79:581-586. PMID: 9068512
32. **Krumholz HM**, Fendrick AM, Williams C, Hynes WM. Differences in physician compensation for cardiovascular services by age, sex, and race. Am J Manag Care 1997;3:557-563. PMID: 10169524
33. **Krumholz HM**, Murillo JE, Chen J, Vaccarino V, Radford MJ, Ellerbeck EF, Wang Y. Thrombolytic therapy for eligible elderly patients with acute myocardial infarction. JAMA 1997;277:1683-1688. PMID: 9169894
34. **Krumholz HM**, Howes CJ, Murillo JE, Vaccarino V, Radford MJ, Ellerbeck EF. Validation of a clinical prediction rule for left ventricular ejection fraction after myocardial infarction in patients U>U65 years old. Am J Cardiol 1997;80:11-15. PMID: 9205012

**Krumholz HM**, Cohen DJ, Williams CS, Baim DS, Brinker J, Cabin HS, Heuser RR, Hirshfeld J, Leon MB, Moses JW, Savage MP, Cleman M. Health after coronary stenting or balloon angioplasty: results from the Stent Restenosis Study. Am Heart J 1997;134:337-344. PMID: 9327686

1. Vaccarino V, Berkman LF, Mendes de Leon CF, Seeman TE, Horwitz RI, **Krumholz HM**. Functional disability before myocardial infarction in the elderly as a determinant of infarction severity and postinfarction mortality. Arch Intern Med 1997;157:2196-2204. PMID: 9342996
2. **Krumholz HM**, Wang Y, Parent EM, Mockalis J, Petrillo MK, Radford MJ. Quality of care for elderly patients hospitalized with heart failure. Arch Intern Med 1997;157:2242-2247. PMID: 9343001
3. Brass LM, **Krumholz HM**, Scinto JD, Radford MJ. Warfarin use among patients with atrial fibrillation. Stroke 1997;28:2382-2389. PMID: 9412618
4. Meehan TP, Fine MJ, **Krumholz HM**, Scinto JD, Galusha DH, Mockalis JT, Weber GF, Petrillo MK, Houck PM, Fine JM. Quality of care, process, and outcomes in elderly patients with pneumonia. JAMA 1997;278:2080-2084. PMID: 9403422
5. **Krumholz HM**, Chen J, Murillo JE, Cohen DJ, Radford MJ. Clinical correlates of in-hospital costs for acute myocardial infarction in patients 65 years of age and older. Am Heart J 1998;135:523-531. PMID: 9506340
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