

CURRICULUM VITAE

ETHAN BALK, MD MPH

PERSONAL INFORMATION

Address: Center for Evidence Synthesis in Health
Brown University School of Public Health
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EDUCATION

1987 BA, Chemistry
Williams College, Williamstown MA
1991 MD
Tufts University School of Medicine, Boston MA
1991-94 Internal Medicine, Primary Care Medicine residency
St Elizabeth's Medical Center, Boston MA
1999 MPH, Biostatistics and Epidemiology
Sackler School, Tufts University, Boston MA

ACADEMIC APPOINTMENTS

2016-current Associate Professor (Research), Brown University School of Public Health
2014-16 Assistant Professor (Research), Brown University School of Public Health
2013-16 Associate Professor, Tufts Medical Center, Dept of Medicine
1999-2012 Assistant Professor, Tufts Medical Center, Dept of Medicine

HOSPITAL APPOINTMENTS

1994-2003 Newton-Wellesley Hosp, Faulkner Hosp, Lemuel Shattuck Hosp, McLean Hosp

DEPARTMENT, CENTER, AFFILIATED HOSPITAL, OR UNIVERSITY SERVICE

2018 Faculty promotion committee, Brown University School of Public Health
2017 Faculty search committee, Brown University School of Public Health, Chair
2016- Health Services Research Seminar Series coordinator
2007-08 Website Committee, Institute for Clinical Research and Health Policy Studies,
Tufts University School of Medicine, Member
2004-07 Scientific Affairs Committee, Tufts University School of Medicine, Member
2004 Mentoring Committee, Institute for Clinical Research and Health Policy Studies,
Tufts University School of Medicine, Member

NATIONAL OR INTERNATIONAL SERVICE

Guideline and Systematic Review Development Committees

2017-current	KDIGO Kidney Transplant Candidates guideline (in progress)
2016-2018	KDIGO Hepatitis C in Chronic Kidney Disease guideline
2017-2018	WHO Guidelines for Management of Cancer Pain
2008-current	Society for Gynecologic Surgeons Systematic Review Group
2018-current	American Academy of Gynecologic Laparoscopists Clinical Practice Committee
2000-2012	KDOQI Clinical Practice Guideline Committees
2010-2018	KDIGO Clinical Practice Guideline Committees

Grant Application Review Boards

2015	PCORI, Improving Healthcare Systems, Medical reviewer
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Editorial Responsibilities

2014-current	Deputy Editor, Journal of General Internal Medicine
2010-12, 18-	Associate Editor, Evidence-based Practice Center Program, AHRQ
2011-16	Editorial Board member, Journal of Comparative Effectiveness Research

Journal Manuscript Reviewer

More than 20 journals since 2001, including BMJ, NEJM, PLOS One
Frequent reviewer for the Annals of Internal Medicine.

Top 10% of all reviewers: 2004, 2005, 2006, 2008, 2009, 2010, 2011, 2013, 2014, 2015.

Top 30% of all reviewers: 2003, 2007, 2016.

SERVICE TO OTHER INSTITUTIONS (RECENT)

2018-current	Methodologist, American Academy of Gynecologic Surgeons Practice Ctte
2014-current	Harvard Med Sch Global Clinical Scholars Research Training webinars
2008-current	Methodologist, Society for Gynecologic Surgeons Systematic Review Group
2015-17	Methodologist, Society of American Gastrointestinal and Endoscopic Surgeons Systematic Review Group
2015-16	Member, ACC/AHA/HRS Guideline for the Management of Adult Patients With Supraventricular Tachycardia
2015	Invited Discussant, Sleep apnea future research, Workshop on Implementation of Sleep and Circadian Science
2008-13	Board Member, National Guideline Clearinghouse/National Quality Measures Clearinghouse Core Editorial Board
2010-12	Member, American College of Radiology Appropriateness Criteria Committee

2010

Member, Repair, Revascularization, Regeneration & Reimbursement summit,
Center for Medical Technology Policy & The Angiogenesis Foundation

PUBLICATIONS IN PEER-REVIEWED JOURNALS (in forward chronological order)

1. Lau J, Ioannidis JPA, **Balk EM**, Milch C, Terrin N, Chew PW, Salem D. Diagnosing Acute Cardiac Ischemia in the Emergency Department: A Systematic Review of the Accuracy and Clinical Effect of Current Technologies. *Ann Emergency Med.* 2001; 37: 453-60.
2. **Balk EM**, Ioannidis JPA, Salem D, Chew PW, Lau J. Accuracy of Biomarkers to Diagnose Acute Cardiac Ischemia in the Emergency Department: A Meta-Analysis. *Ann Emergency Med.* 2001; 37: 478-94.
3. **Balk EM**, Zucker DR, Engels EA, Wong JB, Williams JW Jr, Lau J. Strategies for Diagnosing and Treating Suspected Acute Bacterial Sinusitis: A Cost-Effectiveness Analysis. *J Gen Intern Med.* 2001; 16: 701-711.
4. **Balk EM**, Bonis PAL, Moskowitz H, Schmid CH, Ioannidis JPA, Wang C, Lau J. Correlation of Quality Measures With Estimates of Treatment Effect in Meta-analyses of Randomized Controlled Trials. *JAMA.* 2002; 287: 2973-2982.
5. **Balk EM**, Lau J, Goudas LC, Jordan HS, Kupelnick B, Kim LU, Karas RH. Effects of Statins on Nonlipid Serum Markers Associated with Cardiovascular Disease. *Ann Intern Med.* 2003; 139(8): 670-82
6. Hogg RJ. Furth S. Lemley KV. Portman R. Schwartz GJ. Coresh J. **Balk E**. Lau J. Levin A. Kausz AT. Eknoyan G. Levey AS. National Kidney Foundation's Kidney Disease Outcomes Quality Initiative. National Kidney Foundation's Kidney Disease Outcomes Quality Initiative clinical practice guidelines for chronic kidney disease in children and adolescents: evaluation, classification, and stratification. *Pediatrics.* 111(6 Pt 1): 1416-21, 2003 Jun.
7. Levey AS. Coresh J. **Balk E**. Kausz AT. Levin A. Steffes MW. Hogg RJ. Perrone RD. Lau J. Eknoyan G. National Kidney Foundation. National Kidney Foundation practice guidelines for chronic kidney disease: evaluation, classification, and stratification. *Ann Intern Med.* 139(2): 137-47, 2003 Jul 15.
8. Milch C, **Balk EM**, Salem D, Lau J. Decision and cost-effectiveness analysis for the diagnosis of acute cardiac ischemia in the emergency department. *J Applied Res* 2003;3: 1. (<<http://www.jrnlappliedresearch.com/articles/Vol3Iss1/index.htm>>; accessed June 20, 2003).
9. Mansmann G, Lau J, **Balk E**, Rothberg M, Miyachi Y, and Bornstein SR. The Clinically Inapparent Adrenal Mass: Update in Diagnosis and Management. *Endocr Rev* 2004;25: 309-340.
10. Carr DB, Goudas LC, **Balk EM**, Bloch R, Ioannidis JPA, Lau J. Evidence report on the treatment of pain in cancer patients. *J Natl Cancer Inst Monogr* 2004;32: 23-31. PMID: 15263038.
11. Wheeler PG, Bresnahan K, Shephard BA, Lau J, **Balk EM**. Short Stature and Functional Impairment: A Systematic Review. *Archives of Pediatric and Adolescent Medicine.* 2004; 158: 236-243.

12. **Balk EM**, Karas RH, Jordan HS, Kupelnick B, Chew P, Lau J. Effects of Statins on Vascular Structure and Function: A Systematic Review. *Am J Med.* 2004; 117 (10): 774-89.
13. Goldblatt JP, Fitzsimmons SE, **Balk E**, Richmond JC. Reconstruction of the anterior cruciate ligament: meta-analysis of patellar tendon versus hamstring tendon autograft. *Arthroscopy.* 2005. 21(7): 791-803
14. **Balk EM**, Lichtenstein AH, Chung M, Kupelnick B, Chew P, Lau J. Effects of Omega-3 Fatty Acids on Coronary Restenosis, Intima-Media Thickness, and Exercise Tolerance: A Systematic Review. *Atherosclerosis* 2006 184 (2): 237–246.
15. Lapointe A, **Balk EM**, Lichtenstein AH. Gender differences in plasma lipid response to dietary fat. *Nutrition Reviews*, 2006; 64(5): 234-49.
16. Wang C, Harris WS, Chung M, Lichtenstein AH, **Balk EM**, Kupelnick B, Jordan HS, Lau J. n-3 Fatty acids from fish or fish-oil supplements, but not α -linolenic acid, benefit cardiovascular disease outcomes in primary- and secondary-prevention studies: a systematic review. *Am J Clin Nutr* 2006;84: 5–17.
17. **Balk EM**, Lichtenstein AH, Chung M, Kupelnick B, Chew P, Lau J. Effects of Omega-3 Fatty Acids on Serum Markers of Cardiovascular Disease Risk : A Systematic Review. *Atherosclerosis* 2006; 189(1): 19-30.
18. Sosa MA, **Balk EM**, Balakrishnan VS, Liangos O, Lau J, Madias NE, Pereira BJB, Jaber BL. A Systematic Review of the Effect of the Excebrane Dialyzer on Biomarkers of Lipid Peroxidation and Anemia Parameters. *Nephrol Dial Transplant.* 2006 21(10): 2825-2833.
19. **Balk EM**, Raman G, Chung M, Ip S, Tatsioni A, Alonso A, Chew P, Gilbert SJ, Lau J. Comparative Effectiveness of Management Strategies for Renal Artery Stenosis: A Systematic Review. *Ann Int Med.* 2006; 145(12): 901-12.
20. **Balk EM**, Raman G, Tatsioni A, Chung M, Lau J, Rosenberg IH. Vitamins B6, B12 and Folic Acid Supplementation and Cognitive Function: A Systematic Review of Randomized Trials. *Arch Int Med.* 2007; 167: 21-30.
21. **Balk EM**, Horsley TA, Newberry SJ, Lichtenstein AH, Yetley EA, Schachter HM, Moher D, MacLean CH, Lau J. A collaborative effort to apply the evidence-based review process to the field of nutrition: Challenges, benefits, and lessons learned. *Am J Clin Nutr.* 2007;85: 1448 –56.
22. Dansinger ML, Tatsioni A, Wong JB, Chung M, **Balk EM**. Meta-analysis: The Effect of Dietary Counseling for Weight Loss. *Ann Int Med.* 2007;147: 41-50.
23. **Balk EM**, Tatsioni A, Lichtenstein A, Lau J, Pittas AG. Effect of Chromium Supplementation on Glucose Metabolism and Lipids: A Systematic Review of Randomized Controlled Trials. *Diabetes Care* 2007;30: 2154-63.
24. Thomas G, Rojas MC, Epstein SK, **Balk EM**, Liangos O, Jaber BL. Insulin therapy and acute kidney injury in critically ill patients—a systematic review. *Nephrol Dial Transplant* 2007;22(10): 2849-55.

25. Raman G, Tatsioni A, Chung M, Rosenberg IH, Lau J, Lichtenstein AH, **Balk EM**. Heterogeneity and Lack of Good Quality Studies Limit Association Between Folate, Vitamins B-6 and B-12, and Cognitive Function. *J Nutr* 2007;137: 1789-94.
26. London B, Albert C, Anderson ME, Giles WR, Van Wagoner DR, **Balk E**, Billman GE, Chung M, Lands W, Leaf A, McAnulty J, Martens JR, Costello RB, Lathrop DA. Omega-3 Fatty Acids and Cardiac Arrhythmias: Prior Studies and Recommendations for Future Research A Report from the National Heart, Lung, and Blood Institute and Office of Dietary Supplements Omega-3 Fatty Acids and Their Role in Cardiac Arrhythmogenesis Workshop. *Circulation*. 2007; 116: e320-e335.
27. Tatsioni A. **Balk E**. O'Donnell T. Lau J. Usual care in the management of chronic wounds: a review of the recent literature. *J Am Coll Surg*. 2007; 205(4): 617-624 (e57)
28. Sanghani M. **Balk E**. Cady B. Wazer D. Predicting the risk of local recurrence in patients with breast cancer: an approach to a new computer-based predictive tool. *Am J Clin Oncol*. 2007; 30(5): 473-80.
29. Seabra VF. **Balk EM**. Liangos O. Soa MA. Cendoroglo M. Jaber BL. Timing of renal replacement therapy initiation in acute renal failure: A meta-analysis. *Am J Kidney Dis*. 2008. 52(2): 272-84.
30. Thomas G. **Balk EM**. Jaber BL. Effect of intensive insulin therapy and pentastarch resuscitation on acute kidney injury in severe sepsis. *Am J Kidney Dis*. 2008; 52: 13-17.
31. Murphy M for the Society of Gynecologic Surgeons Systematic Review Group. Clinical Practice Guidelines on Vaginal Graft Use from the Society of Gynecologic Surgeons. *Obstet Gynecol*. 2008; 112: 1123-30.
32. Sung VW, Rogers RG, Schaffer JI, **Balk EM**, Uhlig K, Lau J, Abed H, Wheeler TL, Morrill MY, Clemons JL, Rahn DD, Lukban JC, Lowenstein L, Kenton K, Young SB, for the Society of Gynecologic Surgeons Systematic Review Group. Graft Use in Transvaginal Pelvic Organ Prolapse Repair - A Systematic Review. *Obstet Gynecol*. 2008; 112: 1131-42.
33. Russell R, Chung M, **Balk EM**, Atkinson S, Giovannucci EL, Ip S, Lichtenstein AH, Taylor Mayne S, Raman G, Ross AC, Trikalinos TA, West KP Jr, Lau J. Opportunities and challenges in conducting systematic reviews to support the development of nutrient reference values: vitamin A as an example. *Am J Clin Nutr*. 2009;89: 1-6.
34. Abernethy AP, Raman G, **Balk EM**, Hammond JM, Orlando LA, Wheeler JL, Lau J, McCrory DC. Systematic Review: Reliability of compendia methods for off-label oncology indications. *Ann Intern Med*. 2009; 150: 336-43.
35. Chung M, **Balk EM**, Ip S, Raman G, Yu WW, Trikalinos T, Lichtenstein AH, Yetley EA, Lau J. Reporting of Systematic Reviews of Micronutrients and Health: A Critical Appraisal. *Am J Clin Nutr*. 2009; 89: 1099-113

36. Ip S, Lichtenstein AH, Chung M, Lau J, **Balk EM**. Systematic review: Association of low-density lipoprotein subfractions with cardiovascular outcomes. *Ann Intern Med*. 2009;150: 474-484.
37. Sanghani M, **Balk EM**, Cady B. Impact of axillary lymph node dissection on breast cancer outcome in clinically node negative patients: a systematic review and meta-analysis. *Cancer*. 2009; 115: 1613-20.
38. Chung M, Lichtenstein AH, Ip S, Lau J, **Balk EM**. Comparability of Methods for LDL Subfraction Determination: A Systematic Review *Atherosclerosis*. *Atherosclerosis*. 2009; 205: 342-348.
39. Terasawa T, **Balk EM**, Chung M, Garlitski AC, Alsheikh-Ali AA, Lau J, Ip S. Systematic Review: Comparative Effectiveness of Radiofrequency Catheter Ablation for Atrial Fibrillation. *Ann Intern Med*. 2009; 151: 191-202.
40. Wagner M, **Balk EM**, Kent DM, Kasiske BL, Ekberg H. Subgroup analyses in randomized controlled trials: the need for risk stratification in kidney transplantation. *Am J Transplant*. 2009; 9: 2217-22.
41. Gordon CE, Feller-Kopman D, **Balk EM**, Smetana GW. Pneumothorax following thoracentesis: a systematic review and meta-analysis. *Arch Intern Med*. 2010; 170(4): 332-339.
42. Pittas AG, Chung M, Trikalinos T, Mitri J, Brendel M, Patel K, Lichtenstein AH, Lau J, **Balk EM**. Systematic review: Vitamin D and cardiometabolic outcomes. *Ann Intern Med*. 2010; 152: 307-314.
43. Kasiske BL, Zeier MG, Chapman JR, Craig JC, Ekberg H, Garvey CA, Green MD, Jha V, Josephson MA, Kiberd BA, Kreis HA, McDonald RA, Newmann JM, Obrador GT, Vincenti FG, Cheung M, Earley A, Raman G, Abariga S, Wagner M, **Balk EM**. KDIGO clinical practice guideline for the care of kidney transplant recipients: a summary. *Kidney Int*. 2010; 77(4): 299-311.
44. Chung M, **Balk EM**, Ip S, Lee J, Terasawa T, Raman G, Trikalinos T, Lichtenstein AH, Lau J. Systematic review to support the development of nutrient reference intake values: challenges and solutions. *Am J Clin Nutr*. 2010; 92(2): 273-6.
45. Alsheikh-Ali AA, Kitsios GD, **Balk EM**, Lau J, Ip S. The vulnerable atherosclerotic plaque: Scope of the literature. *Ann Intern Med*. 2010; 153(6): 387-95.
46. Seabra VF, Alobaidi S, **Balk EM**, Poon AH, Jaber BL. Off-pump coronary artery bypass surgery and acute kidney injury: a meta-analysis of randomized controlled trials. *Clin J Am Soc Nephrol*. 2010; 5(10): 1734-44
47. **Balk EM**, Garlitski AC, Alsheikh-Ali AA, Terasawa T, Chung M, Ip S. Predictors of atrial fibrillation recurrence after radiofrequency catheter ablation: a systematic review. *J Cardiovasc Electrophysiol*. 2010; 21(11): 1208-16.

48. Abed H, Rahn DD, Lowenstein L, **Balk EM**, Clemons JL, Rogers RG, for the Systematic Review Group of the Society of Gynecologic Surgeons. Incidence and management of graft erosion, wound granulation, and dyspareunia following vaginal prolapse repair with graft materials: a systematic review. *Int Urogynecol J*. 2011. 22(7): 789-98.
49. Rahn DD, Abed H, Sung VW, Matteson KA, Rogers RG, Morrill MY, Barber MD, Schaffer JI, Wheeler TL 2nd, **Balk EM**, Uhlig K; for the Society of Gynecologic Surgeons—Systematic Review Group. Systematic review highlights difficulty interpreting diverse clinical outcomes in abnormal uterine bleeding trials. *J Clin Epidemiol*. 2011; 64(3): 293-300.
50. Jaber BL, Almarzouqi L, Borgi L, Seabra VF, **Balk EM**, Madias NE. Short-term Efficacy and Safety of Vasopressin Receptor Antagonists for Treatment of Hyponatremia. *Am J Med*. 2011; 124 (10): 977.e1-977.e9.
51. Rahn DD, Mamik MM, Sanses TVD, Matteson KA, Aschkenazi SO, Washington BB, Steinberg AC, Harvie HS, Lukban JC, Uhlig K, **Balk EM**, Sung VW. Venous Thromboembolism Prophylaxis in Gynecologic Surgery: A Systematic Review. *Obstet Gynecol* 2011;118: 1111–25.
52. Susantitaphong P, Alfayez M, Cohen-Bucay A, **Balk EM**, Jaber BL. Therapeutic hypothermia and prevention of acute kidney injury: A meta-analysis of randomized controlled trials. *Resuscitation*. 2012; 83(2): 159-67.
53. Vaid A, Chweich H, **Balk EM**, Jaber BL. Molecular adsorbent recirculating system as artificial support therapy for liver failure: a meta-analysis. *ASAIO Journal*. 2012; 58(1): 51-9.
54. Matteson KA, Abed H, Wheeler TL 2nd, Sung VW, Rahn DD, Schaffer JI, **Balk EM**. A systematic review comparing hysterectomy with less-invasive treatments for abnormal uterine bleeding. *J Minimal Inv Gynecol*. 2012. 19(1): 13-28.
55. Ip S, Hadar N Hadar, Keefe S, Parkin C, Iovin R, **Balk EM**, Lau J. A Web-based archive of systematic review data. *Systematic Reviews* 2012, 1: 15.
56. Dahabreh IJ, Chung M, **Balk EM**, Yu WW, Mathew P, Lau J, Ip S. Active surveillance in men with localized prostate cancer: A systematic review. *Ann Intern Med* 2012. 156(8): 582-90.
57. Kawasaki A, Wu JM, Amundsen CL, Weidner AC, Judd JP, **Balk EM**, Siddiqui NY. Do urodynamic parameters predict persistent postoperative stress incontinence after midurethral sling? A systematic review. *Int Urogynecol J*. 2012. 23(7): 813-822.
58. Ip S, D’Ambrosio C, Patel K, Obadan N, Kitsios GD, Chung M, **Balk EM**. Auto-titrating versus fixed continuous positive airway pressure for the treatment of obstructive sleep apnea: A systematic review with meta-analyses. *Systematic Reviews*. 2012. 1(1): 20.
59. Susantitaphong P, Koulouridis I, **Balk EM**, Madias NE, Jaber BL. Effect of Frequent or Extended Hemodialysis on Cardiovascular Parameters: A Meta-analysis. *Am J Kid Dis*. 2012. 59(5): 689-99.
60. Susantitaphong P, Altamimi S, Ashkar M, **Balk EM**, Stel VS, Wright S, Jaber BL. GFR at initiation of dialysis and mortality in CKD: a meta-analysis. *Am J Kid Dis*. 2012. 59: 829-40.

61. Corapi KM, Chen JLT, **Balk EM**, Gordon CE. Bleeding Complications of Native Kidney Biopsy: a systematic review and meta-analysis. *Am J Kid Dis.* 2012. 60(1): 62-73.
62. Chung M, Newberry SJ, Ansari MT, Yu WW, Wu H, Lee J, Suttorp M, Gaylor JM, Motala A, Moher D, **Balk EM**, Shekelle PG. Two methods provide similar signals for the need to update systematic reviews. *J Clin Epidemiol.* 2012. 65: 660-68.
63. Susantitaphong P, Sewaralthahab K, **Balk EM**, Jaber BL, Madias NE. Short- and Long-Term Effects of Alkali Therapy in Chronic Kidney Disease: A Systematic Review. *Am J Nephrol.* 2012. 35: 540-47.
64. Murphy M, Olivera C, Wheeler T, Casiano E, Siddiqui N, Gala R, Gamble T, **Balk EM**, Sung V. Postoperative Management and Restrictions: Systematic Review and Practice Guidelines. *Int Urogynecol J.* 2012. 24(2): 185-93.
65. Upadhyay A, Earley A, Lamont JL, Haynes S, Wanner C, **Balk EM**. Lipid-Lowering Therapy in Persons With Chronic Kidney Disease: A Systematic Review and Meta-analysis. *Ann Intern Med.* 2012. 157(4): 251-62.
66. Cohen JB, Gordon CE, **Balk EM**, Francis JM. Cinacalcet for the Treatment of Hyperparathyroidism in Kidney Transplant Recipients: A Systematic Review and Meta-analysis. *Transplantation.* 2012. 94(10): 1041-8.
67. Savović J, Jones H, Altman D, Harris R, Jüni P, Pildal J, Als-Nielsen B, **Balk E**, Gluud C, Gluud L, Ioannidis J, Schulz K, Beynon R, Welton N, Wood L, Moher D, Deeks J, Sterne J. Influence of reported study design characteristics on intervention effect estimates from randomised controlled trials: combined analysis of meta-epidemiological studies. *Health Technol Assess.* 2012;16(35): 1-82.
68. Savović J, Jones HE, Altman DG, Harris RJ, Jüni P, Pildal J, Als-Nielsen B, **Balk EM**, Gluud C, Gluud LL, Ioannidis JP, Schulz KF, Beynon R, Welton NJ, Wood L, Moher D, Deeks JJ, Sterne JA. Influence of reported study design characteristics on intervention effect estimates from randomized, controlled trials. *Ann Intern Med.* 2012;157(6): 429-38.
69. Koulouridis I, Alfayez M, Trikalinos TA, **Balk EM**, Jaber BL. Dose of Erythropoiesis-Stimulating Agents and Adverse Outcomes in Chronic Kidney Disease: A Meta-Regression Analysis. *Am J Kidney Dis.* 2013;61(1): 44-56.
70. Morrill MY, Schimpf MO, Abed H, Carberry C, Margulies RU, White AB, Lowenstein L, Ward RM, **Balk EM**, Uhlig K, Sung VW; for the Society of Gynecologic Surgeons Systematic Review Group. Antibiotic prophylaxis for selected gynecologic surgeries. *Int J Gynecol Obstetr* 2013;120(1): 10-15
71. Murphy M, Olivera C, Wheeler T, Casiano E, Siddiqui N, Gala R, Gamble T, **Balk EM**, Sung VW. Postoperative management and restrictions for female pelvic surgery: a systematic review. *Int Urogynecol J.* 2013; 24: 185-193.

72. Patel K, Moorthy D, Chan JA, Concannon TW, Ratichek SJ, Chung M, **Balk EM**. High Priority Future Research Needs for Obstructive Sleep Apnea Diagnosis and Treatment. *J Clin Sleep Med*. 2013; 9: 395-402.
73. Susantitaphong P, Sewaralthahab K, **Balk EM**, Eiam-ong S, Madias NE, Jaber BL. Efficacy and Safety of Combined vs. Single Renin–Angiotensin–Aldosterone System Blockade in Chronic Kidney Disease: A Meta-Analysis. *Am J Hypertens*. 2013; 26(3): 424-41.
74. Matteson KA, Rahn DD, Wheeler TL, Casiano E, Siddiqui NY, Harvie HS, Mamik MM, **Balk EM**, Sung VW. Nonsurgical Management of Heavy Menstrual Bleeding: A Systematic Review. *Obstetr Gynecol*. 2013; 121(3): 632-43.
75. Uhlig K, Patel K, Ip S, Kitsios GD, **Balk EM**. Self-Measured Blood Pressure Monitoring in the Management of Hypertension: A Systematic Review and Meta-analysis. *Ann Intern Med*. 2013;159: 185-194.
76. **Balk EM**, Chung M, Chen ML, Chang LK, Trikalinos TA. Data extraction from machine-translated versus original language randomized trial reports: a comparative study. *Syst Rev*. 2013; 2: 97
77. Al-Qadheeb NS, **Balk EM**, Graser GL, Skrobik Y, Riker RR, Kress JP, Whitehead S, Devlin JW. Randomized ICU Trials Do Not Demonstrate an Association Between Interventions That Reduce Delirium Duration and Short-Term Mortality: A Systematic Review and Meta-Analysis. *Crit Care Med*. 2014;42(6): 1442-54.
78. Gala RB, Marguilies R, Steinberg A, Murphy M, Lukban J, Jeppson P, Aschenazi S, Olivera C, South M, Lowenstein L, Schaffer J, **Balk EM**, Sung V. Systematic Review of Robotic Surgery in Gynecology: Robotic Techniques Compared with Laparoscopy and Laparotomy. *J Minim Invasive Gynecol*. 2014;21(3): 353-61.
79. Schimpf MO, Rahn DD, Wheeler TL, Patel M, White AB, Orejuela FJ, El-Nashar SA, Margulies RU, Gleason JL, Aschkenazi SO, Mamik MM, Ward RM, **Balk EM**, Sung VW. Sling surgery for stress urinary incontinence in women: a systematic review and metaanalysis. *Am J Obstet Gynecol* 2014;211: 71.e1-27.
80. Persson R, Earley A, Garlitski AC, **Balk EM**, Uhlig K. Adverse events following implantable cardioverter defibrillator implantation: a systematic review. *J Interv Card Electrophysiol*. 2014;40(2): 191-205
81. Earley A, Persson R, Garlitski AC, **Balk EM**, Uhlig K. Effectiveness of implantable cardioverter defibrillators for primary prevention of sudden cardiac death in subgroups a systematic review. *Ann Intern Med*. 2014;160(2): 111-21.
82. Al-Qadheeb NS, **Balk EM**, Fraser GL, Skrobik Y, Riker RR, Kress JP, Whitehead S, Devlin JW. Randomized ICU trials do not demonstrate an association between interventions that reduce delirium duration and short-term mortality: a systematic review and meta-analysis. *Crit Care Med*. 2014;42(6): 1442-54.

83. Paulus JK, Dahabreh IJ, **Balk EM**, Avendano EE, Lau J, Ip S. Opportunities and challenges in using studies without a control group in comparative effectiveness reviews. *Res Synth Methods*. 2014;5(2): 152-61.
84. Berkman ND, Lohr KN, Ansari MT, **Balk EM**, Kane R, McDonagh M, Morton SC, Viswanathan M, Bass EB, Butler M, Gartlehner G, Hartling L, McPheeters M, Morgan LC, Reston J, Sista P, Whitlock E, Chang S. Grading the strength of a body of evidence when assessing health care interventions: an EPC update. *J Clin Epidemiol*. 2015;68(11): 1312-24. PMID: 25721570
85. Rahn DD, Ward RM, Sanses TV, Carberry C, Mamik MM, Meriwether KV, Olivera CK, Abed H, **Balk EM**, Murphy M; Society of Gynecologic Surgeons Systematic Review Group. Vaginal estrogen use in postmenopausal women with pelvic floor disorders: systematic review and practice guidelines. *Int Urogynecol J*. 2015;26(1): 3-13. PMID 25392183
86. Siddiqui NY, Grimes CL, Casiano ER, Abed HT, Jeppson PC, Olivera CK, Sanses TV, Steinberg AC, South MM, **Balk EM**, Sung VW; Society of Gynecologic Surgeons Systematic Review Group. Mesh sacrocolpopexy compared with native tissue vaginal repair: a systematic review and meta-analysis. *Obstet Gynecol*. 2015;125(1): 44-55. PMID 25560102
87. **Balk EM**, Earley A, Raman G, Avendano EA, Pittas AG, Remington PL. Combined Diet and Physical Activity Promotion Programs to Prevent Type 2 Diabetes Among Persons at Increased Risk: A Systematic Review for the Community Preventive Services Task Force. *Ann Intern Med*. 2015;163(6): 437-51. PMID 26167912
88. Pittas AG, Westcott GP, **Balk EM**. Efficacy, safety, and patient acceptability of Technosphere inhaled insulin for people with diabetes: a systematic review and meta-analysis. *Lancet Diabetes Endocrinol*. 2015;3(11): 886-94. PMID: 26341170
89. Wagner M, Earley AK, Webster AC, Schmid CH, **Balk EM**, Uhlig K. Mycophenolic acid versus azathioprine as primary immunosuppression for kidney transplant recipients. *Cochrane Database Syst Rev*. 2015;12: CD007746. PMID: 26633102
90. Miligkos M, Bannuru RR, Alkofide H, Kher SR, Schmid CH, **Balk EM**. Leukotriene receptor antagonists versus placebo in the treatment of asthma in adults and adolescents: a systematic review and meta-analysis *Ann Intern Med*. 2015;163(10): 756-67. PMID: 26390230
91. Paul S, Saxena A, Terrin N, Viveiros K, **Balk E**, Wong J. Hepatitis B virus reactivation and prophylaxis during solid tumor chemotherapy: A systematic review and meta-analysis. *Ann Intern Med*. 2016; 164(1): 30-40. PMID 26595058
92. **Balk EM**, Earley A, Avendano EA, Raman G. Long-Term Health Outcomes in Women With Silicone Gel Breast Implants: A Systematic Review. *Ann Intern Med*. 2016;164(3): 164-75. PMID 26550776.
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2. **Balk EM**, Lau J, Bonis PAL. Reading and Critically Appraising Systematic Reviews and Meta-Analyses: A Short Primer with a Focus on Hepatology. J Hepatol. 2005; 43 (4): 729-36.
3. Uhlig K, **Balk EM**, Lau J, Levey AS. Clinical practice guidelines in nephrology – for better or for worse. Nephrol Dial Transplant, 2006; 21(5): 1145-53.
4. Uhlig K. **Balk EM**. Lau J. Grading evidence-based guidelines – What are the issues? Am J Kidney Dis. 2008. 52(2): 211-15.
5. Gordon CE, **Balk EM**, Becker BN, Crooks PA, Jaber BL, Johnson CA, Michael MA, Pereira BJG, Uhlig K, Levin, A. KDOQI US Commentary on the KDIGO Clinical Practice Guideline for the Prevention, Diagnosis, Evaluation, and Treatment of Hepatitis C in CKD. Am J Kidney Dis. 2008. 52: 811-25.
6. **Balk EM**, Uhlig K. Using GRADE for International Guidelines on Kidney Disease. AHRQ National Guideline Clearinghouse. Jan 2010; <http://www.guideline.gov/expert/expert-commentary.aspx?id=16436>
7. Rahn DD, **Balk EM**, Sung V, Uhlig K. Managing Numerous Outcomes: Experience from a Systematic Review of Abnormal Uterine Bleeding Trials. AHRQ National Guideline Clearinghouse. Nov 2010; <http://www.guideline.gov/expert/expert-commentary.aspx?id=24283>.
8. Hermann RC, Shekelle PG, **Balk E**, Loeb JM, Lohr KN, Monteforte MJ, Schneider EC, Wachter R. Promoting Transparent and Actionable Clinical Practice Guidelines: Viewpoint from the National Guideline Clearinghouse/National Quality Measures Clearinghouse (NGC/NQMC) Editorial Board. Dec 2010; <http://guidelines.gov/expert/expert-commentary.aspx?id=24556>
9. O'Donnell TF Jr, **Balk EM**. The need for an Intersociety Consensus Guideline for venous ulcer. Journal of Vascular Surgery. 2011. 54(6 Suppl): 83S-90S.
10. Hermann RC, Shekelle PG, **Balk E**, Jue JJS, Loeb JM, Lohr KN, Schneider EC. Consensus-based Selection Criteria for Accountability Measures: Viewpoint from the National Guideline Clearinghouse/National Quality Measures Clearinghouse Editorial Board, Jan 2012; <http://guidelines.gov/expert/expert-commentary.aspx?id=35107>.
11. **Balk E**, Bonis PAL. Systematic Review and Meta-analysis. UpToDate. 2011 (revised 2015, 2017).
12. Rahn D, Sung V, **Balk EM**. Building evidence-based skills in gynecology. OBG Management. 2015. 27(5): 1e-7e.
13. Evans E, Murphy M, **Balk E**. Salpingo-oophorectomy at the Time of Benign Hysterectomy. In reply. Obstet Gynecol. 2017 Jan;129(1): 203. doi: 10.1097/AOG.0000000000001823. PMID 28002289.
14. **Balk EM**, Raman G. Long-Term Health Outcomes in Women With Silicone Gel Breast Implants. In response. Ann Intern Med. 2016 Oct 4;165(7): 527-528. doi: 10.7326/L16-0196. PMID: 27699393.
15. Remington PL, Pittas AG, **Balk EM**. Diet and Physical Activity Promotion Programs to Prevent Type 2 Diabetes. In response. Ann Intern Med. 2016 Apr 19;164(8): 572. doi: 10.7326/L15-0570. PMID: 27089079.

INVITED PRESENTATIONS/COURSES (RECENT)**National**

1. Using Evidence Maps in SRDR to Efficiently Design Systematic Reviews, presented at 3 meetings: Society for General Internal Medicine Annual Meeting (Mar 2017), AHRQ Learning Webinar Series (Dec 2016), Guidelines International Network meeting (Sep 2016)
2. Tools and Resources for Evidence Synthesis, AHRQ Research Conference, Arlington VA, Oct 2015
3. Benefits and Harms of Routine Preoperative Testing: A Comparative Effectiveness Review, Preventing Overdiagnosis international meeting, NIH, Bethesda MD, Sep 2015
4. Building Evidence-Based Medicine Skills: Workshop for the Gynecologist, American Board of Obstetrics & Gynecology / Society of Gynecologic Surgeons, Society of Gynecologic Surgeons meeting (Mar 2014 and Mar 2015)

International

1. A global map of dietary calcium intake, International Osteoporosis Foundation Annual Meeting, Florence Italy, March 2017

UNIVERSITY TEACHING AND MENTORING ROLES (RECENT)

2016-current	Mentor/Advisor	Brown University School of Public Health and Brown University (undergraduate)
2016	Course lecturer	Brown University School of Public Health, Introduction to Evidence-Based Medicine (PHP 2415)
2015	Course instructor	Harvard Medical School, Global Clinical Scholars Research Training Program Epidemiology Review Webinar
2004-15	Mentor/Advisor	Sackler School of Graduate Biomedical Sciences, Tufts University
2007-14	Co-Director	Introduction to Evidence-Based Medicine (CRES 581), Sackler School of Graduate Biomedical Sciences, Tufts University
2014	Course lecturer	Johnson and Wales, Evidence Based Medicine
2005-2014	Lecturer	Introduction to Clinical Care Research (CR 525), Sackler School of Graduate Biomedical Sciences, Tufts University
2011	Course lecturer	Introduction to Clinical Epidemiology, Harvard School of Public Health

2011

Director

Introduction to Systematic Review Mini Course, New
York University College of Global Public Health