**Supplementary Material:**

**MOOSE Checklist**

From: [Donna F. Stroup](http://jama.ama-assn.org/search?author1=Donna+F.+Stroup&sortspec=date&submit=Submit), PhD, MSc; [Jesse A. Berlin](http://jama.ama-assn.org/search?author1=Jesse+A.+Berlin&sortspec=date&submit=Submit), ScD; [Sally C. Morton](http://jama.ama-assn.org/search?author1=Sally+C.+Morton&sortspec=date&submit=Submit), PhD; [Ingram Olkin](http://jama.ama-assn.org/search?author1=Ingram+Olkin&sortspec=date&submit=Submit), PhD; [G. David Williamson](http://jama.ama-assn.org/search?author1=G.+David+Williamson&sortspec=date&submit=Submit), PhD; [Drummond Rennie](http://jama.ama-assn.org/search?author1=Drummond+Rennie&sortspec=date&submit=Submit), MD; [David Moher](http://jama.ama-assn.org/search?author1=David+Moher&sortspec=date&submit=Submit), MSc; [Betsy J. Becker](http://jama.ama-assn.org/search?author1=Betsy+J.+Becker&sortspec=date&submit=Submit), PhD; [Theresa Ann Sipe](http://jama.ama-assn.org/search?author1=Theresa+Ann+Sipe&sortspec=date&submit=Submit), PhD; [Stephen B. Thacker](http://jama.ama-assn.org/search?author1=Stephen+B.+Thacker&sortspec=date&submit=Submit), MD, MSc; for the Meta-analysis Of Observational Studies in Epidemiology (MOOSE) Group. **Meta-analysis of Observational Studies in Epidemiology. A Proposal for Reporting** JAMA. 2000;283(15):2008-2012. doi: 10.1001/jama.283.15.2008

|  |  |  |
| --- | --- | --- |
|  | Reported on page | Comments |
| **Reporting of background should include** |
| Problem definition | 4 |  |
| Hypothesis statement | 4 |  |
| Description of study outcomes | 4 |  |
| Type of exposure or intervention used | 4 |  |
| Type of study designs used | 5 |  |
| Study population | 5 |  |
| **Reporting of search strategy should include** |
| Qualifications of searchers (eg librarians and investigators) | 4 |  |
| Search strategy, including time period used in the synthesis and key words | 5, supplemental materials |  |
| Effort to include all available studies, including contact with authors | n/a | Authors not contacted |
| Databases and registries searched | 5 |  |
| Search software used, name and version, including special features used (eg explosion) | 5 |  |
| Use of hand searching (eg reference lists of obtained articles) | 5 |  |
| List of citations located and those excluded, including justification | 7 | List is attached to checklist and can be provided for publication upon request |
| Method of addressing articles published in languages other than English | n/a | Search was restricted to US-based studies |
| Method of handling abstracts and unpublished studies | 5 |  |
| Description of any contact with authors | n/a | No data was obtained from authors |
| **Reporting of methods should include** |
| Description of relevance or appropriateness of studies assembled for assessing the hypothesis to be tested | 5 | Conducted during eligibility review |
| Rationale for the selection and coding of data (eg sound clinical principles or convenience) | 5, 6 | Based on CDC, ADA, and Society for Thoracic Surgery guidelines |
| Documentation of how data were classified and coded (eg multiple raters, blinding and interrater reliability) | 6 |  |
| Assessment of confounding (eg comparability of cases and controls in studies where appropriate) | 7 |  |
| Assessment of study quality, including blinding of quality assessors, stratification or regression on possible predictors of study results | 7 | Meta-regression of possible predictors of study results |
| Assessment of heterogeneity | 6, 7 |  |
| Description of statistical methods (eg complete description of fixed or random effects models, justification of whether the chosen models account for predictors of study results, dose-response models, or cumulative meta-analysis) in sufficient detail to be replicated | 6, 7 |  |
| Provision of appropriate tables and graphics | 23-29 |  |
| **Reporting of results should include** |
| Graphic summarizing individual study estimates and overall estimate | 27 |  |
| Table giving descriptive information for each study included | 23-26 |  |
| Results of sensitivity testing (eg subgroup analysis) | 8-10 |  |
| Indication of statistical uncertainty of findings | All results | 95% Predictive Interval reported throughout |
| **Reporting of discussion should include** |
| Quantitative assessment of bias (eg publication bias) | 8 | Reported in text but figure of funnel plot not shown to save space. This is available upon request |
| Justification for exclusion (eg exclusion of non-English language citations) | 11 |  |
| Assessment of quality of included studies | 11 |  |
| **Reporting of conclusions should include** |
| Consideration of alternative explanations for observed results | 12 |  |
| Generalization of the conclusions (eg appropriate for the data presented and within the domain of the literature review) | 12-13 |  |
| Guidelines for future research | 13 |  |
| Disclosure of funding source | 13 |  |

Transcribed from the original paper within the Support Unit for Research Evidence (SURE), Cardiff University, United Kingdom. February 2011.

**Search Strategy**

*Search 1*

Database: PubMed/Medline

Terms: (risk factors) AND surgical site infections; glucose AND surgical site infections

Restrictions: Published between December 1985 through May 2013

* 2,371 citations identified
* 123 potentially eligible based on abstract review

*Search 2*

Database: Pubmed/Medline

Terms: (risk factors) AND surgical site infections

Restrictions: Published between May 2013 and July 2015

* 757 citations identified
* 304 potentially eligible based on abstract review (Exclusions: 277 not relevant; 137 not US or English; 39 pediatric)

*Search 3*

Database: Embase

Terms: diabetes and surgical site infection, all dates

Restrictions: English language, adult/aged/middle aged/very elderly, Embase only

* 394 unique citations identified
* 73 potentially eligible based on abstract review (Exclusions: 80 not relevant; 241 not in US)

*Search 4*

Database: Pubmed/Medline

Terms: (glucose) and surgical site infections

Restrictions: Published between May 2013 and July 2015

* 43 unique citations identified
* 8 potentially eligible based on abstract review (Exclusions: 15 not relevant or not primary data; 20 not US or not English)

*Search 5*

Database: Embase

Terms: glucose and surgical site infection, all dates

Restrictions: English language, adult/aged/middle aged/very elderly, Embase only

* 66 unique citations identified
* 14 potentially relevant based on abstract review (Exclusions: 14 not relevant; 38 not US)

**Exclusions from Full Text Review:**

Did not address study question or not primary literature:

N=791-79

Studies that were not performed in the US:

N=12880-207

Studies with outcome not meeting CDC SSI definition criteria:

N=95208-302

Studies with insufficient data to analyse the association between diabetes and SSI:

N=99302-400

Studies with data that overlaps with included articles:

N=27401-427

**Full Citations of Excluded Articles:**

1. Abdallah DY, Jadaan MM, McCabe JP. Body mass index and risk of surgical site infection following spine surgery: a meta-analysis. *Eur Spine J* 2013;22:2800-9.

2. AlHilli M, Langstraat C, Tran C, Martin J, Weaver A, McGree M, et al. Risk factors and indications for 30-day readmission after primary surgery for epithelial ovarian cancer. *Int J Gynecol Cancer* 2015;25:193-202.

3. Arnaoutakis DJ, Selvarajah S, Mathioudakis N, Black JH, 3rd, Freischlag JA, Abularrage CJ. Metabolic syndrome reduces the survival benefit of the obesity paradox after infrainguinal bypass. *Ann Vasc Surg* 2014;28:596-605.

4. Asomugha EU, McLain RF. Special note: preliminary findings--epidural steroid paste in posterior lumbar surgery: surgical site complications in a case-controlled cohort. *Spine (Phila Pa 1976)* 2014;39:E907-11.

5. Basques BA, Anandasivam NS, Webb ML, Samuel AM, Lukasiewicz AM, Bohl DD, et al. Risk Factors for Blood Transfusion with Primary Posterior Lumbar Fusion. *Spine (Phila Pa 1976)* 2015.

6. Basques BA, Golinvaux NS, Bohl DD, Yacob A, Toy JO, Varthi AG, et al. Use of an operating microscope during spine surgery is associated with minor increases in operating room times and no increased risk of infection. *Spine (Phila Pa 1976)* 2014;39:1910-6.

7. Basques BA, Varthi AG, Golinvaux NS, Bohl DD, Grauer JN. Patient characteristics associated with increased postoperative length of stay and readmission after elective laminectomy for lumbar spinal stenosis. *Spine (Phila Pa 1976)* 2014;39:833-40.

8. Bateman BT, Rassen JA, Schneeweiss S, Bykov K, Franklin JM, Gagne JJ, et al. Adjuvant vancomycin for antibiotic prophylaxis and risk of Clostridium difficile infection after coronary artery bypass graft surgery. *J Thorac Cardiovasc Surg* 2013;146:472-8.

9. Berdah SV, Mariette C, Denet C, Panis Y, Laurent C, Cotte E, et al. A multicentre, randomised, controlled trial to assess the safety, ease of use, and reliability of hyaluronic acid/carboxymethylcellulose powder adhesion barrier versus no barrier in colorectal laparoscopic surgery. *Trials* 2014;15:413.

10. Bhangu A. Safety of short, in-hospital delays before surgery for acute appendicitis: multicentre cohort study, systematic review, and meta-analysis. *Ann Surg* 2014;259:894-903.

11. Bikhchandani J, Polites SF, Wagie AE, Habermann EB, Cima RR. National trends of 3- versus 2-stage restorative proctocolectomy for chronic ulcerative colitis. *Dis Colon Rectum* 2015;58:199-204.

12. Bish EK, Azadeh-Fard N, Steighner LA, Hall KK, Slonim AD. Proactive Risk Assessment of Surgical Site Infections in Ambulatory Surgery Centers. *J Patient Saf* 2014.

13. Bish EK, El-Amine H, Steighner LA, Slonim AD. A socio-technical, probabilistic risk assessment model for surgical site infections in ambulatory surgery centers. *Infect Control Hosp Epidemiol* 2014;35 Suppl 3:S133-41.

14. Blackham AU, Farrah JP, McCoy TP, Schmidt BS, Shen P. Prevention of surgical site infections in high-risk patients with laparotomy incisions using negative-pressure therapy. *Am J Surg* 2013;205:647-54.

15. Bohl DD, Basques BA, Golinvaux NS, Baumgaertner MR, Grauer JN. Nationwide Inpatient Sample and National Surgical Quality Improvement Program give different results in hip fracture studies. *Clin Orthop Relat Res* 2014;472:1672-80.

16. Bohl M, Clark JC, Oppenlander ME, Meeusen AJ, Budde A, Porter RW, et al. 101 The Barrow Randomized OR Traffic (BRITE) Trial: The Effect of OR Traffic on Infection Rates. *Neurosurgery* 2015;62 Suppl 1, CLINICAL NEUROSURGERY:196-7.

17. Brahmbhatt R, Carter SA, Hicks SC, Berger DH, Liang MK. Identifying risk factors for surgical site complications after laparoscopic ventral hernia repair: evaluation of the Ventral Hernia Working Group grading system. *Surg Infect (Larchmt)* 2014;15:187-93.

18. Caroom C, Tullar JM, Benton EG, Jr., Jones JR, Chaput CD. Intrawound vancomycin powder reduces surgical site infections in posterior cervical fusion. *Spine (Phila Pa 1976)* 2013;38:1183-7.

19. Carter SA, Hicks SC, Brahmbhatt R, Liang MK. Recurrence and pseudorecurrence after laparoscopic ventral hernia repair: predictors and patient-focused outcomes. *Am Surg* 2014;80:138-48.

20. Catanzarite T, Saha S, Pilecki MA, Kim JY, Milad MP. Longer operative time during benign laparoscopic and robotic hysterectomy is associated with increased 30-day perioperative complications. *J Minim Invasive Gynecol* 2015.

21. Champaneria MC, Workman AD, Pham AT, Adetayo OA, Gupta SC. Retrospective analysis of never events in panniculectomy and abdominoplasty patients and their financial implications. *Ann Plast Surg* 2014;73:412-5.

22. Chen MM, Roman SA, Sosa JA, Judson BL. Safety of adult tonsillectomy: a population-level analysis of 5968 patients. *JAMA Otolaryngol Head Neck Surg* 2014;140:197-202.

23. Chen SY, Stem M, Schweitzer MA, Magnuson TH, Lidor AO. Assessment of postdischarge complications after bariatric surgery: A National Surgical Quality Improvement Program analysis. *Surgery* 2015.

24. Ciolino JB, Belin MW, Todani A, Al-Arfaj K, Rudnisky CJ. Retention of the Boston keratoprosthesis type 1: multicenter study results. *Ophthalmology* 2013;120:1195-200.

25. Colbath AC, Patipa L, Berghaus RD, Parks AH. The influence of suture pattern on the incidence of incisional drainage following exploratory laparotomy. *Equine Vet J* 2014;46:156-60.

26. Daley BJ, Cecil W, Clarke PC, Cofer JB, Guillamondegui OD. How slow is too slow? Correlation of operative time to complications: an analysis from the Tennessee Surgical Quality Collaborative. *J Am Coll Surg* 2015;220:550-8.

27. Danzig MR, Stey AM, Yin SS, Qiu S, Divino CM. Patient profiles and outcomes following repair of irreducible and reducible Ventral Wall Hernias. *Hernia* 2015.

28. Devin CJ, Vaccaro AR, McGirt MJ, Chotai S, Youssef JA, Orndorff D, et al. 166 Does the Use of Intrawound Vancomycin Decrease the Risk of Surgical Site Infection After Elective Spine Surgery?-A Multicenter Analysis. *Neurosurgery* 2015;62 Suppl 1, CLINICAL NEUROSURGERY:220.

29. Dolor M, Hadano M, Latimer RW. Part I: triggers for an evidence based practice project: managing peri-operative hyperglycemia in total hip and total knee replacement surgeries. *Nurs Clin North Am* 2014;49:291-8.

30. Dua A, Desai SS, Seabrook GR, Brown KR, Lewis BD, Rossi PJ, et al. The effect of Surgical Care Improvement Project measures on national trends on surgical site infections in open vascular procedures. *J Vasc Surg* 2014;60:1635-9.

31. Durand ML, Yarlagadda BB, Rich DL, Lin DT, Emerick KS, Rocco JW, et al. The time course and microbiology of surgical site infections after head and neck free flap surgery. *Laryngoscope* 2015;125:1084-9.

32. Durkin MJ, Dicks KV, Baker AW, Lewis SS, Moehring RW, Chen LF, et al. Seasonal Variation of Common Surgical Site Infections: Does Season Matter? *Infect Control Hosp Epidemiol* 2015:1-6.

33. Esemuede IO, Murray AC, Lee-Kong SA, Feingold DL, Kiran RP. Obesity, regardless of comorbidity, influences outcomes after colorectal surgery-time to rethink the pay-for-performance metrics? *J Gastrointest Surg* 2014;18:2163-8.

34. Feilmeier M, Dayton P, Sedberry S, Reimer RA. Incidence of surgical site infection in the foot and ankle with early exposure and showering of surgical sites: a prospective observation. *J Foot Ankle Surg* 2014;53:173-5.

35. Fischer JP, Tuggle CT, Au A, Kovach SJ. A 30-day risk assessment of mastectomy alone compared to immediate breast reconstruction (IBR). *J Plast Surg Hand Surg* 2014;48:209-15.

36. Fischer JP, Tuggle CT, Wes AM, Kovach SJ. Concurrent panniculectomy with open ventral hernia repair has added risk versus ventral hernia repair: an analysis of the ACS-NSQIP database. *J Plast Reconstr Aesthet Surg* 2014;67:693-701.

37. Glasgow RE, Hawn MT, Hosokawa PW, Henderson WG, Min SJ, Richman JS, et al. Comparison of prospective risk estimates for postoperative complications: human vs computer model. *J Am Coll Surg* 2014;218:237-45.e1-4.

38. Gourin CG, Couch ME, Johnson JT. Effect of weight loss on short-term outcomes and costs of care after head and neck cancer surgery. *Ann Otol Rhinol Laryngol* 2014;123:101-10.

39. Goussous N, Jenkins DH, Zielinski MD. Primary fascial closure after damage control laparotomy: Se\psis vs haemorrhage. *Injury* 2014;45:151-5.

40. Gregg ZA, Dao HE, Schechter S, Shah N. Paracolostomy hernia repair: who and when? *J Am Coll Surg* 2014;218:1105-12.

41. Gust MJ, Smetona JT, Persing JS, Hanwright PJ, Fine NA, Kim JY. The impact of body mass index on reduction mammaplasty: a multicenter analysis of 2492 patients. *Aesthet Surg J* 2013;33:1140-7.

42. Guzman JZ, Iatridis JC, Skovrlj B, Cutler HS, Hecht AC, Qureshi SA, et al. Outcomes and complications of diabetes mellitus on patients undergoing degenerative lumbar spine surgery. *Spine* 2014;39:1596-604.

43. Hao J, Herbert B, Quispe JC, Cuellar DO, Chadayammuri V, Kim JW, et al. An observational case series of HIV-positive patients treated with open reduction internal fixation for a closed lower extremity fracture. *European Journal of Orthopaedic Surgery and Traumatology* 2015;25:815-9.

44. Hardy KL, Davis KE, Constantine RS, Chen M, Hein R, Jewell JL, et al. The impact of operative time on complications after plastic surgery: A multivariate regression analysis of 1753 cases. *Aesthet Surg J* 2014;34:614-22.

45. Hawn MT, Richman JS, Vick CC, Deierhoi RJ, Graham LA, Henderson WG, et al. Timing of surgical antibiotic prophylaxis and the risk of surgical site infection. *JAMA Surg* 2013;148:649-57.

46. Hickson E, Harris J, Brett D. A journey to zero: reduction of post-operative cesarean surgical site infections over a five-year period. *Surg Infect (Larchmt)* 2015;16:174-7.

47. Hull PD, Johnson SC, Stephen DJ, Kreder HJ, Jenkinson RJ. Delayed debridement of severe open fractures is associated with a higher rate of deep infection. *Bone Joint J* 2014;96-b:379-84.

48. Inacio MC, Kritz-Silverstein D, Raman R, Macera CA, Nichols JF, Shaffer RA, et al. The impact of pre-operative weight loss on incidence of surgical site infection and readmission rates after total joint arthroplasty. *J Arthroplasty* 2014;29:458-64.e1.

49. Johnson NB, Hayes LD, Brown K, Hoo EC, Ethier KA. CDC National Health Report: leading causes of morbidity and mortality and associated behavioral risk and protective factors--United States, 2005-2013. *MMWR Surveill Summ* 2014;63 Suppl 4:3-27.

50. Keam J, Bilsky MH, Laufer I, Shi W, Zhang Z, Tam M, et al. No association between excessive wound complications and preoperative high-dose, hypofractionated, image-guided radiation therapy for spine metastasis. *J Neurosurg Spine* 2014;20:411-20.

51. Kim BD, Hsu WK, De Oliveira GS, Jr., Saha S, Kim JY. Operative duration as an independent risk factor for postoperative complications in single-level lumbar fusion: an analysis of 4588 surgical cases. *Spine (Phila Pa 1976)* 2014;39:510-20.

52. Kohut AY, Liu JJ, Stein DE, Sensenig R, Poggio JL. Patient-specific risk factors are predictive for postoperative adverse events in colorectal surgery: an American College of Surgeons National Surgical Quality Improvement Program-based analysis. *Am J Surg* 2015;209:219-29.

53. Lamore RF, 3rd, Hechenbleikner EM, Ha C, Salvatori R, Harris LH, Marohn MR, et al. Perioperative glucocorticoid prescribing habits in patients with inflammatory bowel disease: a call for standardization. *JAMA Surg* 2014;149:459-66.

54. Lane MA, Young VL, Camins BC. Prophylactic antibiotics in aesthetic surgery. *Aesthet Surg J* 2010;30:859-71; quiz 73.

55. Lee JT, Marquez TT, Clerc D, Gie O, Demartines N, Madoff RD, et al. Pursestring closure of the stoma site leads to fewer wound infections: results from a multicenter randomized controlled trial. *Dis Colon Rectum* 2014;57:1282-9.

56. Levy SM, Lally KP, Blakely ML, Calkins CM, Dassinger MS, Duggan E, et al. Surgical wound misclassification: a multicenter evaluation. *J Am Coll Surg* 2015;220:323-9.

57. Lewis CM, Monroe MM, Roberts DB, Hessel AC, Lai SY, Weber RS. An audit and feedback system for effective quality improvement in head and neck surgery: Can we become better surgeons? *Cancer* 2015;121:1581-7.

58. Lipsky BA, Moran GJ, Napolitano LM, Vo L, Nicholson S, Kim M. A prospective, multicenter, observational study of complicated skin and soft tissue infections in hospitalized patients: Clinical characteristics, medical treatment, and outcomes. *BMC Infect Dis* 2012;12.

59. Magill SS, Edwards JR, Bamberg W, Beldavs ZG, Dumyati G, Kainer MA, et al. Multistate point-prevalence survey of health care-associated infections. *N Engl J Med* 2014;370:1198-208.

60. Martin CT, Gao Y, Pugely AJ, Wolf BR. 30-day morbidity and mortality after elective shoulder arthroscopy: a review of 9410 cases. *J Shoulder Elbow Surg* 2013;22:1667-75.e1.

61. Mehta D, Chambers N, Adams B, Gloster H. Comparison of the prevalence of surgical site infection with use of sterile versus nonsterile gloves for resection and reconstruction during Mohs surgery. *Dermatol Surg* 2014;40:234-9.

62. Mejia E, Williams A, Long M. Decreasing prosthetic joint surgical site infections: an interdisciplinary approach. *AORN J* 2015;101:213-22.

63. Merkow RP, Bentrem DJ, Cohen ME, Paruch JL, Weber SM, Ko CY, et al. Effect of cancer surgery complexity on short-term outcomes, risk predictions, and hospital comparisons. *J Am Coll Surg* 2013;217:685-93.

64. Padussis JC, Zani S, Blazer DG, Tyler DS, Pappas TN, Scarborough JE. Feeding jejunostomy during Whipple is associated with increased morbidity. *J Surg Res* 2014;187:361-6.

65. Papandria D, Lardaro T, Rhee D, Ortega G, Gorgy A, Makary MA, et al. Risk factors for conversion from laparoscopic to open surgery: analysis of 2138 converted operations in the American College of Surgeons National Surgical Quality Improvement Program. *Am Surg* 2013;79:914-21.

66. Parmar AD, Sheffield KM, Vargas GM, Pitt HA, Kilbane EM, Hall BL, et al. Factors associated with delayed gastric emptying after pancreaticoduodenectomy. *HPB (Oxford)* 2013;15:763-72.

67. Patel SH, Kooby DA, Staley CA, 3rd, Maithel SK. An assessment of feeding jejunostomy tube placement at the time of resection for gastric adenocarcinoma. *J Surg Oncol* 2013;107:728-34.

68. Pinell-White XA, Gruszynski M, Losken A. Ventral hernia repair after bowel surgery: does gastrointestinal contamination matter in the era of biologic mesh? *Ann Plast Surg* 2014;72:S150-2.

69. Rasouli MR, Maltenfort MG, Purtill JJ, Hozack WJ, Parvizi J. Has the rate of in-hospital infections after total joint arthroplasty decreased? *Clin Orthop Relat Res* 2013;471:3102-11.

70. Rossi AM, Mariwalla K. Prophylactic and empiric use of antibiotics in dermatologic surgery: a review of the literature and practical considerations. *Dermatol Surg* 2012;38:1898-921.

71. Saveli CC, Morgan SJ, Belknap RW, Ross E, Stahel PF, Chaus GW, et al. Prophylactic antibiotics in open fractures: a pilot randomized clinical safety study. *J Orthop Trauma* 2013;27:552-7.

72. Scaife CL, Hewitt KC, Mone MC, Hansen HJ, Nelson ET, Mulvihill SJ. Comparison of intraoperative versus delayed enteral feeding tube placement in patients undergoing a Whipple procedure. *HPB (Oxford)* 2014;16:62-9.

73. Schairer WW, Carrer A, Deviren V, Hu SS, Takemoto S, Mummaneni P, et al. Hospital readmission after spine fusion for adult spinal deformity. *Spine (Phila Pa 1976)* 2013;38:1681-9.

74. Shah B, Cohee A, Deyerle A, Kelly CS, Frantz F, Kelly RE, et al. High rates of metal allergy amongst Nuss procedure patients dictate broader pre-operative testing. *J Pediatr Surg* 2014;49:451-4.

75. Speicher PJ, Nussbaum DP, Scarborough JE, Zani S, White RR, Blazer DG, 3rd, et al. Wound classification reporting in HPB surgery: can a single word change public perception of institutional performance? *HPB (Oxford)* 2014;16:1068-73.

76. Tillman M, Wehbe-Janek H, Hodges B, Smythe WR, Papaconstantinou HT. Surgical care improvement project and surgical site infections: can integration in the surgical safety checklist improve quality performance and clinical outcomes? *J Surg Res* 2013;184:150-6.

77. Wang HE, Shapiro NI, Griffin R, Safford MM, Judd S, Howard G. Chronic Medical Conditions and Risk of Sepsis. *PLoS One* 2012;7.

78. Williams NL, Glover MM, Crisp C, Acton AL, McKenna DS. Randomized controlled trial of the effect of 30% versus 80% fraction of inspired oxygen on cesarean delivery surgical site infection. *Am J Perinatol* 2013;30:781-6.

79. Yoshimatsu K, Yokomizo H, Matsumoto A, Yano Y, Nakayama M, Okayama S, et al. Liquid tissue adhesive, subcuticular suture and subcutaneous closed suction drain for wound closure as measures for wound infection in a colorectal cancer surgery with stoma creation. *Hepatogastroenterology* 2014;61:363-6.

80. Abreu D, Campos E, Seija V, Arroyo C, Suarez R, Rotemberg P, et al. Surgical site infection in surgery for benign prostatic hyperplasia: comparison of two skin antiseptics and risk factors. *Surg Infect (Larchmt)* 2014;15:763-7.

81. Agrifoglio M, Trezzi M, Barili F, Dainese L, Cheema FH, Topkara VK, et al. Double vs single internal thoracic artery harvesting in diabetic patients: role in perioperative infection rate. *J Cardiothorac Surg* 2008;3:35.

82. Akca O, Kurz A, Fleischmann E, Buggy D, Herbst F, Stocchi L, et al. Hypercapnia and surgical site infection: a randomized trial. *Br J Anaesth* 2013;111:759-67.

83. Alptekin H, Yilmaz H, Kayis SA, Sahin M. Volume of the excised specimen and prediction of surgical site infection in pilonidal sinus procedures (surgical site infection after pilonidal sinus surgery). *Surg Today* 2013;43:1365-70.

84. Amer-Alshiek J, Alshiek T, Almog B, Lessing JB, Satel A, Many A, et al. Can we reduce the surgical site infection rate in cesarean sections using a chlorhexidine-based antisepsis protocol? *J Matern Fetal Neonatal Med* 2013;26:1749-52.

85. Ando M, Tamaki T, Yoshida M, Sasaki S, Toge Y, Matsumoto T, et al. Surgical site infection in spinal surgery: a comparative study between 2-octyl-cyanoacrylate and staples for wound closure. *Eur Spine J* 2014;23:854-62.

86. Angeles-Garay U, Morales-Marquez LI, Sandoval-Balanzarios MA, Velazquez-Garcia JA, Maldonado-Torres L, Mendez-Cano AF. [Risk factors related to surgical site infection in elective surgery]. *Cir Cir* 2014;82:48-62.

87. Armananzas L, Ruiz-Tovar J, Arroyo A, Garcia-Peche P, Armananzas E, Diez M, et al. Prophylactic mesh vs suture in the closure of the umbilical trocar site after laparoscopic cholecystectomy in high-risk patients for incisional hernia. A randomized clinical trial. *J Am Coll Surg* 2014;218:960-8.

88. Asa Z, Greenberg R, Ghinea R, Inbar R, Wasserberg N, Avital S. Grading of complications and risk factor evaluation in laparoscopic colorectal surgery. *Surg Endosc* 2013;27:3748-53.

89. Atif ML, Azouaou A, Bouadda N, Bezzaoucha A, Si-Ahmed M, Bellouni R. Incidence and predictors of surgical site infection in a general surgery department in Algeria. *Rev Epidemiol Sante Publique* 2015.

90. Attie R, Chinen LT, Yoshioka EM, Silva MC, de Lima VC. Acute bacterial infection negatively impacts cancer specific survival of colorectal cancer patients. *World J Gastroenterol* 2014;20:13930-5.

91. Backes M, Schepers T, Beerekamp MSH, Luitse JSK, Goslings JC, Schep NWL. Wound infections following open reduction and internal fixation of calcaneal fractures with an extended lateral approach. *Int Orthop* 2014;38:767-73.

92. Backhoff D, Muller M, Ruschewski W, Paul T, Krause U. ICD therapy for primary prevention of sudden cardiac death after Mustard repair for d-transposition of the great arteries. *Clin Res Cardiol* 2014;103:894-901.

93. Barreto SG, Singh MK, Sharma S, Chaudhary A. Determinants of Surgical Site Infections Following Pancreatoduodenectomy. *World J Surg* 2015.

94. Barth GA. The cockade technique--a closed wound variant of 3D histology-guided surgery. *J Dtsch Dermatol Ges* 2013;11:1177-83.

95. Berthold E, Geborek P, Gulfe A. Continuation of TNF blockade in patients with inflammatory rheumatic disease. An observational study on surgical site infections in 1,596 elective orthopedic and hand surgery procedures. *Acta Orthop* 2013;84:495-501.

96. Bjerknes S, Skogseid IM, Saehle T, Dietrichs E, Toft M. Surgical site infections after deep brain stimulation surgery: frequency, characteristics and management in a 10-year period. *PLoS One* 2014;9:e105288.

97. Borba AM, Borges AH, da Silva CS, Brozoski MA, Naclerio-Homem Mda G, Miloro M. Predictors of complication for alveolar cleft bone graft. *Br J Oral Maxillofac Surg* 2014;52:174-8.

98. Bures C, Klatte T, Gilhofer M, Behnke M, Breier AC, Neuhold N, et al. A prospective study on surgical-site infections in thyroid operation. *Surgery* 2014;155:675-81.

99. Capocasale E, De Vecchi E, Mazzoni MP, Dalla Valle R, Pellegrino C, Ferretti S, et al. Surgical site and early urinary tract infections in 1000 kidney transplants with antimicrobial perioperative prophylaxis. *Transplant Proc* 2014;46:3455-8.

100. Chadi SA, Kidane B, Britto K, Brackstone M, Ott MC. Incisional negative pressure wound therapy decreases the frequency of postoperative perineal surgical site infections: a cohort study. *Dis Colon Rectum* 2014;57:999-1006.

101. Cherng YG, Liao CC, Chen TH, Xiao D, Wu CH, Chen TL. Are Non-cardiac Surgeries Safe for Dialysis Patients? - A Population-Based Retrospective Cohort Study. *PLoS One* 2013;8.

102. Cho M, Kang J, Kim IK, Lee KY, Sohn SK. Underweight body mass index as a predictive factor for surgical site infections after laparoscopic appendectomy. *Yonsei Med J* 2014;55:1611-6.

103. Comajuncosas J, Hermoso J, Gris P, Jimeno J, Orbeal R, Vallverdu H, et al. Risk factors for umbilical trocar site incisional hernia in laparoscopic cholecystectomy: a prospective 3-year follow-up study. *Am J Surg* 2014;207:1-6.

104. Dahl RM, Wetterslev J, Jorgensen LN, Rasmussen LS, Moller AM, Meyhoff CS. The association of perioperative dexamethasone, smoking and alcohol abuse with wound complications after laparotomy. *Acta Anaesthesiol Scand* 2014;58:352-61.

105. Demura S, Kawahara N, Murakami H, Nambu K, Kato S, Yoshioka K, et al. Surgical site infection in spinal metastasis: Risk factors and countermeasures. *Spine* 2009;34:635-9.

106. Dhanoa A, Ajit Singh V, Elbahri H. Deep Infections after Endoprosthetic Replacement Operations in Orthopedic Oncology Patients. *Surg Infect (Larchmt)* 2015;16:323-32.

107. Dieterich M, Reimer T, Kundt G, Stubert J, Gerber B. The role of hydroxyethyl starch in preventing surgical-site infections and nipple necrosis in patients undergoing reduction mammaplasty: a prospective case-control study of 334 patients. *Aesthetic Plast Surg* 2013;37:554-60.

108. Ee WW, Lau WL, Yeo W, Von Bing Y, Yue WM. Does minimally invasive surgery have a lower risk of surgical site infections compared with open spinal surgery? *Clin Orthop Relat Res* 2014;472:1718-24.

109. Endo S, Tsujinaka T, Fujitani K, Fujita J, Tamura S, Yamasaki M, et al. Risk factors for superficial incisional surgical site infection after gastrectomy: analysis of patients enrolled in a prospective randomized trial comparing skin closure methods. *Gastric Cancer* 2015.

110. Fahrner R, Malinka T, Klasen J, Candinas D, Beldi G. Additional surgical procedure is a risk factor for surgical site infections after laparoscopic cholecystectomy. *Langenbecks Arch Surg* 2014;399:595-9.

111. Fockens MM, Alberts VP, Bemelman FJ, van der Pant KA, Idu MM. Wound morbidity after kidney transplant. *Prog Transplant* 2015;25:45-8.

112. Freire MP, Antonopoulos IM, Piovesan AC, Moura ML, de Paula FJ, Spadao F, et al. Amikacin prophylaxis and risk factors for surgical site infection after kidney transplantation. *Transplantation* 2015;99:521-7.

113. Freire MP, Soares Oshiro IC, Bonazzi PR, Guimaraes T, Ramos Figueira ER, Bacchella T, et al. Surgical site infections in liver transplant recipients in the model for end-stage liver disease era: an analysis of the epidemiology, risk factors, and outcomes. *Liver Transpl* 2013;19:1011-9.

114. Furukawa T, Park IS, Yoshikawa T, Nishimura T, Takahashic Y, Ando M, et al. Outcome of univentricular repair in patients with Down syndrome. *J Thorac Cardiovasc Surg* 2013;146:1349-52.

115. Galli R, Banz V, Fenner H, Metzger J. Laparoscopic approach in perforated appendicitis: increased incidence of surgical site infection? *Surg Endosc* 2013;27:2928-33.

116. Garcia-Urena MA, Lopez-Monclus J, Hernando LA, Montes DM, Valle de Lersundi AR, Pavon CC, et al. Randomized controlled trial of the use of a large-pore polypropylene mesh to prevent incisional hernia in colorectal surgery. *Ann Surg* 2015;261:876-81.

117. Godot S, Gottenberg JE, Paternotte S, Pane I, Combe B, Sibilia J, et al. Safety of surgery after rituximab therapy in 133 patients with rheumatoid arthritis: data from the autoimmunity and rituximab registry. *Arthritis Care Res (Hoboken)* 2013;65:1874-9.

118. Goranović T, Šakić K. Perioperative evaluation of glycaemic status in neck dissection: A retrospective analysis at a single hospital centre. *Int J Oral Maxillofac Surg* 2014;43:686-91.

119. Gradl G, de Witte PB, Evans BT, Hornicek F, Raskin K, Ring D. Surgical site infection in orthopaedic oncology. *J Bone Joint Surg Am* 2014;96:223-30.

120. Hayashi H, Murakami H, Demura S, Kato S, Yoshioka K, Shinmura K, et al. Surgical site infection after total en bloc spondylectomy: risk factors and the preventive new technology. *Spine J* 2015;15:132-7.

121. Heal C, Buettner P, Browning S. Risk factors for wound infection after minor surgery in general practice. *Med J Aust* 2006;185:255-8.

122. Herruzo R, Diez-Sebastian J, Mora E, Garcia-Caballero J. Trends in the incidence of superficial versus deep-organ/space surgical site infection in a tertiary hospital. *J Surg Res* 2013;184:1085-91.

123. Hwang JS, Kim SJ, Bamne AB, Na YG, Kim TK. Do glycemic markers predict occurrence of complications after total knee arthroplasty in patients with diabetes? *Clin Orthop Relat Res* 2015;473:1726-31.

124. Ibrahim MI, Moustafa GF, Al-Hamid AS, Hussein MR. Superficial incisional surgical site infection rate after cesarean section in obese women: a randomized controlled trial of subcuticular versus interrupted skin suturing. *Arch Gynecol Obstet* 2014;289:981-6.

125. Ishikawa K, Kusumi T, Hosokawa M, Nishida Y, Sumikawa S, Furukawa H. Incisional surgical site infection after elective open surgery for colorectal cancer. *Int J Surg Oncol* 2014;2014:419712.

126. Isik O, Kaya E, Sarkut P, Dundar HZ. Factors Affecting Surgical Site Infection Rates in Hepatobiliary Surgery. *Surg Infect (Larchmt)* 2015;16:281-6.

127. Jannasch O, Kelch B, Adolf D, Tammer I, Lodes U, Weiss G, et al. Nosocomial Infections and Microbiologic Spectrum after Major Elective Surgery of the Pancreas, Liver, Stomach, and Esophagus. *Surg Infect (Larchmt)* 2015;16:338-45.

128. Joks M, Czyz A, Poplawski D, Komarnicki M. Incidence and risk factors for central venous catheter-related thrombosis in hematological patients. *Med Oncol* 2014;31:772.

129. Justinger C, Slotta JE, Ningel S, Graber S, Kollmar O, Schilling MK. Surgical-site infection after abdominal wall closure with triclosan-impregnated polydioxanone sutures: results of a randomized clinical pathway facilitated trial (NCT00998907). *Surgery* 2013;154:589-95.

130. Kelly EG, Cashman JP, Groarke PJ, Morris SF. Risk factors for surgical site infection following operative ankle fracture fixation. *Ir J Med Sci* 2013;182:453-6.

131. Kepa K, Krzych L, Krejca M. Gentamicin-containing collagen implant reduces sternal wound complications after cardiac surgery: a retrospective analysis. *Int J Surg* 2015;13:198-206.

132. Korim MT, Payne R, Bhatia M. A case-control study of surgical site infection following operative fixation of fractures of the ankle in a large U.K. trauma unit. *Bone Joint J* 2014;96-b:636-40.

133. Koumpan Y, VanDenKerkhof E, van Vlymen J. An observational cohort study to assess glycosylated hemoglobin screening for elective surgical patients. *Can J Anaesth* 2014;61:407-16.

134. Kurmann A, Barnetta C, Candinas D, Beldi G. Implantation of prophylactic nonabsorbable intraperitoneal mesh in patients with peritonitis is safe and feasible. *World J Surg* 2013;37:1656-60.

135. Kurmann A, Wanner B, Martens F, Klasen J, Stickel F, Montani M, et al. Hepatic steatosis is associated with surgical-site infection after hepatic and colorectal surgery. *Surgery* 2014;156:109-16.

136. Lavallee LT, Schramm D, Witiuk K, Mallick R, Fergusson D, Morash C, et al. Peri-operative morbidity associated with radical cystectomy in a multicenter database of community and academic hospitals. *PLoS One* 2014;9:e111281.

137. Lemaignen A, Birgand G, Ghodhbane W, Alkhoder S, Lolom I, Belorgey S, et al. Sternal wound infection after cardiac surgery: incidence and risk factors according to clinical presentation. *Clin Microbiol Infect* 2015;21:674.e11-8.

138. Lev-Ran O, Matsa M, Ishay Y, Abod MA, Vodonos A, Sahar G. Bilateral internal thoracic artery grafting in insulin-treated diabetes. *Asian Cardiovasc Thorac Ann* 2013;21:661-8.

139. Lewin R, Goransson M, Elander A, Thorarinsson A, Lundberg J, Liden M. Risk factors for complications after breast reduction surgery. *J Plast Surg Hand Surg* 2014;48:10-4.

140. Li D, Guo W, Qu H, Yang R, Tang X, Yan T, et al. Experience with wound complications after surgery for sacral tumors. *Eur Spine J* 2013;22:2069-76.

141. Li GQ, Guo FF, Ou Y, Dong GW, Zhou W. Epidemiology and outcomes of surgical site infections following orthopedic surgery. *Am J Infect Control* 2013;41:1268-71.

142. Linni K, Ugurluoglu A, Hitzl W, Aspalter M, Holzenbein T. Bioabsorbable stent implantation vs. common femoral artery endarterectomy: early results of a randomized trial. *J Endovasc Ther* 2014;21:493-502.

143. Lyons T, Neff KJ, Benn J, Chuah LL, le Roux CW, Gilchrist M. Body mass index and diabetes status do not affect postoperative infection rates after bariatric surgery. *Surg Obes Relat Dis* 2014;10:291-7.

144. Maeda K, Kanaoka Y, Ohki T, Sumi M, Toya N, Fujita T. Better Clinical Practice Could Overcome Patient-Related Risk Factors of Vascular Surgical Site Infections. *J Endovasc Ther* 2015;22:640-6.

145. Maeda K, Nagahara H, Shibutani M, Otani H, Sakurai K, Toyokawa T, et al. A preoperative low nutritional prognostic index correlates with the incidence of incisional surgical site infections after bowel resection in patients with Crohn's disease. *Surg Today* 2014.

146. Maruo K, Berven SH. Outcome and treatment of postoperative spine surgical site infections: predictors of treatment success and failure. *J Orthop Sci* 2014;19:398-404.

147. Mazaki T, Mado K, Masuda H, Shiono M, Tochikura N, Kaburagi M. A randomized trial of antibiotic prophylaxis for the prevention of surgical site infection after open mesh-plug hernia repair. *Am J Surg* 2014;207:476-84.

148. Miyahara K, Matsuura A, Takemura H, Mizutani S, Saito S, Toyama M. Implementation of bundled interventions greatly decreases deep sternal wound infection following cardiovascular surgery. *J Thorac Cardiovasc Surg* 2014;148:2381-8.

149. Montes CV, Vilar-Compte D, Velazquez C, Golzarri MF, Cornejo-Juarez P, Larson EL. Risk factors for extended spectrum beta-lactamase-producing Escherichia coli versus susceptible E. coli in surgical site infections among cancer patients in Mexico. *Surg Infect (Larchmt)* 2014;15:627-34.

150. Moore J, Isler M, Barry J, Mottard S. Major wound complication risk factors following soft tissue sarcoma resection. *Eur J Surg Oncol* 2014;40:1671-6.

151. Morikane K, Honda H, Yamagishi T, Suzuki S. Differences in risk factors associated with surgical site infections following two types of cardiac surgery in Japanese patients. *J Hosp Infect* 2015;90:15-21.

152. Mpogoro FJ, Mshana SE, Mirambo MM, Kidenya BR, Gumodoka B, Imirzalioglu C. Incidence and predictors of surgical site infections following caesarean sections at Bugando Medical Centre, Mwanza, Tanzania. *Antimicrob Resist Infect Control* 2014;3:25.

153. Mracek J, Hommerova J, Mork J, Richtr P, Priban V. Complications of cranioplasty using a bone flap sterilised by autoclaving following decompressive craniectomy. *Acta Neurochir (Wien)* 2015;157:501-6.

154. Muchuweti D, Jonsson KU. Abdominal surgical site infections: a prospective study of determinant factors in Harare, Zimbabwe. *Int Wound J* 2013.

155. Nanashima A, Abo T, Arai J, Oyama S, Mochinaga K, Matsumoto H, et al. Clinicopathological parameters associated with surgical site infections in patients who underwent pancreatic resection. *Hepatogastroenterology* 2014;61:1739-43.

156. Nanashima A, Abo T, Takagi K, Wada H, Arai J, Kunizaki M, et al. Clinical significance of vessel-sealing device usage for pancreatectomy: a retrospective cohort study. *Hepatogastroenterology* 2014;61:1767-74.

157. Nanashima A, Arai J, Oyama S, Ishii M, Abo T, Wada H, et al. Associated factors with surgical site infections after hepatectomy: predictions and countermeasures by a retrospective cohort study. *Int J Surg* 2014;12:310-4.

158. Ng RR, Myat Oo A, Liu W, Tan TE, Ti LK, Chew ST. Changing glucose control target and risk of surgical site infection in a Southeast Asian population. *J Thorac Cardiovasc Surg* 2015;149:323-8.

159. Numata M, Godai T, Shirai J, Watanabe K, Inagaki D, Hasegawa S, et al. A prospective randomized controlled trial of subcutaneous passive drainage for the prevention of superficial surgical site infections in open and laparoscopic colorectal surgery. *Int J Colorectal Dis* 2014;29:353-8.

160. Ogihara S, Yamazaki T, Maruyama T, Oka H, Miyoshi K, Azuma S, et al. Prospective multicenter surveillance and risk factor analysis of deep surgical site infection after posterior thoracic and/or lumbar spinal surgery in adults. *J Orthop Sci* 2015;20:71-7.

161. Ogura K, Yasunaga H, Horiguchi H, Ohe K, Shinoda Y, Tanaka S, et al. Impact of hospital volume on postoperative complications and in-hospital mortality after musculoskeletal tumor surgery: analysis of a national administrative database. *J Bone Joint Surg Am* 2013;95:1684-91.

162. Okabayashi T, Nishimori I, Yamashita K, Sugimoto T, Yatabe T, Maeda H, et al. Risk factors and predictors for surgical site infection after hepatic resection. *J Hosp Infect* 2009;73:47-53.

163. Ortega-Deballon P, Duvillard L, Scherrer ML, Deguelte-Lardiere S, Bourredjem A, Petit JM, et al. Preoperative adipocytokines as a predictor of surgical infection after colorectal surgery: a prospective survey. *Int J Colorectal Dis* 2014;29:23-9.

164. Ota D, Fukuuchi A, Iwahira Y, Kato T, Takeuchi M, Okamoto J, et al. Identification of complications in mastectomy with immediate reconstruction using tissue expanders and permanent implants for breast cancer patients. *Breast Cancer* 2014.

165. Ren T, Ding L, Xue F, He Z, Xiao H. Risk factors for surgical site infection of pilon fractures. *Clinics (Sao Paulo)* 2015;70:419-22.

166. Righi M, Manfredi R, Farneti G, Pasquini E, Cenacchi V. Short-term versus long-term antimicrobial prophylaxis in oncologic head and neck surgery. *Head Neck* 1996;18:399-404.

167. Rodriguez-Sanjuan JC, Casella G, Antolin F, Castillo F, Fernandez-Santiago R, Riano M, et al. How long is antibiotic therapy necessary after urgent cholecystectomy for acute cholecystitis? *J Gastrointest Surg* 2013;17:1947-52.

168. Rongetti RL, Oliveira e Castro Pde T, Vieira RA, Serrano SV, Mengatto MF, Fregnani JH. Surgical site infection: an observer-blind, randomized trial comparing electrocautery and conventional scalpel. *Int J Surg* 2014;12:681-7.

169. Ruangsin S, Laohawiriyakamol S, Sunpaweravong S, Mahattanobon S. The efficacy of cefazolin in reducing surgical site infection in laparoscopic cholecystectomy: a prospective randomized double-blind controlled trial. *Surg Endosc* 2015;29:874-81.

170. Ruiz-Tovar J, Oller I, Llavero C, Arroyo A, Munoz JL, Calero A, et al. Pre-operative and early post-operative factors associated with surgical site infection after laparoscopic sleeve gastrectomy. *Surg Infect (Larchmt)* 2013;14:369-73.

171. Sadava EE, Kerman Cabo J, Carballo FH, Bun ME, Rotholtz NA. Incisional hernia after laparoscopic colorectal surgery. Is there any factor associated? *Surg Endosc* 2014;28:3421-4.

172. Sasi SP, Sistla SC, Sistla S, Karthikeyan VS, Mahalakshmy T, Ali SM, et al. Decolonisation of MRSA and its effect on surgical site infections--a study in a tertiary care institute. *Int J Clin Pract* 2015;69:366-74.

173. Satake K, Kanemura T, Matsumoto A, Yamaguchi H, Ishikawa Y. Predisposing factors for surgical site infection of spinal instrumentation surgery for diabetes patients. *Eur Spine J* 2013;22:1854-8.

174. Scherrer CB, Mannion AF, Kyburz D, Vogt M, Kramers-de Quervain IA. Infection risk after orthopedic surgery in patients with inflammatory rheumatic diseases treated with immunosuppressive drugs. *Arthritis Care Res (Hoboken)* 2013;65:2032-40.

175. Scilletta R, Pagano D, Spada M, Mongiovi S, Pesce A, Portale TR, et al. Comparative analysis of the incidence of surgical site infections in patients with liver resection for colorectal hepatic metastases after neoadjuvant chemotherapy. *J Surg Res* 2014;188:183-9.

176. Serradori T, Germain A, Scherrer ML, Ayav C, Perez M, Romain B, et al. The effect of immune therapy on surgical site infection following Crohn's Disease resection. *Br J Surg* 2013;100:1089-93.

177. Shigemura K, Tanaka K, Yamamichi F, Muramaki M, Arakawa S, Miyake H, et al. Comparison of postoperative infection between robotic-assisted laparoscopic prostatectomy and open radical prostatectomy. *Urol Int* 2014;92:15-9.

178. Shimizu T, Ishizuka M, Kubota K. The preoperative serum C-reactive protein level is a useful predictor of surgical site infections in patients undergoing appendectomy. *Surg Today* 2014.

179. Slagt IK, Ijzermans JN, Visser LJ, Weimar W, Roodnat JI, Terkivatan T. Independent risk factors for urological complications after deceased donor kidney transplantation. *PLoS One* 2014;9:e91211.

180. Sneh-Arbib O, Shiferstein A, Dagan N, Fein S, Telem L, Muchtar E, et al. Surgical site infections following craniotomy focusing on possible post-operative acquisition of infection: prospective cohort study. *Eur J Clin Microbiol Infect Dis* 2013;32:1511-6.

181. Sohn M, Hoffmann M, Hochrein A, Buhr HJ, Lehmann KS. Laparoscopic Appendectomy Is Safe: Influence of Appendectomy Technique on Surgical-site Infections and Intra-abdominal Abscesses. *Surg Laparosc Endosc Percutan Tech* 2015;25:e90-4.

182. Sotirovic J, Suljagic V, Baletic N, Pavicevic L, Bijelic D, Erdoglija M, et al. Risk factors for surgical site infection in laryngeal cancer surgery. *Acta Clin Croat* 2015;54:57-64.

183. Sugita S, Hozumi T, Yamakawa K, Goto T, Kondo T. Risk factors for surgical site infection after posterior fixation surgery and intraoperative radiotherapy for spinal metastases. *Eur Spine J* 2015.

184. Sundseth J, Sundseth A, Berg-Johnsen J, Sorteberg W, Lindegaard KF. Cranioplasty with autologous cryopreserved bone after decompressive craniectomy: complications and risk factors for developing surgical site infection. *Acta Neurochir (Wien)* 2014;156:805-11; discussion 11.

185. Takeishi K, Yamashita Y, Tsujita E, Maeda T, Tsutsui S, Matsuda H, et al. Risk factors for organ/space surgical site infection after hepatectomy for hepatocellular carcinoma. *Am Surg* 2014;80:1173-5.

186. Togo Y, Tanaka S, Kanematsu A, Ogawa O, Miyazato M, Saito H, et al. Antimicrobial prophylaxis to prevent perioperative infection in urological surgery: a multicenter study. *J Infect Chemother* 2013;19:1093-101.

187. Turtiainen J, Hakala T, Hakkarainen T, Karhukorpi J. The impact of surgical wound bacterial colonization on the incidence of surgical site infection after lower limb vascular surgery: a prospective observational study. *Eur J Vasc Endovasc Surg* 2014;47:411-7.

188. Uchino M, Ikeuchi H, Matsuoka H, Bando T, Ichiki K, Nakajima K, et al. Infliximab administration prior to surgery does not increase surgical site infections in patients with ulcerative colitis. *Int J Colorectal Dis* 2013;28:1295-306.

189. V K, Hiremath BV, V AI. Necrotising soft tissue infection-risk factors for mortality. *J Clin Diagn Res* 2013;7:1662-5.

190. Vallribera Valls F, Landi F, Espin Basany E, Sanchez Garcia JL, Jimenez Gomez LM, Marti Gallostra M, et al. Laparoscopy-assisted versus open colectomy for treatment of colon cancer in the elderly: morbidity and mortality outcomes in 545 patients. *Surg Endosc* 2014;28:3373-8.

191. van der Boon RM, Nuis RJ, Benitez LM, Van Mieghem NM, Perez S, Cruz L, et al. Frequency, determinants and prognostic implications of infectious complications after transcatheter aortic valve implantation. *Am J Cardiol* 2013;112:104-10.

192. van der Slegt J, van der Laan L, Veen EJ, Hendriks Y, Romme J, Kluytmans J. Implementation of a bundle of care to reduce surgical site infections in patients undergoing vascular surgery. *PLoS One* 2013;8:e71566.

193. van Walraven C, Musselman R. The Surgical Site Infection Risk Score (SSIRS): A Model to Predict the Risk of Surgical Site Infections. *PLoS One* 2013;8:e67167.

194. Venara A, Hubner M, Le Naoures P, Hamel JF, Hamy A, Demartines N. Surgery for incarcerated hernia: short-term outcome with or without mesh. *Langenbecks Arch Surg* 2014;399:571-7.

195. Vierhout BP, Ott A, Reijnen MM, Oskam J, Ott A, van den Dungen JJ, et al. Cyanoacrylate skin microsealant for preventing surgical site infection after vascular surgery: a discontinued randomized clinical trial. *Surg Infect (Larchmt)* 2014;15:425-30.

196. Vranken NP, Weerwind PW, Barenbrug PJ, Teerenstra S, Ganushchak YM, Maessen JG. The role of patient's profile and allogeneic blood transfusion in development of post-cardiac surgery infections: a retrospective study. *Interact Cardiovasc Thorac Surg* 2014;19:232-8.

197. Vural S, Civil O, Kement M, Altuntas YE, Okkabaz N, Gezen C, et al. Risk factors for early postoperative morbidity and mortality in patients underwent radical surgery for gastric carcinoma: a single center experience. *Int J Surg* 2013;11:1103-9.

198. Wadhwa A, Kabon B, Fleischmann E, Kurz A, Sessler DI. Supplemental postoperative oxygen does not reduce surgical site infection and major healing-related complications from bariatric surgery in morbidly obese patients: a randomized, blinded trial. *Anesth Analg* 2014;119:357-65.

199. Watanabe J, Tatsumi K, Ota M, Suwa Y, Suzuki S, Watanabe A, et al. The impact of visceral obesity on surgical outcomes of laparoscopic surgery for colon cancer. *Int J Colorectal Dis* 2014;29:343-51.

200. Watanabe M, Suzuki H, Nomura S, Hanawa H, Chihara N, Mizutani S, et al. Performance assessment of the risk index category for surgical site infection after colorectal surgery. *Surg Infect (Larchmt)* 2015;16:84-9.

201. Watanabe M, Suzuki H, Nomura S, Maejima K, Chihara N, Komine O, et al. Risk factors for surgical site infection in emergency colorectal surgery: a retrospective analysis. *Surg Infect (Larchmt)* 2014;15:256-61.

202. Wei JW, Ni JD, Dong ZG, Liu LH, Luo ZB, Zheng L. Distally based perforator-plus sural fasciocutaneous flap for soft-tissue reconstruction of the distal lower leg, ankle, and foot: comparison between pediatric and adult patients. *J Reconstr Microsurg* 2014;30:249-54.

203. Xu SG, Mao ZG, Liu BS, Zhu HH, Pan HL. Evaluating the use of antibiotic prophylaxis during open reduction and internal fixation surgery in patients at low risk of surgical site infection. *Injury* 2015;46:184-8.

204. Yang L, Wang H, Liang X, Chen T, Chen W, Song Y, et al. Bacteria in hernia sac: an important risk fact for surgical site infection after incarcerated hernia repair. *Hernia* 2015;19:279-83.

205. Yang T, Tu PA, Zhang H, Lu JH, Shen YN, Yuan SX, et al. Risk factors of surgical site infection after hepatic resection. *Infect Control Hosp Epidemiol* 2014;35:317-20.

206. Yokogawa N, Murakami H, Demura S, Kato S, Yoshioka K, Hayashi H, et al. Postoperative Cerebrospinal Fluid Leakage Associated With Total En Bloc Spondylectomy. *Orthopedics* 2015;38:e561-6.

207. Young EJ, Contreras G, Robert NE, Vogt NJ, Courtney TM. Incidence and influencing factors associated with exit site infections in temporary catheters for hemodialysis and apheresis. *Nephrol Nurs J* 2005;32:41-50.

208. Barber GR, Miransky J, Brown AE, Coit DG, Lewis FM, Thaler HT, et al. Direct observations of surgical wound infections at a comprehensive cancer center. *Arch Surg* 1995;130:1042-7.

209. Berbari EF, Osmon DR, Lahr B, Eckel-Passow JE, Tsaras G, Hanssen AD, et al. The Mayo prosthetic joint infection risk score: implication for surgical site infection reporting and risk stratification. *Infect Control Hosp Epidemiol* 2012;33:774-81.

210. Berger RL, Li LT, Hicks SC, Davila JA, Kao LS, Liang MK. Development and validation of a risk-stratification score for surgical site occurrence and surgical site infection after open ventral hernia repair. *J Am Coll Surg* 2013;217:974-82.

211. Big C, Malani PN. Staphylococcus aureus bloodstream infections in older adults: clinical outcomes and risk factors for in-hospital mortality. *J Am Geriatr Soc* 2010;58:300-5.

212. Blatnik JA, Krpata DM, Novitsky YW, Rosen MJ. Does a history of wound infection predict postoperative surgical site infection after ventral hernia repair? *Am J Surg* 2012;203:370-4; discussion 4.

213. Bonds AM, Novick TK, Dietert JB, Araghizadeh FY, Olson CH. Incisional negative pressure wound therapy significantly reduces surgical site infection in open colorectal surgery. *Dis Colon Rectum* 2013;56:1403-8.

214. Bullard KM, Trudel JL, Baxter NN, Rothenberger DA. Primary perineal wound closure after preoperative radiotherapy and abdominoperineal resection has a high incidence of wound failure. *Dis Colon Rectum* 2005;48:438-43.

215. Byrne J, Darling IRC, Roddy SP, Mehta M, Paty PSK, Kreienberg PB, et al. Long Term Outcome for Extra-anatomic Arch Reconstruction. An Analysis of 143 Procedures. *Eur J Vasc Endovasc Surg* 2007;34:444-50.

216. Chiang HY, Kamath AS, Pottinger JM, Greenlee JD, Howard MA, 3rd, Cavanaugh JE, et al. Risk factors and outcomes associated with surgical site infections after craniotomy or craniectomy. *J Neurosurg* 2014;120:509-21.

217. Cizik AM, Lee MJ, Martin BI, Bransford RJ, Bellabarba C, Chapman JR, et al. Using the spine surgical invasiveness index to identify risk of surgical site infection: a multivariate analysis. *J Bone Joint Surg Am* 2012;94:335-42.

218. Cohen B, Choi YJ, Hyman S, Furuya EY, Neidell M, Larson E. Gender differences in risk of bloodstream and surgical site infections. *J Gen Intern Med* 2013;28:1318-25.

219. Davenport DL, Zwischenberger BA, Xenos ES. Analysis of 30-day readmission after aortoiliac and infrainguinal revascularization using the American College of Surgeons National Surgical Quality Improvement Program data set. *J Vasc Surg* 2014;60:1266-74.

220. Dipaola CP, Saravanja DD, Boriani L, Zhang H, Boyd MC, Kwon BK, et al. Postoperative infection treatment score for the spine (PITSS): construction and validation of a predictive model to define need for single versus multiple irrigation and debridement for spinal surgical site infection. *Spine J* 2012;12:218-30.

221. Drosdeck J, Harzman A, Suzo A, Arnold M, Abdel-Rasoul M, Husain S. Multivariate analysis of risk factors for surgical site infection after laparoscopic colorectal surgery. *Surg Endosc* 2013;27:4574-80.

222. Endara M, Masden D, Goldstein J, Gondek S, Steinberg J, Attinger C. The role of chronic and perioperative glucose management in high-risk surgical closures: a case for tighter glycemic control. *Plast Reconstr Surg* 2013;132:996-1004.

223. Erekson EA, Yip SO, Ciarleglio MM, Fried TR. Postoperative complications after gynecologic surgery. *Obstet Gynecol* 2011;118:785-93.

224. Estrada CA, Young JA, Nifong LW, Chitwood WR, Jr. Outcomes and perioperative hyperglycemia in patients with or without diabetes mellitus undergoing coronary artery bypass grafting. *Ann Thorac Surg* 2003;75:1392-9.

225. Faraday N, Rock P, Lin EE, Perl TM, Carroll K, Stierer T, et al. Past history of skin infection and risk of surgical site infection after elective surgery. *Ann Surg* 2013;257:150-4.

226. Farkas DT, Moradi D, Moaddel D, Nagpal K, Cosgrove JM. The impact of body mass index on outcomes after laparoscopic cholecystectomy. *Surgical Endoscopy and Other Interventional Techniques* 2012;26:964-9.

227. Ferrada P, Anand RJ, Malhotra A, Aboutanos M. Obesity does not increase mortality after emergency surgery. *J Obes* 2014;2014.

228. Fischer JP, Basta MN, Mirzabeigi MN, Kovach ISJ. A comparison of outcomes and cost in VHWG grade II hernias between Rives-Stoppa synthetic mesh hernia repair versus underlay biologic mesh repair. *Hernia* 2014;18:781-9.

229. Fischer JP, Basta MN, Wink JD, Wes AM, Kovach SJ. Optimizing patient selection in ventral hernia repair with concurrent panniculectomy: An analysis of 1974 patients from the ACS-NSQIP datasets. *Journal of Plastic, Reconstructive and Aesthetic Surgery* 2014;67:1532-40.

230. Fischer JP, Wes AM, Tuggle CT, Serletti JM, Wu LC. Risk analysis and stratification of surgical morbidity after immediate breast reconstruction. *J Am Coll Surg* 2013;217:780-7.

231. Fischer JP, Wink JD, Nelson JA, Kovach SJ. Among 1,706 cases of abdominal wall reconstruction, what factors influence the occurrence of major operative complications? *Surgery (United States)* 2014;155:311-9.

232. Fischer JP, Wink JD, Tuggle CT, Nelson JA, Kovach SJ. Wound risk assessment in ventral hernia repair: generation and internal validation of a risk stratification system using the ACS-NSQIP. *Hernia* 2015;19:103-11.

233. Giles KA, Wyers MC, Pomposelli FB, Hamdan AD, Avery Ching Y, Schermerhorn ML. The impact of body mass index on perioperative outcomes of open and endovascular abdominal aortic aneurysm repair from the National Surgical Quality Improvement Program, 2005-2007. *J Vasc Surg* 2010;52:1471-7.

234. Glarner CE, Greenblatt DY, Rettammel RJ, Neuman HB, Weber SM. Wound complications after inguinal lymph node dissection for melanoma: is ACS NSQIP adequate? *Ann Surg Oncol* 2013;20:2049-55.

235. Glassman SD, Alegre G, Carreon L, Dimar JR, Johnson JR. Perioperative complications of lumbar instrumentation and fusion in patients with diabetes mellitus. *Spine Journal* 2003;3:496-501.

236. Gordon RJ, Weinberg AD, Pagani FD, Slaughter MS, Pappas PS, Naka Y, et al. Prospective, multicenter study of ventricular assist device infections. *Circulation* 2013;127:691-702.

237. Greenberg JK, Ladner TR, Olsen MA, Shannon CN, Liu J, Yarbrough CK, et al. Complications and Resource Use Associated with Surgery for Chiari Malformation Type 1 in Adults: A Population Perspective. *Neurosurgery* 2015;77:261-8.

238. Grogan RH, Mitmaker EJ, Hwang J, Gosnell JE, Duh QY, Clark OH, et al. A population-based prospective cohort study of complications after thyroidectomy in the elderly. *J Clin Endocrinol Metab* 2012;97:1645-53.

239. Haraway AM, Clemens JQ, He C, Stroup C, Atiemo HO, Cameron AP. Differences in sacral neuromodulation device infection rates based on preoperative antibiotic selection. *Int Urogynecol J Pelvic Floor Dysfunct* 2013;24:2081-5.

240. Hardiman K, Chang ET, Diggs BS, Lu KC. Laparoscopic colectomy reduces morbidity and mortality in obese patients. *Surgical Endoscopy and Other Interventional Techniques* 2013;27:2907-10.

241. Hauer-Jensen M, Fort C, Mehta JL, Fink LM. Influence of statins on postoperative wound complications after inguinal or ventral herniorrhaphy. *Hernia* 2006;10:48-52.

242. Heller A, McIff TE, Lai SM, Burton DC. Intrawound Vancomycin Powder Decreases Staphylococcal Surgical Site Infections Following Posterior Instrumented Spinal Arthrodesis. *J Spinal Disord Tech* 2013.

243. Hoehn RS, Singhal A, Wima K, Sutton JM, Paterno F, Steve Woodle E, et al. Effect of pretransplant diabetes on short-term outcomes after liver transplantation: A National cohort study. *Liver International* 2015;35:1902-9.

244. Itagaki S, Cavallaro P, Adams DH, Chikwe J. Bilateral internal mammary artery grafts, mortalityand morbidity: An analysis of 1 526 360 coronary bypass operations. *Heart* 2013;99:849-53.

245. Kalish JA, Farber A, Homa K, Trinidad M, Beck A, Davies MG, et al. Factors associated with surgical site infection after lower extremity bypass in the Society for Vascular Surgery (SVS) Vascular Quality Initiative (VQI). *J Vasc Surg* 2014;60:1238-46.

246. Kao LS, Knight MT, Lally KP, Mercer DW. The impact of diabetes in patients with necrotizing soft tissue infections. *Surg Infect (Larchmt)* 2005;6:427-38.

247. Kayani WT, Bandeali SJ, Lee VV, Elayda M, Khan A, Nambi V, et al. Association between statins and infections after coronary artery bypass grafting. *Int J Cardiol* 2013;168:117-20.

248. Kelava M, Robich M, Houghtaling PL, Sabik JF, 3rd, Gordon S, Mihaljevic T, et al. Hospitalization before surgery increases risk for postoperative infections. *J Thorac Cardiovasc Surg* 2014;148:1615-21.e3.

249. Krpata DM, Blatnik JA, Novitsky YW, Rosen MJ. Evaluation of high-risk, comorbid patients undergoing open ventral hernia repair with synthetic mesh. *Surgery* 2013;153:120-5.

250. Kukreja S, Ambekar S, Ahmed OI, Menger RP, Sin AH, Nanda A. Impact of elective versus emergent admission on perioperative complications and resource utilization in lumbar fusion. *Clin Neurol Neurosurg* 2015;136:52-60.

251. Kwaan MR, Sirany AM, Rothenberger DA, Madoff RD. Abdominal wall thickness: is it associated with superficial and deep incisional surgical site infection after colorectal surgery? *Surg Infect (Larchmt)* 2013;14:363-8.

252. Kwon S, Thompson R, Dellinger P, Yanez D, Farrohki E, Flum D. Importance of perioperative glycemic control in general surgery: a report from the Surgical Care and Outcomes Assessment Program. *Ann Surg* 2013;257:8-14.

253. Lee EI, Chao AH, Skoracki RJ, Yu P, DeMonte F, Hanasono MM. Outcomes of calvarial reconstruction in cancer patients. *Plast Reconstr Surg* 2014;133:675-82.

254. Lee MJ, Cizik AM, Hamilton D, Chapman JR. Predicting surgical site infection after spine surgery: a validated model using a prospective surgical registry. *Spine J* 2014;14:2112-7.

255. Lidor AO, Moran-Atkin E, Stem M, Magnuson TH, Steele KE, Feinberg R, et al. Hospital-acquired conditions after bariatric surgery: we can predict, but can we prevent? *Surg Endosc* 2014;28:3285-92.

256. Manoso MW, Cizik AM, Bransford RJ, Bellabarba C, Chapman J, Lee MJ. Medicaid status is associated with higher surgical site infection rates after spine surgery. *Spine (Phila Pa 1976)* 2014;39:1707-13.

257. Maradit Kremers H, Lewallen LW, Lahr BD, Mabry TM, Steckelberg JM, Berry DJ, et al. Do claims-based comorbidities adequately capture case mix for surgical site infections? *Clin Orthop Relat Res* 2015;473:1777-86.

258. Marchant Jr MH, Viens NA, Cook C, Vail TP, Bolognesi MP. The impact of glycemic control and diabetes mellitus on perioperative outcomes after total joint arthroplasty. *Journal of Bone and Joint Surgery - Series A* 2009;91:1621-9.

259. Menendez ME, Lu N, Unizony S, Choi HK, Ring D. Surgical site infection in hand surgery. *Int Orthop* 2015.

260. Menendez ME, Ring D, Bateman BT. Preoperative Opioid Misuse is Associated With Increased Morbidity and Mortality After Elective Orthopaedic Surgery. *Clin Orthop Relat Res* 2015;473:2402-12.

261. Merkow RP, Ju MH, Chung JW, Hall BL, Cohen ME, Williams MV, et al. Underlying reasons associated with hospital readmission following surgery in the United States. *JAMA* 2015;313:483-95.

262. Mitchell RM, Mendez E, Schmitt NC, Bhrany AD, Futran ND. Antibiotic Prophylaxis in Patients Undergoing Head and Neck Free Flap Reconstruction. *JAMA Otolaryngol Head Neck Surg* 2015.

263. Morris DS, Rohrbach J, Sundaram LM, Sonnad S, Sarani B, Pascual J, et al. Early hospital readmission in the trauma population: are the risk factors different? *Injury* 2014;45:56-60.

264. Morris MS, Deierhoi RJ, Richman JS, Altom LK, Hawn MT. The relationship between timing of surgical complications and hospital readmission. *JAMA Surg* 2014;149:348-54.

265. Nelson DW, Champagne BJ, Rivadeneira DE, Davis BR, Maykel JA, Ross HM, et al. Prophylactic antibiotics for hemorrhoidectomy: are they really needed? *Dis Colon Rectum* 2014;57:365-9.

266. Olsen MA, Nickel KB, Wallace AE, Mines D, Fraser VJ, Warren DK. Stratification of surgical site infection by operative factors and comparison of infection rates after hernia repair. *Infect Control Hosp Epidemiol* 2015;36:329-35.

267. Omeis IA, Dhir M, Sciubba DM, Gottfried ON, McGirt MJ, Attenello FJ, et al. Postoperative surgical site infections in patients undergoing spinal tumor surgery: incidence and risk factors. *Spine (Phila Pa 1976)* 2011;36:1410-9.

268. Ozaki CK, Hamdan AD, Barshes NR, Wyers M, Hevelone ND, Belkin M, et al. Prospective, randomized, multi-institutional clinical trial of a silver alginate dressing to reduce lower extremity vascular surgery wound complications. *J Vasc Surg* 2015;61:419-27.

269. Pahys JM, Pahys JR, Cho SK, Kang MM, Zebala LP, Hawasli AH, et al. Methods to decrease postoperative infections following posterior cervical spine surgery. *J Bone Joint Surg Am* 2013;95:549-54.

270. Pauli EM, Krpata DM, Novitsky YW, Rosen MJ. Negative pressure therapy for high-risk abdominal wall reconstruction incisions. *Surg Infect (Larchmt)* 2013;14:270-4.

271. Petro CC, Posielski NM, Raigani S, Criss CN, Orenstein SB, Novitsky YW. Risk factors for wound morbidity after open retromuscular (sublay) hernia repair. *Surgery* 2015.

272. Posluszny JA, Jr., Conrad P, Halerz M, Shankar R, Gamelli RL. Surgical burn wound infections and their clinical implications. *J Burn Care Res* 2011;32:324-33.

273. Pugely AJ, Martin CT, Gao Y, Schweizer ML, Callaghan JJ. The Incidence of and Risk Factors for 30-Day Surgical Site Infections Following Primary and Revision Total Joint Arthroplasty. *J Arthroplasty* 2015.

274. Pull ter Gunne AF, Cohen DB. Incidence, prevalence, and analysis of risk factors for surgical site infection following adult spinal surgery. *Spine (Phila Pa 1976)* 2009;34:1422-8.

275. Pull ter Gunne AF, van Laarhoven CJ, Cohen DB. Surgical site infection after osteotomy of the adult spine: does type of osteotomy matter? *Spine J* 2010;10:410-6.

276. Puskas JD, Sadiq A, Vassiliades TA, Kilgo PD, Lattouf OM. Bilateral internal thoracic artery grafting is associated with significantly improved long-term survival, even among diabetic patients. *Ann Thorac Surg* 2012;94:710-6.

277. Rambachan A, Smith TR, Saha S, Eskandari MK, Bendok BR, Kim JY. Reasons for readmission after carotid endarterectomy. *World Neurosurg* 2014;82:e771-6.

278. Rawlins L, Rawlins MP, Brown CC, Schumacher DL. Effect of elevated hemoglobin A1c in diabetic patients on complication rates after Roux-en-Y gastric bypass. *Surg Obes Relat Dis* 2013;9:749-52.

279. Richards JE, Kauffmann RM, Zuckerman SL, Obremskey WT, May AK. Relationship of hyperglycemia and surgical-site infection in orthopaedic surgery. *Journal of Bone and Joint Surgery - Series A* 2012;94:1181-6.

280. Robich MP, Sabik JF, Houghtaling PL, Kelava M, Gordon S, Blackstone EH, et al. Prolonged effect of postoperative infectious complications on survival after cardiac surgery. *Ann Thorac Surg* 2015;99:1591-9.

281. Rolston JD, Han SJ, Lau CY, Berger MS, Parsa AT. Frequency and predictors of complications in neurological surgery: National trends from 2006 to 2011: Clinical article. *J Neurosurg* 2014;120:736-45.

282. Savage MW, Pottinger JM, Chiang HY, Yohnke KR, Bowdler NC, Herwaldt LA. Surgical site infections and cellulitis after abdominal hysterectomy. *Am J Obstet Gynecol* 2013;209:108.e1-10.

283. Schairer WW, Sing DC, Vail TP, Bozic KJ. Causes and frequency of unplanned hospital readmission after total hip arthroplasty. *Clin Orthop Relat Res* 2014;472:464-70.

284. Shih T, Zhang M, Kommareddi M, Boeve TJ, Harrington SD, Holmes RJ, et al. Center-level variation in infection rates after coronary artery bypass grafting. *Circ Cardiovasc Qual Outcomes* 2014;7:567-73.

285. Short SS, Nasseri Y, Gangi A, Berel D, Fleshner P. Deep vein thrombosis prophylaxis increases perioperative surgical site infection in a prospective cohort of patients undergoing colorectal surgery. *Am Surg* 2011;77:1309-13.

286. Showalter SL, Kelz RR, Mahmoud NN. Effect of technique on postoperative perineal wound infections in abdominoperineal resection. *Am J Surg* 2013;206:80-5.

287. Sippey M, Grzybowski M, Manwaring ML, Kasten KR, Chapman WH, Pofahl WE, et al. Acute cholecystitis: risk factors for conversion to an open procedure. *J Surg Res* 2015.

288. Siracuse JJ, Gill HL, Schneider DB, Graham AR, Connolly PH, Jones DW, et al. Assessing the perioperative safety of common femoral endarterectomy in the endovascular era. *Vasc Endovascular Surg* 2014;48:27-33.

289. Smucny M, Menendez ME, Ring D, Feeley BT, Zhang AL. Inpatient surgical site infection after shoulder arthroplasty. *J Shoulder Elbow Surg* 2015;24:747-53.

290. Tan TW, Farber A, Hamburg NM, Eberhardt RT, Rybin D, Doros G, et al. Blood transfusion for lower extremity bypass is associated with increased wound infection and graft thrombosis. *J Am Coll Surg* 2013;216:1005-14.e2.

291. Trick WE, Scheckler WE, Tokars JI, Jones KC, Smith EM, Reppen ML, et al. Risk factors for radial artery harvest site infection following coronary artery bypass graft surgery. *Clin Infect Dis* 2000;30:270-5.

292. Turrentine FE, Stukenborg GJ, Hanks JB, Smith PW. Elective laparoscopic adrenalectomy outcomes in 1099 ACS NSQIP patients: Identifying candidates for early discharge. *Am Surg* 2015;81:507-14.

293. Upton A, Roberts SA, Milsom P, Morris AJ. Staphylococcal post-sternotomy mediastinitis: Five year audit. *ANZ J Surg* 2005;75:198-203.

294. Vaughan-Sarrazin MS, Bayman L, Cullen JJ. Costs of postoperative sepsis: The business case for quality improvement to reduce postoperative sepsis in veterans affairs hospitals. *Arch Surg* 2011;146:944-51.

295. Vergidis P, Lesnick TG, Kremers WK, Razonable RR. Prosthetic joint infection in solid organ transplant recipients: a retrospective case-control study. *Transpl Infect Dis* 2012;14:380-6.

296. Walz JM, Paterson CA, Seligowski JM, Heard SO. Surgical site infection following bowel surgery: a retrospective analysis of 1446 patients. *Arch Surg* 2006;141:1014-8; discussion 8.

297. Wenger PN, Brown JM, McNeil MM, Jarvis WR. Nocardia farcinica sternotomy site infections in patients following open heart surgery. *J Infect Dis* 1998;178:1539-43.

298. Wiseman JT, Fernandes-Taylor S, Barnes ML, Saunders RS, Saha S, Havlena J, et al. Predictors of surgical site infection after hospital discharge in patients undergoing major vascular surgery. *J Vasc Surg* 2015.

299. Wukich DK, Crim BE, Frykberg RG, Rosario BL. Neuropathy and poorly controlled diabetes increase the rate of surgical site infection after foot and ankle surgery. *J Bone Joint Surg Am* 2014;96:832-9.

300. Yang CH, Chew KY, Solomkin JS, Lin PY, Chiang YC, Kuo YR. Surgical site infections among high-risk patients in clean-contaminated head and neck reconstructive surgery: concordance with preoperative oral flora. *Ann Plast Surg* 2013;71 Suppl 1:S55-60.

301. Zapolanski A, Pliam MB, Bronstein MH, Ellertson D, Fishman NH, Anastassiou PA, et al. Arterial conduits in emergency coronary artery surgery. *J Card Surg* 1995;10:32-9.

302. Zimmerman CR, Mlynarek ME, Jordan JA, Rajda CA, Horst HM. An insulin infusion protocol in critically ill cardiothoracic surgery patients. *Ann Pharmacother* 2004;38:1123-9.

303. Aimaq R, Akopian G, Kaufman HS. Surgical site infection rates in laparoscopic versus open colorectal surgery. *Am Surg* 2011;77:1290-4.

304. Alavi K, Sturrock PR, Sweeney WB, Maykel JA, Cervera-Servin JA, Tseng J, et al. A simple risk score for predicting surgical site infections in inflammatory bowel disease. *Dis Colon Rectum* 2010;53:1480-6.

305. Al-Niaimi AN, Ahmed M, Burish N, Chackmakchy SA, Seo S, Rose S, et al. Intensive postoperative glucose control reduces the surgical site infection rates in gynecologic oncology patients. *Gynecol Oncol* 2015;136:71-6.

306. Amorosa LF, Buirs LD, Bexkens R, Wellman DS, Kloen P, Lorich DG, et al. A single-stage treatment protocol for presumptive aseptic diaphyseal nonunions: a review of outcomes. *J Orthop Trauma* 2013;27:582-6.

307. Arnaoutakis DJ, Selvarajah S, Mathioudakis N, Black IJH, Freischlag JA, Abularrage CJ. Metabolic syndrome reduces the survival benefit of the obesity paradox after infrainguinal bypass. *Ann Vasc Surg* 2014;28:596-605.

308. Belmont Jr PJ, Goodman GP, Waterman BR, Bader JO, Schoenfeld AJ. Thirty-day postoperative complications and mortality following total knee arthroplasty : Incidence and risk factors among a national sample of 15,321 patients. *Journal of Bone and Joint Surgery - Series A* 2014;96:20-6.

309. Bishawi M, Fakhoury M, Denoya PI, Stein S, Bergamaschi R. Surgical site infection rates: open versus hand-assisted colorectal resections. *Tech Coloproctol* 2014;18:381-6.

310. Blackstone R, Kieran J, Davis M, Rivera L. Continuous perioperative insulin infusion therapy for patients with type 2 diabetes undergoing bariatric surgery. *Surgical Endoscopy and Other Interventional Techniques* 2007;21:1316-22.

311. Brueseke T, Livingston B, Warda H, Osann K, Noblett K. Risk Factors for Surgical Site Infection in Patients Undergoing Sacral Nerve Modulation Therapy. *Female Pelvic Med Reconstr Surg* 2015;21:198-204.

312. Bruijnzeel H, Neuhaus V, Fostvedt S, Jupiter JB, Mudgal CS, Ring DC. Adverse events of open A1 pulley release for idiopathic trigger finger. *J Hand Surg Am* 2012;37:1650-6.

313. Caras RJ, Lustik MB, Kern SQ, Sterbis JR, McMann LP. Laparoscopic radical prostatectomy demonstrates less morbidity than open radical prostatectomy: an analysis of the American College of Surgeons-National Surgical Quality Improvement Program database with a focus on surgical trainee involvement. *J Endourol* 2014;28:298-305.

314. Carlson RM, Roberts PL, Hall JF, Marcello PW, Schoetz DJ, Read TE, et al. What are 30-day postoperative outcomes following splenic flexure mobilization during anterior resection? *Tech Coloproctol* 2014;18:257-64.

315. Charles EJ, Petroze RT, Metzger R, Hranjec T, Rosenberger LH, Riccio LM, et al. Hypocaloric compared with eucaloric nutritional support and its effect on infection rates in a surgical intensive care unit: a randomized controlled trial. *Am J Clin Nutr* 2014;100:1337-43.

316. Chen MM, Roman SA, Sosa JA, Judson BL. Postdischarge complications predict reoperation and mortality after otolaryngologic surgery. *Otolaryngol Head Neck Surg* 2013;149:865-72.

317. Choi JJ, Palaniappa NC, Dallas KB, Rudich TB, Colon MJ, Divino CM. Use of mesh during ventral hernia repair in clean-contaminated and contaminated cases: Outcomes of 33,832 cases. *Ann Surg* 2012;255:176-80.

318. Collier B, Diaz Jr J, Forbes R, Morris Jr J, May A, Guy J, et al. The impact of a normoglycemic management protocol on clinical outcomes in the trauma intensive care unit. *Journal of Parenteral and Enteral Nutrition* 2005;29:353-8.

319. Colling KP, Glover JK, Statz CA, Geller MA, Beilman GJ. Abdominal Hysterectomy: Reduced Risk of Surgical Site Infection Associated with Robotic and Laparoscopic Technique. *Surg Infect (Larchmt)* 2015.

320. Costa MA, Rommer E, Peric M, Nguyen TJ, Shahabi A, Davis GB, et al. Incidence of surgical-site infection is not affected by method of immediate breast reconstruction. *Plast Reconstr Surg* 2013;132:20e-9e.

321. Dorman MJ, Kurlansky PA, Traad EA, Galbut DL, Zucker M, Ebra G. Bilateral internal mammary artery grafting enhances survival in diabetic patients: A 30-year follow-up of propensity score-matched cohorts. *Circulation* 2012;126:2935-42.

322. Englesbe MJ, Brooks L, Kubus J, Luchtefeld M, Lynch J, Senagore A, et al. A statewide assessment of surgical site infection following colectomy: the role of oral antibiotics. *Ann Surg* 2010;252:514-9; discussion 9-20.

323. Furnary AP, Zerr KJ, Grunkemeier GL, Starr A. Continuous intravenous insulin infusion reduces the incidence of deep sternal wound infection in diabetic patients after cardiac surgical procedures. *Ann Thorac Surg* 1999;67:352-60; discussion 60-2.

324. Gandaglia G, Ghani KR, Sood A, Meyers JR, Sammon JD, Schmid M, et al. Effect of minimally invasive surgery on the risk for surgical site infections: results from the National Surgical Quality Improvement Program (NSQIP) Database. *JAMA Surg* 2014;149:1039-44.

325. Gandhi GY, Nuttall GA, Abel MD, Mullany CJ, Schaff HV, O'Brien PC, et al. Intensive intraoperative insulin therapy versus conventional glucose management during cardiac surgery: a randomized trial. *Ann Intern Med* 2007;146:233-43.

326. Greenblatt DY, Kelly KJ, Rajamanickam V, Wan Y, Hanson T, Rettammel R, et al. Preoperative factors predict perioperative morbidity and mortality after pancreaticoduodenectomy. *Ann Surg Oncol* 2011;18:2126-35.

327. Hakkarainen TW, Dellinger EP, Evans HL, Farjah F, Farrokhi E, Steele SR, et al. Comparative effectiveness of skin antiseptic agents in reducing surgical site infections: A report from the Washington state surgical care and outcomes assessment program. *J Am Coll Surg* 2014;218:336-44.

328. Halabi WJ, Jafari MD, Nguyen VQ, Carmichael JC, Mills S, Pigazzi A, et al. Blood transfusions in colorectal cancer surgery: incidence, outcomes, and predictive factors: an American College of Surgeons National Surgical Quality Improvement Program analysis. *Am J Surg* 2013;206:1024-32; discussion 32-3.

329. Hawn MT, Houston TK, Campagna EJ, Graham LA, Singh J, Bishop M, et al. The attributable risk of smoking on surgical complications. *Ann Surg* 2011;254:914-20.

330. Hendren S, Fritze D, Banerjee M, Kubus J, Cleary RK, Englesbe MJ, et al. Antibiotic choice is independently associated with risk of surgical site infection after colectomy: a population-based cohort study. *Ann Surg* 2013;257:469-75.

331. Ho V, Stein S, Trencheva K, Milsom J, Lee S, Sonoda T. Risk factors for surgical site infections in abdominal colorectal surgery. *Dis Colon Rectum* 2010;53:702.

332. Hogle NJ, Cohen B, Hyman S, Larson E, Fowler DL. Incidence and risk factors for and the effect of a program to reduce the incidence of surgical site infection after cardiac surgery. *Surg Infect (Larchmt)* 2014;15:299-304.

333. Horner J, Peters H. Risk factors for surgical site infection among obese patients versus non-obese patients undergoing colon surgery. *Am J Infect Control* 2014;42:S13-S4.

334. Jackson RS, Amdur RL, White JC, Macsata RA. Hyperglycemia is associated with increased risk of morbidity and mortality after colectomy for cancer. *J Am Coll Surg* 2012;214:68-80.

335. Jackson RS, Black IJH, Lum YW, Schneider EB, Freischlag JA, Perler BA, et al. Class i obesity is paradoxically associated with decreased risk of postoperative stroke after carotid endarterectomy. *J Vasc Surg* 2012;55:1306-12.

336. Jan A, Riggs DR, Orlando KL, Khan FJ. Surgical outcomes based on resident involvement: what is the impact on vascular surgery patients? *J Surg Educ* 2012;69:638-42.

337. Jiang JJ, Phillips CS, Levitz SP, Benson LS. Risk factors for complications following open reduction internal fixation of distal radius fractures. *J Hand Surg Am* 2014;39:2365-72.

338. Kaoutzanis C, Leichtle SW, Mouawad NJ, Welch KB, Lampman RM, Wahl WL, et al. Risk factors for postoperative wound infections and prolonged hospitalization after ventral/incisional hernia repair. *Hernia* 2015;19:113-23.

339. Kern SQ, Lustik MB, McMann LP, Thibault GP, Sterbis JR. Comparison of outcomes after minimally invasive versus open partial nephrectomy with respect to trainee involvement utilizing the American College of Surgeons National Surgical Quality Improvement Program. *J Endourol* 2014;28:40-7.

340. Kiran RP, Turina M, Hammel J, Fazio V. The clinical significance of an elevated postoperative glucose value in nondiabetic patients after colorectal surgery: evidence for the need for tight glucose control? *Ann Surg* 2013;258:599-604; discussion -5.

341. Kobayashi L, Konstantinidis A, Shackelford S, Chan LS, Talving P, Inaba K, et al. Necrotizing soft tissue infections: delayed surgical treatment is associated with increased number of surgical debridements and morbidity. *J Trauma* 2011;71:1400-5.

342. Krell RW, Girotti ME, Fritze D, Campbell DA, Hendren S. Hospital readmissions after colectomy: A population-based study. *J Am Coll Surg* 2013;217:1070-9.

343. Kwaan MR, Al-Refaie WB, Parsons HM, Chow CJ, Rothenberger DA, Habermann EB. Are right-sided colectomy outcomes different from left-sided colectomy outcomes?: study of patients with colon cancer in the ACS NSQIP database. *JAMA Surg* 2013;148:504-10.

344. Lawson EH, Hall BL, Ko CY. Risk factors for superficial vs deep/organ-space surgical site infections: implications for quality improvement initiatives. *JAMA Surg* 2013;148:849-58.

345. Lazar HL, Ketchedjian A, Haime M, Karlson K, Cabral H. Topical vancomycin in combination with perioperative antibiotics and tight glycemic control helps to eliminate sternal wound infections. *J Thorac Cardiovasc Surg* 2014;148:1035-8; 8-40.

346. Le C, Guppy KH, Axelrod YV, Hawk MW, Silverthorn J, Inacio MC, et al. Lower complication rates for cranioplasty with peri-operative bundle. *Clin Neurol Neurosurg* 2014;120:41-4.

347. Levi B, Zhang P, Lisiecki J, Terjimanian MN, Rinkinen J, Agarwal S, et al. Use of morphometric assessment of body composition to quantify risk of surgical-site infection in patients undergoing component separation ventral hernia repair. *Plast Reconstr Surg* 2014;133:559e-66e.

348. Liang MI, Rosen MA, Rath KS, Clements AE, Backes FJ, Eisenhauer EL, et al. Reducing readmissions after robotic surgical management of endometrial cancer: a potential for improved quality care. *Gynecol Oncol* 2013;131:508-11.

349. Liang MK, Berger RL, Li LT, Davila JA, Hicks SC, Kao LS. Outcomes of laparoscopic vs open repair of primary ventral hernias. *JAMA Surg* 2013;148:1043-8.

350. Lipsky BA, Weigelt JA, Sun X, Johannes RS, Derby KG, Tabak YP. Developing and validating a risk score for lower-extremity amputation in patients hospitalized for a diabetic foot infection. *Diabetes Care* 2011;34:1695-700.

351. Little MTM, Berkes MB, Lazaro LE, Sculco PK, Cymerman RM, Pardee N, et al. Comparison of supination external rotation type IV ankle fractures in geriatric versus nongeriatric populations. *Foot Ankle Int* 2013;34:512-7.

352. Lovecchio F, Farmer R, Souza J, Khavanin N, Dumanian GA, Kim JY. Risk factors for 30-day readmission in patients undergoing ventral hernia repair. *Surgery* 2014;155:702-10.

353. Maradit Kremers H, Kremers WK, Berry DJ, Lewallen DG. Social and Behavioral Factors in Total Knee and Hip Arthroplasty. *J Arthroplasty* 2015.

354. Martin JR, Adogwa O, Brown CR, Bagley CA, Richardson WJ, Lad SP, et al. Experience with intrawound vancomycin powder for spinal deformity surgery. *Spine (Phila Pa 1976)* 2014;39:177-84.

355. Martin JR, Adogwa O, Brown CR, Kuchibhatla M, Bagley CA, Lad SP, et al. Experience with intrawound vancomycin powder for posterior cervical fusion surgery. *J Neurosurg Spine* 2015;22:26-33.

356. Mavros MN, Velmahos GC, Lee J, Larentzakis A, Kaafarani HM. Morbidity related to concomitant adhesions in abdominal surgery. *J Surg Res* 2014;192:286-92.

357. Melis M, Weber J, Shridhar R, Hoffe S, Almhanna K, Karl RC, et al. Body mass index and perioperative complications after oesophagectomy for adenocarcinoma: A systematic database review. *BMJ Open* 2013;3.

358. Memtsoudis SG, Vougioukas VI, Ma Y, Gaber-Baylis LK, Girardi FP. Perioperative morbidity and mortality after anterior, posterior, and anterior/posterior spine fusion surgery. *Spine* 2011;36:1867-77.

359. Miric A, Inacio MC, Namba RS. The effect of chronic kidney disease on total hip arthroplasty. *J Arthroplasty* 2014;29:1225-30.

360. Miric A, Inacio MCS, Namba RS. The effect of chronic kidney disease on total hip arthroplasty. *J Arthroplasty* 2014;29:1225-30.

361. Moghadamyeghaneh Z, Hanna MH, Carmichael JC, Mills SD, Pigazzi A, Nguyen NT, et al. Nationwide analysis of outcomes of bowel preparation in colon surgery. *J Am Coll Surg* 2015;220:912-20.

362. Monn MF, Hui X, Lau BD, Streiff M, Haut ER, Wick EC, et al. Infection and venous thromboembolism in patients undergoing colorectal surgery: what is the relationship? *Dis Colon Rectum* 2014;57:497-505.

363. Nelson JA, Fischer JP, Cleveland EC, Wink JD, Serletti JM, Kovach ISJ. Abdominal wall reconstruction in the obese: An assessment of complications from the National Surgical Quality Improvement Program datasets. *Am J Surg* 2014;207:467-75.

364. Nota SP, Braun Y, Ring D, Schwab JH. Incidence of surgical site infection after spine surgery: what is the impact of the definition of infection? *Clin Orthop Relat Res* 2015;473:1612-9.

365. Orcutt ST, Balentine CJ, Marshall CL, Robinson CN, Anaya DA, Artinyan A, et al. Use of a Pfannenstiel incision in minimally invasive colorectal cancer surgery is associated with a lower risk of wound complications. *Tech Coloproctol* 2012;16:127-32.

366. Pastor C, Artinyan A, Varma MG, Kim E, Gibbs L, Garcia-Aguilar J. An increase in compliance with the surgical care improvement project measures does not prevent surgical site infection in colorectal surgery. *Dis Colon Rectum* 2010;53:24-30.

367. Pommerening MJ, Kao LS, Sowards KJ, Wade CE, Holcomb JB, Cotton BA. Primary skin closure after damage control laparotomy. *Br J Surg* 2015;102:67-75.

368. Poultsides LA, Ma Y, Della Valle AG, Chiu YL, Sculco TP, Memtsoudis SG. In-hospital surgical site infections after primary hip and knee arthroplasty--incidence and risk factors. *J Arthroplasty* 2013;28:385-9.

369. Pruzansky JS, Bronson MJ, Grelsamer RP, Strauss E, Moucha CS. Prevalence of modifiable surgical site infection risk factors in hip and knee joint arthroplasty patients at an urban academic hospital. *J Arthroplasty* 2014;29:272-6.

370. Pugely AJ, Martin CT, Gao Y, Mendoza-Lattes SA. Outpatient surgery reduces short-term complications in lumbar discectomy: An analysis of 4310 patients from the ACS-NSQIP database. *Spine* 2013;38:264-71.

371. Radcliff KE, Rasouli MR, Neusner A, Kepler CK, Albert TJ, Rihn JA, et al. Preoperative delay of more than 1 hour increases the risk of surgical site infection. *Spine (Phila Pa 1976)* 2013;38:1318-23.

372. Raines BT, Ponce BA, Reed RD, Richman JS, Hawn MT. Hospital Acquired Conditions Are the Strongest Predictor for Early Readmission: An Analysis of 26,710 Arthroplasties. *J Arthroplasty* 2015;30:1299-307.

373. Ramo BA, Roberts DW, Tuason D, McClung A, Paraison LE, Moore HGt, et al. Surgical site infections after posterior spinal fusion for neuromuscular scoliosis: a thirty-year experience at a single institution. *J Bone Joint Surg Am* 2014;96:2038-48.

374. Rasouli MR, Restrepo C, Maltenfort MG, Purtill JJ, Parvizi J. Risk factors for surgical site infection following total joint arthroplasty. *J Bone Joint Surg Am* 2014;96:e158.

375. Rawicki N, Wyatt R, Kusnezov N, Kanlic E, Abdelgawad A. High incidence of post-operative infection after 'sinus tarsi' approach for treatment of intra-articular fractures of the calcaneus: A 5 year experience in an academic level one trauma center. *Patient Saf Surg* 2015;9.

376. Richards JE, Kauffmann RM, Obremskey WT, May AK. Stress-induced hyperglycemia as a risk factor for surgical-site infection in nondiabetic orthopedic trauma patients admitted to the intensive care unit. *J Orthop Trauma* 2013;27:16-21.

377. Sadoskas D, Suder NC, Wukich DK. Perioperative Glycemic Control and the Effect on Surgical Site Infections in Diabetic Patients Undergoing Foot and Ankle Surgery. *Foot Ankle Spec* 2015.

378. Saeed MJ, Dubberke ER, Fraser VJ, Olsen MA. Procedure-specific surgical site infection incidence varies widely within certain National Healthcare Safety Network surgery groups. *Am J Infect Control* 2015;43:617-23.

379. Schwam ZG, Sosa JA, Roman S, Judson BL. Complications and mortality following surgery for oral cavity cancer: Analysis of 408 cases. *Laryngoscope* 2015.

380. Schweizer ML, Chiang HY, Septimus E, Moody J, Braun B, Hafner J, et al. Association of a bundled intervention with surgical site infections among patients undergoing cardiac, hip, or knee surgery. *JAMA - Journal of the American Medical Association* 2015;313:2162-71.

381. Sehgal R, Berg A, Figueroa R, Poritz LS, McKenna KJ, Stewart DB, et al. Risk factors for surgical site infections after colorectal resection in diabetic patients. *J Am Coll Surg* 2011;212:29-34.

382. Shaffer VO, Baptiste CD, Liu Y, Srinivasan JK, Galloway JR, Sullivan PS, et al. Improving quality of surgical care and outcomes: factors impacting surgical site infection after colorectal resection. *Am Surg* 2014;80:759-63.

383. Shah H, Hellinger WC, Heckman MG, Diehl N, Shalev JA, Willingham DL, et al. Surgical site infections after liver retransplantation: incidence and risk factors. *Liver Transpl* 2014;20:930-6.

384. Skovrlj B, Cho SK, Caridi JM, Bridwell KH, Lenke LG, Kim YJ. Association Between Surgeon Experience and Complication Rates in Adult Scoliosis Surgery: A Review of 5,117 Cases from the Scoliosis Research Society Database 2004-2007. *Spine (Phila Pa 1976)* 2015.

385. Smith BP, Fox N, Fakhro A, LaChant M, Pathak AS, Ross SE, et al. "SCIP"ping antibiotic prophylaxis guidelines in trauma: The consequences of noncompliance. *J Trauma Acute Care Surg* 2012;73:452-6; discussion 6.

386. Stahnke A, Struemph K, Behnen E, Schimmelpfennig J. Pharmacy management of postoperative blood glucose in open heart surgery patients: evaluation of an intravenous to subcutaneous insulin protocol. *Hosp Pharm* 2014;49:164-9.

387. Stall A, Paryavi E, Gupta R, Zadnik M, Hui E, O'Toole RV. Perioperative supplemental oxygen to reduce surgical site infection after open fixation of high-risk fractures: a randomized controlled pilot trial. *J Trauma Acute Care Surg* 2013;75:657-63.

388. Tan TW, Kalish JA, Hamburg NM, Rybin D, Doros G, Eberhardt RT, et al. Shorter duration of femoral-popliteal bypass is associated with decreased surgical site infection and shorter hospital length of stay. *J Am Coll Surg* 2012;215:512-8.

389. Teisch LF, Gerth DJ, Tashiro J, Golpanian S, Thaller SR. Latissimus dorsi flap versus pedicled transverse rectus abdominis myocutaneous breast reconstruction: outcomes. *J Surg Res* 2015.

390. Waits SA, Fritze D, Banerjee M, Zhang W, Kubus J, Englesbe MJ, et al. Developing an argument for bundled interventions to reduce surgical site infection in colorectal surgery. *Surgery* 2014;155:602-6.

391. Waterman BR, Dunn JC, Bader J, Urrea L, Schoenfeld AJ, Belmont PJ. Thirty-day morbidity and mortality after elective total shoulder arthroplasty: Patient-based and surgical risk factors. *J Shoulder Elbow Surg* 2015;24:24-30.

392. Wideroff M, Xing Y, Liao J, Byrn JC. Crohn's disease but not diverticulitis is an independent risk factor for surgical site infections in colectomy. *J Gastrointest Surg* 2014;18:1817-23.

393. Wiewiorski M, Barg A, Hoerterer H, Voellmy T, Henninger HB, Valderrabano V. Risk factors for wound complications in patients after elective orthopedic foot and ankle surgery. *Foot Ankle Int* 2015;36:479-87.

394. Wilson MZ, Hollenbeak CS, Stewart DB. Laparoscopic colectomy is associated with a lower incidence of postoperative complications than open colectomy: A propensity score-matched cohort analysis. *Colorectal Dis* 2014;16:382-9.

395. Wise KB, Merchea A, Cima RR, Colibaseanu DT, Thomsen KM, Habermann EB. Proximal intestinal diversion is associated with increased morbidity in patients undergoing elective colectomy for diverticular disease: an ACS-NSQIP study. *J Gastrointest Surg* 2015;19:535-42.

396. Yarlagadda BB, Deschler DG, Rich DL, Lin DT, Emerick KS, Rocco JW, et al. Head and neck free flap surgical site infections in the era of the Surgical Care Improvement Project. *Head Neck* 2015.

397. Zerr KJ, Furnary AP, Grunkemeier GL, Bookin S, Kanhere V, Starr A. Glucose control lowers the risk of wound infection in diabetics after open heart operations. *Ann Thorac Surg* 1997;63:356-61.

398. Zhao JJ, Marchaim D, Palla MB, Bogan CW, Hayakawa K, Tansek R, et al. Surgical site infections in genital reconstruction surgery for gender reassignment, Detroit: 1984-2008. *Surg Infect (Larchmt)* 2014;15:99-104.

399. Zhao VM, Griffith DP, Blumberg HM, Dave NJ, Battey CH, McNally TA, et al. Characterization of post-hospital infections in adults requiring home parenteral nutrition. *Nutrition* 2013;29:52-9.

400. Ziegler T, May A, Hebbar G, Kudsk K, Sax H, Blumberg H, et al. Glutamine dipeptide-supplemented parenteral nutrition in surgical icu patients: Results of an American randomized, double-blind, multicenter trial. *Clinical Nutrition, Supplement* 2012;7:265.

401. Ata A, Valerian BT, Lee EC, Bestle SL, Elmendorf SL, Stain SC. The effect of diabetes mellitus on surgical site infections after colorectal and noncolorectal general surgical operations. *Am Surg* 2010;76:697-702.

402. Bakkum-Gamez JN, Dowdy SC, Borah BJ, Haas LR, Mariani A, Martin JR, et al. Predictors and costs of surgical site infections in patients with endometrial cancer. *Gynecol Oncol* 2013;130:100-6.

403. Baucom RB, Phillips SE, Ehrenfeld JM, Holzman MD, Nealon WH, Sharp KW, et al. Defining intraoperative hypothermia in ventral hernia repair. *J Surg Res* 2014;190:385-90.

404. Baucom RB, Phillips SE, Ehrenfeld JM, Muldoon RL, Poulose BK, Herline AJ, et al. Association of perioperative hypothermia during colectomy with surgical site infection. *JAMA Surgery* 2015;150:570-5.

405. Boltz MM, Hollenbeak CS, Julian KG, Ortenzi G, Dillon PW. Hospital costs associated with surgical site infections in general and vascular surgery patients. *Surgery* 2011;150:934-42.

406. Davis GB, Peric M, Chan LS, Wong AK, Sener SF. Identifying risk factors for surgical site infections in mastectomy patients using the National Surgical Quality Improvement Program database. *Am J Surg* 2013;205:194-9.

407. de Blacam C, Ogunleye AA, Momoh AO, Colakoglu S, Tobias AM, Sharma R, et al. High body mass index and smoking predict morbidity in breast cancer surgery: a multivariate analysis of 26,988 patients from the national surgical quality improvement program database. *Ann Surg* 2012;255:551-5.

408. Gart MS, Smetona JT, Hanwright PJ, Fine NA, Bethke KP, Khan SA, et al. Autologous options for postmastectomy breast reconstruction: a comparison of outcomes based on the American College of Surgeons National Surgical Quality Improvement Program. *J Am Coll Surg* 2013;216:229-38.

409. Gibson A, Tevis S, Kennedy G. Readmission after delayed diagnosis of surgical site infection: a focus on prevention using the American College of Surgeons National Surgical Quality Improvement Program. *Am J Surg* 2014;207:832-9.

410. Giles KA, Hamdan AD, Pomposelli FB, Wyers MC, Siracuse JJ, Schermerhorn ML. Body mass index: surgical site infections and mortality after lower extremity bypass from the National Surgical Quality Improvement Program 2005-2007. *Ann Vasc Surg* 2010;24:48-56.

411. Greenblatt DY, Rajamanickam V, Mell MW. Predictors of surgical site infection after open lower extremity revascularization. *J Vasc Surg* 2011;54:433-9.

412. Hughes K, Padilla L, Al-Zubeidy B, Bolorunduro O, Rose D, Cornwell IE, et al. Diabetes is not associated with an increased peri-operative mortality or non-infectious morbidity following lower extremity arterial reconstruction. *Am J Surg* 2014;207:573-7.

413. Kim JY, Khavanin N, Jordan SW, ver Halen JP, Mlodinow AS, Bethke KP, et al. Individualized risk of surgical-site infection: an application of the breast reconstruction risk assessment score. *Plast Reconstr Surg* 2014;134:351e-62e.

414. Kiran RP, El-Gazzaz GH, Vogel JD, Remzi FH. Laparoscopic approach significantly reduces surgical site infections after colorectal surgery: data from national surgical quality improvement program. *J Am Coll Surg* 2010;211:232-8.

415. Lake AG, McPencow AM, Dick-Biascoechea MA, Martin DK, Erekson EA. Surgical site infection after hysterectomy. *Am J Obstet Gynecol* 2013;209:490.e1-9.

416. Lehtinen SJ, Onicescu G, Kuhn KM, Cole DJ, Esnaola NF. Normothermia to prevent surgical site infections after gastrointestinal surgery: holy grail or false idol? *Ann Surg* 2010;252:696-704.

417. Mahdi H, Goodrich S, Lockhart D, DeBernardo R, Moslemi-Kebria M. Predictors of surgical site infection in women undergoing hysterectomy for benign gynecologic disease: a multicenter analysis using the national surgical quality improvement program data. *J Minim Invasive Gynecol* 2014;21:901-9.

418. Malone DL, Genuit T, Tracy JK, Gannon C, Napolitano LM. Surgical site infections: reanalysis of risk factors. *J Surg Res* 2002;103:89-95.

419. Melton GB, Vogel JD, Swenson BR, Remzi FH, Rothenberger DA, Wick EC. Continuous intraoperative temperature measurement and surgical site infection risk: analysis of anesthesia information system data in 1008 colorectal procedures. *Ann Surg* 2013;258:606-12; discussion 12-3.

420. Olsen MA, Butler AM, Willers DM, Devkota P, Gross GA, Fraser VJ. Risk factors for surgical site infection after low transverse cesarean section. *Infect Control Hosp Epidemiol* 2008;29:477-84; discussion 85-6.

421. Olsen MA, Mayfield J, Lauryssen C, Polish LB, Jones M, Vest J, et al. Risk factors for surgical site infection in spinal surgery. *J Neurosurg* 2003;98:149-55.

422. Olsen MA, Sundt TM, Lawton JS, Damiano RJ, Jr., Hopkins-Broyles D, Lock-Buckley P, et al. Risk factors for leg harvest surgical site infections after coronary artery bypass graft surgery. *J Thorac Cardiovasc Surg* 2003;126:992-9.

423. Ousley J, Baucom RB, Stewart MK, Phillips SE, Holzman MD, Ehrenfeld JM, et al. Previous Methicillin-Resistant Staphylococcus aureus Infection Independent of Body Site Increases Odds of Surgical Site Infection after Ventral Hernia Repair. *J Am Coll Surg* 2015;221:470-7.

424. Spaniolas K, Trus TL, Adrales GL. Ventral hernia repairs in the oldest-old: high-risk regardless of approach. *Surg Endosc* 2014;28:1230-7.

425. Tran CW, McGree ME, Weaver AL, Martin JR, Lemens MA, Cliby WA, et al. Surgical site infection after primary surgery for epithelial ovarian cancer: predictors and impact on survival. *Gynecol Oncol* 2015;136:278-84.

426. Wakeam E, Hyder JA, Jiang W, Lipsitz SA, Finlayson S. Risk and patterns of secondary complications in surgical inpatients. *JAMA Surg* 2015;150:65-73.

427. Winocour S, Martinez-Jorge J, Habermann E, Thomsen K, Lemaine V. Early Surgical Site Infection Following Tissue Expander Breast Reconstruction with or without Acellular Dermal Matrix: National Benchmarking Using National Surgical Quality Improvement Program. *Arch Plast Surg* 2015;42:194-200.