**Center for Surgical Trials and Evidence-based Practice (C-STEP):**

Selected Publications

**Quality and Patient Safety**

***Checklists***

1. ***Anderson KT***, ***Bartz-Kurycki MA***, Masada KM et al. Decreasing intraoperative delays with meaningful use of the surgical safety checklist. Surgery 2017 Nov 9. [Epub ahead of print].
2. ***Bartz-Kurycki MA***, ***Anderson KT*** et al. Debriefing: the forgotten phase of the surgical safety checklist. J Surg Res 2017 Jun; 213: 222-227.
3. ***Putnam LR***, ***Anderson KT***, Diffley MB et al. Meaningful use and good catches: More appropriate metrics for checklist effectiveness. Surgery 2016 Dec; 160(6): 1675-1681.
4. ***Putnam LR***, ***Levy SM,*** Sajid M et al. Multifaceted interventions improve adherence to the surgical checklist. Surgery 2014 Aug; 156(2): 336-44.
5. ***Levy SM***, Senter CE, Hawkins RB et al. Implementing a surgical checklist: more than checking a box. Surgery 2012 Sep; 152(3): 331-6.

***Imaging wisely***

1. ***Anderson KT***, ***Bartz-Kurycki M***, Austin MT et al. Approaching zero: Implications of a computed tomography reduction program for pediatric appendicitis evaluation. J Pediatr Surg 2017 Dec; 52(12): 1909-15.
2. ***Anderson KT***, ***Putnam LR***, et al. Imaging gently? Higher rates of computed tomography imaging for pediatric appendicitis in non-children’s hospitals. Surgery 2017 May; 161(5): 1326-1333.
3. ***Anderson KT***, Greenfield S, ***Putnam LR*** et al. Don’t forget the dose: improving computed tomography dosing for pediatric appendicitis. J Pediatr Surg 2016 Dec; 51(12): 1944-1948.

***Healthcare Associated Infections***

1. Lee JC, Williams GW, Kozar RA, Kao LS, ***Mueck KM*** et al. Multitargeted feeding strategies improve nutrition outcome and are associated with reduced pneumonia in a Level 1 Trauma Intensive Care Unit. JPEN J Parenter Enteral Nutr 2017 Mar 1. [Epub ahead of print].
2. ***Mueck KM***, Kao LS. Patients at high-risk for surgical site infection. Surg Infect 2017 May/Jun; 18(4): 440-446.
3. ***Mueck MK***, ***Putnam LR***, ***Anderson KT***, Lally KP, Tsao K, Kao LS. Does compliance with antibiotic prophylaxis in pediatric simple appendicitis matter? J Surg Res 2017 Aug; 216: 1-8.
4. ***Holihan JL***, Flores-Gonzalez JR, Mo J et al. How long is long enough to identify a surgical site infection? Surg Infect 2017 May/Jun; 18(4): 419-423.
5. ***Cherla DV***, ***Holihan JL***, Flores-Gonzalez JR et al. Decreasing surgical site infections after ventral hernia repair: a quality-improvement initiative. Surg Infect (Larchmt) 2017 Oct; 18(7): 780-6.
6. ***Putnam LR***, Chang CM, Rogers NB et al. Adherence to surgical antibiotic prophylaxis remains a challenge despite multifaceted interventions. Surgery 2015 Aug; 158(2): 413-9.
7. ***Alawadi ZM***, Kao LS. Chlorhexidine gluconate, 4% showers and surgical site infection reduction. JAMA Surg 2015 Nov; 150(11): 1033.
8. ***Levy SM***, Holzmann-Pazgal G, Lally KP et al. Quality check of a quality measure: surgical wound classification discrepancies impact risk-stratified surgical site infection rates in pediatric appendicitis. J Am Coll Surg 2013 Dec; 217(6): 969-73.
9. Kao LS and ***Phatak UR.*** Glycemic control and prevention of surgical site infection. Surg Infect (Larchmt) 2013 Oct; 14(5): 437-44.
10. Hawkins RB, ***Levy SM***, Senter CE et al. Beyond surgical care improvement compliance: antibiotic prophylaxis implementation gaps. Am J Surg 2013 Oct; 206(4): 451-6.

***Perioperative Outcomes***

1. ***Putnam LR***, ***Levy SM***, Johnson E et al. Impact of a 24-hour discharge pathway on outcomes of pediatric appendectomy. Surgery 2014 Aug; 156(2): 455-61.
2. ***Phatak UR***, Chan WM, Lew DF et al. Is nighttime the right time? Risk of complications after laparoscopic cholecystectomy at night. J Am Coll Surg 2014 Oct; 219(4): 718-24.
3. Goodenough CJ, Liang MK, Nguyen MT, Nguyen DH, ***Holihan JL***, ***Alawadi ZM*** et al. Preoperative glycosylated hemoglobin and postoperative glucose together predict major complications after abdominal surgery. J Am Coll Surg 2015 Oct; 221(4): 854-61.

***Patient Safety Education***

1. Landgren R, **\**Alawadi Z***, Douma C, et al. Barriers of pediatric residents to speaking up about patient safety. Hosp Pediatr 2016 Dec; 6(12): 738-43.
2. ***Putnam LR***, Pham DH, Ostovar-Kermani TG, ***Alawadi ZM*** et al. How should surgical residents be educated about patient safety: a pilot randomized controlled trial. J Surg Educ 2016 Jul-Aug; 73(4): 660-7.
3. ***Putnam LR***, ***Levy SM***, Kellagher CM et al. Surgical resident education in patient safety: where can we improve? J Surg Res 2015 Dec; 199(2): 308-13.

***Quality Reporting***

1. ***Hamilton EC***, Pham DH, Minzenmayer AN et al. Are we missing the near misses in the OR? – underreporting of safety incidents in pediatric surgery. J Surg Res 2018 Jan; 221: 336-42.
2. ***Putnam LR***, Ostovar-Kermani TG, Le Blanc A, ***Anderson KT*** et al. Surgical site infection reporting: more than meets the agar. J Pediatr Surg 2017 Jan; 52(1): 156-160.
3. ***Mueck KM***, ***Putnam LR***, Kao LS. Improving the quality of quality improvement reporting: Standards for Quality Improvement Reporting Excellence (SQUIRE) 2.0 Guidelines. JAMA Surg 2016 Apr; 151(4): 311-2.
4. ***Putnam LR***, ***Levy SM***, Blakely ML et al. A multicenter, pediatric quality initiative improves surgical wound class assignment, but is it enough? J Pediatr Surg 2016; 51(4): 639-44.
5. ***Putnam LR***, ***Levy SM***, Holzmann-Pazgal G et al. Surgical wound classification for pediatric appendicitis remains poorly documented despite targeted interventions. J Pediatr Surg 2015 Jun; 50(6): 915-8.
6. ***Levy SM***, ***Phatak UR***, Tsao K et al What is the quality of reporting of studies of interventions to increase compliance with antibiotic prophylaxis? J Am Coll Surg 2013 Nov; 217(5): 770-9.

**PEDIATRIC SURGERY**

1. ***Hamilton EC***, Miller CC 3rd, Cox CS Jr et al. Variability of child access prevention laws and pediatric firearm injuries. J Trauma Acute Care Surg 2017 Dec 28. [Epub ahead of print].
2. ***Hamilton EC***, Balogh J, Nguyen DT et al. Liver transplantation for primary hepatic malignancies of childhood: The UNOS experience. J Pediatr Surg 2017 Oct 12. [Epub ahead of print].
3. ***Hamilton EC***, Curtin T, Slack RS et al. Surgical feeding tubes in pediatric and adolescent cancer patients: a single-institution retrospective review. J Pediatr Hematol Oncol 2017 Jul 3 [Epub ahead of print].
4. ***Hamilton EC***, Lazar D, et al. Pediatric tracheobronchial injury after blunt trauma. J Trauma Acute Care Surg 2017 May 22. [Epub ahead of print].
5. ***Putnam LR***, ***Anderson KT***, Tsao K et al. The impact of cardiac risk factors on short-term outcomes for children undergoing a Ladd procedure. J Pediatr Surg 2017 Mar; 52(3): 390-4.
6. ***Putnam LR***, Gupta V, Tsai K et al. Factors associated with early recurrence after congenital diaphragmatic hernia repair. J Pediatr Surg 2017 Jun; 52(6): 92-32.
7. ***Putnam LR****,* Tsao K, Lally KP et al. Minimally invasive vs. open congenital diaphragmatic hernia repair: is there a superior approach? J Am Coll Surg 2017 Apr; 224(4): 416-22.
8. Harting MT, Hollinger L, Tsao K, ***Putnam LR*** et al. Aggressive surgical management of congenital diaphragmatic hernia: worth the effort? A multicenter, prospective, cohort study. Ann Surg 2017 Jan 217. [Epub ahead of print].
9. ***Putnam LR***, Harting MT, Tsao K et al. Congenital diaphragmatic hernia defect size and infant morbidity at discharge. Pediatrics 2016 Nov; 138(5).
10. ***Putnam LR***, Tsao K, Morini F et al. Evaluation of variability in inhaled nitric oxide use and pulmonary hypertension in patients with congenital diaphragmatic hernia. JAMA Pediatr Surg 2016 Dec 1; 170(12): 1188-1194.
11. Covey SE, ***Putnam LR***, ***Anderson KT***, Tsao K. Prophylactic versus symptomatic Ladd procedures for pediatric malrotation. J Surg Res 2016 Oct; 205(2): 327-330.
12. ***Putnam LR***, Richards MK, Sandvall BK et al. Laboratory evaluation for pediatric patients with suspected necrotizing soft tissue infections: A case-control study. J Pediatr Surg 2016 Jun 51(6): 1022-5.
13. Freemayer B, ***Hamilton E***, Warneke CL et al. Treatment outcomes in pediatric melanoma-Are there benefits to specialized care? J Pediatr Surg 2016 Dec; 51(12): 2063-7.
14. ***Putnam LR***, Nguyen LK, Lally KP et al. A statewide analysis of specialized care for pediatric appendicitis. Surgery 2015 Sep; 158(3): 787-92.
15. ***Putnam LR***, John SD, Greenfield SA et al. The utility of the contrast enema in neonates with suspected Hirschsprung disease. J Pediatr Surg 2015 Jun; 50(6): 963-6.
16. ***Levy S***, Tsao K, Cox CS Jr, **Phatak UR**, et al. Component separation for complex congenital abdominal wall defects: not just for adults anymore. J Pediatr Surg 2013 Dec; 48(12): 2525-9.
17. ***Levy SM***, Lally PA, Lally KP et al. The impact of chylothorax on neonates with repaired congenital diaphragmatic hernia. J Pediatr Surg 2013 Apr; 48(4): 724-9.
18. Iqbal CW, ***Levy SM***, Tsao K et al. Laparoscopic versus open distal pancreatectomy in the management of traumatic disruption. J Laparoendosc Adv Surg Tech A 2012 Jul-Aug; 22(6): 595-8.

**Comparative Effectiveness AND COST EFFECTIVENESS**

1. Robinson JR, Avritscher EBC, Gay JC, Willis ZI, ***Putnam LR*** et al. Measuring the value of a clinical practice guideline for children with perforated appendicitis. Ann Surg 2017 Jul; 266(1): 195-200.
2. ***Holihan JL***, Hannon C, Goodenough C et al. Ventral hernia repair: a meta-analysis of randomized controlled trials. Surg Infect 2017 May 30 [Epub ahead of print].
3. ***Alawadi Z***, ***Phatak UR***, Huy CY et al. Comparative effectiveness of primary tumor resection in patients with stage IV colon cancer. Cancer 2016 Aug 1. [Epub ahead of print].
4. ***Holihan JL***, Nguyen DH, Flores-Gonzalez JR et al. A systematic review of randomized controlled trials and reviews in the management of ventral hernias. J Surg Res 2016 Aug; 204(2): 311-8.
5. ***Holihan JL***, Askenasy EP, Greenberg JA et al. Component separation vs. bridged repair for alrge ventral hernias: a multi-institutional risk-adjusted comparison, systematic review, and meta-analysis. Surg Infect 2016 Feb; 17(1): 17-26.
6. ***Holihan JL***, Nguyen DH, Nguyen MT et al. Mesh location in open ventral hernia repair: A systematic review and network meta-analysis. World J Surg 2016 Jan; 40(1): 89-99.
7. ***Phatak UR***, Li LT, Karanjawala B et al. Systematic review of educational interventions for ostomates. Dis Colon Rectum 2014 Apr; 57(4): 529-37.
8. ***Phatak UR***, Pedroza C, Millas SG et al. Revisiting the effectiveness of interventions to decrease surgical site infections in colorectal surgery: A Bayesian perspective. Surgery 2012 Aug; 152(2): 202-11.

**Disparities**

1. Joseph M, ***Hamilton EC***, Hayes-Jordan A et al. The impact of racial/ethnic disparities on survival for children and adolescents with extremity sarcomas: A population-based study. J Pediatr Surg 2017 Oct 12. [Epub ahead of print].
2. ***Hamilton EC***, Miller CC, Cotton BA et al. The association of insurance status on the probability of transfer for pediatric trauma patients. J Pediatr Surg 2016 Dec; 51(12): 2048-2052.
3. ***Hamilton EC***, Saiyed F, Mller CC 3rd, et al. The digital divide in adoption and use of mobile health technology among caregivers of pediatric surgery patients. J Pediatr Surg 2017 Sep 1. [Epub ahead of print].
4. Austin MT, ***Hamilton E***, Zebda D et al. Health disparities and impact on outcomes in children with primary central nervous system solid tumors. J Neurosurg Pediatr 2016 Aug 19: 1-9. [Epub ahead of print].
5. ***Hamilton EC***, Nguyen HT, Chang YC et al. Health disparities influence childhood melanoma stage at diagnosis and outcome. J Pedatr 2016 Aug; 175: 182-7.
6. Nguyen BC, ***Alawadi ZM***, Roife D et al. Do socioeconomic factors and race determine the likelihood of breast-conserving surgery? Clin Breast Cancer 2016 Aug; 16(4); e93-7.
7. Henchcliffe BE, ***Holihan JL***, Flores-Gonzalez JR et al. Barriers to participation in preoperative risk-reduction programs prior to ventral hernia repair: An assessment of underserved patients at a safetynet hospital. JAMA Surg 2016 May 1; 151(5): 488-90.
8. ***Putnam LR***, Tsao K, Nguyen HT et al. The impact of socioeconomic status on appendiceal perforation in pediatric appendicitis. J Pediatr 2016 Mar; 170: 156-60.
9. ***Alawadi ZM***, ***Phatak UR***, Kao LS, et al. Race not rural residency is predictive of surgical treatment for hepatocellular carcinoma: Analysis of the Texas Cancer Registry. J Surg Oncol 2016 Jan; 113(1): 84-8.
10. ***Alawadi ZM***, Leal I, ***Phatak UR*** et al. Facilitators and barriers of implementing enhanced recovery in colorectal surgery at a safety net hospital: A provider and patient perspective. Surgery 2016 Mar; 159(3): 700-12.
11. Millas SG, ***Alawadi ZM***, Wray CJ et al. Treatment delays of colon cancer in a safety-net hospital system. J Surg Res 2015 Oct; 198(2): 311-6.
12. ***Phatak UR***, Kao LS, Millas SG et al. Interaction between age and race alters predicted survival in colorectal cancer. Ann Surg Oncol 2013 Oct; 20(11): 3363-9.
13. Wray CJ, ***Phatak UR***, Robinson EK, et al. The effect of age on race-related breast cancer survival disparities. Ann Surg Oncol 2013 Aug; 20(8): 2541-7.

**Patient-Reported and Patient-Centered Outcomes**

1. ***Cherla DV***, Moses ML, Viso CP, ***Holihan JL*** et al. Impact of abdominal wall hernias and repair on patient quality of life. World J Surg 2018 Jan; 42(1): 19-25.
2. ***Mueck KM***, Leal IM, Wan CC et al. Shared decision-making during surgical consultation for gallstones at a safety-net hospital. Surgery 2017 Dec 6. [Epub ahead of print].
3. ***Mueck KM***, ***Cherla DV***, Taylor A, Ko TC, Liang MK, Kao LS. Randomized controlled trials evaluating patient-reported outcomes after cholecystectomy: a systematic review. J Am Coll Surg 2017 Nov 4 [Epub ahead of print].
4. ***Holihan JL***, Flores-Gonzalez JR, Mo J et al. A prospective assessment of clinical and patient-reported outcomes of initial non-operative management of ventral hernias. World J Surg 2017 May; 41(5): 1267-1273.
5. ***Holihan JL***, Henchcliffe BE, Mo J et al. Is nonoperative management warranted in ventral hernia patients with comorbidities?: a case-matched, prospective, patient-centered study. Ann Surg 2016 Oct; 264(4): 585-90.
6. ***Alawadi ZM***, Leal IM, Flores JR et al. Underserved patients seeking care for ventral hernias at a safety net hospital: Impact on quality of life and expectations of treatment. J Am Coll Surg 2017 Jan; 224(1): 26-34.
7. ***Holihan JL***, Henchcliffe BE, Mo J et al. Is nonoperative management warranted in ventral hernia patients with comorbidities? A case-matched, prospective, patient-centered study. Ann Surg 2016 Oct; 264(4): 585-90.

**TRIAL PROTOCOLS**

1. ***Mueck KM***, ***Wei S***, Liang MK et al. Protocol for a randomized trial of the effect of the timing of cholecystectomy during initial admission for predicted mild gallstone pancreatitis at a safety-net hospital. Trauma Surgery & Acute Care Open 2018 (in press).
2. Price BA, Bednarski BK, You YN, Manandhar M, Dean EM, ***Alawadi ZM*** et al. Accelerated enhanced Recovery following Minimally Invasive colorectal cancer surgery (RecoverMI): a study protocol for a novel randomized controlled trial. BMJ Open 2017 Jul 20; 7(7): e015960.

**HERNIAS**

1. ***Holihan JL***, Liang MK. Nomenclature in ventral hernia repair. World J Surg 2017 Oct 10. [Epub ahead of print].
2. ***Cherla DV***, Lew DF, Escamilla RJ, ***Holihan JL*** et al. Differences of alternative methods of measuring abdominal wall hernia defect size: a prospective observational study. Surg Endosc 2017 Sep 15. [Epub ahead of print].
3. ***Cherla DV***, Moses ML, ***Mueck KM*** et al. External validation of the HERNIAscore: an observational study. J Am Coll Surg 2017 May 26 [Epub ahead of print].
4. ***Mueck KM***, Holihan JL, Mo J et al. Computed tomography findings associated with the risk for emergency ventral hernia repair. Am J Surg 2017 Jul; 214(1): 42-46.
5. ***Holihan JL***, Li LT, Askenasy EP et al. Analysis of model development strategies: predicting ventral hernia recurrence. J Surg Res 2016 Nov; 206(1): 159-167.
6. Liang MK, ***Holihan JL***, Itani K, ***Alawadi ZM*** et al. Ventral hernia management: expert consensus guided by systematic review. Ann Surg 2017 Jan; 265(1): 80-89.
7. ***Holihan JL***, ***Alawadi ZM***, Harris JW et al. Ventral hernia: patient selection, treatment, and management. Curr Probl Surg 2016 Jul; 53(7): 307-54.
8. ***Holihan JL***, Chen JS, Greenberg J et al. Incidence of port-site hernias: a survey and literature review. Surg Laparosc Endosc Percutan Tech 2016 Dec; 26(6): 425-430.
9. Ventral Hernia Outcome Collaborative, Mitchell TO, ***Holihan JL***, et al. Do risk calculators accurately predict surgical site occurrences? J Surg Res 2016 Jun 1; 203(1): 56-63.
10. ***Holihan JL***, Bondre I, Askenasy EP et al. Sublay versus underlay in open ventral hernia repair. J Surg Res 2016 May 1; 202(1): 26-32.
11. Bondre IL, ***Holihan JL***, Askenasy EP, et al. Suture, synthetic, or biologic in contaminated ventral hernia repair. J Surg Res 2016 Feb; 200(2): 488-94.
12. ***Holihan JL***, Karanjawala B, Ko A, Askenasy EP, Matta EJ, Bharbaoui L, Hasapes JP, Tammisetti VS, Thupili CR, ***Alawadi ZM*** et al. Use of computed tomography in diagnosing ventral hernia recurrence: a blinded, prospective multispecialty evaluation. JAMA Surg 2016 Jan; 151(1): 7-13.
13. ***Holihan JL***, ***Alawadi Z*** et al. Adverse events after ventral hernia repair: the vicious cycle of complications. J Am Coll Surg 2015 Aug; 22(2): 478-85.
14. Goodenough CJ, Ko TC, Kao LS, Nguyen MT, ***Holihan JL***, ***Alawadi Z*** et al. Development and validation of a risk stratification score for ventral incisional hernia after abdominal surgery: hernia expectation rates in intra-abdominal surgery (the HERNIA project). J Am Coll Surg 2015 Apr; 220(4): 405-13.
15. Nguyen MT, ***Phatak UR***, Li LT et al. Review of stoma site and midline incisional hernias after stoma reversal. J Surg Res 2014 Aug; 190(2): 504-9.

**ETHICS**

1. ***Cherla DV***, Olavarria OA, ***Bernardi K***, Viso CP, Moses ML, ***Holihan JL*** et al. Investigation of financial conflict of interest among published ventral hernia researchers. J Am Coll Surg 2017 Dec 21. [Epub ahead of print].
2. ***Cherla DV***, Olavarria OA, ***Holihan JL***, Viso CP, Hannon C, Kao LS, Ko TC, Liang MK. Discordance of conflict of interest self-disclosure and the Centers of Medicare and Medicaid Services. J Surg Res 2017 Oct; 218: 18-22.
3. Olavarria OA, ***Holihan JL***, ***Cherla D*** et al. Comparison of conflicts of interest among published hernia researchers self-reported with the Centers for Medicare and Medicaid Open Payments Database. J Am Coll Surg 2017 May; 224(5): 800-804.

**TRAUMA**

1. ***Pommerening MJ***, Rahbar E, Minei K et al. Splenectomy is associated with hypercoaguable thromboelastography values and increased risk of thromboembolism. Surgery 2015 Sep; 158(3): 618-26.
2. ***Pommerening MJ***, Cardenas JC, Radwan ZA, et al. Hypercoaguability after energy drink consumption. J Surg Res 2015 Dec; 199(2): 635-40.
3. ***Pommerening MJ***, Goodman MD, Holcomb JB, et al. Clinical gestalt and the prediction of massive transfusion after trauma. Injury 2015 May; 46(5): 807-13.
4. McNutt MK, Chinapuvvula NR, Beckmann NM, Camp EA, ***Pommerening MJ*** et al. Early surgical intervention for blunt bowel injury: the Bowel Injury Prediction Score (BIPS). J Trauma Acute Care Surg 2015 Jan; 78(1): 105-11.
5. ***Pommerening MJ***, Goodman MD, Farley DL et al. Early diagnosis of clinically significant hyperfibrinolysis using thromboelastography velocity curves. J Am Coll Surg 2014 Dec; 219(6): 1157-66.
6. ***Pommerening MJ***, Kao LS, Sowards KJ et al. Primary skin closure after damage control laparotomy. Br J Surg 2015 Jan; 102(1): 67-75.
7. Cardenas JC, Rahbar E, ***Pommerening MJ*** et al. Measuring thrombin generation as a tool for predicting hemostatic potential and transfusion requirements following trauma. J Trauma Acute Care Surg 2014 Dec; 77(6): 839-45.
8. ***Pommerening MJ***, DuBose JJ, Zielinski MD et al. Time to first take-back operation predicts successful primary fascial closure in patients undergoing damage control laparotomy. Surgery 2014 Aug; 156(2): 431-8.
9. ***Pommerening MJ***, Schwartz DA, Cohen MJ et al. Hypercoaguability after injury in premenopausal females: a prospective, multicenter study. Surgery 2014 Aug; 145(2): 439-47.
10. ***Alawadi ZM***, LeFebvre E, Fox EE et al. Alternative end points for trauma studies: a survey of academic trauma surgeons. Surgery 2015 Nov; 158(5): 1291-6.