

Bibliography: Computerized Physician Order Entry

- Abraham J, Kitsiou S, Meng A, Burton S, Vatani H, Kannampallil T. Effects of CPOE-based medication ordering on outcomes: an overview of systematic reviews. *BMJ Qual Saf.* 2020;29(10):1-2.
- Co Z, Holmgren AJ, Classen DC, Newmark L, Seger DL, Danforth M, Bates DW. The tradeoffs between safety and alert fatigue: Data from a national evaluation of hospital medication-related clinical decision support. J Am Med Infom Assn. 2020;27(8):1252-1258.
- Roumeliotis N, Sniderman J, Adams-Webber T, Addo N, Anand V, Rochon P, et al. Effect of electronic prescribing strategies on medication error and harm in hospital: a systematic review and meta-analysis. J Gen Intern Med. 2019;34(10):2210-2223.
- Classen DC, Holmgren AJ, Co Z, Newmark LP, Seger D, Danforth M, Bates DW. National trends in the safety performance of electronic health record systems from 2009 to 2018. JAMA Network Open. 2020;3(5):e205547.
- Lyons A, Sward K, Deshmukh V, Pett M, Donaldson G, Turnbull J. Impact of computerized provider order entry (CPOE) on length of stay and mortality. *J Am Med Inform Assn.* 2017;24(2):303-309.
- Romanow D, Rai A, Keil M, Luxenberg S. Does extended CPOE use reduce patient length of stay?. Int J Med Inform. 2017;97:128-138.
- 7. Nuckols T, Asch S, Patel V, et al. Implementing computerized provider order entry in acute care hospitals in the United States could generate substantial savings to society. *Jt Comm J Qual Patient Saf.* 2015;41(8):341-351.
- MacKay M, Anderson C, Bochme S, Cash J, Zobell J. Frequency and severity of parenteral nutrition medication errors at a large children's hospital after implementation of electronic ordering and compounding. *Nutr Clin Pract.* 2016;31(2):195-206.
- 9. Radley DC, Wasserman MR, Olsho LE, et al. Reduction in medication errors in hospitals due to adoption of computerized provider order entry systems. *J Am Med Inform Assn.* 2013;20(3):470-476.

- Pelayo S, Anceauxb F, Rogalskic J, et al. A comparison of the impact of CPOE implementation and organizational determinants on doctor–nurse communications and cooperation. *Int J Med Inform*. 2013;82(12): e321-e330.
- 11. Magrabi F, Aarts J, Nohr C, et al. A comparative review of patient safety initiatives for national health information technology. *Int J Med Inform*. 2013;82(5): e139-e148.
- Saxena K, Lung BR, Becker JR. Improving patient safety by modifying provider ordering behavior using alerts (CDSS) in CPOE system. AMIA Annu Symp Proc. 2011;1207-1216.
- Metzger JB, Welebob E, Bates DW, Lipsitz S, Classen DC. Mixed results in the safety performance of computerized physician order entry. *Health Aff* (*Millwood*). 2010;29(4): 1-9.
- 14. Yu F, Menachemi N, Berner E, Allison J, Weissman N, Houston T. Full implementation of computerized physician order entry and medication-related quality outcomes: a study of 3364 hospitals. *Am J Med Qual*. 2009;24(4):278-286.
- 15. Metzger JB, Welebob E, Turisco F, Classen DC. Effective use of medication-related decision support in CPOE. *Patient Safety and Quality Healthcare*. 2008;16-24.
- 16. Metzger JB, Welebob E, Turisco F, Classen DC. The Leapfrog Group's CPOE Standard and Evaluation Tool. *Patient Safety and Quality Healthcare*. 2008;22-25.
- 17. Adams M, Bates D, Coffman G, Everett W. Saving lives, saving money: the imperative for computerized physician order entry in Massachusetts hospitals. *Massachusetts Technology Collaborative and New England Healthcare Institute*. 2008.
- Shamliyan TA, Duval S, Du J, Kane RL. Just what the doctor ordered. Review of the evidence of the impact of a computerized physician order system on medication errors. *Health Serv Res.* 2008;43(1):32-53.



Bibliography: Computerized Physician Order Entry

- Lin CP, Payne TH, Nichol, WP, Hoey PJ, Anderson CL, Gennari JH. Evaluating clinical decision support systems: monitoring CPOE order check override rates in the Department of Veterans Affairs' Computerized Patient Order System. J Am Med Inform Assoc. 2008; 15:620-626.
- Holdsworth MT, Fichtl RE, Raisch DW, Hewryk A, Behta M, Mendez-Rico E, et al. Impact of computerized prescriber order entry on the incidence of adverse drug events in pediatric patients. *Pediatrics*. 2007;120(5):1058-1066.
- 21. Classen DC, Avery AJ, Bates DW. Evaluation and certification of computerized provider order entry systems. *J Am Med Inform Assoc.* 2007;14:48-55.
- 22. Kuperman GJ, Bobb, A, Payne TH, et al. Medicationrelated clinical decision support in computerized provider order entry systems: a review. *J Am Med Inform Assoc.* 2007;14(1):29-40.
- 23. Del Baccaro MA, Jeffries HE, Eisenberg MA, Harry ED. Computerized provider order entry implementation: no association with increased mortality rates in an intensive care unit. *Pediatrics*. 2006;118(1):290-295.
- 24. Kelly WN, Rucker TD. Compelling features of a safe medication-use system. *Am J Health Syst Pharm*. 2006;63(15):1461-1468.
- 25. Kilbridge PM, Welebob EM, Classen DC. Development of the Leapfrog methodology for evaluating hospital implemented inpatient computerized physician order entry systems. *Qual Saf Health Care*. 2006;15(2):81-84.
- 26. Van der Sijs H, Aarts J, Vulto A, Berg M. Overriding of drug safety alerts in computerized physician order entry. *J Am Med Inform Assoc*. 2006;13(2):138-47.
- 27. Shah NR, Seger AC, Seger DL, Fiskio JM, Kuperman GJ, Blumenfeld B, et al. Improving acceptance of computerized prescribing alerts in ambulatory care. J Am Med Inform Assoc. 2006b;13(1):5-11.
- 28. Galanter WL, Polikaitis A, DiDomenico RJ. A trial of automated safety alerts for inpatient digoxin use with computerized physician order entry. *J Am Med Inform Assoc.* 2004;11(4):270-277.

- 29. Potts AL, Barr FE, Gregory DF, Wright L, Patel, NR. Computerized physician order entry and medication errors in a pediatric critical care unit. *Pediatrics*. 2004;113(1):59-63.
- 30. Birkmeyer JD, Dimick JB. Leapfrog safety standards: potential benefits of universal adoption. *The Leapfrog Group*. Washington, DC. 2004.
- 31. King WJ, Paice N, Rangrej J, Forestell GJ, Swartz R. The effect of computerized physician order entry on medication errors and adverse drug events in pediatric inpatients. *Pediatrics*. 2003;112(3 Pt 1):506-509.
- Kaushal R, Shojania KG, Bates DW. Effects of computerized physician order entry and clinical decision support systems on medication safety: a systematic review. Arch Intern Med. 2003;163:1409-1416.
- 33. Birkmeyer CM, Lee J, Bates DW, Birkmeyer JD. Will electronic order entry reduce health care costs?. *Eff Clin Prac.* 2002;5(2):67-74.
- Mekhijan HS, Kumar RR, Kuehr L, Bentley TD, Teater P, Thomas A, et al. Immediate benefits realized following implementation of physician order entry at an academic medical center. J Am Med Inform Assoc. 2002;9(5):529-539.
- 35. Agency for Healthcare Research and Quality. *HCUPnet, Healthcare Cost and Utilization Project*. Rockville, MD. 2001.
- Chertow GM, Lee J, Kuperman GJ, Burdick E, Horsky J, Seger DL, et al. Guided medication dosing for inpatients with renal insufficiency. *JAMA*. 2001;286:2839-2944.
- Pedersen CA, Schnieder PJ, Santell JP. ASHP national survey of pharmacy practice in hospital settings: prescribing and transcribing – 2001. Am J Health-Syst Ph. 2001;58:2251-2266.
- Bates DW, Teich JM, Merchia PR, Schmiz BS, Kuperman GJ, Spurr CD. Effects of computerized physician order entry on prescribing practices. *Arch Int Med.* 2000;160: 2741-2747.



Bibliography: Computerized Physician Order Entry

- Bates DW, Teich JM, Lee J, Seger D, Kuperman GJ, Ma'Luf N, et al. The impact of computerized physician order entry on medication error prevention. J Am Med Inform Assn. 1999;6:313-321.
- 40. Kohn, LT, Corrigan JM, Donaldon MS (eds): To err is human: building a safer health system: a report from the Committee on Quality of Healthcare in America, Institute of Medicine, National Academy of Sciences, National Academy Press. Washington, DC. 1999.
- 41. Proceedings/AMIA Annual Symposium. 1998;235-239.
- 42. Bates DW, Leape L, Cullen DJ, et al. Effect of computerized physician order entry and a team intervention on prevention of serious medication errors. *JAMA*. 1998; 280:1311-16.
- 43. Bates DW. Drugs and adverse drug reactions: how worried should we be?. *JAMA*. 1998;279:1216-1222.
- Evans RS, Pestotnik SL, Classen DC, Clemmer TP, Weaver LK, Orme JF, et al. A computer-assisted management program for anti-biotics and other antiinfective agents. N Engl J Med. 1998;338:232-238.
- 45. Bates DW, Spell N, Cullen DJ, Burdick E, Laird N, Peterson LA, et al. The costs of adverse drug events in hospitalized patients. *JAMA*. 1997;277:307-311.
- 46. Classen DC, Pestotnik SL, Evans RS, Lloyd JF, Burke JP. Adverse drug events in hospitalized patients: excess length of stay, extra costs, and attributable mortality. *JAMA*. 1997;277:301-306.
- 47. Overhage JM, Tierney WM, Zhou XH, McDonald CJ. A randomized trial of "corollary orders" to prevent errors of omission. *J Am Med Inform Assn*. 1997;4:346-375.
- 48. Glaser J, Teich JM, Kuperman G. Impact of information events on medical care. In: Proceedings and abstracts of the 1996 *Healthcare Information and Management Systems Society Annual Conference*. Atlanta, GA. 1996;1-9.
- 49. Paterno M, Teich JM, Seger DL, Bates DW. A practical method for presenting drug interactions to clinicians. *Proc AMIA Annu Fall Symp.* 1996;20:872.

- Bates DW, Cullen D, Laird N, Peterson LA, Small SD, Servi D, et al. Incidence of adverse drug events and potential adverse drug events. *JAMA*. 1995;274:29-34.
- Johnson JA, Bootman HL. Drug-related morbidity and mortality: a cost-of-illness model. *Arch Intern Med*. 1995;155:1949-1956.
- 52. Leape LL, Bates DW, Cullen DJ, Cooper J, Demonaco HJ, Gallivan T, et al. Systems analysis of adverse drug events. *JAMA*. 1995;274:35-43.
- 53. Bates DW, O'Neil AC, Boyle D, Teich J, Chertow GM, Komaroff AL, et al. Potential identifiability and preventability of adverse events using information systems. *J Am Med Assoc*. 1994;1:404-411.
- Evans RS, Pestotnik SL, Classen DC, Horn SD, Bass SB, Burke JPP. Preventing adverse drug events in hospitalized patients. *Ann Pharmacother*. 1994;28:523-527.
- Sittig DF, Stead WW. Computer-based physician order entry: the state of the art. J Am Med Inform Assoc. 1994;1:108-123.
- 56. Bates DW, Leape LL, Petrycki S. Incidence and preventability of adverse drug events in hospitalized adults. *J Gen Intern Med*. 1993;8:289-294.
- Massaro TA. Introducing physician order entry at a major academic medical center. *Acad Med*. 1993;68:20-25.
- Tiech JM, Spurr CD, Flammini SH, et al. Response to a trial of physician based inpatient order entry. *Proc Annu Symp Comput Appl Med Care*. 1993;17:316-320.
- 59. Tierney WM, Miller ME, Overhage JM, McDonald CH. Physician inpatient order writing on microcomputer workstations. *JAMA*. 1993;269:379-383.
- 60. Teich JM, Hurley JF, Beckley RF, Aranow M. Design of an easy-to-use physician order entry system with support for nursing and ancillary departments. *Proc Annu Symp Comput Appl Med Care*. 1992;16:99-103.
- 61. Brown GC. Medication errors: a case study. *Hospitals*. 1979;53:61-2, 65.