

**Table S6****Excluded observational studies citations****n = 21**

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|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Bassa 2005</b>       | Bassa A, Del Val M, Cobos A, Torremade E, Bergonon S, Crespo C, Brosa M, Munio S, Espinosa C: Impact of a clinical decision support system on the management of patients with hypercholesterolemia in the primary healthcare setting. <i>Dis Manag Health Outcomes</i> 2005, 13:65-72.                         |
| <b>Bell 2010</b>        | Bell LM, Grundmeier R, Localio R, Zorc J, Fiks AG, Zhang XM, Stephens B, Swietlik M, Guevara JP: Electronic health record-based decision support to improve asthma care: A cluster-randomized trial. <i>Pediatrics</i> 2010, 125:E770-E777.                                                                    |
| <b>El-Kareh 2011</b>    | El-Kareh RE, Gandhi TK, Poon EG, Newmark LP, Ungar J, Orav EJ, Sequist TD: Actionable reminders did not improve performance over passive reminders for overdue tests in the primary care setting. <i>JAMIA</i> 2011, 18:160-163.                                                                               |
| <b>Fitzmaurice 1998</b> | Fitzmaurice DA, Hobbs FD, Murray ET: Primary care anticoagulant clinic management using computerized decision support and near patient international normalized ratio (INR) testing: routine data from a practice nurse-led clinic. <i>Fam Pract</i> 1998, 15:144-146.                                         |
| <b>Garthwaite 2004</b>  | Garthwaite EA, Will EJ, Bartlett C, Richardson D, Newstead CG: Patient-specific prompts in the cholesterol management of renal transplant outpatients: results and analysis of underperformance. <i>Transplantation</i> 2004, 78:1042-1047.                                                                    |
| <b>Gilligan 2012</b>    | Gilligan AM, Miller K, Mohny A, Montenegro C, Schwarz J, Warholak TL: Analysis of pharmacists' interventions on electronic versus traditional prescriptions in 2 community pharmacies. <i>Res Social Adm Pharm</i> 2012, 8:523-532.                                                                            |
| <b>Isaac 2009</b>       | Isaac T, Weissman JS, Davis RB, Massagli M, Cyrulik A, Sands DZ, Weingart SN: Overrides of medication alerts in ambulatory care. <i>Arch Intern Med</i> 2009, 169:305-311.                                                                                                                                     |
| <b>Lee 2011</b>         | Lee K. A pilot follow-up study on the use of a reminder system among patients with unsatisfactory control of diabetes mellitus in a Hong Kong public family medicine clinic. <i>HK Pract</i> 2011, 33:56-62.                                                                                                   |
| <b>Linder 2007</b>      | Linder JA, Ma J, Bates DW, Middleton B, Stafford RS: Electronic health record use and the quality of ambulatory care in the United States. <i>Arch Intern Med</i> 2007, 167:1400-1405.                                                                                                                         |
| <b>McMullin 2004</b>    | McMullin ST, Lonergan TP, Ryneerson CS, Doerr TD, Veregge PA, Scanlan ES: Impact of an evidence-based computerized decision support system on primary care prescription costs. <i>Ann Fam Med</i> 2004, 2:494-498.                                                                                             |
| <b>Michelis 2011</b>    | Michelis KC, Hassouna B, Owlia M, Kelahan L, Young HA, Choi BG: Effect of electronic prescription on attainment of cholesterol goals. <i>Clin Cardiol</i> 2011, 34:254-260.                                                                                                                                    |
| <b>Montori 2002</b>     | Montori VM, Dinneen SF, Gorman CA, Zimmerman BR, Rizza RA, Bjornsen SS, Green EM, Bryant SC, Smith SA: The impact of planned care and a diabetes electronic management system on community-based diabetes care - The Mayo Health System Diabetes Translation Project. <i>Diabetes Care</i> 2002, 25:1952-1957. |
| <b>Nicolucci 2008</b>   | Nicolucci A, Allotta G, Allegra G, Cordaro G, D'Agati F, Di Benedetto A, Di Mauro M, Fulantelli M, Garofalo A, Giachetto C et al.: Five-year impact of a continuous quality improvement effort implemented by a network of diabetes outpatient clinics. <i>Diabetes</i>                                        |

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|                         | Care 2008,57-62.                                                                                                                                                                                                                                                                           |
| <b>Pearce 2010</b>      | Pearce DD, Opperman JM: Electronic medical record reduces HIV medication refill response time and emergency refills in a Latino community clinic. <i>Int J STD AIDS</i> 2010, 21:184-186.                                                                                                  |
| <b>Ross 2005</b>        | Ross SM, Papshev D, Murphy EL, Sternberg DJ, Taylor J, Barg R: Effects of electronic prescribing on formulary compliance and generic drug utilization in the ambulatory care setting: a retrospective analysis of administrative claims data. <i>J Manage Care Pharm</i> 2005, 11:410-415. |
| <b>Shapiro 2011</b>     | Shapiro A, Gracy D, Quinones W, Applebaum J, Sarmiento A: Putting guidelines into practice: improving documentation of pediatric asthma management using a decision-making tool. <i>Arch Pediatr Adolesc Med</i> 2011, 165:412-418.                                                        |
| <b>Shiffman 2000</b>    | Shiffman RN, Freudigman M, Brandt CA, Liaw Y, Navedo DD: A guideline implementation system using handheld computers for office management of asthma: effects on adherence and patient outcomes. <i>Pediatrics</i> 2000, 105:767-773.                                                       |
| <b>Simon 2006</b>       | Simon SR, Smith DH, Feldstein AC, Perrin N, Yang X, Zhou Y, Platt R, Soumerai SB: Computerized prescribing alerts and group academic detailing to reduce the use of potentially inappropriate medications in older people. <i>J Am Geriatr Soc</i> 2006, 54:963-968.                       |
| <b>Smith 2006</b>       | Smith DH, Perrin N, Feldstein A, Yang X, Kuang D, Simon SR, Sittig DF, Platt R, Soumerai SB: The impact of prescribing safety alerts for elderly persons in an electronic medical record: an interrupted time series evaluation. <i>Arch Intern Med</i> 2006, 166:1098-1104.               |
| <b>Subramanian 2004</b> | Subramanian U, Fihn SD, Weinberger M, Plue L, Smith FE, Udris EM, McDonell MB, Eckert GJ, Temkit M'H, Zhou XH et al.: A controlled trial of including symptom data in computer-based care suggestions for managing patients with chronic heart failure. <i>Am J Med</i> 2004, 116:375-384. |
| <b>Tamblyn 2008</b>     | Tamblyn R, Huang A, Taylor L, Kawasumi Y, Bartlett G, Grad R, Jacques A, Dawes M, Abrahamowicz M, Perreault R et al.: A randomized trial of the effectiveness of on-demand versus computer-triggered drug decision support in primary care. <i>J Am Med Inform Assoc</i> 2008, 15:430-438. |