

Appendix 1: Search strategy for Medline

Search strategy: Medline format

1. (Man-Machine Systems/ OR Office Automation/ OR Information Management/ OR Data Collection/ OR Automation/ OR Autoanalysis/ OR Technology, Radiologic/ OR Technology, Pharmaceutical/ OR Technology, Medical/ OR Point-of-Care Systems/ OR Patient Identification Systems/ OR Medication Systems, Hospital/ OR Hospital Communication Systems/ OR Adverse Drug Reaction Reporting Systems/ OR Biomedical Engineering/ OR Biomedical Technology/ OR Electronic Mail/ OR Emergency Medical Service Communication Systems/ OR Computing Methodologies/ OR pattern recognition, automated/ OR drug information services/ OR user-computer interface/ OR speech recognition software/ OR software/ OR numerical analysis, computer-assisted/ OR decision support techniques/ OR mathematical computing/ OR computer simulation/ OR Artificial intelligence/ OR Algorithms/ OR Feedback/ OR medical informatics/ OR Medical informatics applications/ OR Decision-making, computer-assisted/ OR diagnosis, computer-assisted/ OR image interpretation, computer-assisted/ OR radiographic image interpretation, computer-assisted/ OR therapy, computer-assisted/ OR drug therapy, computer-assisted/ OR "information storage and retrieval"/ OR information systems/ OR clinical laboratory information systems/ OR decision support systems, clinical/ OR hospital information systems/ OR medical order entry systems/ OR integrated advanced information management systems/ OR management information systems/ OR ambulatory care information systems/ OR clinical pharmacy information systems/ OR database management systems/ OR decision support systems, management/ OR operating room information systems/ OR "personnel staffing and scheduling information systems"/ OR radiology information systems/ OR medical records systems, computerized/ OR reminder systems/ OR medical informatics computing/ OR informatics/ OR Automatic Data Processing/ OR Public Health Informatics/ OR Nursing Informatics/ OR Patient Identification Systems/ OR Natural Language Processing/ OR Fuzzy Logic/ OR Expert Systems/ OR Knowledge Bases/ OR Medical History Taking/ OR "Neural Networks (Computer)"/ OR Programming, Linear/ OR Computers, Handheld/ OR "Appointments and Schedules"/ OR "Referral and Consultation"/ OR Information Services/ OR (Clinical decision support OR Electronic outpatient booking OR Electronic refer\$ OR electronic hospital refer\$ OR Electronic discharg\$ OR electronic patient discharg\$ OR electronic health record\$ OR computerized patient record\$ OR computerised patient record\$ OR personal health record\$ OR Computerised intervention\$ OR Computerized intervention\$ OR IHCA OR Decision support technique\$ OR Interactive Health Communications Application\$ OR CDSS OR computer aid\$ OR computer assisted OR Computer\$ reminder\$ OR Computerized Physician Order Entry OR CPOE OR data mining OR data repository OR e health OR eHealth OR eprescribing OR Electronic patient record OR electronic prescribing OR e-mail OR Electronic mail OR health informat\$ OR health technology OR intranet OR PDA OR personal digital assistant OR information system\$ OR Computerized laboratory results OR GP to GP OR GP 2 GP OR GP2GP OR GPtoGP OR Electronic laboratory results OR Clinical Laboratory information system OR Laboratory information system\$ OR LIS OR Laboratory Information Management System OR Medical information systems OR Web based refer\$ OR Internet-based refer\$ OR e-Booking OR "Choose and book" OR Electronic prescri\$ OR Electronic Transmission of Prescriptions OR Care Records Service OR "Picture Archiving and Communication

System\$" OR PACS OR QMAS OR "Quality Management and Analysis System\$" OR bar
cod\$ OR (CAD and (computer-assisted OR computer-aid\$)).tw.)

2. "Review Literature as Topic"/ or systematic review.mp.
3. exp Intervention Studies/
4. trial.mp.
5. Clinical trial/
6. clinical trial.mp.
7. Randomized Controlled Trial/
8. randomi?ed controlled trial.mp.
9. Controlled Clinical Trial/
10. controlled clinical trial.mp.
11. exp Placebos/
12. exp Random Allocation/
13. random*.mp.
14. exp Double-Blind Method/
15. double-blind design.mp.
16. exp Single-Blind Method/
17. single-blind design.mp.
18. exp Comparative Studies/
19. Controlled before and after stud*.mp.
20. Interrupted time series .mp.
21. "before-after design".mp.
22. Cohort studies/
23. Prospective evaluation*.mp.
24. exp Evaluation Studies/
25. Economic evaluation*.mp.
26. Economic modelling stud*.mp.
27. OR/2-26
28. Returns on Investment or Economic Returns or Cost Minimization or Cost Effectiveness or
Cost Benefit Analysis or Cost Utility Analysis.mp. or finances.mp.
29. 1 AND 27 AND 28
30. advertisements/ or animation/ or architectural drawings/ or bibliography/ or biography/ or
book illustrations/ or bookplates/ or charts/ or comment/ or letter/ or editorial/ or news/ or
patient education handout/ or published erratum/ or "retraction of publication"/
31. 29 Not 30
32. Limit 31 to yr="1990-current"

Search strategy: free-field format

(telehealth or telehealthcare or “picture archiving and communication systems” or information system* or computerized decision support or computerized order entry or ehealth or health information technology or electronic prescribing or electronic health records or medical informatics or computerized patient records)

AND

(systematic review or meta-analys* or intervention stud* or trial or randomi?ed controlled trial or controlled clinical trial or controlled or before and after stud* or interrupted time series or “before-after design” or cohort stud* or prospective evaluation* or evaluation stud* or comparative stud* or economic evaluation* or economic modelling stud*)

AND

(returns on investment or economic returns or cost minimization or cost effectiveness or cost benefit analysis or cost utility analysis or finances)