# Appendix D: Clinical evidence tables

| Study | Lang 2006[7] |
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| Study type | RCT (Patient randomised; crossover: 4 crossover periods 10 weeks long). |
| Number of studies (number of participants) | 1 (n=2022). |
| Countries and setting | Conducted in Canada; Setting: Emergency department of the Sir Mortimer B. Davis - Jewish General Hospital in Montreal, an adult university teaching hospital with 637 beds. |
| Line of therapy | 1st line. |
| Duration of study | Intervention + follow up: 2 separate 10 week intervention phases. Follow-up 28 days. |
| Method of assessment of guideline condition | Adequate method of assessment/diagnosis. |
| Stratum | Overall. |
| Subgroup analysis within study | Not applicable. |
| Inclusion criteria | Patients whose family physician was participating in the study were approached for recruitment upon presentation to the emergency department between 18 June 2001 and 2 April 2002. For their visit to be eligible, patients had to be 18 years of age or older, have been seen by the participating family physician at least once within the previous 2 years. Recruitment occurred on weekdays between 0800 and 2200 except on statutory holidays. Participants agreed to have their clinical information extracted from their emergency department medical chart and sent to their family physician. |
| Exclusion criteria | Not stated. |
| Recruitment/selection of patients | Family physicians were selected for recruitment on the basis of the frequency with which their patients consulted the hospital's emergency department; a minimum of 100 annual visits per physician clientele was required. Physicians were recruited by phone, letters or invitation and information sessions. Consenting physicians, rather than patients or visits were then randomised to the initial intervention or control group phases. |
| Age, gender and ethnicity | Age - Mean (SD): Intervention: 62.1 (20.3); 62.1 (20.4). Gender (M: F): Intervention: 437/611; control: 427/551. Ethnicity: Not stated. |
| Further population details | 1. Frail elderly: Not applicable/Not stated/Unclear. |
| Extra comments | Each of the 4 cross over periods was 10 weeks long. During each period, the results of the patients visit were communicated to the participating family physician by way of either the intervention strategy or the control strategy depending on the physicians' allocation at the time of the visit. |
| Indirectness of population | No indirectness. |

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| Interventions | (n=1048) Intervention 1: Integrated patient information systems throughout AME pathway (including primary care, secondary care and social care) - Patient information database (for example, summary care records) accessible to all HCPs directly involved in the care of their patients. When family physicians were in the intervention phase, they received detailed clinical information of their patients visit to the emergency department through a secure web-based standardised communication system (SCS). The SCS programme automatically issued advisory emails (at 0700) once per day to all family physicians whose patients or patients had presented to the emergency department within the previous 24 hours. The email also provided a link to a secure web page where the family physician could view and print a medical report with details of the emergency department visit, including the patients name, presenting symptoms, emergency department diagnosis, disposition, special consultation reports, laboratory test and electrocardiography results, imaging reports, discharge planning information and suggested follow-up, as well as any new medications or modifications to existing medication regimens. Emergency physicians were aware of which patients were having SCS reports issued because the names of the family physicians receiving SCS reports were posted in the emergency department. Duration: 10 weeks. Concurrent medication/care: background medications not stated. Chief symptom (most frequent): Chest pain- Intervention (11.2%) Abdominal pain-Intervention (9.5%) Dyspnoea-Intervention (7.3%)<br>Further details: 1. People undergoing active cancer treatment: Not applicable/Not stated/Unclear.<br><br>(n=974) Intervention 2: No integrated patient information systems throughout AME pathway (including primary care, secondary care and social care) - lack of accessibility to patent information databases to all HCPs involved in care of patients. When family physicians were in the control phase, they received a carbon copy of the first page of the emergency physicians' notes by regular mail within 1-2 weeks of the visit to the emergency department; the standard practice at the emergency department. Duration: 10 weeks. Concurrent medication/care: background medications not stated. Chief symptom (most frequent): Chest pain- control: 14.1%Abdominal pain-control (9.9%) Dyspnoea-control (8.1%).<br>Further details: 1. People undergoing active cancer treatment: Not applicable/Not stated/Unclear. |
| Funding | Academic or government funding. |

RESULTS (NUMBERS ANALYSED) AND RISK OF BIAS FOR COMPARISON: PATIENT INFORMATION DATABASE (FOR EXAMPLE, SUMMARY CARE RECORDS) ACCESSIBLE TO ALL HCPS DIRECTLY INVOLVED IN THE CARE OF THEIR PATIENTS versus LACK OF ACCESSIBILITY TO PATENT INFORMATION DATABASES TO ALL HCPS INVOLVED IN CARE OF PATIENTS.

Protocol outcome 1: Unnecessary duplication of tests at End of follow-up.

- Actual outcome: Duplication of diagnostic tests (between ED and the family physician office) at End of follow-up; Group 1: 24/814, Group 2: 22/802; Risk of bias: All domain - High, Selection - Low, Blinding - High, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - Low, Crossover - Low, Subgroups - Low, Other 1 - Low, Other 2 - Low, Other 3 - Low; Indirectness of outcome: No indirectness
- Actual outcome: Duplication of diagnostic tests (in speciality consultations) at End of follow-up; Group 1: 20/814, Group 2: 8/802; Risk of bias: All domain - High,

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| Selection - Low, Blinding - High, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - Low, Crossover - Low, Subgroups - Low, Other 1 - Low, Other 2 - Low, Other 3 - Low; Indirectness of outcome: No indirectness<br><br>Protocol outcome 2: ED admissions at end of follow-up.<br>- Actual outcome: Return visits to the ED within 14 days at 14 days; Group 1: 97/814, Group 2: 88/802; Risk of bias: All domain - High, Selection - Low, Blinding - High, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - Low, Crossover - Low, Subgroups - Low, Other 1 - Low, Other 2 - Low, Other 3 - Low; Indirectness of outcome: No indirectness<br>- Actual outcome: Return visits to the ED within 28 days at 28 days; Risk of bias: Risk of bias: All domain - High, Selection - Low, Blinding - High, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - Low, Crossover - Low, Subgroups - Low, Other 1 - Low, Other 2 - Low, Other 3 - Low; Indirectness of outcome: No indirectness | |
| Protocol outcomes not reported by the study | Quality of life at End of follow-up; Avoidable adverse events (including missed or delayed treatments and missed or delayed investigations, prescribing errors (errors of omission or commission, medicines reconciliation) at End of follow-up; Patient satisfaction at End of follow-up; Length of hospital stay at end of follow-up; Staff satisfaction at End of follow-up; Mortality at End of follow-up. |