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UTILITY OF ELECTRONIC PATIENT RECORDS FOR EVALUATING STROKE SECONDARY PREVENTION IN PRIMARY CARE

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Background To utilise electronic patient records (EPRs) to evaluate the secondary prevention of stroke; to evaluate data recorded in EPRs as potential outcome measures for pragmatic trials in primary care.

Methods Data were analysed for 414 family practices comprising 22 730 patients with an index first stroke between 2003 and 2006. For each subject, the EPR was evaluated for the 12 months before and 12 months after stroke. Data were analysed for stroke secondary prevention measures.

Results Blood pressure (BP) readings were available for 77% before stroke, and 90% after stroke. Mean (SD) values for BP after stroke were systolic 139.1 (17.1) and diastolic BP 78.0 (9.2) mm Hg. Intraclass correlation coefficients by family practice were 0.03 for both systolic and diastolic BP. For 14006 subjects (62%) with records available both before and after stroke, the mean systolic BP was 6.02 mm Hg (95% CI 6.01 to 6.03) lower and the mean diastolic BP was 2.78 (2.77 to 2.79) lower after stroke than before. Cholesterol records were available for 48% before and 70% after stroke. The mean total cholesterol was 5.1 (1.16) mmo/l before stroke and 4.60 (1.06) after stroke. The Intraclass correlation coefficients was 0.02 for total and 0.05 for the LDL cholesterol levels. Atrial fibrillation was recorded in 3% before stroke and 5% after stroke.

Conclusions EPRs have potential for evaluation of outcomes in pragmatic trials of stroke secondary prevention. Important reductions in vascular risk factor values were observed following stroke.