Quality of care assessment using data from the Belgian general practitioners' Electronic Patient Record. A pilot study for hypertensive patients with high cardiovascular risk, February – April 2005

Presenter
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Background
In the scope of quality of care and GPs’ Electronic Patient Records, our pilot project aimed at studying to what extent hypertensive patients with high cardiovascular risk (CVR) can be identified and their risk management assessed through automatic data extraction from running GPs' Electronic Patient Records (EPR).

Methods
In February – April 2005, 26 practices (28 GPs, 3 EPR software systems) collected prospectively data on all hypertensive patients, aged 30 – 69 years, seen during consultation. Parameters needed to calculate an obvious high CVR and to assess its management, according to a validated algorithm (Boland et al., Acta Cardiologica, 2004), were extracted automatically (AE) from the EPR and compared with the same information after validation by the GP (V) or collected through questions (Q) asked to the GPs.

Results
AE revealed 67 hypertensive patients with obvious high CVR (previous Cardio Vascular event and/or type 2 diabetes), compared with 208 patients (Q). Considering target treatments among the latter group, AE revealed 21.2% treated with aspirin and 21.6% with statins, vs. 61.5% (Q) and 50.5% (Q) respectively. Among the 136 diabetic patients in the group, 18.4% (AE) received ACE-inhibitors, vs. 39.7% (Q). In the course of the last 4 months a documented blood pressure (BP) was present for 87.5% of the patients (AE), vs. 93.8% (V), and a documented weight for 39.4% of the patients (AE), vs. 47.1% (V). 15.4% (AE) of documented BP were <130/85 (AE), vs. 16.9% (V), and 12.2% of documented BMI were <25 (AE), vs. 11.2% (V).

Conclusions
Automatic data extraction from EPR showed a wide underestimation of target populations as well as process indicators (target treatments, documented blood pressures, weights). Relative outcome indicators (percentage of documented controlled blood pressures or weights) seem more reliable, opening an interesting perspective for dynamic quality of care assessment processes.