STUDY REPORT SUMMARY

ASTRAZENECA PHARMACEUTICALS

FINISHED PRODUCT: No applicable
ACTIVE INGREDIENT: No applicable

Study No: NIS-CFR-DUM-2007/7
Prophyl MG - Profile of hypertensive patients managed by general practitioners

Developmental phase: No applicable
Study Completion Date: LSLV = 28 November 2008
Date of Report: 9 November 2009

OBJECTIVES:

The survey, conducted in 2008, was designed to enhance understanding of the hypertensive patient population consulting general practitioners. The study also evaluated the incidence of hypertensive patient profile (socioeconomic data, risk factors, clinical data, target organ impairment and history of cardiovascular events) on the modalities of management (care trajectory, treatment, investigations prescribed).

METHODS and RESULTS:

A total of 1082 general practitioners contributed to the study. They mainly consisted in men (92.0%) of mean age 52.3 (+/- 6.8) years. The general practitioners (GPs) practiced throughout France enabling good national representativeness despite under-representation in the Ile de France region (8.0% vs. 20.1% according to the DREES data).

Study population

The total population studied and analyzed was 3209 hypertensive patients, treated or untreated, and aged over 18 years.
Most of the patients were men (60.9%). The mean age was 61.8 (+/- 11.6) years.

In all, 96.2% of the study subjects were regularly followed up for hypertension.
The diagnosis of hypertension had been formulated more than 10 years previously for a quarter of the patients, between 5 and 10 years previously for a third of the patients and less than 5 years previously for 40.7%. Few patients were classified as secondary hypertension (2.9%).

Cardiovascular risk level and concomitant diseases

The cardiovascular risk level (evaluated as per HAS 2005 criteria) was high for 38.7% of the patients and intermediate for 55.9%.

As regard to cardiovascular risk factors, hypercholesterolemia was the most frequent (53.1%) followed by smoking (23.8%), diabetes mellitus (23.0%) and a familial history of early vascular accident (17.9%). It is noteworthy that the majority of patients were overweight with a mean weight of 79.5 (+/- 15.1) kg for a mean height of 168.9 (+/- 8.9) cm. The mean body mass index was thus 27.8 (+/- 5.0) kg/m². Waist circumference was large, greater than 88 cm in 64.5% of the women and greater than 102 cm in 44.3% of the men.

In all, 20.8% of the patients had experienced at least one cardiovascular event, in order of frequency: coronary artery disease (10.2%); peripheral arterial disease (6.8%), heart failure (5.9%), myocardial infarction (4.4%) and stroke (3.8%).

One third of the patients (33.0%) had at least one concomitant disease. In all, 5.0% of the patients had renal failure.

Blood pressure

A total of 35.4% of the patients had already conducted self-measurement of blood pressure and 26.5% had undergone ambulatory blood pressure monitoring (ABPM). Self-measurement of blood pressure was more frequent in patients who had been regularly consulting (35.7% vs. 26.1% in new patients, **p = 0.03**) as was ABPM (26.9% vs. 14.4% in new patients, **p = 0.002**).

During consultation, over two thirds of patients (66.5%) had not achieved blood pressure objectives (140/90 mm Hg); more than 70% of patients were at high risk and up to 92.2% in the population of patients having renal failure and/or diabetes (26.5% of the hypertensive patients) (objectives: 130/80 mm Hg).

Table 1 – Risk factors as a function of blood pressure level

		Total N = 3198	BP < 130/80 N = 641	BP 130-139 /80-89 N = 407	BP 140-159 /90-99 N = 1723	BP 160-179 /100-109 N = 377	BP ≥ 180/110 N = 50
Factors	0 associated RF	259 (8.1%)	56 (8.7%)	40 (9.8%)	128 (7.4%)	27 (7.2%)	8 (16.0%)
	1 or 2 associated RF	2033 (63.6%)	428 (66.8%)	271 (66.6%)	1065 (61.8%)	238 (63.1%)	31 (62.0%)
	≥ 3 RF and/or target organ impairment and/or diabetes	906 (28.3%)	157 (24.5%)	96 (23.6%)	530 (30.8%)	112 (29.7%)	11 (22.0%)

11 patients presented with unclassifiable blood pressure (3198 + 11 = 3209).
The percentages were calculated by blood pressure range.

Table 2 – Cardiovascular and renal disease as a function of blood pressure level

	Total N = 3198	BP < 130/80	BP 130-139/ 80-89	BP 140-159/ 90-99	BP 160-179/ 100-109	BP ≥180/110
Cardiovascular and renal disease	707 (22.1%)	157 (4.9%)	70 (2.2%)	376 (11.7%)	87 (2.7%)	17 (0.5%)

11 patients presented with unclassifiable blood pressure (3198 + 11 = 3209).
The percentages were calculated relative to the set of 3198 patients.

Care trajectory (follow-up and reason for consultation)

In all, 3.8% of the patients were consulting for the first time. They were younger than patients who had been regularly consulting (58.0 ± 12.5 years vs. 61.9 ± 11.5 years, **p = 0.003**). However, risk level was not different to that of the regularly followed up patients. A secondary etiology was more frequent in the new patients (5.1% vs. 2.8%, **p < 0.001**) and more of those patients had HT not controlled with more than 3 antihypertensives (9.3% vs. 6.8%, **p = 0.0305**).

For all the patients, treated or not, the main reason for consultation (90.8%) was hypertension. A total of 37.5% consulted for another chronic disease, 17.8% for another cardiovascular disease, 13.4% for another acute disease. The patients who consulted for concomitant cardiovascular disease were older than the patients who consulted for another reason (67.8 ± 11.0 years vs. 60.7 ± 11.6 years, **p < 0.001**). Again with regard to the patients consulting for another cardiovascular disease, the proportion of men was higher (72.2% vs. 59.2% men in the patients consulting for another reason, **p < 0.001**). BMI and waist circumference were greater (BMI: 28.5 ± 4.9 kg/m² vs. 27.7 ± 5.1 kg/m², **p = 0.002**; waist circumference: 102.7 ± 14.0 cm vs. 98.2 ± 13.1 cm, **p < 0.001**).

Similarly, the cardiovascular risk level was higher (high level in 63.5% vs. 32.0% of the patients consulting for another reason, **p < 0.001**). The presence of a secondary etiology for HT was more frequent (6.8% vs. 2.0% in the patients consulting for another reason, **p < 0.001**) and HT not controlled with more than 3 antihypertensives was also more frequent (14.8% vs. 5.4% in patients consulting for another reason, **p < 0.001**). However, the socioeconomic level of patients consulting for another reason was higher (**p < 0.001**). Among the patients consulting for another reason, there were more managers and higher intellectual professionals (10.7% vs. 5.4% in the patients consulting for another cardiovascular disease) and more office workers (18.3% vs. 7.5%) but fewer pensioners (36.9% vs. 52.8%).

A total of 6.8% of the patients had already been hospitalized for HT.

A total of 97% of the patients were to return for follow-up within 3 months, of whom 46.4% in the month following the consultation.

Medication

On attending, 84.6% of the patients were on antihypertensive treatment: 43.8% were on single-agent therapy, 25.2% on bitherapy and 15.6% on tritherapy (or more). 6.9% of the patients presented with HT unresponsive to more than 3 antihypertensives.

The patients at high risk were more frequently on 3 or more antihypertensive medications (57.5%) than the patients at intermediate (40.5%) or low (2.1%) risk. 25.0% of the patients with renal failure and/or diabetes were on 3 or more antihypertensive medications vs. 12.3% of the patients free from renal failure and diabetes. At the end of the consultation, the latter figures became 32.0% and 16.6%, respectively.

The five more frequently prescribed antihypertensive classes were angiotensin II receptor antagonists (ARA) (42.1%), thiazide diuretics (25.5%), calcium antagonists (23.5%), β-blockers (22.5%) and angiotensin converting enzyme (ACE) inhibitors (18.7%).

The choice of therapeutic class did not appear to be influenced by the type of risk factor or concomitant disease except in the case of patients with coronary artery disease who were more frequently on ACE-inhibitors and β-blockers.

The principal reason for modifying hypertension management strategy was inadequate efficacy of the ongoing antihypertensive treatment (39.8%). The other reasons for strategy modification were rarer: poor tolerability (5.3%); optimization of treatment for heart failure or nephropathy (2.3% and 2.1%, respectively). Dosage reduction was rare. The antihypertensive dosage was increased or the antihypertensive was withdrawn. It was noted that ARA II were more frequently increased (25.5% increased vs. 0.2% decreased and 0.9% discontinued) while the other classes were more frequently discontinued (ACE inhibitors, centrally-acting antihypertensives, potassium-sparing diuretics, α-blockers).

At the end of the consultation, 94.5% of the patients were on antihypertensive treatment: 41.3% on single-agent therapy, 32.7% on bitherapy and 20.5% on tritherapy or therapy with more than 3 antihypertensives.

Post-consultation follow-up

At the end of consultation, the investigations most frequently prescribed were self-measurement of blood pressure (29.4% of patients), referral to a cardiologist (20.1%), and urinary protein determination (19.2%).