

## Impact of quality management on process quality and intermediate outcome of antihypertensive treatment

I. Rakovac<sup>1</sup>, R. Gfrerer<sup>1</sup>, W. Habacher<sup>1</sup>, P. Beck<sup>1</sup>, S. Seereiner<sup>2</sup>, R. Moser<sup>1</sup>, B. Bauer<sup>3</sup>, M. Jecht<sup>3</sup>, Z. Trajanoski<sup>2</sup>, T. R. Pieber<sup>1</sup>;

<sup>1</sup>Institute of Medical Technologies and Health Management, Joanneum Research, Graz, AUSTRIA, <sup>2</sup>Institute of Biomedical Engineering, University of Technology Graz, Graz, AUSTRIA,

<sup>3</sup>FQSD: Forum for Quality Systems in Diabetes Care (Austria, Germany), Graz, AUSTRIA.

**Background and Aims:** Hypertension is considered to be one of the key factors for cardiovascular events in diabetic patients. A quality management system (FQSD) was established in Austria and Germany to improve patient related outcome according to the St. Vincent Declaration. Aim of this analysis was to show describe the effect of this quality management system on relevant parameters of hypertension treatment.

### Materials and Methods:

Based on the results of UKPDS hypertension treatment in diabetes has been a major topic in quality circles performed at least annually since 1998 in Austria and Germany. Process quality in hypertension treatment was defined as the percentage of patients with blood pressure (BP) >140/90 mmHg and consecutively are receiving antihypertensive treatment (AHT). Intermediate outcome was defined as percentage of patients with BP <140/90 mmHg. The quality of hypertension care for the year 2001 was compared between a group of hospitals and general practitioner (GPs) who participated in the QM programme at least since 1998 (group A, >3 years) and a group of hospitals and GPs who joined the FQSD initiative in 2000 or later (group B, <3 years). Furthermore, the quality of hypertension treatment and intermediate outcome was compared for the year 1998 and 2001 for the group of 25 centres who joined the FQSD before 1998 and collected more than 40 data sets in 1998 and 2001 (group C).

### Results:

#### Comparison of centres performing quality management <3 years and > 3years

	Number of centres	Process quality (% patients with AHT)	Intermediate Outcome (% pat. With BP<140/90)
Group A (>3 years)	49	77,1 ± 16,6	65,2 ± 12,9
Group B (<3 years)	51	67,5 ± 26,7	49,4 ± 15,3
P		0,0324	<0,0001

#### Comparison of improvement over time in 25 centres (group C)

	Process quality (% patients with AHT)	Intermediate Outcome (% pat. With BP<140/90)
1998	74,1 ± 13,1	62,1± 12,0
2001	81,8 ± 26,7	69,4 ± 12,5
p	0,0089	0,0065

**Conclusion:** Process quality and intermediate outcome of antihypertensive treatment can be improved by using a quality management system. Quality management for diabetes care can be implemented effectively on a large scale in the health care providing system. A special acknowledgment is dedicated to all members of FQSD Austria and Germany.