Drug product	Nexium	**SYNOPSIS**	
Drug substance(s)	Esomeprazole		
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Study code	BG-QBE-0001		
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ProGERD:
Clinical and endoscopic evaluation of the progression of gastroesophageal reflux disease (GERD) in patients successfully treated with esomeprazole: epidemiological long-term follow-up.

Study centre(s)

1335 centres in Germany (1265), Austria (33) and Switzerland (37)

Study dates		**Phase of development**
First subject enrolled	24-May-2000	IV
Last subject completed	03-December-2008	

Objectives

The primary objective of this study was to determine the endoscopic and symptomatic progression of GERD in endoscopically assessed GERD patients under routine care.

Study design

Open, non-controlled, prospective, multicentre, cohort study

Target subject population and sample size

6509 patients were recruited, 6215 were eligible for evaluation at baseline.

Investigational product and comparator(s): dosage, mode of administration and batch numbers

Nexium® *MUPS* / Esomeprazole 20 mg (NERD) and 40 mg (ERD) once daily

Duration of treatment

Non-erosive GERD: 2 to 4 weeks followed by routine care follow-up

Erosive GERD: 4 to 8 weeks followed by routine care follow-up

Criteria for evaluation (main variables)

- Primary variables:
  Endoscopic development of GERD
  Symptomatic development of GERD

- Secondary variables:
  Development of Barrett esophagus
  Quality of Life (QOLRAD scores, SF-36 scores)
  Medication use
  Extraesophageal symtoms

Statistical methods

Descriptive statistics, frequency tables, logistic regression analysis

Subject population

A total of 6509 patients were recruited. 294 patients were excluded from all analyses due to lack of GCP compliance (256 patients) or because they did not receive study medication (58 patients). Thus, the study population consisted of 6215 patients (NERD 2970, ERD 3245), of which 74% completed the 5-year and 28% the 7 year follow-up. Due to this high drop-out rate after year 5, all longitudinal analyses on the endoscopic and clinical progression and regression of GERD are based on the more complete five year data.

Table S1. Study population

		NERD / 20mg esomeprazole	**ERD / 40mg esomeprazole**	**Total**
Total		2970	3245	6215
Sex (n and % of subjects)	Male	1337 (45.0%)	1966 (60.6%)	3303 (53.1%)
	Female	1633 (55.0%)	1279 (39.4%)	2912 (46.9%)
Age (years)	Mean (SD)	53.0 (14.3)	54.5 (13.7)	53.8 (14.0)
	Range	18 to 91	18 to 92	18 to 92
Body Mass Index (kg/m^2)	Mean (SD)	26.6 (4.2)	27.3 (4.0)	27.0 (4.1)
Previous GERD treatment		2036 (68.6%)	2376 (73.2%)	4412 (71.0%)
Esophagus ulcer		4 (0.1%)	201 (6.2%)	205 (3.2%)
Barrett's esophagus[a]		117 (3.9%)	585 (18.0%)	702 (11.3%)
H. pylori infection		846 (29.1%)	761 (23.9%)	1607 (26.3%)

Results

The majority of NERD patients at baseline were still NERD in years 2 and 5. Progression from NERD or mild esophagitis (Los Angeles A or B) to severe esophagitis (Los Angeles C or D) was a rare event. Of all patients with severe esophagitis at baseline, 89% regressed to mild esophagitis or NERD in year 2, and 11% progressed again to severe esophagitis from year 2 to year 5. The majority of movements between GERD categories were between NERD and Los Angeles A/B. The total proportion of patients who progressed from NERD, LA grade A/B or LA grade C/D to endoscopic or confirmed Barrett's oesophagus at 5 years was 9.7%.

Symptoms improved markedly from baseline to year 1, both in terms of symptom frequency and symptom severity. In the fifth year of the study 35% of patients were free of GERD symptoms. However, only 7.5% of patients did not report any reflux symptoms during the complete follow-up. The majority of patients experienced at least some symptoms, and a subgroup of patients reported severe symptoms or symptoms on most of the days throughout the follow-up period.

More than 70% of patients reported GERD medication during the follow-up. In patients taking GERD medication, regular PPI intake was the dominant treatment pattern.