

EPIDEMIOLOGY AND ROUTINE CARE TREATMENT PATTERNS OF PATIENTS WITH HIP/KNEE OSTEOARTHRITIS AND CHRONIC LOWER BACK PAIN IN GERMANY

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Background and Objective

Among the most frequent chronic pain conditions are hip/knee osteoarthritis (OA) and chronic lower back pain (CLBP) [1,2].

In 1986, a three-step pain ladder was introduced for the treatment of chronic pain [3]. Originally, the World Health Organization (WHO) pain ladder was developed for cancer pain relief, but it is also used in non-cancer pain conditions [3]. Evidence on the routine care of pain management in hip/knee OA and CLBP is scarce.

Objective

Based on German real world data, the aim of this study was to characterize individuals with hip/knee OA or CLBP, to describe the epidemiology of these individuals and to evaluate treatment patterns in routine care within these populations.

Methods

The InGef Research Database (comprising data of approximately seven million people insured in German statutory health insurance companies) was the data source. A sample of approximately four million persons representative for the German population [4] was drawn for the purpose of this analysis. Data from the calendar year 2016 was analyzed. Patients older than 18 years with a continuous insurance period in 2016 or until death in 2016 were included. Inpatient and outpatient diagnoses were considered for case identification. According to their highest pain treatment intensity in 2016, identified individuals with hip/knee OA or CLBP were assigned to the categories of the WHO pain ladder: Beyond WHO scheme treatment (surgical or minimal invasive interventions, inpatient multimodal pain therapy including day care), WHO III (strong opioids), WHO II (weak opioids), WHO I (non-opioid analgesics) or none treatment.

Results

Figure 1: Prevalence of OA

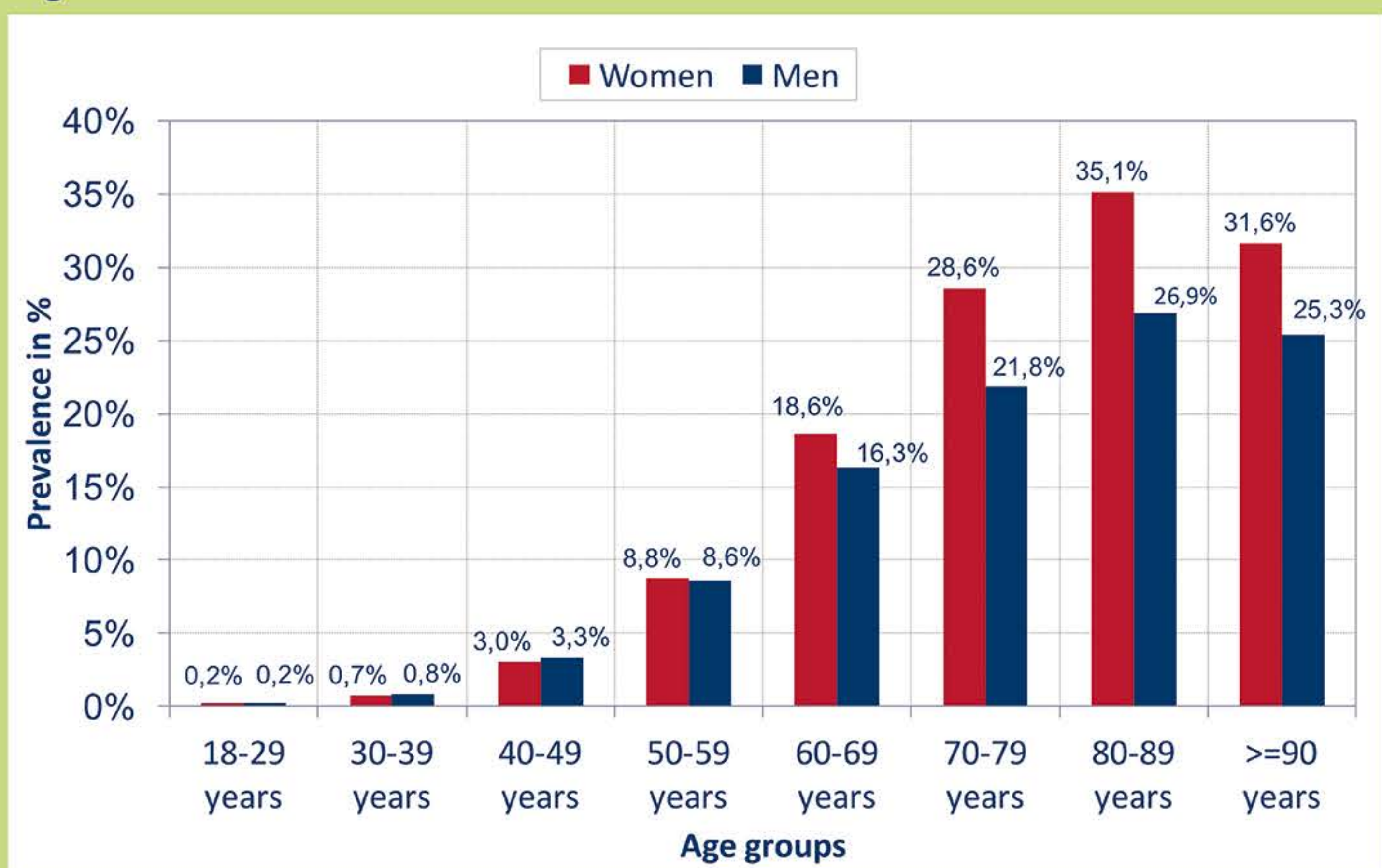
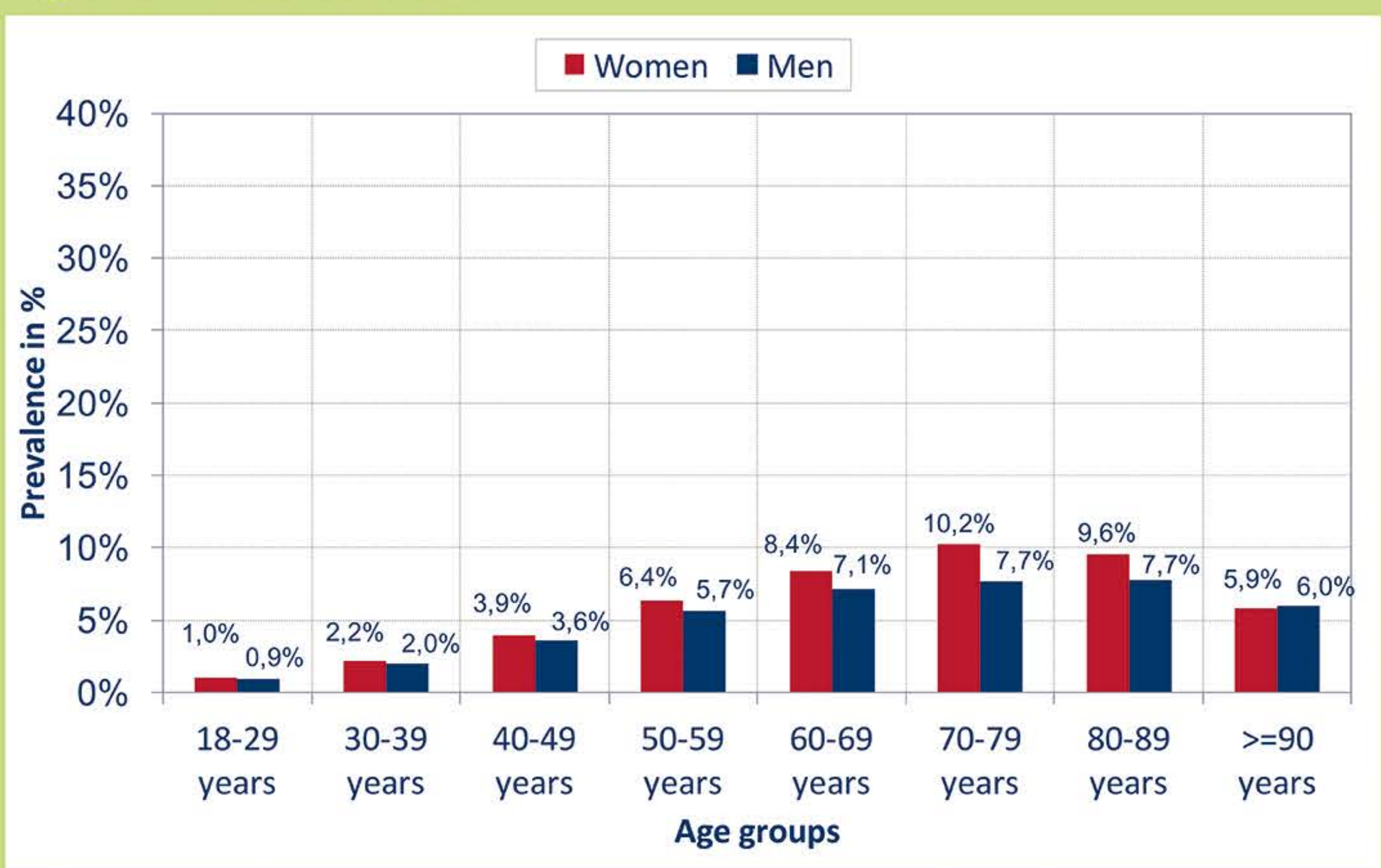


Figure 2: Prevalence of CLBP



Prevalence

In total, 307,256 cases with hip/knee OA and 146,443 cases with CLBP were identified. This results in a one-year prevalence of 11.4% (hip/knee OA) and 5.4% (CLBP) in the German population. Figure 1 and 2 show the age- and gender-specific prevalences of hip/knee OA and CLBP, respectively.

Highest Treatment Intensity

In 2016, 65.1% of hip/knee OA patients and 66.3% of CLBP patients received at least one pain management intervention. Regarding the treated hip/knee OA patients, the majority received WHO I drugs as their highest treatment intensity (68.7%), followed by WHO II drugs (13.3%), beyond WHO interventions (10.1%) and WHO III drugs (7.8%). Within the treated CLBP patients, WHO I drugs represent the most frequently recorded highest treatment intensity (73.6%) as well, followed by WHO II drugs (16.1%), WHO III drugs (7.8%) and beyond WHO interventions (2.5%).

Table 1: Comorbidity per WHO Population and Chronic Pain Population

	WHO I		WHO II		WHO III		Beyond WHO	
	OA: n=137,454	CLBP: n=71,528	OA: n=26,652	CLBP: n=15,609	OA: n=15,573	CLBP: n=7,583	OA: n=20,290	CLBP: n=2,402
Chronic Pain Population	OA [%]	CLBP [%]	OA [%]	CLBP [%]	OA [%]	CLBP [%]	OA [%]	CLBP [%]
Comorbidity								
Anxiety	8.6	10.6	10.6	12.3	12.4	15.0	8.0	16.4
Insomnia	16.3	16.3	23.1	22.3	26.4	28.1	16.7	26.1
Depression	25.1	27.3	33.5	34.7	43.6	46.7	24.4	45.1
Cancer	16.7	13.0	20.1	17.0	29.0	26.4	16.1	14.5
Hypertension	72.0	59.1	80.7	69.9	86.5	80.1	72.0	67.2
Heart failure	14.6	9.8	24.2	16.1	35.9	26.1	13.1	12.5
Ischemic heart disease	20.4	15.7	29.3	23.0	35.6	31.9	18.7	20.3
Diabetes mellitus	27.5	20.5	35.5	28.4	39.3	34.5	24.8	25.1
Fibromyalgia	---	2.0	---	3.6	---	4.9	---	8.0
Neuropathy	16.5	16.4	24.1	23.6	29.2	32.7	16.7	30.7
Peptic ulcer disease	1.2	1.1	2.1	1.7	3.0	2.8	1.2	1.8
Gastrointestinal bleeding	0.8	0.7	1.3	1.0	2.0	1.4	0.7	1.0
Osteoarthritis (any)	100	51.4	100	61.8	100	68.6	100	63.3

Numbers add up to >100%, since individuals could have had more than one comorbidity.

Frequently Expressed Comorbidity

The most frequent pre-specified comorbid condition was arterial hypertension in both chronic pain populations, with depression and diabetes mellitus also affecting a high proportion of individuals (table 1). The share of affected individuals increases from WHO I to WHO III populations for each comorbidity in both pain populations.

Conclusions

- Prevalence of chronic pain conditions such as hip/knee OA and CLBP is high, particularly in elderly patients.
- The management of patients with chronic pain conditions is heterogeneous.
- Approximately one third of observed patients did not receive reimbursed pain interventions during the observation period.
- The most frequent comorbidities are arterial hypertension, depression and diabetes mellitus.
- Comorbidity increases from WHO I to WHO III populations.

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