Chronic and Episodic Migraine distinct states or different sides of the coin?

Epidemiological and clinical aspects

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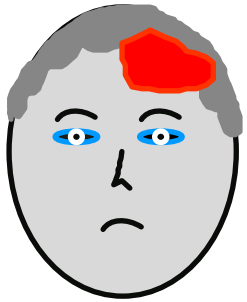
Disclosures

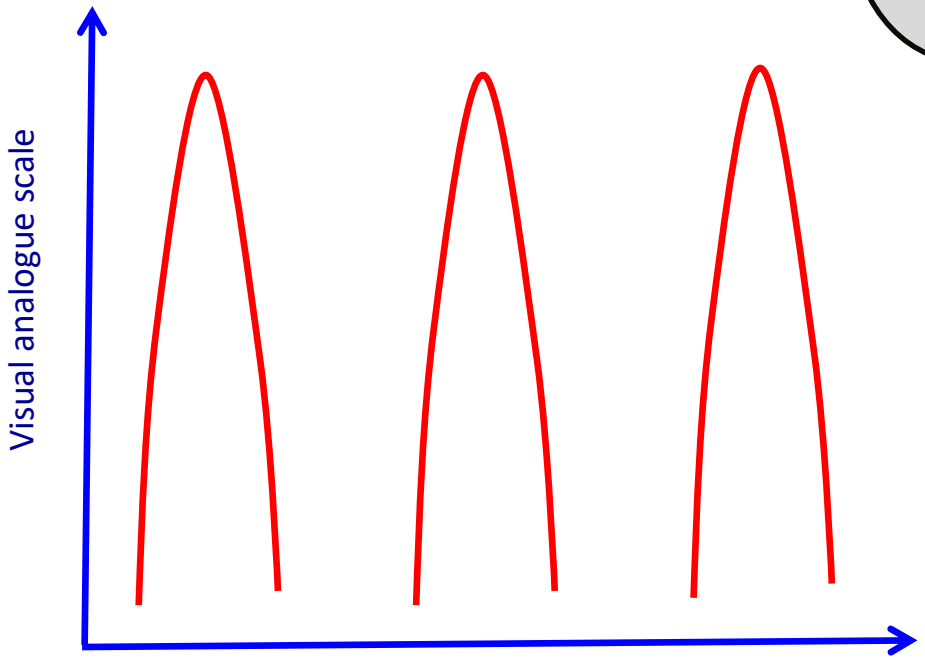
ZK received honoraria from
Allergan/Abbvie, Merck, Lilly, TEVA, Novartis

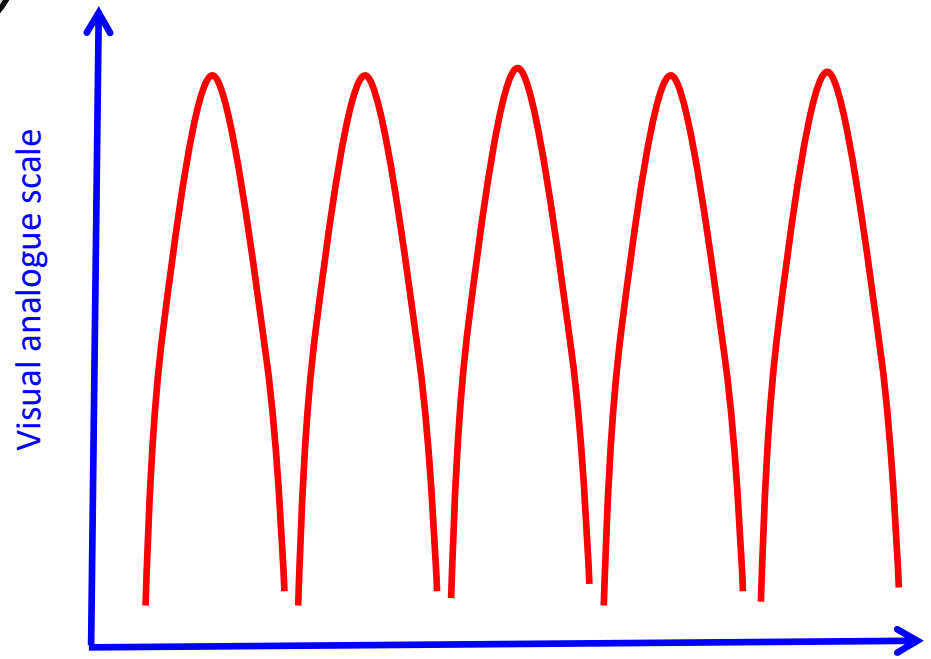
Episodic MIG vs. chronic MIG

< 15 days / month



≥ 15 days / month





Chronic Migraine

- **Chronic Headache = HA ≥ 15 days / month**
  - The reasons to define chronic vs. episodic HA
  - Individual burden
  - Burden of social environment
  - Co-morbidities
  - Costs

Chronic Migraine

1.3 Chronic migraine[1,2]

Description:
Headache occurring on 15 or more days per month for more than 3 months, which has the features of migraine headache on at least 8 days per month.

Diagnostic criteria:

A. Headache (tension-type-like and/or migraine-like) on ≥15 days per month for >3 months[2] and fulfilling criteria B and C
B. Occurring in a patient who has had at least five attacks fulfilling criteria B-D for 1.1 *Migraine without aura* and/or criteria B and C for 1.2 *Migraine with aura*
C. On ≥8 days per month for >3 months, fulfilling any of the following[3]:
   1. criteria C and D for 1.1 *Migraine without aura*
   2. criteria B and C for 1.2 *Migraine with aura*
   3. believed by the patient to be migraine at onset and relieved by a triptan or ergot derivative
D. Not better accounted for by another ICHD-3 diagnosis.

Headache Classification Committee of the International Headache Society (IHS)

The International Classification of Headache Disorders, 3rd edition (beta version)

ICHD-3 beta

Cephalalgia
An International Journal of Headache
International Headache Society

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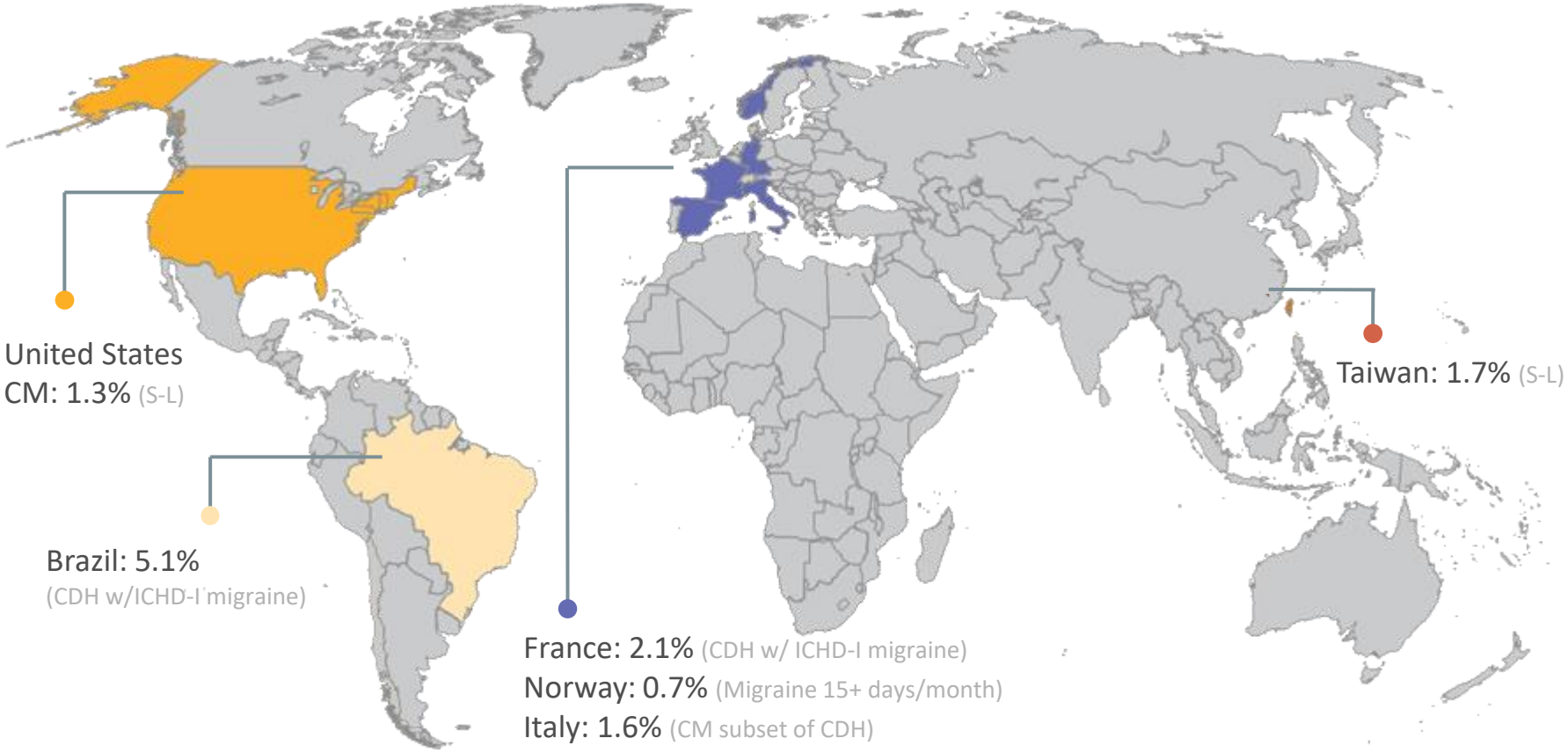
CM prevalence

Stovner et al, Eur J Neurol. 2006 Apr;13(4):333-45

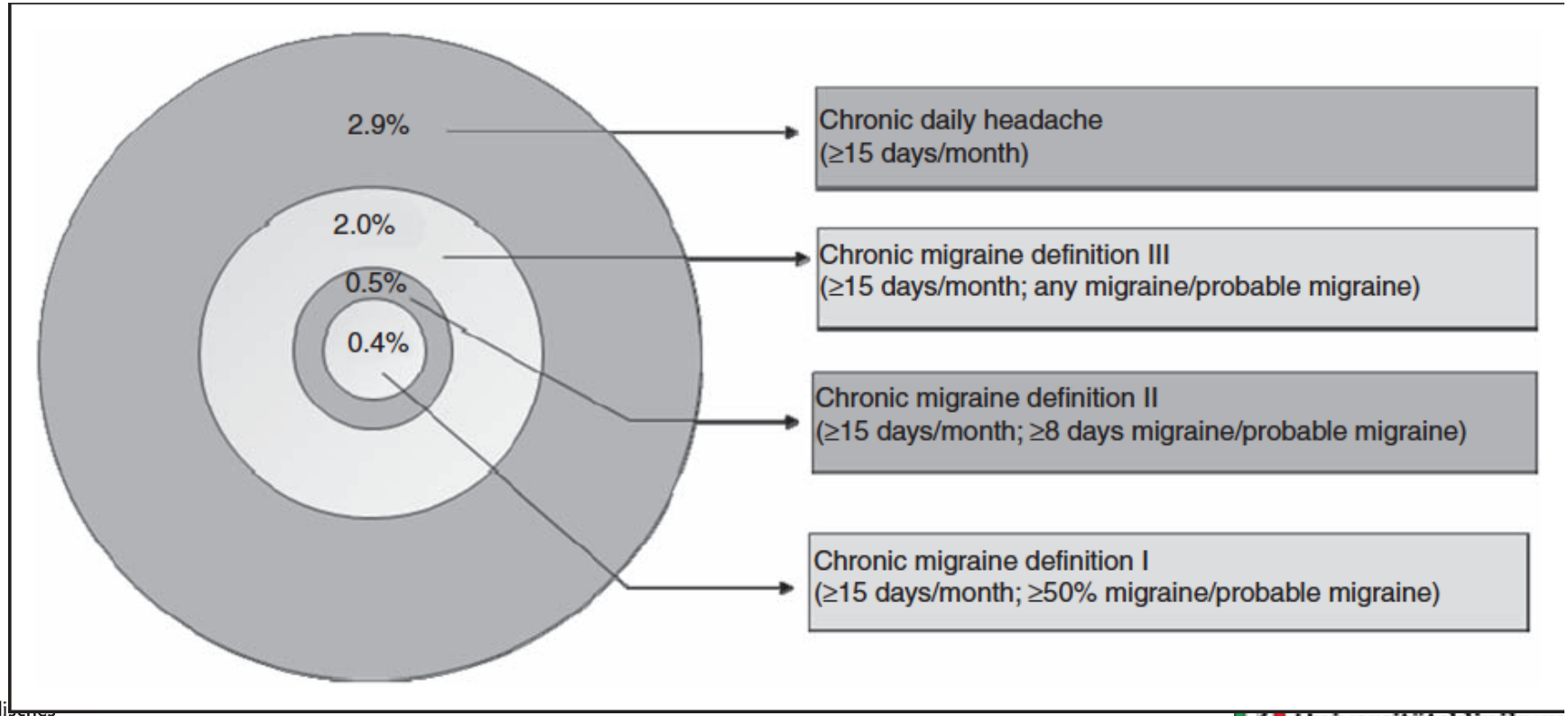


Chronic migraine: Classification and comparisons

Cephalalgia
31(5) 520–529

Z Katsarava[1], A Manack[2], M-S Yoon[1], M Obermann[1], H Becker[1], P Dommes[1], C Turkel[2], RB Lipton[3] and HC Diener[1]

- 10.000 people
- Population based



Chronic migraine: Classification and comparisons

Cephalalgia
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Table 3. Comparison of the epidemiological profiles of the chronic migraine* and episodic migraine groups

	CM_III (≥15 HA days/month) (*N* = 185)	HFEM (9–14 HA days/month) (*N* = 228)	LFEM (0–8 HA days/month) (*N* = 2356)	Relevant statistics
Female, n (%)	131 (70.8%)	156 (68.4%)	1582 (67.1%)	Chi-square = 1.15; df = 2; $p = .56$
Mean age (± SD)	46.2 ± 13.5	39.8 ± 13.4	40.1 ± 11.9	ANOVA: F = 20.8; df = 2; $p < .001$; pair-wise T-tests: CM_III vs. HFEM, $p < .001$; CM_III vs. LFEM, $p < 0.001$; HFEM vs. LFEM, $p = 1.0$
Mean BMI (± SD)	25.9 ± 6.1	24.1 ± 6.9	24.1 ± 5.9	ANOVA: F = 8.0; df = 2; $p < 0.001$; pair-wise T-tests: CM_III vs. HFEM, $p < .015$; CM_III vs. LFEM, $p < .001$; HFEM vs. LFEM, $p = 1.0$
Low education, *N* (%)	142 (78%)	147 (64.5%)	1385 (58.8%)	Chi-square = 31.5, df = 2; $p < .001$; pair-wise two-by-two comparisons: CM_III vs. HFEM, $p = 0.5$; CM_III vs. LFEM, $p < .001$; HFEM vs. LFEM, $p = .17$
Currently smoking, *N* (%)	85 (45.9%)	83 (36.4%)	752 (31.9%)	Chi-square = 16.3; df = 2; $p < .001$; pair-wise two-by-two comparisons: CM_III vs. HFEM, $p = .001$; CM_III vs. LFEM, $p < .001$; HFEM vs LFEM, $p = .09$
Daily or nearly daily intake of any alcoholic beverages, *N* (%)	13 (7.1%)	9 (4.2%)	147 (6.8%)	Chi-square = 0.6; df = 2, $p = .75$

Disability, HRQoL and resource use among chronic and episodic migraineurs: Results from the International Burden of Migraine Study (IBMS)

Cephalalgia
31(3) 301–315

AM Blumenfeld[1], SF Varon[2], TK Wilcox[3], DC Buse[4], AK Kawata[3], A Manack[2], PJ Goadsby[5] and RB Lipton[4]

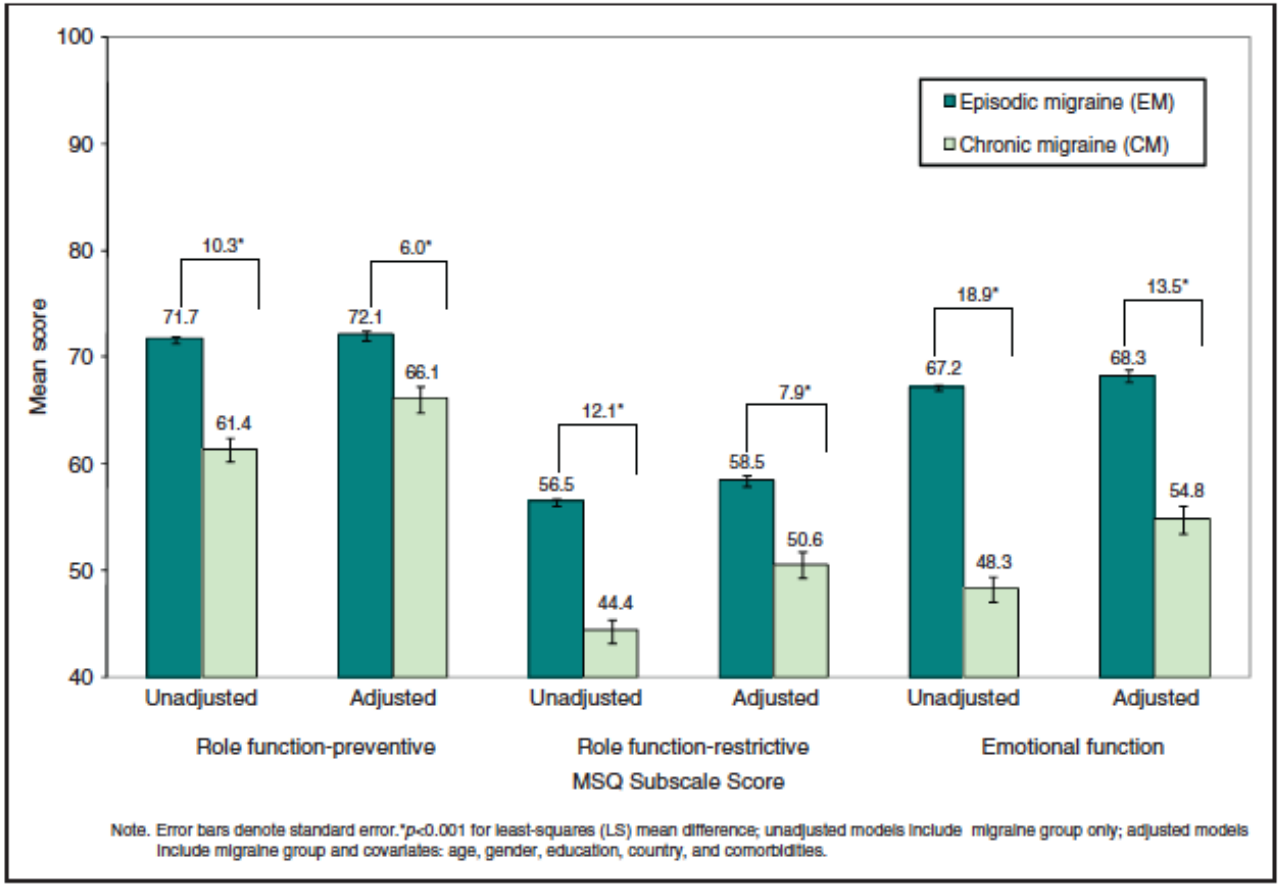
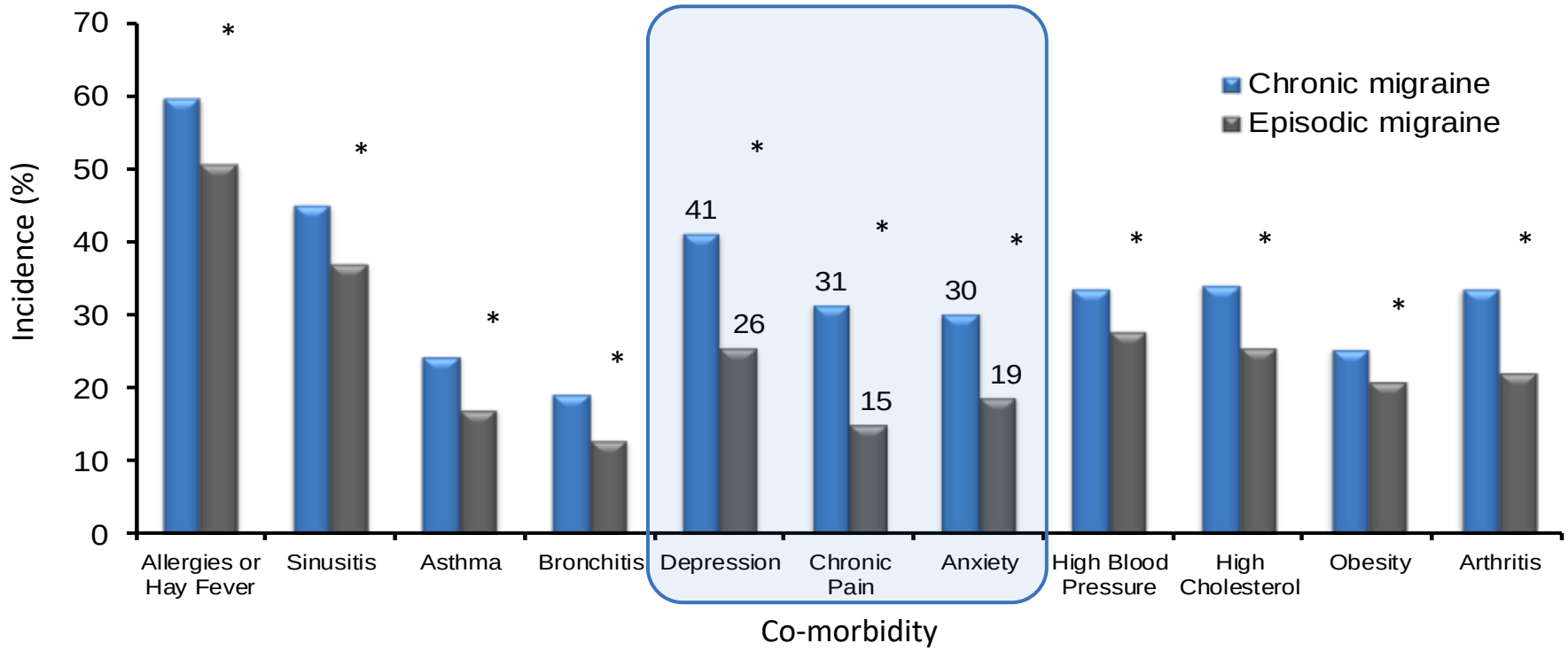


Figure 3. MSQ v2.1 adjusted and unadjusted subscale scores by migraine group. MSQ v2.1 = Migraine-Specific Quality of Life Questionnaire version 2.1.

Evangeli Kranken Ihre Gesunc

Universitätsklinikum Essen

Co-morbidities



- Chronic migraine was defined as reported ICHD-II diagnosis of migraine and ≥15 headache days/month

*p <0.05

Data from the American Migraine Prevalence and Prevention (AMPP) study.

Buse D *et al. J Neurol Neurosurg Psychiatry*. 2010; 81:428–32.

CM and back pain

Table 3
Models assessing association between frequent low back pain and headache subtypes.

	Model 1[a]		Model 2[b]		Model 3[c]		Model 4[d]	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Headache[e]		n = 8939		n = 8933		n = 8365		n = 7719
No	Ref.		Ref.		Ref.		Ref.	
EH	1.9	1.6-2.2	2.3	2.0-2.6	2.3	2.0-2.7	2.3	2.0-2.8
CH	15.4	11.6-20.4	16.5	12.4-22.1	14.5	10.7-19.6	8.0	5.6-11.3
Migraine		n = 6360		n = 6357		n = 5929		n = 5510
No	Ref.		Ref.		Ref.		Ref.	
EM	2.2	1.9-2.6	2.7	2.3-3.2	2.7	2.3-3.2	2.7	2.2-3.2
CM	16.4	11.9-22.7	18.1	12.9-25.4	15.2	10.7-21.5	7.3	4.8-11.0
Migraine-II		n = 5173		n = 5170		n = 4800		n = 4486
No	Ref.		Ref.		Ref.		Ref.	
EM-II	2.3	1.9-2.7	2.6	2.2-3.2	2.6	2.1-3.2	2.5	2.0-3.2
CM-II	17.3	11.5-26.1	18.3	11.9-28.0	15.8	10.2-24.5	7.5	4.5-12.8
TTH		n = 4733		n = 4733		n = 4389		n = 4112
No	Ref.		Ref.		Ref.		Ref.	
ETTH	1.8	1.4-2.1	2.1	1.7-2.6	2.1	1.7-2.7	2.2	1.7-2.8
CTTH	14.8	8.3-26.5	14.8	8.1-26.9	13.7	7.4-25.3	8.1	4.2-16.2

IASP
PAIN® 154 (2013) 484–492
PAIN®
www.elsevier.com/locate/pain

Chronic migraine and chronic tension-type headache are associated with concomitant low back pain: Results of the German Headache Consortium study

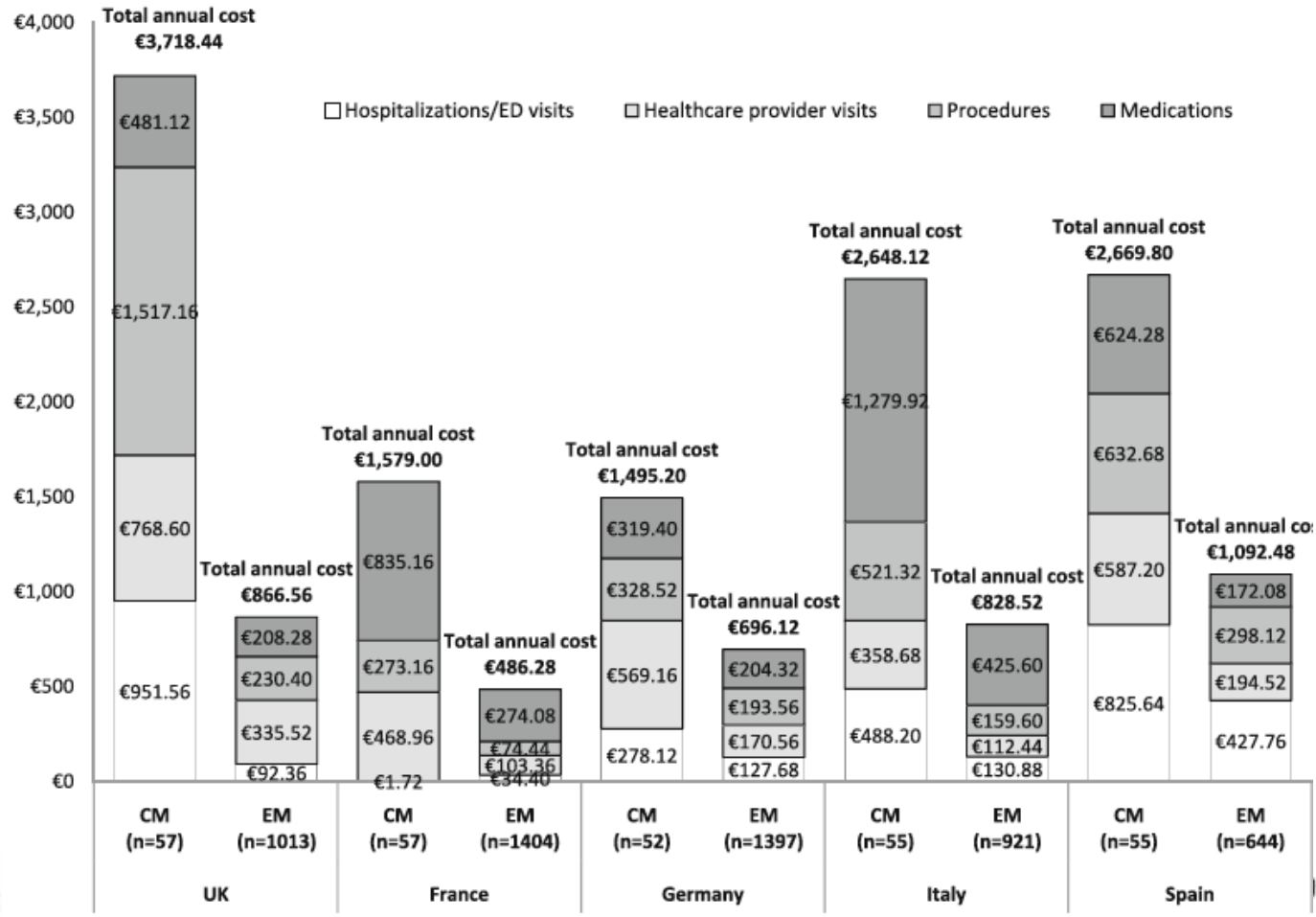
Min-Suk Yoon [a,b], Aubrey Manack [c,*], Sara Schramm [d], Guenther Fritsche [a], Mark Obermann [a], Hans-Christoph Diener [a], Susanne Moebus [d], Zaza Katsarava [a]

[a] Department of Neurology, University Hospital of Essen, Essen, Germany
[b] Department of Neurology, St. Joseph Hospital, Ruhr-University of Bochum, Bochum, Germany
[c] Allergan, Inc, Irvine, CA, USA
[d] Institute for Medical Informatics, Biometry and Epidemiology, University Hospital of Essen, Essen, Germany

Cost of healthcare for patients with migraine in five European countries: results from the International Burden of Migraine Study (IBMS)

J Headache Pain (2012) 13:361–378

L. M. Bloudek · M. Stokes · D. C. Buse · T. K. Wilcox · R. B. Lipton · P. J. Goadsby · S. F. Varon · A. M. Blumenfeld · Z. Katsarava · J. Pascual · M. Lanteri-Minet · P. Cortelli · P. Martelletti



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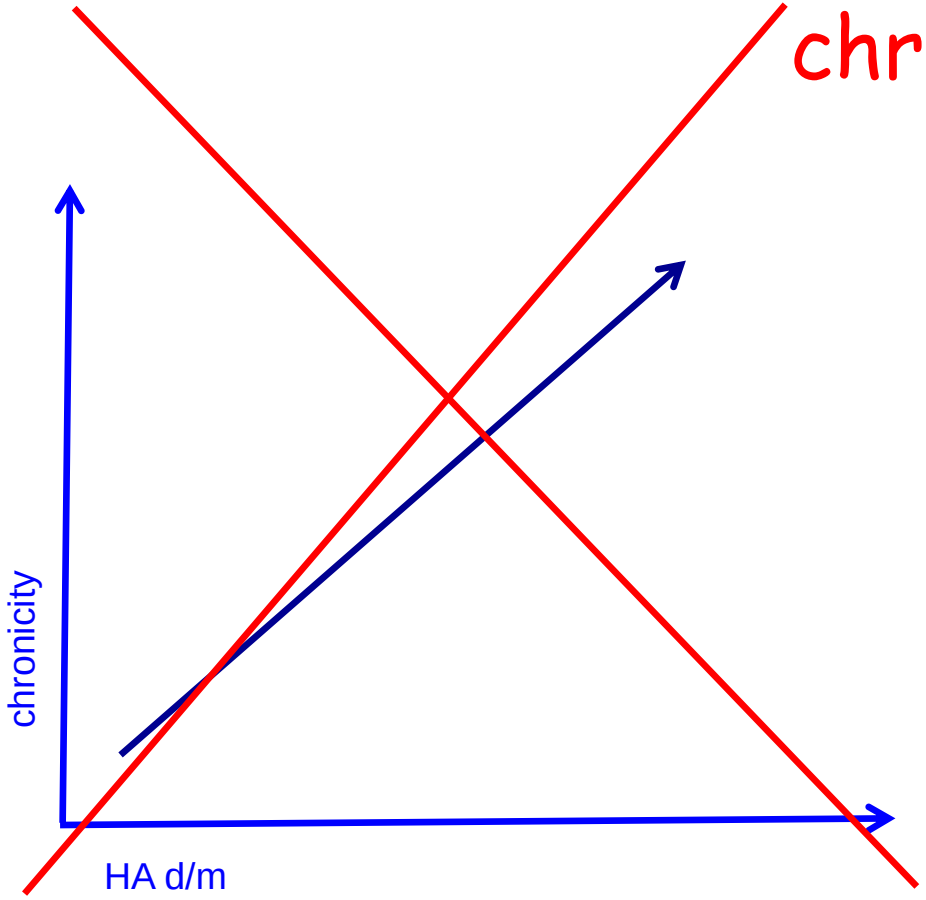
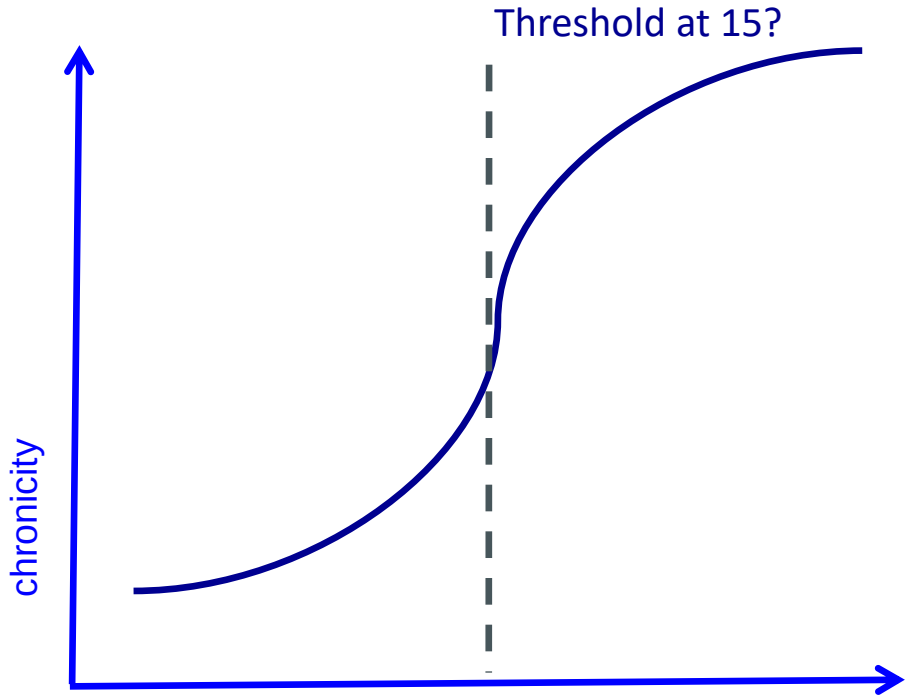
Chronic Migraine

- definitions are more or less restrictive
- different SES
- burden
- comorbidities
- costs

- threshold?

Ep MIG vs. Chron MIG



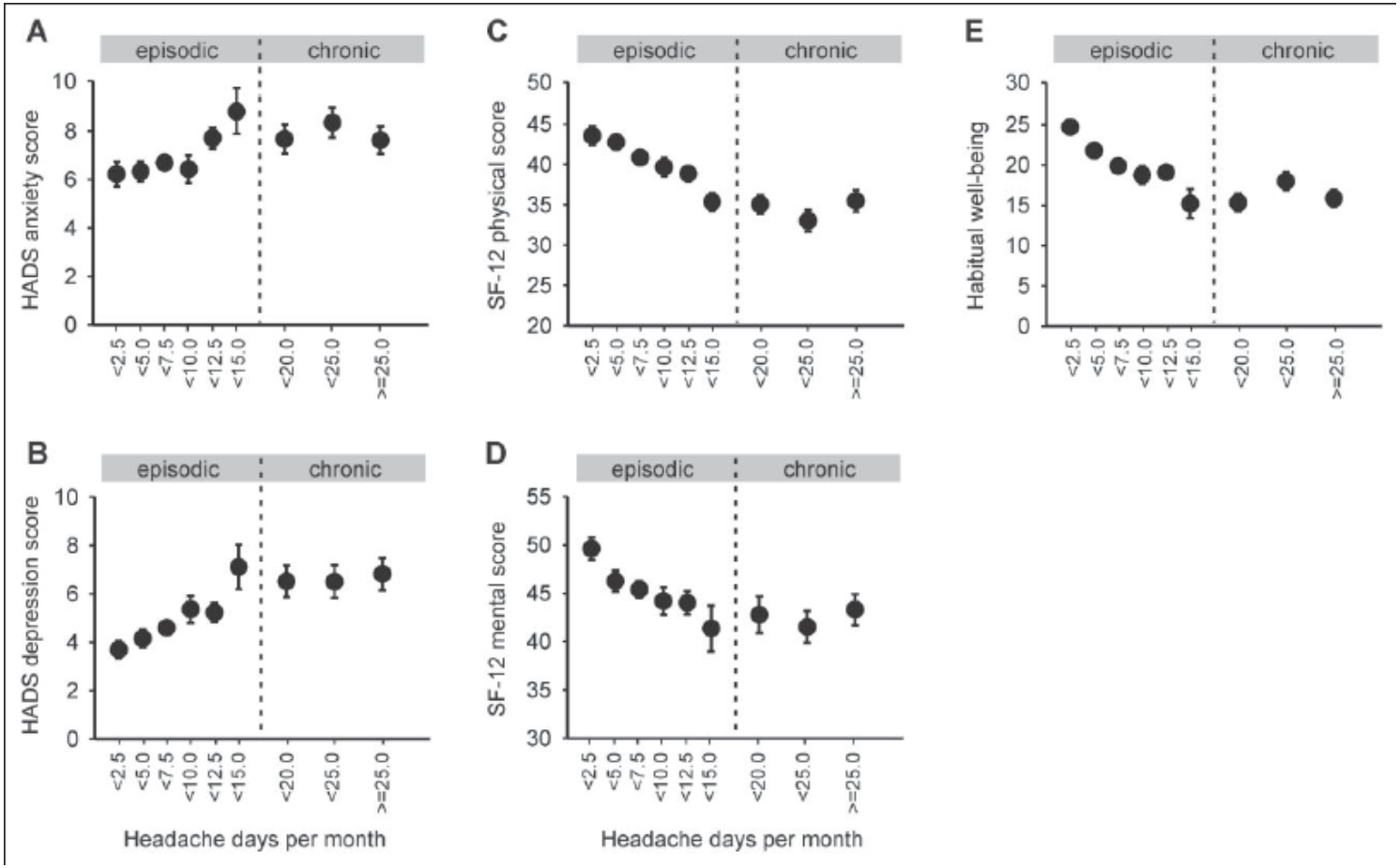


Correlation of Headache Frequency and Psychosocial Impairment in Migraine: A Cross-Sectional Study

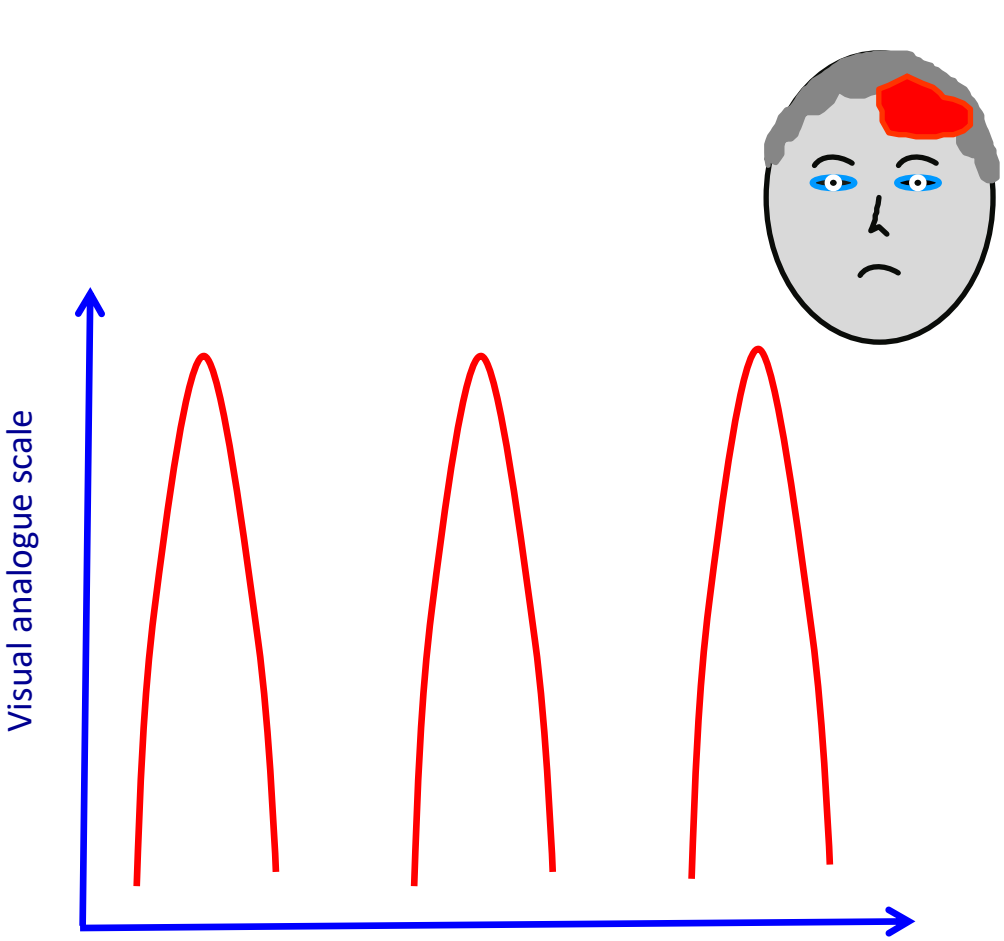
Headache 2014, 54:5 (861-871)

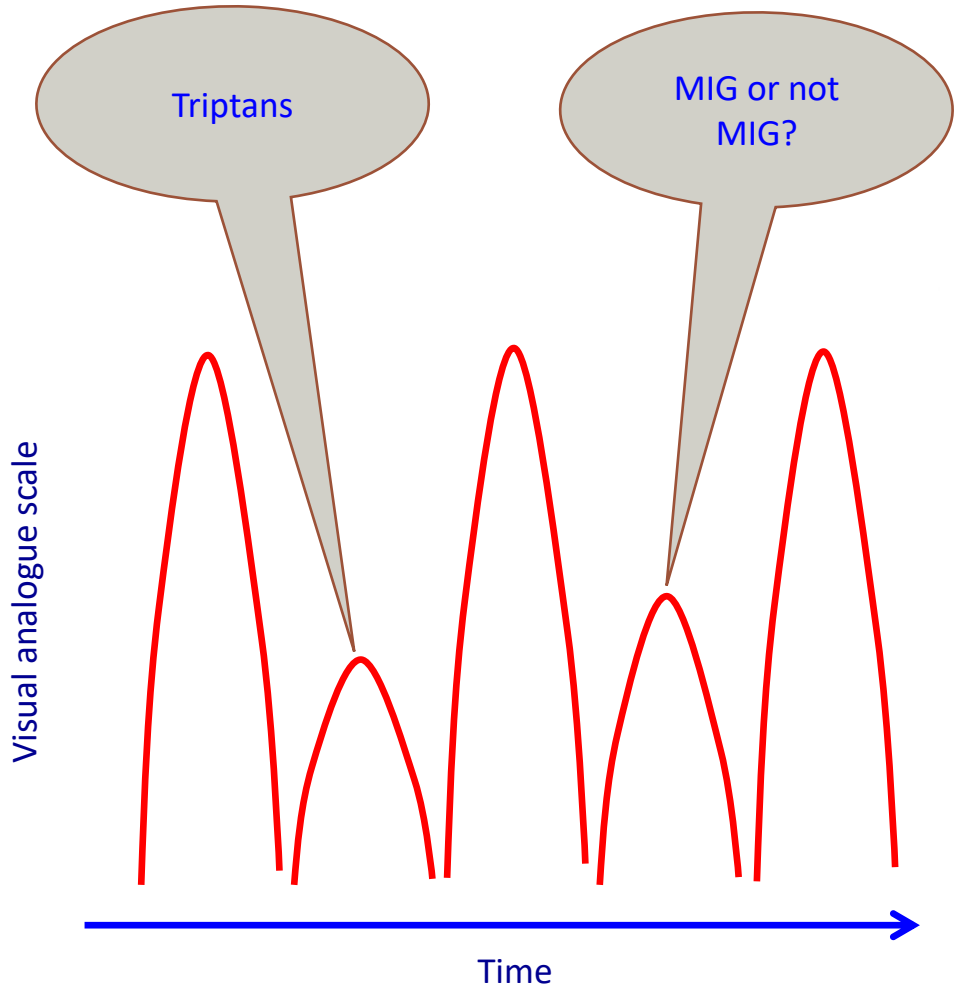
Ruth Ruscheweyh, MD; Melanie Müller, MA; Bernhard Blum, MD; Andreas Straube, MD

- 600 pts
- Outpatient in Munich



Episodic vs. chronic MIG





Several Risk Factors Predict Progression From Episodic to Chronic Headache

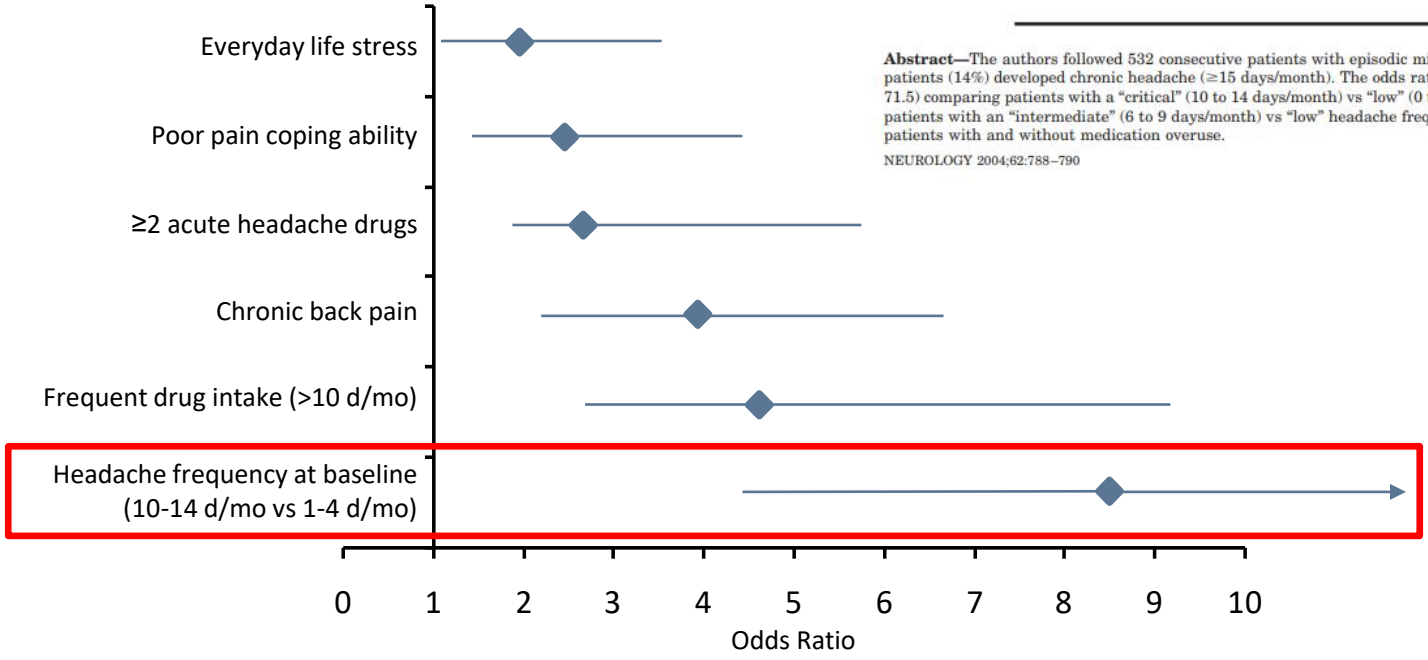
CME

Incidence and predictors for chronicity of headache in patients with episodic migraine

Z. Katsarava, MD; S. Schneeweiss, MD, ScD; T. Kurth, MD, ScD; U. Kroener, BS; G. Fritsche, PhD; A. Eikermann, MD; H.-C. Diener, MD, PhD; and V. Limmroth, MD

Abstract—The authors followed 532 consecutive patients with episodic migraine (<15 days/month) for 1 year. Sixty-four patients (14%) developed chronic headache (≥15 days/month). The odds ratios for developing CH were 20.1 (95% CI 5.7 to 71.5) comparing patients with a "critical" (10 to 14 days/month) vs "low" (0 to 4 days/month) and 6.2 (95% CI 1.7 to 26.6) in patients with an "intermediate" (6 to 9 days/month) vs "low" headache frequency and 19.4 (95% CI 8.7 to 43.2) comparing patients with and without medication overuse.

NEUROLOGY 2004;62:788–790



NEUROLOGY 2004;62:788–790

Several Risk Factors Predict Persistence of Chronic Headache

Original Article

Cephalalgia International Headache Society

Cephalalgia 2018, Vol. 38(3) 551–560 © International Headache Society 2017 Reprints and permissions: sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/0333102417699180 journals.sagepub.com/home/cep SAGE

Remission of chronic headache: Rates, potential predictors and the role of medication, follow-up results of the German Headache Consortium (GHC) Study

Verena Henning[1], Zaza Katsarava[2,3], Mark Obermann[4], Susanne Moebus[1] and Sara Schramm[1]

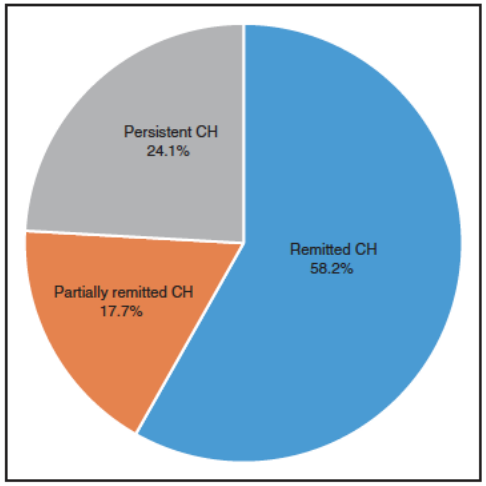


Figure 2. Transition rates relative to chronic headache (CH) status at baseline.
Persistent: CH at baseline and follow-up 1 and 2.
Remitted: CH at baseline and episodic headache criteria : follow-up 1 and 2.
Partially remitted: CH at baseline and episodic headache criter at follow-up 1 or 2.

Table 3. Logistic regression models to identify potential promoting factors for chronic headache (CH) remission.

	Crude OR (95% CI)	Model 1 OR (95% CI)
Remission vs. persistent CH		
Age	0.98 (0.95–1.01)	
Female vs. male	2.29 (1.03–5.10)	3.10 (1.06–9.08)
No medication vs. combination Analgesics	0.96 (0.23–3.89)	
Single analgesics vs. combination analgesics	1.58 (0.43–5.88)	
Headache days/month	0.90 (0.85–0.96)	0.90 (0.84–0.97)
Smoking vs. non-smoking	0.99 (0.45–2.17)	
Drinking vs. non-drinking	0.51 (0.16–1.58)	
Low vs. high education	1.38 (0.57–3.35)	
BMI < 25% vs. BMI ≥ 30%	1.19 (0.38–3.72)	
25 ≥ BMI < 30% vs. BMI ≥ 30%	0.71 (0.23–2.14)	
Medication overuse, no vs. yes	2.15 (0.96–4.81)	4.16 (1.45–11.94)

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CM and EM

- **Epidemiological profiles are different = yes**
- **Burden of CM is much higher = yes**
- **Co-morbidities, many more co-morbidities of CM = yes**
- **Costs, higher costs of CM = yes**

CM is not more EM; it is a qualitative change