



Migraine-App: Education for clinicians and headache sufferers, monitoring of progression and success of migraine- and headache therapy using an application for the Apple's iPad and iPhone

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Aims: Modern information technology and new mobile phone devices (smartphones) allow the portable usage of the internet. Exchange of information and data are constantly possible. The aim was the development of an application (“App”) for Apple’s iPhone providing information about current possibilities for diagnosis and therapy of headache disorders. Headache progression can be documented, stored and evaluated by both the patient and the treating doctor.

Methods: The App provides information, basic guidelines and a glossary for migraine and headache therapy. A pain calendar documents the headache phenotype, the treatment and the efficacy. Treatment statistics are evaluated. Warnings are displayed if the risk for medication overuse headache is high. Headache experts of the national headache treatment network can be localised. The diagnostic criteria of the IHS-classification can be accessed. The practicability of the app in everyday use was examined throughout the development phase.

Quick Entry

The headache calendar was put together to help you monitor the symptoms, the treatment and the impact your migraine or tension type headaches have on your life and to communicate this more effectively. Please try to answer the questions every day in which you suffered from headache.

- Choose the date of the headache attack you wish to enter: 18.06.2011
- What type of headache did you have today?
 - Migraine
 - Tension Type
 - unclear or other
- How long lasted the headache?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

hours per day Enter the number of headache hours or use the slider
- How severe was the headache?
 - None
 - Slight
 - Moderate
 - Severe
 - Very severe
- Did the headache aggravate by physical activity? (e.g. walking or climbing stairs)
 - yes
 - no
- Did you experience nausea or vomiting?
 - yes
 - no
- Did the headache interfere with your usual activity (work, school, leisure)?
 - yes
 - no

Yearly Statistics

2011

Month	Aura	Migraine	Tension Type	Intensity		Duration (hours)		Acute Medication	Efficacy
				Σ	o	Σ	o		
January									
February									
March	1	2		7	3.5	28	14	2	1
April	2	6	3	20	2.22	65	7.22	9	1.22
May	12	11	2	40	3.08	110	8.46	13	2.38
June									
July									
August									

Monthly Statistics

June 2011

Day	Aura	Migraine	Tension Type	Intensity (0,1,2,3,4)	Duration (hours)	Acute Medication	Efficacy (0,1,2,3)
1							
2	A	M		4	1	Maxalt 10 mg	3
3							
4							
5							
6							
7	A	M		4	2	Maxalt 10 mg	3
8	A	M		4	2	Maxalt 10 mg	3
9							
10							

Results: 96% of users judge the practicability of the App as very good. 94% rate the provided basic guidelines for migraine- and headache therapy as very important for an effective treatment. 98% rate the use of the on-line migraine and headache calendar as very useful for the continuous evaluation of therapy success.

Conclusion: Through mobile use of the internet, patients and doctors can continuously document and exchange information and analyse data. The treatment of migraine and headache disorders becomes more transparent and effective for all participants.

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