## **Cluster headache**

Study details	Patients	Interventions	Outcome measures	Effect size	Comments
Ref ID: Dousset et al. 2009 <sup>232</sup> Study design:	Patient group: People aged >15 with cluster headache or migraine	Group 1 – Cluster headache screening questionnaire  Based on 3 most prevalent criteria of ICHD-II for cluster headache: (i) Strictly unilaterality of pain; (ii) Attack duration ≤180 minutes if untreated; (iii) Ipsilateral conjunctival injection, and/or lacrimation.  The questionnaire was formed so that they could be quickly filled out and easily understood. At the end of the visit, the nurse of the headache centre explained the	Sensitivity (%)	All 3 questions: 78.4 Q 1: 94.6 Q2: 91.1 Q3: 89.2 Q2+3: 81.1 Q 1+2: 86.5 Q1+3: 86.5	Funding: NR  Limitations: Original data not reported. Does not specifically say that results were interpreted blind to the other test results — but different assessors completed each.  2x2 table completed:
Validation study (cross-sectional)  Setting: Outpatients headache clinic, France	years, good knowledge of French, an history of episodic or chronic cluster headache or migraine with or without aura for over a year, an history of at least 2 active cluster periods for patients with episodic cluster  of pain; (ii) Attack duration ≤180 minutes if untreated; (iii) Ipsilateral conjunctival injection, and/or lacrimation.  The questionnaire was formed so that they could be quickly filled out and easily understood. At the		Specificity (%)	All 3 questions: 100 Q 1: 44.1 Q2: 91.4 Q3: 82.5 Q2+3: 100 Q 1+2: 94.9 Q1+3: 88.1	
			Positive predictive value (%)	All 3 questions: 100 Q 1: 51.5 Q2: 87.2 Q3: 76.7 Q2+3: 100 Q 1+2: 91.4 Q1+3: 82.1	
		Negative predictive value (%)	All 3 questions: 88.1 Q 1: 92.9 Q2: 94.6 Q3: 92.2 Q2+3: 89.4 Q 1+2: 91.8	No	
	organic causes of headache were excluded through a general and a neurological examination and if needed complementary exams.	Group 2 – ICHD II Diagnosis made by the headache specialist based on the ICHD-II criteria. This included a medical history and examination. The specialist completed a symptom checklist based on IHS criteria and assigned a clinical diagnosis of migraine, cluster headache or probably cluster headache.		<b>Q1+3:</b> 91.2	
	All patients N: 96 Age mean (SD): 41.3 (12.5) F/M: 54/42 Drop outs: 0				

Abbreviations: NR=not reported, NA=not applicable, M/F=male/female, N=total number of patients randomised, SD=Standard deviation, SE=Standard error, CI=Confidence interval, ICHD II=2nd edition of the International Classification of Headache Disorders

Study details	Patients	Interventions	Outcome measures	Effect size	Comments
Ref ID: Torelli et al 2005 <sup>794</sup> Study design: Validation study  Setting: Outpatients headache centre, Italy	Patient group: Aged over 14 with migraine, tension type headache or cluster headache  Inclusion criteria: Age 14 years; Good knowledge of Italian; A history of migraine with or without aura, episodic or chronic tension type headache, or chronic cluster headache for over a year; and a history of at least two active cluster periods for patients with episodic cluster headache.  Exclusion criteria: Possible organic causes of headache were excluded through a general and a neurological examination and, if needed, through instrumental tests.  All patients N: 71 Age (mean): 37.5 (15.1) F/M: 32/39 (45.1/54.9%) Drop outs: 0	Group 1 – Cluster headache screening questionnaire Consisted of 16 questions to be answered as 'yes' 'no or 'don't know'. Full questionnaire is available in study. It was designed to be self-administered, easily understood and quick to fill out. At the end of their visit, a diagnosis-blind neurologist explained the objective of the study and they were asked to fill out the questionnaires unaided.  Group 2 – IHS criteria Initially the 1988 IHS criteria were used, however the second edition (the ICHD-II) was publicised while the study was under- way. All diagnoses established according to 1988 criteria were reviewed applying the 2004 criteria.	Specificity	Excrutiating pain: 100 Unilaterality: 100 Location of pain: 100 Conjunctival injection: 63.3 Lacrimation: 80.0 Nasal congestion: 63.3 Rhinorrhea: 70.0 Restlessness: 90.0 Duration of attacks: 100 Frequency of attacks: 73.3 Attacks for at least 7 days: 96.7 Attacks at fixed hours: 63.3 Night attacks: 63.3 Remission periods: 56.7 Use of preventive treatment: 66.7 Excrutiating pain: 34.1 Unilaterality: 61.0 Location of pain: 58.5 Conjunctival injection: 90.2 Lacrimation: 75.6 Nasal congestion: 90.2 Restlessness: 92.7 Duration of attacks: 73.2 Attacks for at least 7 days: 68.3 Attacks at fixed hours: 78.0 Night attacks: 78.0 Remission periods: 95.1 Use of preventive treatment: 97.6	Funding: Glaxo Smith Klein  Limitations: Original data not reported.  Additional outcomes: Diagnostic outcomes for episodic cluster headache and chronic cluster headache. This seems to be a posthoc analysis. Not included here.  Notes: Full questionnaire available in publication  2x2 table completed: No

Positive predictive	Excrutiating pain: 52.6	
value	Unilaterality: 65.2	
	Location of pain: 63.8	
	Conjunctival injection: 82.6	
	Lacrimation: 70.6	
	Nasal congestion: 82.6	
	Rhinorrhea: 84.0	
	Restlessness: 90.0	
	Duration of attacks: 88.2	
	Frequency of attacks: 66.7	
	Attacks for at least 7 days: 69.0	
	Attacks at fixed hours: 67.9	
	Night attacks: 67.9	
	Remission periods: 89.5	
	Use of preventive treatment: 95.2	
Negative		
Negative predictive value	Excrutiating pain: 100	
_	Excrutiating pain: 100 Unilaterality: 100	
_	Excrutiating pain: 100 Unilaterality: 100 Location of pain: 100	
_	Excrutiating pain: 100 Unilaterality: 100 Location of pain: 100 Conjunctival injection: 77.1	
_	Excrutiating pain: 100 Unilaterality: 100 Location of pain: 100 Conjunctival injection: 77.1 Lacrimation: 83.8	
_	Excrutiating pain: 100 Unilaterality: 100 Location of pain: 100 Conjunctival injection: 77.1 Lacrimation: 83.8 Nasal congestion: 77.1	
_	Excrutiating pain: 100 Unilaterality: 100 Location of pain: 100 Conjunctival injection: 77.1 Lacrimation: 83.8 Nasal congestion: 77.1 Rhinorrhea: 80.4	
_	Excrutiating pain: 100 Unilaterality: 100 Location of pain: 100 Conjunctival injection: 77.1 Lacrimation: 83.8 Nasal congestion: 77.1 Rhinorrhea: 80.4 Restlessness: 92.7	
_	Excrutiating pain: 100 Unilaterality: 100 Location of pain: 100 Conjunctival injection: 77.1 Lacrimation: 83.8 Nasal congestion: 77.1 Rhinorrhea: 80.4 Restlessness: 92.7 Duration of attacks: 100	
_	Excrutiating pain: 100 Unilaterality: 100 Location of pain: 100 Conjunctival injection: 77.1 Lacrimation: 83.8 Nasal congestion: 77.1 Rhinorrhea: 80.4 Restlessness: 92.7 Duration of attacks: 100 Frequency of attacks: 78.9	
_	Excrutiating pain: 100 Unilaterality: 100 Location of pain: 100 Conjunctival injection: 77.1 Lacrimation: 83.8 Nasal congestion: 77.1 Rhinorrhea: 80.4 Restlessness: 92.7 Duration of attacks: 100 Frequency of attacks: 78.9 Attacks for at least 7 days: 96.6	
_	Excrutiating pain: 100 Unilaterality: 100 Location of pain: 100 Conjunctival injection: 77.1 Lacrimation: 83.8 Nasal congestion: 77.1 Rhinorrhea: 80.4 Restlessness: 92.7 Duration of attacks: 100 Frequency of attacks: 78.9 Attacks for at least 7 days: 96.6 Attacks at fixed hours: 74.4	
_	Excrutiating pain: 100 Unilaterality: 100 Location of pain: 100 Conjunctival injection: 77.1 Lacrimation: 83.8 Nasal congestion: 77.1 Rhinorrhea: 80.4 Restlessness: 92.7 Duration of attacks: 100 Frequency of attacks: 78.9 Attacks for at least 7 days: 96.6 Attacks at fixed hours: 74.4 Night attacks: 74.4	
_	Excrutiating pain: 100 Unilaterality: 100 Location of pain: 100 Conjunctival injection: 77.1 Lacrimation: 83.8 Nasal congestion: 77.1 Rhinorrhea: 80.4 Restlessness: 92.7 Duration of attacks: 100 Frequency of attacks: 78.9 Attacks for at least 7 days: 96.6 Attacks at fixed hours: 74.4	

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