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[Link to publication](#)

Citation for published version (APA):

van der Meer, H. A., Visscher, C. M., Vredeveld, T., Nijhuis-van der Sanden, M. W. G., Engelbert, R. H. H., & Speksnijder, C. M. (2019). *The diagnostic accuracy of headache measurement instruments: a systematic review and meta-analysis focusing on headaches associated with musculoskeletal symptoms*. Poster session presented at American Academy for Orofacial Pain (AAOP) Scientific Meeting , San Diego, United States.

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The Diagnostic Accuracy of Headache Measurement Instruments: A Systematic Review and Meta-Analysis focusing on Headaches associated with Musculoskeletal Symptoms

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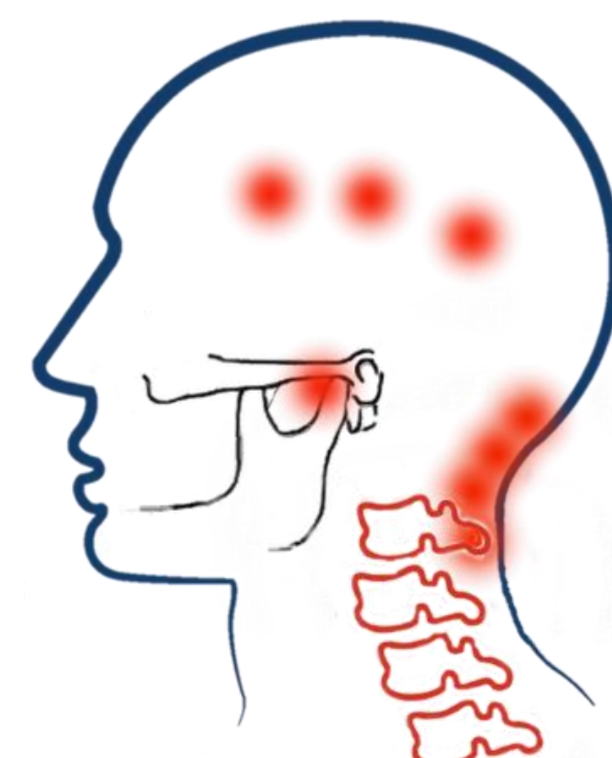
AIM

To systematically review the available literature on the diagnostic accuracy of questionnaires and measurement instruments for headaches associated with musculoskeletal factors.

Headaches in this review:

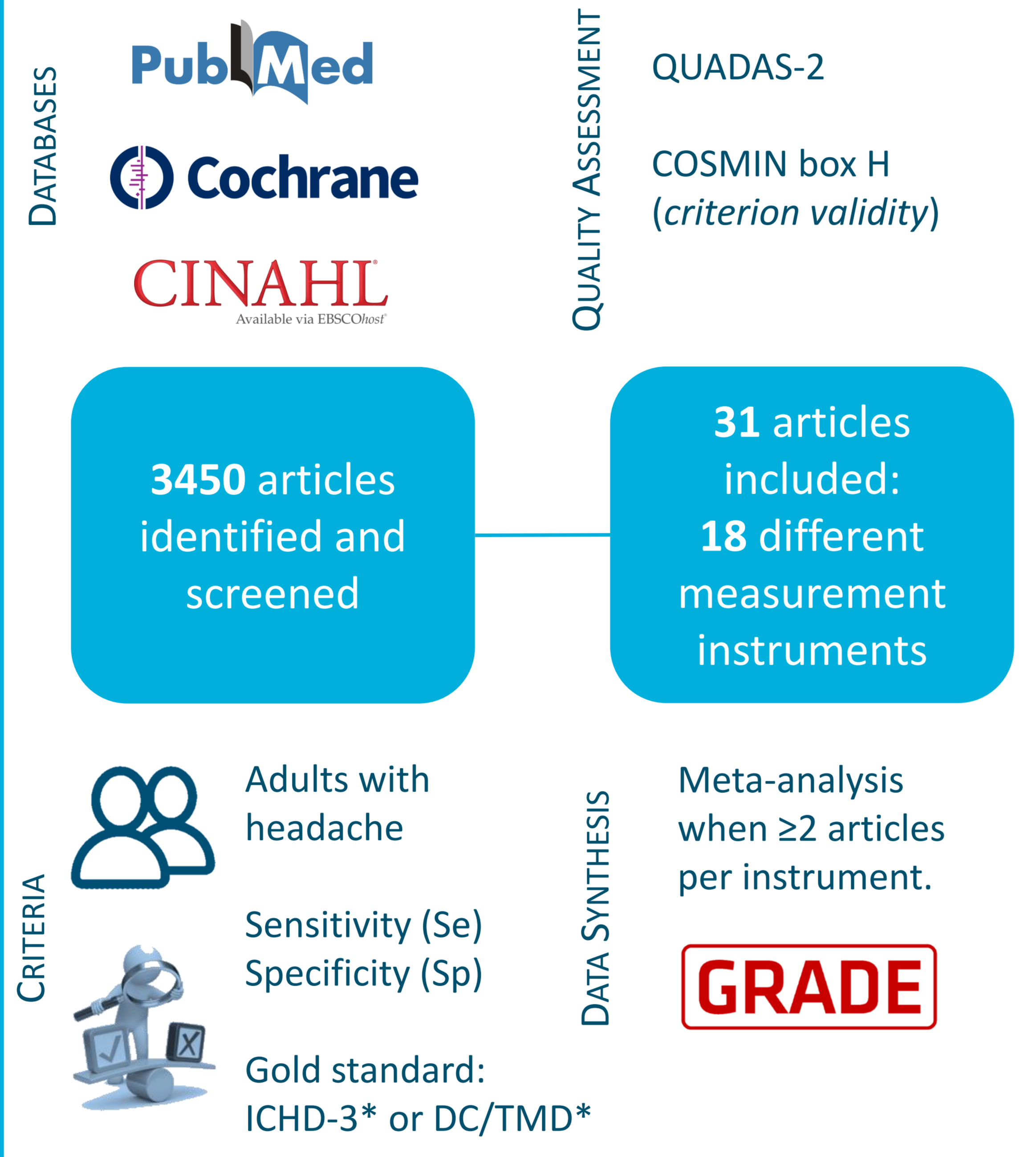
- ❖ migraine;
- ❖ tension-type headache (TTH);
- ❖ cervicogenic headache (CGH);
- ❖ headache attributed to TMD (HATMD);
- ❖ headache attributed to whiplash.

- Associated with musculoskeletal factors:
- ✓ Decreased muscle function
 - ✓ Limited range of motion
 - ✓ Trigger points



Registration: PROSPERO (CRD42017062472)

METHODS



RESULTS

- No instruments for HATMD or headache attributed to whiplash.
- Se: Sensitivity; Sp: Specificity; M: Migraine; T: TTH

Migraine + TTH

German Headache Q
2 studies

Se 69%(M), 81%(T);
Sp 90%(M), 96%(T)
⊕⊕○○

Headache Screening Q (HSQ; 1 study)

Se 69%(M), 36%(T);
Sp 90 (M), 86%(T)
⊕⊕⊕○

CGH

Cervical Flexion Rotation Test (CFRT) 2 studies

Se 83%; Sp 82%
⊕○○○

Migraine

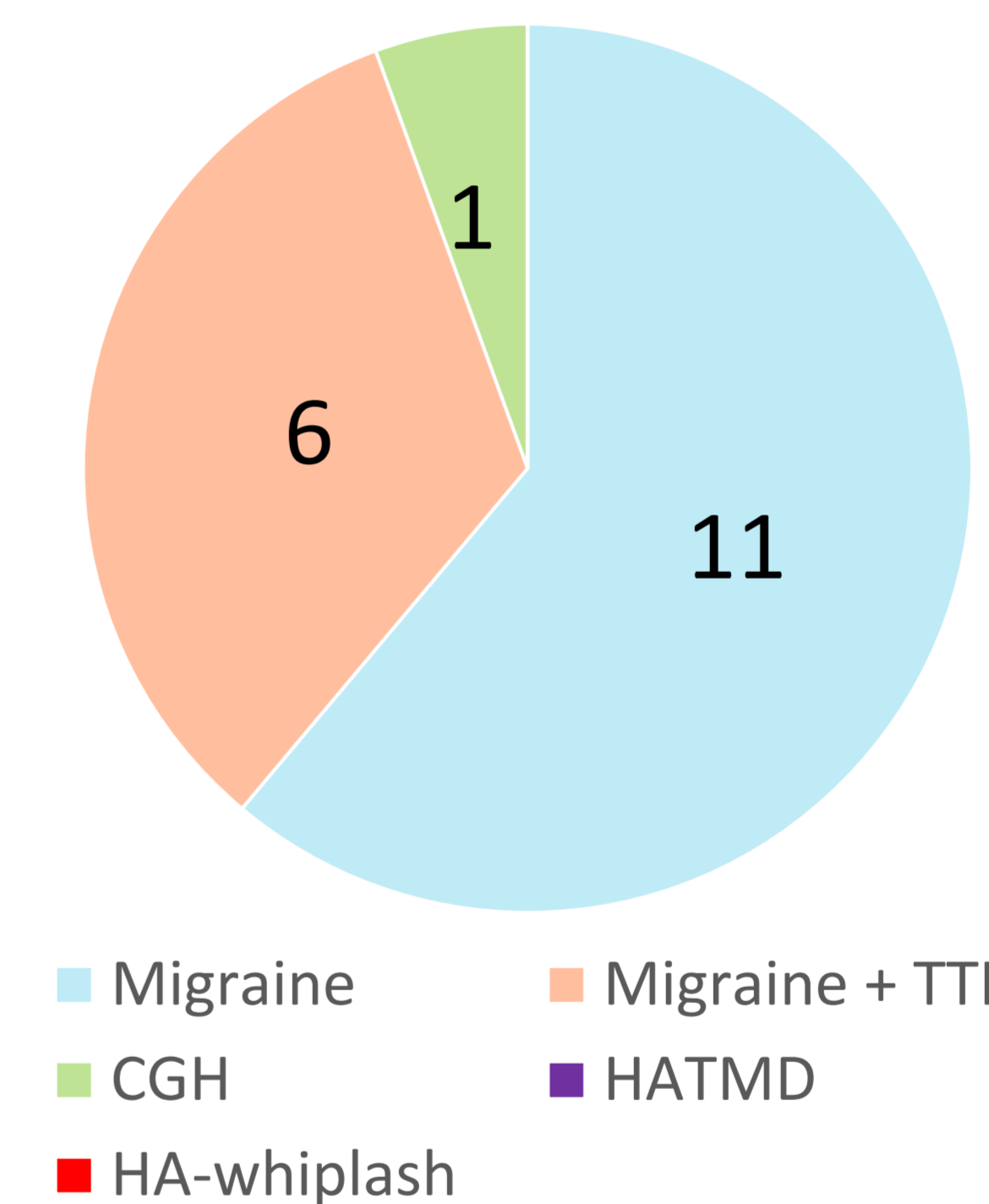
ID-Migraine
9 studies

Se 87%; Sp 75%
⊕⊕⊕○

3 Question Screen
2 studies

Se 73%; Sp 93%
⊕⊕○○

Number of measurement instruments in this review per headache type:



TAKE HOME MESSAGE

- ✓ For migraine, the ID-Migraine is recommended (moderate level of certainty)
- ✓ For **migraine & TTH**, the HSQ is recommended (moderate level of certainty)
- ✓ For **CGH**, the CFRT is recommended (very low level of certainty)
- ✓ No measurement instruments available for headache attributed to TMD and whiplash trauma

References included studies:



***ICHD-3**: International Classification for Headache Disorders
***DC/TMD**: Diagnostic Criteria for Temporomandibular Disorders

Funding:
NWO
Netherlands Organisation for Scientific Research

This paper has been accepted for publication in *Cephalalgia*

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