

The development of clinical prediction guides requires reproducible decision-making outputs: a field study

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KEY WORDS

Decision-making; quality assurance; health care; guidelines; clinical practice rule; evidence based decision making

SUMMARY

Background: *The decisions taken by occupational physicians (OPs) generally show low reproducibility and reflect some uncertainties linked to the decision making process.* **Aim:** *The aim of the study was to evaluate the variability of different OP decisions in order to assess their reproducibility, which is regarded as a quality factor of the professional practice.* **Methods:** *4 OPs examined the records of 100 selected hospital workers with impaired health conditions in order to take decisions about job fitness, advice to workers, referral to clinical physician, need for further investigations, report of occupational disease and recommendation for the general practitioner. The variability of inter-individual decision was measured by percent agreement and Cohen's kappa test.* **Results:** *After accounting for variability expected by chance, the agreement among decisions on job fitness ranged from fair to substantial, but high variability was observed for most other assessments.* **Conclusion:** *The observed inter-individual variability for some decisions taken by different OPs represents a crucial aspect to be dealt with, as the reproducibility of medical decisions is indispensable for the clinical prediction guides to be built and adopted for improving the practice.*