THE HAND ARM RISK ASSESSMENT METHOD (HARM), CONTINUED DEVELOPMENT

DOUWES M., DE KRAKER H.

TNO Quality of Life, Hoofddorp, The Netherlands

Aims:
A practical tool was developed for risk assessment of developing complaints of the arm, neck or shoulders during manual tasks. This tool, named 'Hand Arm Risk assessment Method' (HARM), is freely available as both paper and web application and can be used by any organization, without training or ergonomic expertise. In this paper the development of the tool from 2007 up till now and plans for the future will be described.

Methods:
In 2007 we started the development by defining risk factors from epidemiological studies. Then we studied existing methods and compared them to the criteria we had defined. The Key Indicator Method for Manual Operations (KIM MO) of Steinberg et al. (2007) met our criteria best. Based on literature and expert opinions adjustments were made to the KIM MO, mainly to elaborate the postural factors. The first paper prototype of the tool was tested in ten companies, improved and transformed into a web application.

In 2008 we tested the inter tester reliability and the (concurrent) validity of the tool. For this study we compared the results of HARM when used to evaluate five tasks by 11 users from companies with the results of HARM when used by experts, who actually measured the risk factors. The reliability was tested by comparing the results of the 11 users.

Results:
The validity and reliability results varied between tasks and were used to improve the tool. Some results indicated that more explanation was needed for the user of HARM. Therefore, we developed an instruction video (in 2009). This video was developed by a professional director and actors. In the video the overall purpose of the method and all steps are clearly explained, using three different tasks as an example. It also shows how to collect the data that are needed and how to fill in these data in the tool.

Conclusion:
The HARM appears to serve its purpose well and has therefore been made available to all companies. In 2011-2014 the predictive validity of the improved tool will be studied. Moreover, an implementation plan will be developed for all tools that are available and feedback from companies and occupational health officers in the field who have used the method will be collected and studied to improve the contents and usability.

Keywords: Exposure measurement methods, Early prevention.

Reference:
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