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# Automated Manual Handling Risk Assessments: Practitioner Experienced Determinants of Automated Risk Analysis and Reporting Being a Benefit or Distraction

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**Abstract :** Technology that automates manual handling (musculoskeletal disorder or MSD) risk assessments is increasingly available to ergonomists, engineers, generalist health and safety practitioners alike. The risk assessment process is generally based on the use of wearable motion sensors that capture information about worker movements for real-time or for posthoc analysis. Traditionally, MSD risk assessment is undertaken with the assistance of a checklist such as that from the SafeWork Australia code of practice, the expert assessor observing the task and ideally engaging with the worker in a discussion about the detail. Automation enables the non-expert to complete assessments and does not always require the assessor to be there. This clearly has cost and time benefits for the practitioner but is it an improvement on the assessment by the human. Human risk assessments draw on the knowledge and expertise of the assessor but, like all risk assessments, are highly subjective. The complexity of the checklists and models used in the process can be off-putting and sometimes will lead to the assessment becoming the focus and the end rather than a means to an end; the focus on risk control is lost. Automated risk assessment handles the complexity of the assessment for the assessor and delivers a simple risk score that enables decision-making regarding risk control. Being machine-based, they are objective and will deliver the same each time they assess an identical task. However, the WHS professional needs to know that this emergent technology asks the right questions and delivers the right answers. Whether it improves the risk assessment process and results or simply distances the professional from the task and the worker. They need clarity as to whether automation of manual task risk analysis and reporting leads to risk control or to a focus on the worker. Critically, they need evidence as to whether automation in this area of hazard management leads to better risk control or just a bigger collection of assessments. Practitioner experienced determinants of this automated manual task risk analysis and reporting being a benefit or distraction will address an understanding of emergent risk assessment technology, its use and things to consider when making decisions about adopting and applying these technologies.

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