

Prognostic models for identifying risk of poor outcome in people with acute ankle sprains: the SPRAINED development and external validation study

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Plain English summary

The SPRAINED development and external validation study

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Plain English summary

Sprains of the ankle joint ligaments are very common injuries. Most people recover within a few weeks but up to one in three people have a poor outcome. A poor outcome includes problems such as ongoing pain, difficulties moving about, lack of confidence and further sprains. It is challenging to work out who will recover and who will not because, when people come into emergency departments (EDs) for assessment, the ankle is often so sore that the patient cannot tolerate a thorough examination.

We developed a tool to help predict who is at greater risk of a poor outcome. A tool like this would be useful as it would have the potential to assist clinical decision-making and could help identify the people with an acute ankle sprain who could benefit from rehabilitation and monitoring.

The tool takes into account participant characteristics, such as age, and injury characteristics, such as the severity of pain reported. The tool had good accuracy among a group of participants who had been involved in a clinical trial. To see how the tool performed in another group of participants, we recruited 682 participants from 10 EDs in the UK. We collected information on the participant and injury characteristics when the participant attended the ED and again 9 months afterwards. The research indicated that the tool has moderate ability to predict what will happen in the future. There are limitations to the accuracy of the predictions of the tool. However, our analyses suggest that using the tool is better than the scenario of not using a tool to identify people at risk of a poor outcome after ankle sprain.

To make use of the tool in clinical settings, it would benefit from being set up on a web-based application or a similar mobile platform to enable clinicians to enter information about a patient and obtain a calculated risk score. The prediction tool could also be improved by further research to see how well it performs in routine clinical care and in other settings.

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