Digital and online symptom checkers and assessment services for urgent care to inform a new digital platform: a systematic review

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Plain English summary

Digital/online symptom checkers for urgent care

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Plain English summary

NHS England is planning to introduce a ‘digital 111’ service alongside the existing NHS111 urgent-care telephone service. This will allow people to use a website or smartphone app to find out information about a health problem. The new digital 111 service will be like a ‘symptom checker’ to provide possible diagnoses and suggest a course of action (e.g. self-care, arrange a general practitioner appointment or go to an emergency department). During the research study, we looked for other research on these types of online or digital services that are designed to assess symptoms, provide health advice and direct patients to appropriate services for urgent health problems.

We found 29 relevant publications. There was little evidence to suggest whether symptom checkers are safe or unsafe, and studies evaluating their safety were generally short term and small scale. Symptom checkers were found to be generally less accurate than health professionals, although their performance in studies was variable. Symptom checkers tended to be more cautious in their advice than health professionals. There was some indication that symptom checkers can influence the demand for urgent-care services, but results were inconsistent. There was very limited evidence on patients’ reactions to advice from symptom checkers, including information regarding whether or not patients follow the advice.

The studies showed that younger and more highly educated people were more likely to use these services, and women used them more than men. Patients were generally satisfied with digital services, although results came mainly from studies that were not of the highest quality.

The research we found indicates that there is limited knowledge regarding the probable impact of digital 111 services. Findings about patient satisfaction suggest that, once introduced, the use of digital services may increase rapidly. It will be important, therefore, to monitor and evaluate these services using all available data sources and through high-quality research.
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This report

The research reported here is the product of an HS&DR Evidence Synthesis Centre, contracted to provide rapid evidence syntheses on issues of relevance to the health service, and to inform future HS&DR calls for new research around identified gaps in evidence. Other reviews by the Evidence Synthesis Centres are also available in the HS&DR journal. The research reported in this issue of the journal was funded by the HS&DR programme or one of its preceding programmes as project number 16/47/17. The contractual start date was in April 2018. The final report began editorial review in June 2018 and was accepted for publication in October 2018. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HS&DR editors and production house have tried to ensure the accuracy of the authors’ report and would like to thank the reviewers for their constructive comments on the final report document. However, they do not accept liability for damages or losses arising from material published in this report.

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