European Journal of Case Reports in Internal Medicine

The STRIPassistant: a Digital Tool to Optimize Polypharmacy

Paul A. F. Jansen[1], Wilma Knol[1], Michiel M. Meulendijk[1,2] Marco Spruijt[2]
[1]Expertise Centre Pharmacotherapy in Old Persons (Ephor) and Geriatric Department, UMC Utrecht, the Netherlands;
[2]Department of Information and Computing Sciences, Utrecht University, the Netherlands.

Doi: 10.12890/2015_S1SP02 - European Journal of Case Reports in Internal Medicine - © EFIM 2015

Received: 30/06/2015
Accepted: 19/09/2015
Published: 24/09/2015

How to cite this article: Jansen PAF, Knol W, Meulendijk MM, Spruijt M. The STRIPassistant: a digital tool to optimize polypharmacy. *EJCRIM 2015*;**2**:DOI: 10.12890/2015_S1SP02

Conflicts of Interests: The authors declare that they have no conflicts of interest in this research.
Acknowledgements: This abstract has been presented as a lecture at 2nd International Seminar REPOSI: Targeting the burden of polypharmacy in the elderly (Milan, 24-25 Semptember 2015).

BACKGROUND

The Structured Tool to Reduce Inappropriate Prescribing (STRIP) is a method to perform a medication review. Part of this method is the pharmaceutical analysis that is digitalized into the STRIPassistant (demo: www.ephor.eu). The effectiveness and time-efficiency of the STRIPassistant will be presented.

METHODS

Two cases of complex polypharmacy were optimized by an expert panel. For case A, 17 appropriate decisions had to be made and for case B in total 20. General practitioners (GPs) were asked to optimize case A as usual care. The instruction was available on a website. Next they were shown a short video explaining the use of the STRIPassistant and were asked to optimize the medication of case B. A paired t-test was used.
In another study, the time efficiency over a longer period was investigated. Teams of a GP and a pharmacist conducted 261 medication reviews with the STRIPassistant on patients in 13 general practices located in Amsterdam, the Netherlands. An independed t-test was used.

RESULTS

43 GPs performed the optimization of the two cases. The number of appropriate decisions in case A was at mean 9.7, SD=2.2, and for case B 15.3, SD=2.1(p=.000). In comparison to the expert panel, the proportion of appropriate decisions increased from 58% with usual care to 76% with the STRIPassistant. No statistically significant difference between the numbers of harmful decisions was observed. The harmful decisions could partly be attributed to unfamiliarity with the STRIPassistant.
The time-efficacy study showed that the time users spent during the first half of the medication reviews was at mean 15.70 minutes, SD=8.81, and the second half at mean 10.67 minutes, SD=5.21(p=.000).

CONCLUSION

The STRIPassistant is an effective tool to improve appropriate prescribing. The amount of time users needed to perform similar tasks decreased significantly as they gained experience over time.