

The Prescribing Optimization Method is effective in medical students



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Introduction

Although junior doctors feel unprepared for prescribing in clinical practice, evidence based education on the topic polypharmacy is lacking.¹ The prescribing optimization method (POM) is proven to be effective in physicians.²

Aim

To study the effectiveness of the POM on medical students' skills in optimising polypharmacy

Methods

- RCT with pre- and post-test design
- University of Utrecht and University of Amsterdam
- Within intervention group:
 - e-learning programme Pscribe³ (50%) or
 - non-e-learning (50%)
- 2 case descriptions with polypharmacy
- Instruction for students: "could you optimise this medication list?"
- All regular internet sources available (e.g. guidelines)

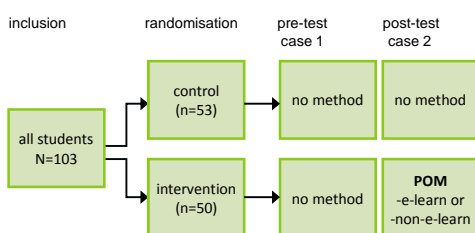


Figure 1. Study design

- Students' results of optimisation were compared to an expert model
 - correct decisions (n)
 - potentially harmful decisions (n)
- Analyses: repeated measurement linear model with t-tests as posthoc analyses

Conclusion

- The Prescribing Optimization Method improves medical students skills in optimising polypharmacy:
 - A 33 % increase of correct decisions
 - A 30 % reduction of potentially harmful decisions
- The e-learning and non-e-learning environment are equally effective
- The method can be used without prior explanation of the method

Results

Baseline: 103 students were included: 51 from Utrecht, 52 from Amsterdam (68% female, median age 25 (23-40)).

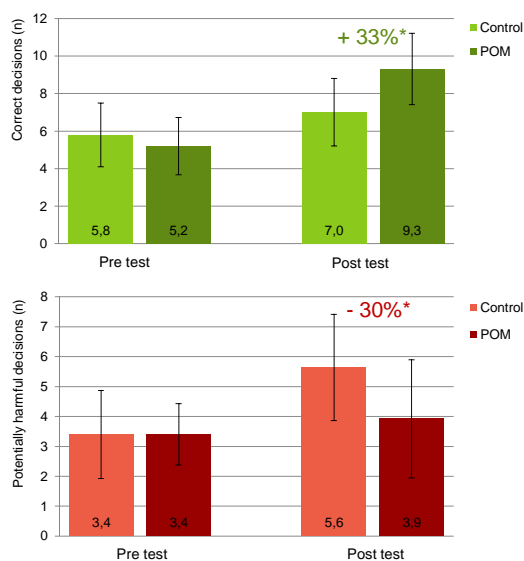


Figure 2. Results of students' optimizations in pre- and post-test, without and with intervention (POM). *Correct decisions $p < 0.05$, potentially harmful decisions $p < 0.05$

Non-e-learning and e-learning were equally effective on both correct as potentially harmful decisions ($p = 0.498$, $p = 0.547$ resp)



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References

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3. Van Doorn ABD et al. Basic Clin Pharmacol Toxicol, 2007, 105 (Suppl. 1), 53