Assessing the Impact of Online Simulated Prescribing on Medical Students' Confidence in Geriatric Prescribing

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Introduction

Prescribing for older adults is complex due to frailty, multimorbidity, altered pharmacokinetics, and high risk of adverse drug reactions. Newly graduated doctors write most inpatient prescriptions but often feel underprepared, with error rates up to 10% (Nazar et al., 2015). Simulated prescribing platforms, such as Better Meds, offer a safe, realistic environment to practice. We designed progressive tutorials within geriatrics placement to address prescribing challenges in delirium and polypharmacy.

Year 3

Twenty students during their 'delirium week' managed a case of a simulated 73-year-old with a neck of femur fracture. Using Better Meds, they prescribed perioperative medications including analgesia and VTE prophylaxis, adjusting for delirium risk factors as the case progressed, focussing on opioid prescribing, dehydration, and post-operative infection risk.

Method

Two cohorts of medical students participated. Neither group had experience with the simulated prescribing platform. Students completed pre- and post-session confidence ratings (1–5 Likert scale) across domains including drug identification, dosing, interactions, use of resources, allergy checking, and escalation. Free-text feedback was collected.

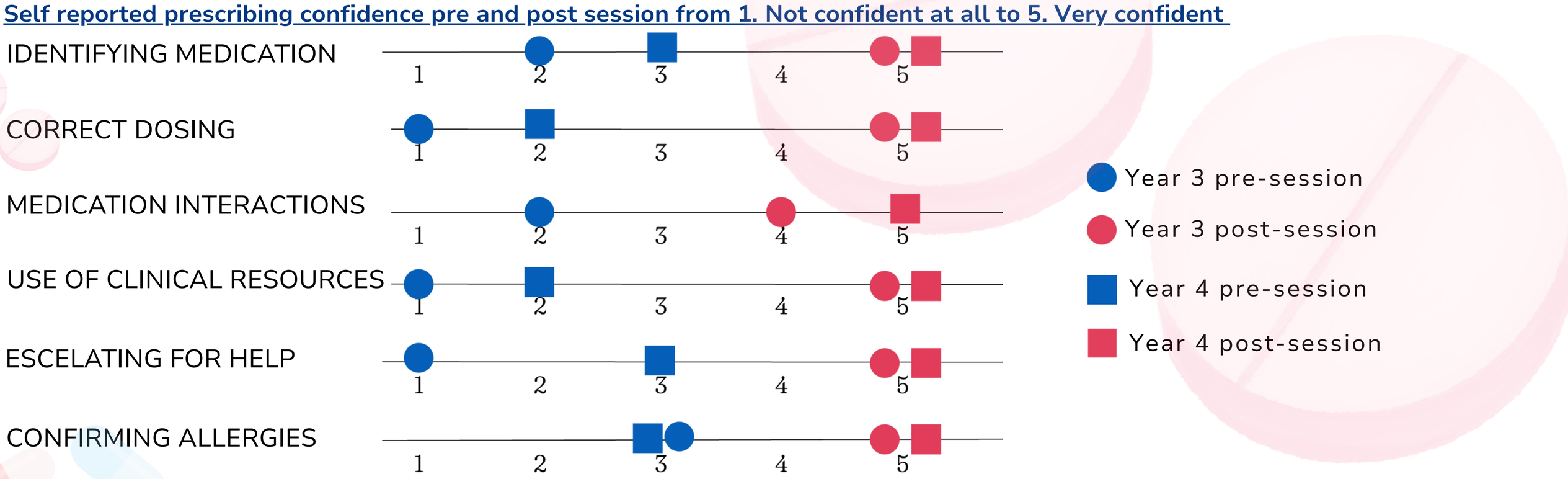
Year 4

Twenty students during their 'frailty week' worked through a polypharmacy case in the Emergency Department. They prescribed regular medications, explored deprescribing using STOPP/START criteria, reviewed interactions and side effects, and calculated anticholinergic burden.

Results

All reported at least a two-point confidence increase. Year 3 students, starting with lower baseline confidence, demonstrated the greatest improvement. Year 4 students described the sessions as more challenging and realistic, reflecting the pressures of prescribing as resident doctors. Free-text feedback valued the realism, safe environment, and dynamic case progression. 75% of students reported this was the first time they were able to prescribe independently and reduced anxiety around prescribing after graduation.

Self reported prescribing confidence pre and post session from 1. Not confident at all to 5. Very confident



Conclusion

Simulated e-prescribing improved confidence and competence, particularly for Year 3 students. Embedding such tools within geriatrics teaching promotes safer prescribing practices with potential to reduce medication-related harm.

References

1. Nazar H, Nazar M, Rothwell C, Portlock J, Chaytor A, Husband A. Teaching safe prescribing to medical students: perspectives in the UK. Adv Med Educ Pract. 2015 Apr 17;6:279-95. doi: 10.2147/AMEP.S56179. PMID: 25945072; PMCID: PMC4408958.

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