SCRIPT eLearning for Prescribing and Therapeutics: impact on knowledge, skills and patient safety

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Aim: To determine the perceived impact of the SCRIPT eLearning on Foundation trainee prescribing competency and medication prescribing errors.

Objective: To conduct an online questionnaire disseminated to all regional Foundation trainees.

Introduction: An estimated 500,000 prescriptions are generated daily in the UK secondary care setting and the majority of these are prescribed by junior doctors. The EQUIP study (2009) recommended that education in practical prescribing should be part of foundation training. SCRIPT is a web-based eLearning programme mandated throughout the West Midlands for both F1 and F2 doctors. It aims to improve prescribing knowledge and skills in order to reduce medication errors.

Method: In July 2013, a web-based questionnaire comprising 15 open and closed questions was emailed to all 1278 F1 and F2 trainees in the West Midlands. The evaluation was timed to ensure that replies could be received from trainees who had completed all or half of the mandated modules over the 2-year Foundation programme. The responses were downloaded from SurveyMonkey®; answers to closed questions were analysed quantitatively and descriptive analysis used for comments from open questions.

Results: A total of 320/1278 registered Foundation trainees responded to the survey (25.0%). In the first part of the survey we asked Foundation trainees how prepared they felt to prescribe on completion of their medical degree. Respondents reported that they felt *'Very prepared'* (n=17, 5.3%) or *'Reasonably prepared' (*n=159, 49.7%), with 12.2% (n=39) stating they did *'Not feel prepared at all'*. When subsequently asked if there were any medicines they were particularly concerned about prescribing on their first day of practice, 74.4% (n=238) of respondents answered *'Yes'*. When asked for further information about this, 61 different drugs or drug classes were named, the top three being anticoagulants (n=67, 22.5%), opioid analgesics (n=44, 14.8%) and medicines for diabetes (n=36, 12.1%). Over three quarters of respondents indicated SCRIPT had positively impacted on their prescribing knowledge (*'A lot'* [n=88, 27.5%], *'Some'* [n=191, 59.7%]) and prescribing skills (*'A lot'* [n=83, 25.9%], *'Some'* [n=207, 64.7%]). Over half of respondents (n=164, 51.3%) perceived that the programme made them more confident when discussing prescribing issues with more senior colleagues and 67.4% (n=213) felt better informed to challenge prescribing decisions. Nearly three quarters of respondents (73.2%, n=131/179) reported they had changed aspects of their clinical practice as a result of completing the learning modules. When asked if the learning

had prevented an error, 13.4% (n=43) of respondents considered it had, with 60.6% (n=194) stating they were '*Not sure*'. Anonymous feedback provided by respondents (n=32) demonstrated how the learning had prevented: a supra-therapeutic dose being administered to a patient ("*Recognising when an inappropriate dosage of gentamicin has been prescribed for an obese patient*"), a contraindicated drug being prescribed ("P*rescribing ACE inhibitors in a liver patient*"), errors of duplication *("Not prescribing PRN codeine to someone who is already taking co-codamol")* and drug-drug interactions *("Stopping statin while patient is on clarithromycin")*.

Conclusion: Although the majority of respondents stated they considered themselves reasonably or very prepared for prescribing at graduation, over three quarters stated they were concerned about prescribing certain medicines on their first day as a doctor. Respondents felt that SCRIPT improved their prescribing knowledge and skills and many reported they had changed aspects of their practice as a result of the learning. According to feedback, the majority were more confident to challenge prescribing decisions and the learning has prevented errors reaching patients.