Association of Paediatric Emergency Medicine

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THE ADDITION OF SILVER NITRATE CAUTERY TO ANTISEPTIC NASAL CREAM FOR PATIENTS WITH EPISTAXIS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background Although the combined use of antiseptic nasal cream with silver nitrate cautery for the management of epistaxis has been reported in several randomised and non-randomised studies as well as systematic reviews, there are currently no meta-analyses that quantitatively report the outcomes of these interventions for epistaxis. Therefore, this is the first study in the literature reporting on this topic.

Objectives To compare the outcomes of the addition of silver nitrate cautery versus antiseptic cream alone in paediatric patients with recurrent epistaxis.

Methods A systematic review and meta-analysis were performed as per the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) Guidelines and a search of electronic information was conducted to identify all Randomised Controlled Trials (RCTs) and non-randomised studies comparing the outcomes of the addition of silver nitrate cautery versus antiseptic cream alone in paediatric patients with recurrent epistaxis. Treatment success and persistence of bleeding were primary outcome measures. Secondary outcome measures included treatment side effects. Fixed effects modelling was used for the analysis.

Results Four studies enrolling 240 patients were identified. There was no significant difference between silver nitrate cautery group and antiseptic cream alone group in terms of complete resolution (Odds Ratio [OR] = 1.07, P = 0.81), the partial resolution (OR = 1.02, P = 0.96) and persistence of bleeding (OR = 0.91, P = 0.71). For secondary outcomes, antiseptic nasal cream was associated with few side effects such as rash in one case and several complaints of bad smell or taste.

Conclusions The addition of silver nitrate cautery is not superior to the use of antiseptic cream alone in paediatric patients with recurrent epistaxis as it does not improve treatment success or persistence of bleeding.

Background Peer assisted learning schemes (PALS) have made their way into medical schools across the world. Teaching peers not only helps to reinforce knowledge and confidence, but also the development of non-technical skills such as leadership and communication. Peer-to-peer teaching is also more relatable. This is especially important in paediatric clinical practice where there appears to be significant variance in communication styles and approach to history taking and examinations.

Objectives We devised a randomised control trial assessing the efficacy of learning by teaching and used the Newborn Infant Physical Examination (NIPE) in our study. We hypothesized that medical undergraduates who teach the NIPE to their peers would have greater competence and confidence in performing the examination themselves as compared to those who learn by practising independently.

Methods 40 final year medical undergraduates were randomised to the intervention arm (IA, n=20) where they were tasked to teach the NIPE to a fellow medical undergraduate or the control arm (CA, n= 20), where they were asked to practice the NIPE independently. All students enrolled in the study were given a demonstration of the NIPE at the start of the study. The following day, IA students were allocated 30 minutes to teach two peers the NIPE. Conversely, CA students were given 30 minutes to practice the NIPE independently on an infant mannequin. Following this, all participants were then assessed and scored by two paediatric trainees. This was to assess the primary outcome of competence in performing the NIPE. Competence was defined to be a score above 80 out of a maximum of 100. All participants were given a pre- and post-assessment questionnaire to assess the secondary outcome of confidence in performing the examination. Satisfaction with learning process was also assessed across both arms.

Results 90% of the students who taught the NIPE to a peer were deemed to be competent as compared to 60% of students who practiced the NIPE independently. The mean score obtained on assessment of NIPE in the intervention arm was 67% higher than the mean score in the control arm. There was a 60% mean increase in confidence in performing the NIPE amongst IA students as compared to 35% in CA students. There were also higher satisfaction rates amongst students in intervention arm as compared to control arm.

Conclusions We were able to appreciate the higher competence levels in students who performed NIPES following teaching peers as compared to those who practised independently. This is possibly due to teaching requiring more planning and preparation prior to the session in order to deliver the session seamlessly and answer questions confidently. Teaching peers also inculcates confidence as students feel looked up to by their peers and reinforces ability to perform the examination or procedure. Moreover, not only do these teaching sessions help reinforce learning, teaching experience is favoured on specialty applications. As such, we highly recommend peer-assisted teaching sessions as a cornerstone in the undergraduate paediatric curriculum given the low-cost of implementation, feasibility and high efficacy in reinforcing learning.

Paediatric Educators' Special Interest Group

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ASSESSING THE ROLE OF PEER-TO-PEER TEACHING IN THE PAEDIATRIC UNDERGRADUATE CURRICULUM: A RANDOMIZED CONTROLLED TRIAL

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