

pre-recorded e-training lecture was completed prior to all students participating in an individual 10-minute simulation. The simulated patient was played by the same actor in both settings. Two methods of data collection were used: (1) a single semi-structured interview, to consider the experiences of all students across both settings. This data was analysed using reflexive thematic analysis. (2) a live recording of 24 of the in-person student interactions were captured. This data was analysed using conversation analysis.

**Results:** Thematic analysis: Four major themes across both groups were identified: (a) the content and value of the e-training (b) the experience and perception of the simulation, (c) the application of the MEAH screening tool, and (d) future training needs. Conversational analysis: Three types of interaction were identified. Type 1 interactions (15/24, 62.5%) followed the form in a very exacting way. Type 2 interactions (3/24, 12.5%) used the tool as an aid to their conversation. Type 3 interactions (6/24, 25%) deviated from the main focus of the tool. Factors which influenced the interaction were identified.

**Conclusion:** The simulated practice learning environment provided an ideal way to enhance students' communication skills, through safe and deliberate practice with a simulated patient. Use of the MEAH tool demonstrated that brief and focused teaching enhanced the perceived confidence of physiotherapy students to undertake difficult patient interactions. Online experiences were perceived more positively compared to in-person training, making it a useful platform to develop student confidence that should be explored further within simulation-based education.

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## A QUALITY IMPROVEMENT PROJECT (QIP) ON THE AWARENESS OF THE REVISED ANAPHYLAXIS GUIDELINES IDENTIFIED THROUGH SIMULATION

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**Background:** Anaphylaxis is an important emergency which forms part of the adult Advanced Life Support guidelines. The guidelines for anaphylaxis have recently undergone a change in the 2021 revision, with steroids and antihistamine no longer advised for acute anaphylaxis and an adrenaline infusion included as part of the new refractory anaphylaxis algorithm [1]. Scenarios for the medical trainees run at our simulation centre identified a lack of awareness of the revised anaphylaxis guidelines among learners. A QIP was completed to improve the level of learners' awareness and confidence of the revised anaphylaxis guidelines in conjunction with the simulation team.

**Methods:** Online surveys were sent out to the medical registrars and internal medicine trainees regarding the revised anaphylaxis guidelines. This was followed by an email

sent two weeks later with the revised guidelines highlighting key changes. The same group were subsequently re-surveyed two weeks following the intervention to identify changes in clinical practice. Concurrently, scenarios based on the revised anaphylaxis guidelines were run for the medical trainees with specific emphasis on whether trainees were aware of the need for an adrenaline infusion (managed in a specialist setting) if symptoms were ongoing despite two IM doses of adrenaline. In the post-simulation debriefing, discussion was focused on the change in the anaphylaxis guidelines.

**Results:** In the first cycle, 100% of 23 respondents felt confident managing anaphylaxis but only 50% of respondents were aware (and were confident) that the guidelines had been revised. 2/3 of respondents had not managed a case of anaphylaxis in the last 12 months. In the second cycle, 100% of 4 respondents were aware of the revised guidelines but only 75% of respondents were confident in following the guidelines. 75% of respondents had not managed a case of anaphylaxis in the last 12 months. The significant drop in number of responders is likely to be multifactorial but may reflect a change in focus of educational needs due to the ongoing COVID-19 pandemic leading to a change in the educational landscape. A survey done on the attitude of medical students during the COVID-19 pandemic towards online learning found that only 54.1% of respondents felt that interactive discussion could occur through e-learning [2].

**Conclusion:** Following the QI results, the cardiac arrest trolleys were checked and the emergency box with adrenaline now includes the revised anaphylaxis algorithm but not hydrocortisone and chlorphenamine. Refractory anaphylaxis is now a standard scenario for the medical trainees in our simulation centre.

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## IMPROVING OBSTETRICS AND GYNAECOLOGY DEPARTMENTAL INDUCTION USING SIMULATION

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**Background:** It is well established that trainee doctors struggle with the transition into a new department. There is evidence that simulation-based education (SBE) improves competence and confidence [1]. At our Trust, there is a one-day induction for Obstetrics and Gynaecology (O&G) introducing logistics of the Department and basic skills (e.g. rota and speculum examination). However, it had limited coverage of clinical knowledge, trust protocols, and management of common O&G presentations. The aim of this study was to improve the confidence of new doctors beginning their O&G clinical rotation by increasing their knowledge-base of common presentations, protocols, and procedures through designing and implementing a trainee-focused simulation-based training programme into their induction.

**Methods:** We collected feedback from six trainees who had undergone the previous induction programme regarding its utility and how confident the trainees felt on starting their rotation. It was evident from this that the induction did not adequately prepare them for their role and all were in agreement to have simulation embedded into the induction programme. We designed six scenarios based on common O&G presentations and used Trust Protocols (consenting, postnatal ward round checks, bleeding in pregnancy) as a guide for best practice. The programme was delivered to two cohorts (total of 12 trainees) in December 2021 and April 2022. During the new simulation-based induction, trainees completed a pre- and post-programme questionnaire which measured self-reported changes in confidence levels, O&G knowledge, and departmental protocols via a 5-point Likert scale. The questionnaire also explored their expectations of the day, whether they were met, and if this programme should feature permanently in the O&G departmental induction. These responses were analysed using the framework analysis.

**Results:** Quantitative results revealed: increased confidence (+80%;  $p < 0.001$ ), decreased anxiety (-53.4%;  $p < 0.001$ ), increased knowledgebase (+50%;  $p = 0.003$ ), increased knowledge of Trust protocols (+82.6%;  $p = 0.001$ ), and all 12 participants were able to locate them when needed. Analysis of qualitative results revealed common themes of improved confidence, increased knowledgebase, clearer expectations of their job roles, and 100% of participants agreed that simulation should form a permanent part of their induction. Furthermore, their expectations of the programme were met was confirmed by the thematic analysis of participants' expectations before and after the induction.

**Conclusion:** We recommend the use of simulation in departmental inductions as it is essential in improving trainee confidence; increasing their knowledge of common O&G presentations and of Trust protocols and procedures, and of their roles within the department.

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#### INTRODUCING MEDICAL EMERGENCY SIMULATION TO 'PREPARATION FOR PRACTICE' FOR FIFTH YEAR MEDICAL STUDENTS

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**Background:** We introduced a pilot of medical emergency simulations using a high-fidelity manikin to fifth year medical students. These students were undertaking 'Preparation for Practice' two months before they started as junior doctors in the UK. The University specified a number of medical emergencies that students should experience during this time, but the timing of these can be sporadic leading to a lack of student exposure. High-fidelity simulation has been shown to lead to higher retention of knowledge and skill in the longer term within medical students compared to lecture alone [1], while increasing confidence and performance of learned skills when applied to real patients [2]. The aims of this project were to increase student exposure to medical emergencies, improve confidence, and ability to manage acute emergencies, and improve patient care and outcomes.

**Methods:** Our cohort were 42 fifth year medical students who had passed final examinations and were undertaking 'Preparation for Practice' in a district general hospital. There were varying levels of previous simulation exposure within these students. There was no previous simulation incorporated into 'Preparation for Practice'. The in-person scenarios included recreating life-threatening conditions on a high-fidelity manikin that can closely mimic a human presentation. The scenarios correlated with the core medical emergencies specified by the University for students to experience, discuss, and record in their logbooks. A session had four students, with four medical emergency scenarios per session. Each student was lead for one scenario, helper for another, and then observed two further scenarios. The lead student assessed the patient, initiated management, and prescribed in real time. There was discussion and feedback at the end of each scenario. Afterwards, students anonymously filled out an online feedback questionnaire.

**Results:** We assessed confidence regarding management of medical emergencies pre- and post-simulation via a subjective rating scale. The data collected from students demonstrated an overall improvement in confidence by 25% after the high-fidelity simulation. 95% stated they felt confident in their ability to manage the case mix presented to them as a junior doctor after the session. 95% felt there was a role for simulation training within 'Preparation for Practice'.

**Conclusion:** We believe that simulation should be a core part of university curriculum, particularly in the transition period from medical student to junior doctor. We plan to incorporate this to future 'Preparation for Practice' programmes at our hospital, whilst bringing the idea to the University for consideration at other sites.

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#### MENTAL HEALTH ASSESSMENT – A 360° STUDENT EXPERIENCE

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**Background:** We have been developing 360° simulated practice videos for healthcare science students. The students who have taken part in the filming and watched the videos provided feedback on whether this would benefit their learning. We are doing this to continue to strive forward with innovations in virtual learning in line with Health Education England [1]. The simulation-based videos have been created to add to the healthcare sciences units to aid in 'real-life' teaching styles, to help build confidence and resilience in healthcare students, and to provide multidisciplinary, patient-focused scenarios that can be included in assessments [2].

**Methods:** First and third-year paramedic students took part in mass casualty scenarios filmed at our student's union building. They worked with Critical Care Practitioners, Academics, Nurses in practice, and the