principles informed the design of a GP Quick Reference Handbook (QRH) [1,2] and a review of the literature ensured we had the most up to date treatment protocols. Guidance from GPs informed pragmatic recommendations for treatment where limited resources are available. We used in-situ, low-fidelity simulation to train primary care teams to use the QRH. Sessions (lasting 3 hours) were delivered by experienced faculty at 15 practices. Feedback was collected on the design and content of the checklists and the simulation training.

Results: Seventeen checklists were produced: 14 to guide clinical actions in acute conditions (e.g. croup, anaphylaxis); one 'key basic plan' to be used when the diagnosis is unclear; a checklist to aid non-clinical staff; and an SBAR (Situation/Background/Assessment/Recommendation) guide for handover of key details to ambulance retrieval teams. The complete QRH can be printed in hard copy or accessed on an electronic device. Feedback on the QRH from multidisciplinary teams in primary care was universally positive. The simulation-based training was extremely popular with 100% agreeing they would like it embedded as normal practice in primary care.

Conclusion: Checklists are a vital component of safe work processes in high reliability organisations and, more recently, in secondary care settings in healthcare. Emergency presentations are not easy to manage in GP environments and checklists could enhance team performance in rapidly evolving, uncertain circumstances [3]. We have developed the first QRH for primary care and used it in simulation-based training in 15 GP practices, but further work is required to analyse any improvements in team performance. In order to ensure sustainability of the project, we are working with regional 'learning hubs' for primary care to embed a train the trainer programme and share the QRH nationally.

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THE DOUBLE DEBRIEFING ROOM: A PILOT TO CHALLENGE THE ISSUE OF CAPACITY WHILST ENHANCING EFFICIENCY

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Background: Immersive simulation is an expensive education modality with a high faculty requirement, for which its cost effectiveness can come under scrutiny [1]. Physical distancing during the COVID-19 pandemic necessitated decreased participant numbers on simulation courses, leading to significant training implications including an onus on remote learning [2]. We postulated a novel approach to increase course capacity, while maintaining quality, would be to facilitate a 'double debriefing'. When compared with other strategies, such as online simulation or a hybrid model, this approach could improve effectiveness and engagement, which can be challenging with a 'remote' group of participants.

Methods: Two simulation days, involving 28 foundation doctors, were chosen for the pilot study. Participants were randomly allocated to one of two debriefing rooms. Simulations were completed in pairs, with one participant from each room. Following the simulation, the participants returned to their respective debriefing rooms. The debriefing structure was standardised across both rooms through a 3-phase model (Description, Analysis, and Application) with clearly defined learning objectives. Debriefing facilitators rotated between each room. A post-course questionnaire was used to collect qualitative and quantitative data. Five questions explored: Overall course rating; positive aspects of the course; areas for improvement; perceptions of double debriefing; and comparison to previous foundation simulation days. The qualitative data then underwent thematic analysis.

Results: All participants rated the courses as excellent or very good (17 and 11 respectively). 19 participants agreed or strongly agreed that double debriefing worked well. 5 neither agreed nor disagreed, 1 disagreed, and 3 did not answer. When compared to previous foundation simulation days, 14 participants stated the experience was better, 9 thought it was equivalent, 1 thought it was worse, 2 did not answer, and 2 had not previously attended. Smaller debriefing groups were seen as a positive, however participants also wanted a smaller overall group size to ensure everyone had the opportunity to participate in a simulation.

Conclusion: A 'double debrief' approach to Foundation doctor simulation training is perceived as an acceptable and potentially desirable method to increase course capacity whilst controlling group sizes. This has implications for both increasing access to simulation-based education, but also in delivering more high-quality simulation-based education at minimally increased cost. Moreover, this could enhance the delivery of interprofessional simulation, which often involves larger groups [3]. Larger studies involving more diverse groups of healthcare professionals will be conducted to ascertain wider applicability.

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MAKING REAL DECISIONS: DOES VIRTUAL REALITY MEASURE UP IN THE SIMULATED ENVIRONMENT? – INTERIM RESULTS

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Background: Virtual reality (VR) is an expanding area within medical education, accelerated by the COVID-19 pandemic. Use of VR has been explored within multiple areas but there is limited evidence relating its use in teaching clinical decision-making (medical 'expert-thinking') to medical students

[1]. Before VR, the most realistic patient-less simulation environments utilised high-fidelity manikins (HFSim). These are effective in teaching management of numerous medical and surgical presentations, but limited by cost and logistics [2]. This is the first study to assess the efficacy of VR, compared to HFSim, in teaching medical students' clinical decision-making.
Methods: This ethically approved study utilised mixed methods to investigate:

- Whether VR is as effective as HFSim at increasing students' clinical decision-making competence and confidence;
- The perceived value and experience of each; and
- Where VR training should be placed temporally in relation to HFSim.

Sub-analyses explored whether outcomes were influenced by gender.
Students were randomly allocated to experience a simulated scenario in either VR or HFSim. After consenting, participants:

1. Completed baseline assessments of competence and confidence;
2. Received sepsis revision and familiarisation with the relevant environment;
3. Individually undertook an acute sepsis scenario with debriefing;
4. Completed follow-up confidence and competence assessments;
5. Undertook a second scenario in the alternate environment; and
6. Completed questionnaires regarding experiences of VR and HFSim, and preferred initial environment.

The collated data was analysed using the t-test in Excel®.
Results: The study recruited 50 participants. Key findings were:

1. No difference in baseline confidence between VR and HFSim groups;
2. Statistically equal increase in confidence and competence regarding decision-making (confidence after VR +17% and HFSsim +19%, competence after VR +17% and HFSsim +15%). See Figure 1;
3. Participants' preference was for HFSim (71%, due to greater realism; increased pressure; and verbal communication);
4. Participants' preference was to undertake VR before HFSim (80%, because less stressful and useful earlier in training); and
5. 100% recommended both environments (complement each other and different knowledge gained from each).

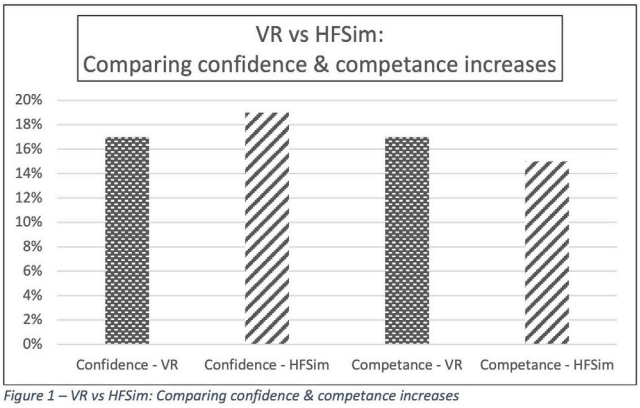

Figure 1 – VR vs HFSim: Comparing confidence & competance increases

Figure 1: VR versus HFSim: Comparing confidence and competence increases

Sub-analysis revealed same outcomes with gender aggregation.
Conclusion: Interim results suggest, regardless of gender, equivalent increases in confidence and competence are achieved in teaching clinical decision-making with either VR or HFSim. VR appears to have a natural place in the progression of teaching between theory and HFSim. Evidence suggests that teaching 'expert-thinking' should begin early in training [3]. VR simulation is a safe and more moderate technique through which this can be introduced.

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SIMULATION IN EVENT MEDICINE

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Background: Medical care at sporting events presents unique challenges. Often, the event is at a novel venue and services operate from temporary structures by a team who may have not met. Our interprofessional team includes doctors, nurses, physiotherapists, and first aiders providing high-quality and safe care whilst learning from each other. British Medical Association guidance [1] on medical care at sporting events suggests specific courses and education prior to an event, but does not address learning or practice at the event itself. We think in-situ simulations are essential to encourage team bonding, interprofessional learning, and promote patient safety in unfamiliar environments. In-situ simulation has been demonstrated to achieve this in the Emergency Department [2]. We have extrapolated this to the sporting event medicine setting and use simulations as part of the briefing process at our events. We anecdotally found that simulations increased the confidence of staff and identified potential barriers to patient safety. Therefore, we formally explored the experiences of staff and identified the value of our innovation of running simulations specifically in the sporting medicine setting.
Methods: Between April and June 2022 participants were invited to provide feedback via an anonymous survey (gaining qualitative and quantitative data) after three simulations at sporting events. Simulations were facilitated and debriefed by an Emergency Medicine consultant with significant experience at sporting events and in simulation. The scenario was a collapsed athlete on the finish line of the event who required moving to the medical facility and then later into an ambulance. This allowed debriefing around clinical aspects as well as human factors and non-technical skills.
Results: Twenty-five respondents provided feedback (Figure 1). Qualitative results demonstrate that our innovative approach is 'invaluable' and 'promotes safe and effective working'. One participant stated that it 'should be part of the