courses, for all staffing groups, including the development of modified rapid cycle deliberate practice (RCDP) simulation. Modified RCDP is a model of simulation where learners repeat a scenario, with micro-debriefings, allowing for improvement upon each cycle, in a dynamic learning experience [1]. The centre developed a hybrid style of RCDP and simulation to create a model called Die, Debrief, and Develop, with a focus on the initial response during a cardiac arrest, based upon safety learning events and staff confidence during these emergency events. The aim of the sessions was to improve learner confidence, focusing on technical and non-technical skills in a safe learning environment. The simulation approach was delivered within the clinical environment, utilizing a manikin and equipment on the ward, including the cardiac arrest trolley. A clear pre-briefing was provided to ensure transparency around the expectations within the scenario, for example, the patient will be in cardiac arrest. Due to the repetitive nature of the simulation, there was also the freedom to fail [2].

Methods: Each cycle was 5 minutes and repeated 3 times, with a micro-debriefing between each cycle. The improvement between each cycle included patient assessment, ergonomics, human factors, critical thinking, communication, clinical skills and latent threats using elements of gamification. The micro-debriefing between each cycle allowed candidates to reflect on the experience to allow for improvement during each cycle.

Results: As well as learning personal safety in the pre-briefing, patients and relatives in the clinical area were informed that the session would be taking place. The feedback from learning following the simulation sessions included:

'I enjoyed cardiac arrest practice it made much more sense and more relatable than talking through what you would do!'

'Was valuable learning and very relevant to our ward'

'Has helped me understand cardiac arrest'

'I feel empowered!'

'Now I know where things are on the crash trolley'

Conclusion: As a result of the RCDP model of training, this has been replicated in simulation sessions for Preceptorship and Internationally Educated Nurses. The outcome from this training has demonstrated the impact of RCDP in learner confidence and in technical and non-technical skills, that can be replicated in other forms of scenario-based training.

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UTILISATION OF DIGITAL AUTHORING PLATFORM TO ENHANCE SIMULATION DELIVERY

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Background: The development and ongoing critique of simulation-based scenarios is critical to ensure a researched and standardised approach to learning [1]. This is achieved by creating scenarios that have set learning objectives to improve clinical practice within multidisciplinary teams and patient safety. Additionally, a robust scenario leads to stimulating and open debriefings [2]. Whilst a paper-based scenario will do this, the aim is to highlight the benefits of using a digital platform for both creating and updating scenarios.

Methods: Paper scenarios have been used for many years to achieve the goals highlighted above but it became increasingly obvious that the resources needed to review, critique, and update those scenarios were no longer effective. This situation was emphasised due to the need to have multiple copies of scenarios across many sites. In order to maintain a quality service, whilst still being able to maintain resources to redevelop and enhance existing scenarios, we implemented a digital authoring platform called IRIS.

Results: Scenarios were transferred and created allowing a centrally controlled catalogue that could be audited and version controlled. Any changes made would automatically update the scenario on all the users' tablets thus ensuring the same version of the scenario was used across all sites. An immediate benefit was the reduction in time spent redeveloping scenarios. This allowed for added details to be entered dependent on if it was a standardised patient or manikin driven scenario. Another benefit was the ability to rapidly collaborate and co-author with peers and subject matter experts. IRIS interfaces with manikins from leading vendors, sending patient data states directly to the manikins reducing setup time. We noticed an increase in simulation engagement as authors were able to log on remotely to update work.

Conclusion: IRIS allows easy design and supports the development of high-quality scenarios. Its implementation saved resources in terms of time, staffing and environmental footprint. It enabled us to have a central hub of scenarios that dismissed the need to do multiple updates in multiple places and enabled us to have an audit trail of changes, by date time and user. Moving to a digital platform enhanced the experience of our users giving them a better learning experience leading to improved patient care.

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INTRODUCTION OF AN INTERNAL MEDICAL TRAINEE HIGH-FIDELITY SIMULATION COURSE PROGRAMME

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Background: The Trust felt that a targeted programme was needed to help further prepare Internal Medical Trainees' (IMT) for their current duties and forthcoming roles as registrars. We wanted to provide them with the opportunity to boost their confidence and practice working alongside junior medical colleagues, in order to enhance patient safety [1]. These programmes could also work alongside the regional THRIVE and STRIVE sessions.

Methods: A three-year programme was introduced. For IMT year 1, it is a half-day of 3 scenarios following a patient's journey through an admission with key objectives being around difficult decision-making and communication. For IMT year 2, this includes a day of 5 challenging scenarios based around situations the IMT's are called for. They look at non-technical aspects of their job in the context of complex clinical situations including bradycardia, supraventricular tachycardia, cardiac arrests, mental capacity, and duty of candour. IMT year 3, includes two days with the IMT3A course

involving trainees working with Foundation Year Doctors over 5 scenarios where they are escalated to as the senior on call. The focus is developing skills such as prioritisation, leadership and communication. All candidates take part in the debriefing. The IMT3B course is a day of 5 extremely challenging scenarios in difficult settings such as out of hours or with limited senior presence. These scenarios are devised to push the IMT3 candidates in order to help prepare them for working under pressure. Scenarios include difficult ethical decision-making, litigation issues, and complex patients (e.g. pregnancy).

Results: The sessions were positively evaluated by the IMT who expressed how they will help change their practice and enhance patient safety (see Table 1). All aspects of the course are devised to help and progress with the trainee introducing best practice and quality assurance. Debriefings are effective with discussions between peers being both positive as well as informative. We have kept class sizes to 6 participants as we have found this gives the right amount of support without being too overwhelming.

Table 1: Feedback from the internal medical trainees

Course	Learner Feedback (what did you appreciate?)
Internal Medical Trainee Year 1	Proper communication and debriefing. Feedback with learning objectives discussed. Great faculty. Very good scenarios. The training staff was very cooperative and it was a wonderful learning experience for me.
Internal Medical Trainee Year 2	Strenuous scenarios – clinically stretching and very helpful to reflect on. Engaging and active participation. A lot of thinkings and reflections for not just the scenarios I have directly involved, but also in colleagues' scenarios. Technical skills – Brady/ tachycardia, ALS, pacing.
Internal Medical Trainee Year 3	Multiple different scenarios, structure of the scenarios meaning I was realistically called in without prior knowledge of the situation. Put in stressful but safe situations where i was the most senior person, having to make decisions and delegate – very true to life. Constructive feedback in a safe environment with opportunity to lead adult emergency call and response to referrals from junior member of the team.

Conclusion: We feel that as the IMT work through the programme prepares them for what is a difficult transition. Over their IMT simulation training they will take part in 18 scenarios either as a candidate or in the debriefing. It has given the IMT the chance to have high quality training in a high-fidelity environment thus promoting enhanced care and patient safety.

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ENDOSCOPIC SUBMUCOSAL DISSECTION (ESD) TRAINING SESSIONS ON EX-VIVO PORCINE MODELS

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Background: Endoscopic Submucosal Dissection (ESD) is a technique for removing lesions in the gastro-intestinal tract. It involves precise cutting into the submucosal layer, allowing for the lesion to be removed in one piece, and has been shown to have a high curative resection rate [1]. It is a technically challenging endoscopy technique that requires experience and practice. As one of the common complications from ESD is perforation [2], training on ex-vivo models is becoming popular with 84% of surveyed centres in the UK requiring Endoscopists to complete a number of ESDs on animal models before progressing to train on patients [3]. While training was accessible at other centres, this was infrequent and less accessible.

Methods: Sessions were created at the hospital training centre. This was done using decommissioned endoscopy stacks and endoscopes, so that these were always available and designated for ex-vivo use only. The animal model was a porcine oesophagus, stomach, and start of duodenum prepared in a box with a hole for endoscope insertion. The duodenum was clamped to ensure inflation would be possible. The days ran from 0830-1530 with a drop-in option. After 7 sessions were run over 5 months, a survey was sent out to the 8 people that had participated to assess the benefits of the service (including faculty doing the training and trainees).

Results: 8 responses (100%) were collected. 62% (n=5) of responders had used ex-vivo models before. 83.3% of trainees (n=5) said they had come to our hospital specifically to train in ESD technique. Responders attended between 1 and 10 sessions at our centre. All trainees and faculty said they found the training extremely beneficial and that they thought the ex-vivo model work well the way it was set up. All responders said they would recommend the sessions to a colleague. All trainees said that training with an experienced Endoscopist was more beneficial than training alone. Suggestions for improvement included a more consistent timetable of when they could access sessions, more accessibility and wider range of endoscopy kit, and involving the wider nursing team in the sessions.

Conclusion: The ex-vivo ESD training sessions were well received by both faculty and trainees and were said to be very beneficial to their training. We will therefore be putting on more of these sessions, taking into account the suggestion for a regular accessible timetable.

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USING SIMULATION TO SUPPORT A NEW THEATRE SETUP

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Background: Following the redevelopment of the day case theatre complex at Chorley District General Hospital it was identified that new ways of working were required, and changes to patient processes would need to be made. Some of these were normal, expected, adaptations to be made when moving to a new working environment, such as the location and storage of equipment.