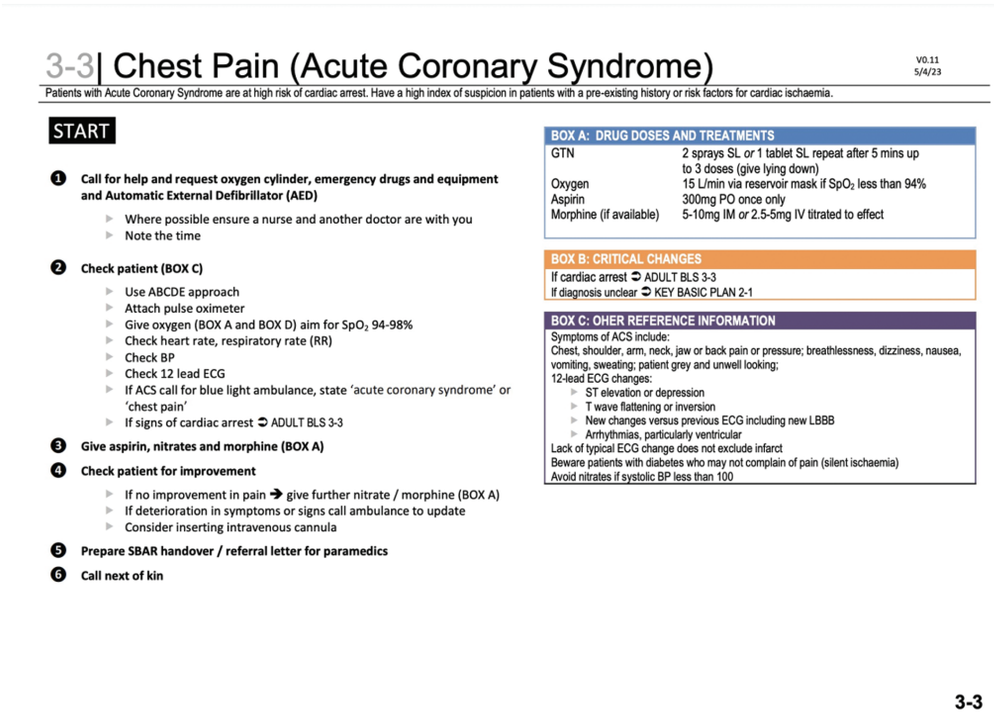

3-3| Chest Pain (Acute Coronary Syndrome)

V0.11
5/4/23

Patients with Acute Coronary Syndrome are at high risk of cardiac arrest. Have a high index of suspicion in patients with a pre-existing history or risk factors for cardiac ischaemia.

START

1. **Call for help and request oxygen cylinder, emergency drugs and equipment and Automatic External Defibrillator (AED)**
   - Where possible ensure a nurse and another doctor are with you
   - Note the time
2. **Check patient (BOX C)**
   - Use ABCDE approach
   - Attach pulse oximeter
   - Give oxygen (BOX A and BOX D) aim for SpO_2 94-98%
   - Check heart rate, respiratory rate (RR)
   - Check BP
   - Check 12 lead ECG
   - If ACS call for blue light ambulance, state 'acute coronary syndrome' or 'chest pain'
   - If signs of cardiac arrest ➲ ADULT BLS 3-3
3. **Give aspirin, nitrates and morphine (BOX A)**
4. **Check patient for improvement**
   - If no improvement in pain ➔ give further nitrate / morphine (BOX A)
   - If deterioration in symptoms or signs call ambulance to update
   - Consider inserting intravenous cannula
5. **Prepare SBAR handover / referral letter for paramedics**
6. **Call next of kin**

BOX A: DRUG DOSES AND TREATMENTS

GTN	2 sprays SL *or* 1 tablet SL repeat after 5 mins up to 3 doses (give lying down)
Oxygen	15 L/min via reservoir mask if SpO_2 less than 94%
Aspirin	300mg PO once only
Morphine (if available)	5-10mg IM *or* 2.5-5mg IV titrated to effect

BOX B: CRITICAL CHANGES

If cardiac arrest ➲ ADULT BLS 3-3
If diagnosis unclear ➲ KEY BASIC PLAN 2-1

BOX C: OHER REFERENCE INFORMATION

Symptoms of ACS include:
Chest, shoulder, arm, neck, jaw or back pain or pressure; breathlessness, dizziness, nausea, vomiting, sweating; patient grey and unwell looking;
12-lead ECG changes:
- ST elevation or depression
- T wave flattening or inversion
- New changes versus previous ECG including new LBBB
- Arrhythmias, particularly ventricular

Lack of typical ECG change does not exclude infarct
Beware patients with diabetes who may not complain of pain (silent ischaemia)
Avoid nitrates if systolic BP less than 100

3-3

Figure 1-A43: An example of a checklist from the GP quick reference handbook

Ethics statement: Authors confirm that all relevant ethical standards for research conduct and dissemination have been met. The submitting author confirms that relevant ethical approval was granted, if applicable.

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DESIGN

A44

SIMULATED PLACEMENT PREPARATION: PHYSIOTHERAPY STUDENT ACCEPTABILITY OF A MULTI-LEVEL SIMULATED PLACEMENT PREPARATION WEEK

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10.54531/NUNP5329

Background and aim: Practice based learning (PBL) remains a universal mandatory experience for physiotherapy students. Challenges of placement capacity were heightened by the impact of COVID 19 as well as growing demand in response to the NHS long term plan/interim people plan for growth in AHP workforce. These challenges provided opportunity to rapidly progress sustainable PBL capacity utilizing simulation as replacement and enhancement of PBL.

Having established simulation as placement replacement within the Faculty of Health & Wellbeing at University of Winchester [1], the simulated placement preparation (SPP) project aimed to explore the acceptability of simulation as preparatory enhancement of PBL, delivering a week of multilevel peer assisted simulated PBL; two primary objectives of reducing demand on capacity and optimizing students' success in PBL through preparatory simulated activities.

Activity: Simulation and learning focused on the development of digital capabilities in recognition of the Topol review that reflected the requirements of NHS workforce to be digitally capable [2]. Additionally, the KNOWSBEST study [3] recommended digital capability and simulation within PBL, thus simulated activities were designed to promote core digital capabilities including training and simulation in remote consultations and presenting simulated scenarios accessed via electronic patient records.

Collaborative learning in practice (CLiP) model of supervision was used to promote peer assisted learning with learning outcomes focused on communication and MDT domains of the common placement assessment form (CPAF), familiarization with digital technologies and orientation and management of scenarios in high acuity environments and enhancement of digital capabilities. The SPP week utilized mixed modality and fidelity simulated activities including 'real play' remote consultations, simulated patients, manikins/ventilators and virtual simulations.

Students completed faculty developed questionnaires pre and post SPP relating to self-assessed communication and telehealth capability and specific clinical competence in musculoskeletal and cardiorespiratory physiotherapy. A convenience sample of students participated in focus group interviews following subsequent completion of PBL to explore their perceived impact of SPP on subsequent PBL. Thematic analysis was used to analyse focus group interviews and pre-post anaylsis conducted using repeated measures ANOVA.

Findings: Results demonstrated increased capabilities in teleconsultation and appreciation of digital technologies

potential. Students reported enhancement of in person and remote communication as well as clinical capabilities in high acuity environments.

Conclusion: Students reported the SPP week as an acceptable means of replacing one week of PBL, enhancing the preparedness for clinical environments and sustainably increasing placement capacity by providing 4440 hours of simulated PBL.

Ethics statement: Authors confirm that all relevant ethical standards for research conduct and dissemination have been met. The submitting author confirms that relevant ethical approval was granted, if applicable.

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CONTENT, SYSTEM

A45 DEVELOPING LOW CARBON CARE – USING SIMULATION TO CALCULATE AND REDUCE CARBON EMISSIONS

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10.54531/HISC7520

Background and aim: Climate change is considered one of the most pressing global concerns for the future and the single biggest health threat [1]. Healthcare delivery is a major contributor to the climate crisis, producing 4.4% of net carbon global emissions today [2]. One of the largest contributors to NHS carbon emissions is the use of equipment, consumables and clinical care itself [2]. Therefore, clinical staff have a significant part to play in reducing carbon emissions and achieving national carbon reduction targets. However, they must be carbon literate and understand the impact of personal practice on global carbon emissions and be able to identify ways to deliver low carbon models of care [3]. Simulation could play a significant role in educating and developing sustainable practice in healthcare students through a system thinking approach. Allowing students to examine the environmental impact of healthcare delivery and support innovative solutions to reduce carbon emissions without compromising care.

The aim was to firstly increase nursing students' awareness of the carbon emissions from the delivery of patient care. Secondly to improve clinical decision-making in the selection and implementation of interventions to enable the delivery of low carbon care.

Activity: Undergraduate nursing students took part in a specifically designed simulation scenario. Students completed the scenario of a patient presenting to the Emergency Department with exacerbation of Chronic Obstructive Pulmonary Disease (COPD), implementing care and interventions as clinically indicated. After completion of the simulation students then calculated the carbon emissions from the clinical resources they used, using the Centre for Sustainable Healthcare carbon emissions calculation.

Findings: Debriefing identified that students did not consider sustainability and carbon emissions in their current clinical decision-making. Students were shocked by the amount of carbon emissions generated from interventions. Students identified areas where they could reduce carbon emissions without compromising care such as inappropriate use of gloves, using dry powdered inhalers, and reducing unnecessary cannulation.

Conclusion: Simulation could play a pivotal role in developing sustainable clinical decision-making skills in healthcare students and staff. Actively calculating carbon emissions allows students to directly see the environmental impact of their practice, increasing carbon literacy and stimulating low carbon care practice. This use of simulation should be explored further by educators across professions to support both national and global climate change policies.

Ethics statement: Authors confirm that all relevant ethical standards for research conduct and dissemination have been met. The submitting author confirms that relevant ethical approval was granted, if applicable.

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DESIGN

A46 SPEED: AN EMERGENCY DEPARTMENT SIMULATION TRAINING MODEL WHICH DOES NOT AFFECT PATIENT WAITING TIMES

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10.54531/GNDI6684

Background and aim: There is a well-recognized tension between clinical service provision and participation in learning events for junior doctors (JDs) in the UK [1]. JDs frequently report that they are unable to attend regular teaching due to departmental clinical pressures, representing lost opportunities for their training and development. Therefore, there is need for development of training methods which minimize impact on clinical service delivery.

Aims: To develop a simulation training model for Emergency Department (ED) JDs which would a) deliver tailored learning objectives according to the participants' level of training and b) have minimal impact upon ED service provision.

Methods: The 'Simulation and Personalised Education in the Emergency Department' (SPEED) model was developed. On SPEED days, JDs and advanced clinical practitioners (ACPs) who were undertaking clinical duties in ED on that day were invited on an individual basis to participate in a twenty-minute clinical simulation. Upon completion, the participant underwent a ten-minute debrief to reinforce predetermined learning objectives and supply feedback to simulation tutors