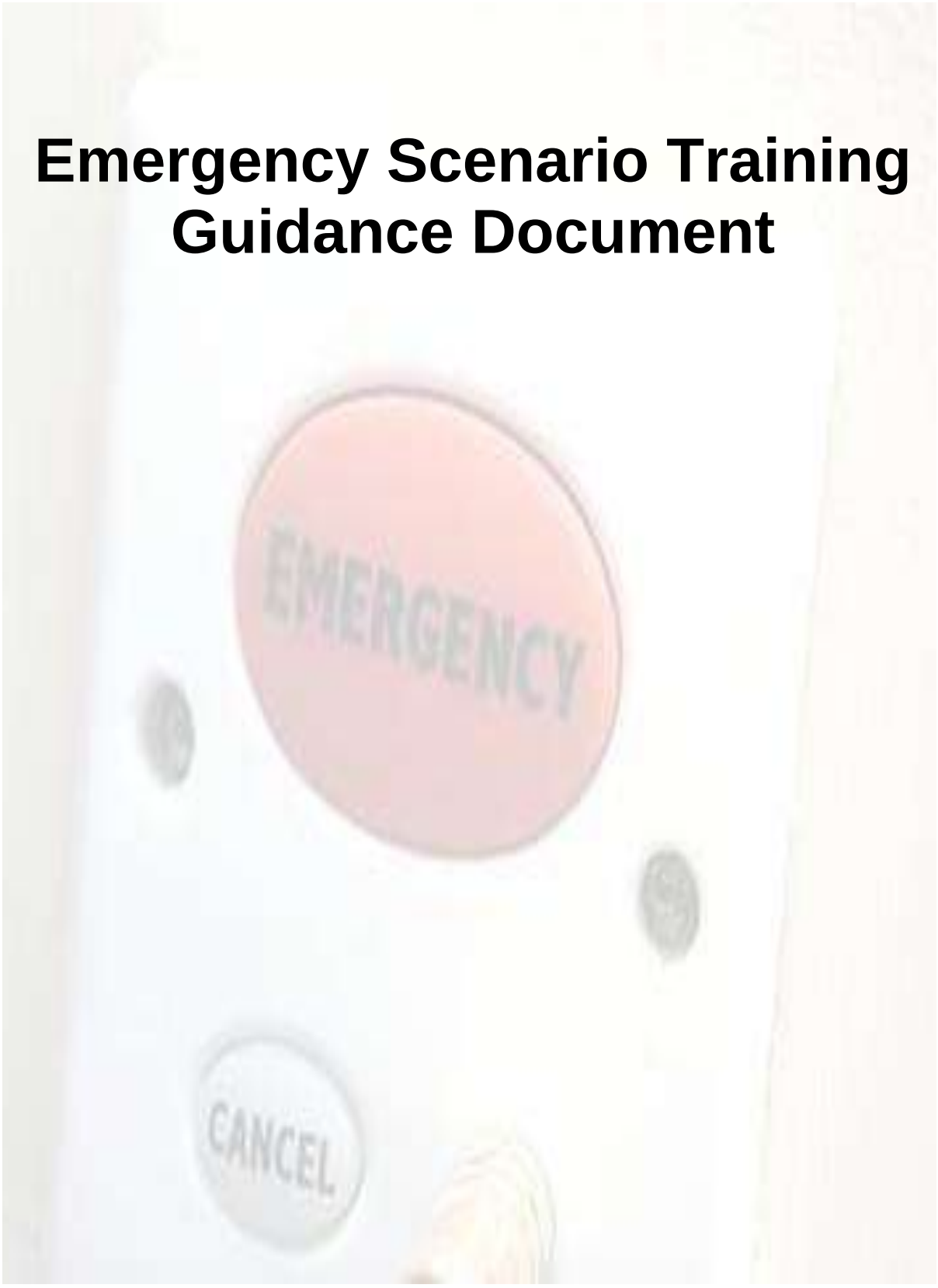
Emergency Scenario Training Guidance Document



Group Members

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Acknowledgements

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- All those individuals who contributed by responding to the questions in the scoping survey
- UKCRF Education Workstream Members
- UKCRF Quality Assurance Workstream Members
- UKCRF Network Strategic Planning Team

How to use this document

Although the training criteria in this document have been set at Phase I accreditation level, it is important to emphasise that this is for guidance only; the document and associated tools and templates can be used or adapted to suit local needs and in conjunction with local resuscitation team documentation for training.

Contents

1. Introduction to training in clinical emergencies

Background

The very serious adverse reactions that occurred in the first in human non-therapeutic clinical trial of a monoclonal antibody, TGN1412, in March 2006, resulted in the Expert Scientific Group on Phase I Clinical Trials being set up by the Secretary of State for Health. The group was tasked with the remit of making recommendations to increase the safety of future clinical trials involving First in Human agents. These recommendations have informed the Phase I accreditation process put in place by the UK Regulatory Authority, the Medicines and Healthcare products Regulatory Agency (MHRA 2007).

Following these recommendations, the UKCRF Quality Assurance Workstream identified a need for guidance in the planning and management of clinical emergency training within Clinical Research Facilities (CRFs). The Education Workstream was approached to take forward this initiative and members nominated a sub-group of individuals with the appropriate skills and knowledge in education, resuscitation and critical care to develop a guidance document.

The Education sub-group undertook a scoping exercise to collect information on current training for clinical emergencies in CRFs throughout the UK. The results of this survey, the recommendations from the MHRA (2007) and guidelines issued by the Association of the British Pharmaceutical Industry (ABPI, 2007) are reflected in this document.

Levels of training

The scoping survey revealed 63.6% of respondents are currently undertaking emergency scenario training. All staff working within a CRF setting should receive some level of training for clinical emergencies and this should be set as appropriate to their role (ABPI 2007, MHRA 2007). Consideration should be given to the timings of scenarios in order to include agency/ bank/ outreach staff (MHRA 2009).

The survey identified that 75% of qualified nurses in CRFs are trained in Immediate Life Support (ILS). This is the recommended level of training for clinical staff and annual updates should be performed as a minimum (MHRA 2007, ABPI 2007). If this level of training is not possible due to availability and/ or funding, it is recommended that a risk

assessment be performed prior to studies being accepted to start in the CRF. The level of cover in the event of a medical emergency must be appropriate for the level of risk of harm from the Investigational Medicinal Product (IMP)/ study procedure/ intervention and this will define the level of resuscitation cover appropriate for the level of risk (ABPI 2007). ILS is an absolute requirement for clinical staff working on Phase I studies in accredited units

Methods and scope of training

There are several methods of training that can be used. The MHRA (2007) and ABPI (2007) expect research staff to be trained and competent to deal with a medical emergency. A recommended method of doing this is to create scenarios that allow staff to simulate what they would do in an emergency. The scenarios should cover a variety of common emergency situations, and it is also useful to consider the specific types of studies undertaken in the CRF and to design scenarios accordingly, e.g. studies involving pregnant women. The different types of scenarios must be rotated with documented evidence available for internal and external inspection. For Phase I accredited units, this evidence must include a CRF policy that specifies the number and nature of scenarios that staff are expected to attend, and there must be a clear record of who attended and when.

Scenarios may be announced or unannounced (these may also be referred to as planned or unplanned). In an announced scenario, learners are made aware in advance that an emergency scenario training session has been arranged, and are informed about what will be involved and what will be required of them by the Scenario Facilitator before the scenario begins. In an unannounced scenario, learners only become aware of the scenario when the alarm is raised.

Four core scenarios are included in section 3 of this guidance; these are based on the requirements of the MHRA Phase I Accreditation Scheme (2007). Two of the core scenarios are divided into parts (a + b) to allow for either improvement or deterioration in an emergency situation.

Training in clinical emergencies should include appropriate information about the IMP and study protocol including use of known antidotes, and unblinding procedures. For Phase I Accreditation, it is expected that unblinding will be incorporated into some emergency scenarios - an anaphylaxis scenario can be a useful time to test knowledge of unblinding procedures.

During the inspection processes, the MHRA will always ask for a demonstration of transfer procedures, and this applies whether the unit is on the hospital site or if an ambulance transfer is required. Emergency training should therefore include preparation for, and transfer to, hospital/ critical care, considering local logistics.

If facilities are available, a video recording of an announced transfer would be appropriate evidence of a rehearsed transfer. This may also present an opportunity to have involvement and support from the hospital resuscitation team and Critical Care.

Simulation training laboratories may be accessible within some hospitals/ universities. This experience can provide simulation of a variety of emergency scenarios, with a formative and reflective review of the entire scenario with the simulation education staff.

Frequency of training

The MHRA (2007) and ABPI (2007) suggest training for clinical emergencies should occur 'regularly'. The scoping exercise identified that the majority of staff are updated in emergency training annually and many CRFs undertake one unannounced and one announced scenario training session within a twelve-month period. However, the Resuscitation Council (2012) state the maximum number of learners in a session should be at a ratio of 1 instructor to every 6 learners, hence there may be a need to increase the number of sessions locally to accommodate all staff in training opportunities.

Delivery of training

Most CRFs have support from the resuscitation officers and this is a positive asset in the delivery of training and debrief/ feedback. However, if this support is not available or limited, it may be possible for the resuscitation team to invest time in training designated CRF nurses in the skills necessary for the delivery of training. This may result in less demand on the resuscitation team in the long term.

The ABPI (2007) recommend using appropriately trained people such as doctors and resuscitation officers in training in resuscitation. However, access to doctors with the appropriate level of expertise in resuscitation may not be possible.

Unannounced scenarios need careful preparation, and responsibility for coordinating scenarios should be given to appropriately qualified staff. The respondents in the scoping survey identified these as CRF nurses with appropriate experience/ expertise, CRF education/ professional development staff, and resuscitation officers. Where possible, rotation of the CRF nurse involved would facilitate more members of staff being involved in preparing for and facilitating emergency scenario training.

Feedback mechanisms

A feedback/ debriefing session should follow an emergency training scenario, whether announced or unannounced (Fanning and Gaba 2007). To assist those who are managing the scenario in providing structured feedback, a debriefing delivery tool is included in section 4 of this guidance document. A template for recording details of the training session that can then be used to support the debriefing session is also included at Appendix 2. The ILS Instructor course run by the Resuscitation Council includes training in providing feedback (http://www.resus.org.uk/pages/infoMain.htm). However, there are set criteria for course candidates and the appropriateness of undertaking this course should be assessed locally.

Documentation of training

Emergency scenario training sessions should be seen as learning opportunities and as such, they should be documented and distributed to all staff, in order that any learning points can be shared, whether they have taken part in the scenario or not. For accredited units, the MHRA expect to see a formal process for sharing observations and outcomes, such as an SOP detailing electronic sign off, e-mail distribution to external staff etc. Documentation should include timings of the response to the alarm call, delivery of appropriate equipment, interventions, and transfer to Critical Care (if required). Any corrective and preventative actions following the scenario should also be documented and followed up (MHRA 2009). Appendices 2 - 5 contain templates (both blank and completed with example observations and actions) that can be used to facilitate the documentation of training.

Summary of recommendations

- Qualified staff should be trained in Immediate Life Support (ILS) with annual updates.

- All CRF staff whether clinical or non-clinical should receive training appropriate to their role for clinical emergencies.

- All staff should be involved in at least one announced or unannounced emergency scenario training session annually.

- The maximum numbers of learners involved in emergency scenario training should be at a ratio of 1 instructor: 6 learners.

- ILS training, emergency scenario training, and simulation training laboratories are all methods of training that provide staff with the skills to manage medical emergencies.

- Resuscitation officers, doctors with appropriate levels of expertise, appropriately qualified CRF staff and simulation lab staff are all appropriate to be involved in the delivery of emergency scenario training.

- A feedback/ debriefing session should follow an emergency training scenario whether announced or unannounced.

- Emergency scenario training should be documented and distributed to all staff. Any corrective and preventative actions following the scenario should be followed up, documented and disseminated to all staff.

Frequently Asked Questions (FAQs)

Q. Should CRFs have a Standard Operating Procedure in training and refresher training in emergency resuscitation procedures?
A. The MHRA Phase I Accreditation Scheme lists this as one of the criteria required; however, a training policy is also acceptable to the MHRA and can cover frequency of ILS & scenario training.

Q. Should the training scenarios be planned to coincide with quieter periods?
A. No. Do not always select a quiet period, as this will not demonstrate a realistic scenario. Vary the situation, for example make the scenario within a locked toilet or in the waiting area.

Q. How often should staff check the emergency trolley, alarms and bed tilts?
A. The emergency trolley should be checked at least weekly (MHRA 2007, ABBI 2007), however this may be determined by local policy and be performed more frequently to ensure familiarity with equipment.

Q. Should all researchers receive an orientation to emergency equipment, oxygen cylinders, alarm call bells etc.?
A. Yes, this should form part of the orientation to the CRF before the study starts. It may be useful to complete and sign a checklist to record that staff have been made aware of appropriate medical equipment.

Q. Who should be checking the resuscitation trolley?
A. All clinical staff (including medical staff) should be involved in the checking of the resuscitation trolley as part of their role in the CRF. As the likelihood of using the resuscitation within a CRF is small, it is recommended that checking is performed weekly to retain familiarity with equipment location/use.

Q. Are there any logistical preparations that need to be undertaken prior to emergency scenario training?
A. There should be a pre-plan with the relevant CRF Manager to ensure appropriateness of any announced sessions and to prepare and educate staff to understand what is expected of them and set the ground rules (Fanning and Gaba 2007). In unannounced sessions, the

sound of alarms and staff rushing may cause anxiety for some participants and carers; it is important that any participants/ visitors who may be in the CRF during the emergency scenario training are warned in advance. It is also important to consider staffing levels and ensure participant safety is not compromised during scenario training.

2. Scenario Delivery Tool

Simulation allows learners to take an active role in developing their knowledge and skill base (Fanning and Gaba 2007).

Simulation is designed to challenge learners and allow mistakes in a safe and supportive learning environment without harming participants or others (Arafeh 2010).

Simulation training can be designed to target specific learning needs and creates an opportunity for learners to practice numerous attempts (as required) in order to achieve the desired level of competence (Perkins 2007).

The facilitator role is to plan, coordinate and deliver a simulated scenario experience and ensure learners have enough time to reflect on their learning experience. To achieve this, it is important to set time frames for each stage of the scenario and stick to them.

It is vital that simulated scenarios are coordinated by suitably qualified and experienced facilitators to ensure the experience has a positive change in the learners' behaviours (Fanning & Gaba 2007).

Debriefing is well documented as the most important feature of simulation-based medical education (Fanning and Gaba 2007). It is therefore essential that enough time is allocated to the debrief so as to ensure the learner has time to reflect on their learning experience. Ideally, a facilitated debrief should account for approximately double the time set for the scenario.

Stage 1: Pre-scenario preparation

Initial planning

Begin scenario planning approximately 1 week prior to performing the scenario. However, more time may be needed if the scenario is complex and/ or if other departments are going to be involved. (e.g. participant transfer to Critical Care).

During this time, create a scenario plan – you may choose to use one of the Core Scenarios described in this document, or to create your own (a template scenario plan with guidance notes is available at Appendix 1 to help you). As part of the scenario plan, you will need to:

- Identify the scenario and learning objectives.
- Decide where you are going to hold the scenario (location).
- Identify what you will use to represent the participant - a manikin or a facilitator? If the latter, you will need a crib sheet for the facilitator to follow.
- Start putting together the props needed for the scenario (e.g. oxygen delivery devices, bag-valve-mask, IV lines, monitoring equipment, cardiac arrest trolley, drug/ observation charts, ECGs, medical notes, blood results etc.).
- Set the time frame for each section of the scenario (e.g. pre-scenario 15-20 minutes, during scenario 8-10 minutes and post-scenario 15-20 minutes). Times may vary depending on the complexity of scenario.

Day of scenario training – scenario set-up

1. Environment

- Have a copy of the scenario plan to refer to.
- Prepare the location where the scenario is going to take place.
- If using a manikin, position it as described in the scenario plan.
- If using a facilitator, ensure they know exactly what is expected of them during the scenario and have a copy of the facilitator's crib sheet.

2. Props

- Put props in position (as required), and make sure you have all other props to hand if and when they are requested (e.g. oxygen delivery devices, bag-valve-mask, IV lines, monitoring equipment, cardiac arrest trolley, drug/ observation charts, ECGs, medical notes, blood results etc.).
- Make copies of the template for recording activities during the scenario (Appendix 2) and identify a facilitator to time and document relevant events during the scenario as they occur.

3. Briefings

Brief the facilitators on:

- The scenario narrative (read it out), and intended learning objectives.
- Specific instructions for each facilitator involved in the scenario.
- Learners' experience levels.

If the scenario is announced, brief the learners on:

- The scenario in the context of the training and the process (brief, scenario, debrief).
- The scenario narrative (read it out), and intended learning objectives (e.g. improve technical and non-technical skills).
- Who is facilitating the scenario and who is not.

Stage 2: During scenario delivery

Note down events as they occur including the time, individual involved (e.g. nurse, doctor, etc.) and event – for example:

- 09:46:45 – Call bell pulled by relative
- 09:46:55 – First Responder
- 09:47:24 – Second Responder, followed closely by Third Responder, etc.

Note down technical and non-technical skills of learners that you could use during feedback.

Keep the learning objectives in mind.

A copy of the template for recording details of the training session, completed with example observations, is available at Appendix 3.

Stage 3: Immediately post-scenario

Structured feedback via facilitated debrief: this is the time to reflect on and discover in a group what happened during the scenario.

Immediately regroup learners in a different area to allow vital reflection (i.e. place of action vs. place of reflection).

Ensure the room is set up appropriately – arrange the seating so that everyone can see each other with a minimum of two facilitators present (ensure the facilitators sit opposite, where they can see each other).

Introduce the facilitators involved with scenario if you have not already done so.

Explain that the debrief will follow a structured process and facilitate the debrief as a learning conversation. For more detailed guidance, refer to the Debriefing Delivery Tool (p.41 – 45).

3. Core Scenarios

Core scenario 1a: Recognition and initial treatment of Acute Coronary Syndrome (ACS)

Case scenario	Recognition and initial treatment of Acute Coronary Syndrome (ACS)
Intended clinical (technical) learning objectives	• ABCDE approach to assessing and treating participants at risk of cardiac arrest • Identify the increased risk of cardiac arrest secondary to myocardial infarction • ACS recognition and initial treatment and management
Intended non-technical learning objectives	**Communication** • Structured and effective team communication **Leadership and teamwork** • Managing cardiac arrest • Appropriate and timely allocation of personnel • Managing the needs of relatives **Decision making** • Appropriate call for help

Participant's name and age/ DOB	Peter Fox 55 year old male
Learner information pre-scenario (Narrative case description)	**Use only if scenario is announced** A 55 year old man has just finished a 3 minute shuttle walk for the (specify) study (an observation study)
Facilitator information pre-scenario (Narrative case description) **Use SBAR** (Situation, background, assessment, recommendations)	A 55 year old man has just finished a 3 minute shuttle walk for the (specify) study (an observation study). He is now complaining of having radiating chest pain. He looks pale and sweaty. **If asked for:** • PMHx Cardiac History NIDDM, Hypertension with MI 1 year ago

	• NKDA, Ex-smoker 30/day until 6/12 ago, 10 units alcohol/ week • Medication list with participant

Scenario Preparation

Facilitators - at least 2 (You can use additional facilitators as role players)	1. To run the scenario 2. To role play as the relative (optional) 3. To role play as the participant (optional) 4. To observe and document scenario events
Learner (Options according to availability)	Clinical roles (maximum 6 learners) Learners should assume their own clinical role during the scenario
Area setup for scenario	**Environment** Participant sitting in a chair in an examination room in the Clinical Research Facility **Specific set-up** Can use a facilitator or a manikin as the participant
Equipment setup and possible props needed for scenario	**Equipment immediately available** Whatever is normally available in the examination room where the scenario is taking place **Equipment available on request** Resuscitation trolley, AED, cardiac monitor, oxygen and masks, suction, emergency drugs etc.
Participant/ manikin preparations for scenario	**Gender** Male participant **Participant's position** Sitting on a chair in the examination room **Appearance** No monitoring, no IV lines Medications: Sublingual GTN tablets in his pocket (if asked) **Concomitant medications** Metformin, Gliclazide, GTN SL tablets, Aspirin, Omeprazole (the participant has this list) Sublingual GTN tablets in his pocket

Medical documentation needed for scenario	**Available** Concomitant medications list in the participant's pocket Case Report Forms currently being completed **Not available** Clinical records not immediately available

Scenario Clinical Course

Observations on initial assessment	**Verbal handover to first responder as they enter:** Participant is complaining of radiating chest pain and appears pale and sweaty. • A: Clear • B: SOB, Resp 20, O_2 sats 94% on air, symmetrical chest movement, normal breath sounds • C: HR 110 min^{-1} (ECG: shows sinus tachycardia), BP 150/100 mmHg, Temp 37.0 oC, capillary refill time (perip) 2 secs, 12 lead ECG (attached) if requested • D: Verbal response, BM (if asked) 6.3 mmol/L • E: Persistent central chest pain, pale and clammy to the touch
Initial clinical interventions required in response to the above	• Shout for help (staff in Reception; emergency buzzer) • Recognition of need for urgent medical help (calls appropriately) • Immediate ABCDE assessment • Start obtaining history • Cardiac monitoring • Requests 12 lead ECG (attached) • IV access as skills appropriate Initial treatment: • Oxygen with appropriate delivery device • GTN (in participant's pocket) • Aspirin Pain relief
Clinical course progression	If initial interventions given as above, then participant's breathing and pain remains the same until help arrives – Doctor or Resuscitation Officer If initial interventions are not given, then the participant deteriorates but remains conscious – allow for further assessment below

Further clinical interventions required in response to above progression	Reassess: • A: Clear • B: SOB, Resp 25, O_2 sats 98% (if on O_2), symmetrical chest movement, and normal breath sounds • C: HR 120 min^{-1} (ECG: shows sinus tachycardia with MI wave), BP 150/105 mmHg, Temp 37.0oC, capillary refill time (perip) 3 secs • Request 12 lead ECG (in pt's notes if requested) • D: Verbal response, BM (if asked) 6.3 mmol/L • E: Persistent central chest pain, pale and clammy to the touch • Check if help has been requested • Doctor/ Resuscitation Officer arrive • Hand over using Situation, Background, Assessment, Response (SBAR) • Reason, Story, Vitals, Plan (RSVP)
Further clinical course progressions (as required)	Insert / Delete as required
Further clinical interventions (as required)	Insert / Delete as required
Post-emergency care (Time dependent)	• Reassess using ABCDE • Request ECG, ABG, Chest X-ray • Handover of participant • Situation Background Assessment Recommendation (SBAR) • Reason, Story, Vitals, Plan (RSVP) • Transfer of minimum records required to accompany participant to ICU or other department as defined in local SOPs

Post-Scenario Discussion

Possible discussion points	• Using a systematic approach (ABCDE assessment) • Recognise presentation of ACS • Be aware of initial treatment options in ACS • The importance of a good team leader in the management of ACS

	• Emphasises importance of effective feedback as a learning tool • Use of SBAR or RSVP tools

Appendices

Attach any background information and supporting documents for the scenario as required, e.g. Clinical Records, X-rays, Observation Chart, Drug Chart, ECG, Fluid Balance Chart, Peak Flow Chart, Blood Results, ABGs results etc.

Core scenario 1b: Assessment and initial treatment of a critically ill participant and a participant in cardiac arrest

Case scenario	Assessment and initial treatment of a critically ill participant and a participant in cardiac arrest
Intended clinical (technical) learning objectives	• ABCDE approach to assessing and treating participants at risk of cardiac arrest • Cardiac arrest recognition and management demonstrating safe defibrillation (using either manual defibrillator or automated external defibrillator (AED)) • Knowledge of resuscitation shockable and non-shockable treatment algorithms as appropriate
Intended non-technical learning objectives	**Communication** • Structured and effective team communication **Leadership and teamwork** • Management of cardiac arrest • Appropriate and timely allocation of personnel • Managing the needs of relatives **Decision making** • Timely call for appropriate help

Participant's name and age/ DOB	Joe Sparrow 56 year old male
Learner information pre-scenario (Narrative case description)	**Use only if scenario is announced** A 56 year old man arrives in the CRF Reception to attend a screening visit for the (specify) study
Facilitator information pre-scenario (Narrative case description) **Use SBAR** (Situation, background, assessment, recommendations)	A 56 year old man arrives in the CRF Reception to attend a screening visit for the (specify) study. While waiting in Reception, he develops central chest pain, shortness of breath (SOB) and looks pale and sweaty. **If asked for:** • PMHx Cardiac History, NIDDM, peptic ulcer, IHD with MI 1 year ago

	• NKDA, Ex-smoker 30/day until 6/12 ago, 10 units alcohol/ week • Medications list with relative

Scenario Preparation

Facilitators - at least 2 (You can use additional facilitators as role players)	1. To run the scenario 2. To role play as the relative (optional) 3. To role play as the participant (optional) 4. To observe and document scenario events
Learner (Options according to availability)	Clinical roles (maximum 6 learners) Learners should assume their own clinical role during the scenario
Area setup for scenario	**Environment** Participant sitting in the reception area of the Clinical Research Facility **Specific set-up** Can use a facilitator as the participant initially, changing to manikin at cardiac arrest.
Equipment setup and possible props needed for scenario	**Equipment immediately available** None, as the location is the reception area **Equipment available on request** Resuscitation trolley, AED, cardiac monitor, oxygen and masks, suction, emergency drugs etc.
Participant/ manikin preparations for scenario	**Gender** Male participant **Participant's position** Sitting in the CRF Reception **Appearance** No monitoring, no IV lines, a few basal crepitations **Concomitant medications** Metformin, Gliclazide, GTN SL tablets, Aspirin, Omeprazole (relative has this list) Sublingual GTN tablets in his pocket

Medical documentation needed for scenario	**Available** Concomitant medications list with relative **Not available** Clinical records (participant not local to this Trust)

Scenario Clinical Course

Observations on initial assessment	**Verbal handover to first responder as they enter:** Participant is complaining of central chest pain, appears to be short of breath (SOB) and looks pale and sweaty. • A: Clear • B: SOB, Resp 20, O_2 sats 98% on O_2, symmetrical chest movement, normal breath sounds • C: HR 110 min^{-1} (ECG: shows sinus tachycardia with MI wave), BP 150/100 mmHg, Temp 37.0oC, capillary refill time (perip) 2 secs, request 12 lead ECG (attached) • D: Verbal response, BM (if asked) 6.3 mmol/L • E: Persistent central chest pain, pale and clammy to the touch
Initial clinical interventions required in response to the above	• Shout for help (Staff in Reception; emergency buzzer) • Recognise need for urgent medical help (calls appropriately) • Immediate ABCDE assessment • Start obtaining history • Cardiac monitoring • Request 12 lead ECG (attached) if has not already • IV access if skilled personnel available Initial treatment: • Oxygen with appropriate delivery device • GTN (in participant's pocket) • Aspirin • Pain relief
Clinical course progression	While treatment is being administered, the participant stops talking and collapses on the floor Cardiac Arrest (VF/ VT)

Further clinical interventions required in response to above progression	**Reassess:** • A: Clear • Check participant – no breathing and no pulse • Confirm Cardiac Arrest • Call Resuscitation Team • Start CPR • Attach self-adhesive pads while continuing chest compressions • Pause CPR to confirm rhythm - VF on monitor • Restart CPR whilst defibrillator is charging • Alert rescuers to stand clear, remove oxygen • When defibrillator charged – Stop CPR – Stand clear – Deliver 1st shock (energy specific to defibrillator) • Promptly restart CPR (30:2) do not re-check rhythm • Continue CPR 2 min • During CPR • IV access/ advance airway (as appropriate) • 2 min – Check monitor (confirm VF) • 2nd shock (energy specific to defibrillator) • Continue CPR for 2 min • During CPR • Change person providing compressions • 2 min – Check monitor (confirm VF) • 3rd shock (energy specific to defibrillator) • Continue CPR for 2 min • During CPR - Give adrenaline 1 mg and amiodarone 300mg IV • 2 min – Check monitor (confirm PEA) • Check participant for signs of life • Continue CPR for 2 min • During CPR - Consider causes • 2 min – Check monitor (confirm rhythm) • Check participant for signs of life
Further clinical course progressions (as required)	Insert / Delete as required
Further clinical interventions (as required)	Insert / Delete as required
Post-emergency care (Time dependent)	• Return of spontaneous circulation - initiate post-resuscitation care

	• Reassess using ABCDE • Request ECG, ABG, Chest X-ray • Handover of participant • Situation, Background, Assessment, Recommendation (SBAR) • Reason, Story, Vitals, Plan (RSVP) • Transfer of minimum records required to accompany participant to ICU or other department as defined in local SOPs

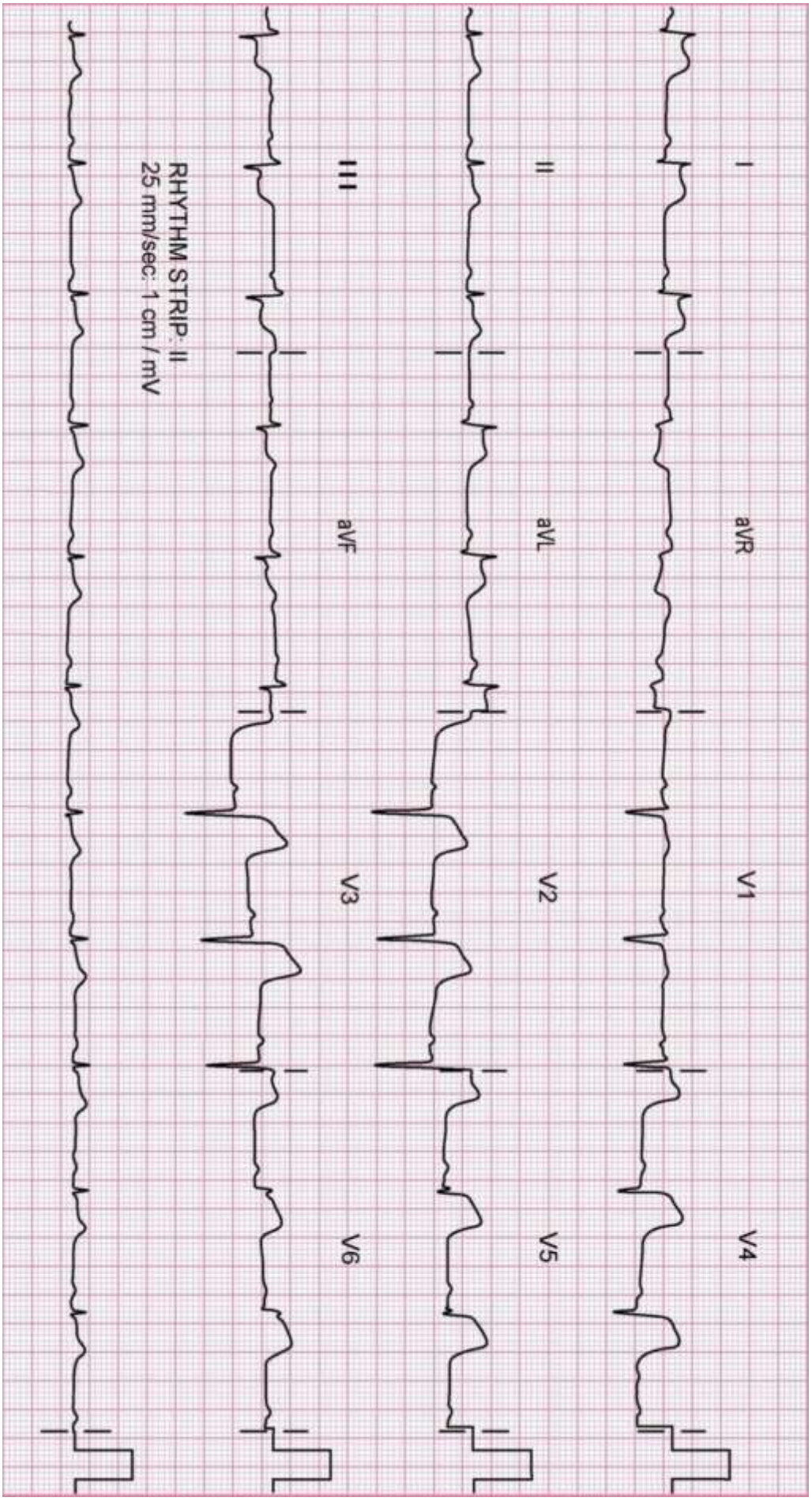
Post-Scenario Discussion

Possible discussion points	• Using a systematic approach (ABCDE assessment) for the assessment of a participant at risk of cardiac arrest • Resuscitation Council (UK) 2010 Guidelines - Shockable and Non-Shockable algorithms • The importance of teamwork and leadership in the management of cardiac arrest • Safe defibrillation – use of manual defibrillators or AED (specific to what is used in the department) • ECG analysis if appropriate • Post-emergency care and transfer

Appendices

Attach any background information and supporting documents for the scenario as required, e.g. Clinical Records, X-rays, Observation Chart, Drug Chart, ECG, Fluid Balance Chart, Peak Flow Chart, Blood Results, ABGs results etc.

ECG recording for use with scenario 1b



Core scenario 2a: Recognition and treatment of syncope-vasovagal

Case scenario	Recognition and treatment of syncope-vasovagal
Intended clinical (technical) learning objectives	• ABCDE approach to assessing and treating a collapsed participant • Call for help at appropriate time • Appropriate use of interventions/ emergency equipment (positioning of participant, oxygen, monitoring equipment, emergency drugs) • Understand the causes of syncope
Intended non-technical learning objectives	• To demonstrate good leadership and communication within the team and with the participant • Clear handover to medical team using SBAR approach or equivalent

Participant's name and age/ DOB	Hilda Wood Age 26 years old
Learner information pre-scenario (Narrative case description)	**Use only if scenario is announced** Hilda is attending a phase II clinical trial. Hilda feels dizzy during venepuncture and collapses in the phlebotomy chair/ bed Past medical history of asthma and on inhalers prn. Nil other significant history, nil drug allergies
Facilitator information pre-scenario (Narrative case description) **Use SBAR** (Situation, background, assessment, recommendations)	History as above NB: The participant will resume consciousness within 30 seconds of positioning. Vital signs will come back as normal after implementation of clinical course 1 required interventions.

Scenario Preparation

Facilitators - at least 2 (You can use additional facilitators as role players)	1. To run the scenario 2. To role play as the relative (optional) 3. To role play as the participant (optional) 4. To observe and document scenario events
Learner (Options according to availability)	Clinical roles (maximum 6 learners) Learners should assume their own clinical role during the scenario
Area setup for scenario	**Environment** CRF **Specific set-up** Manikin sitting upright on a chair/ bed
Equipment setup and possible props needed for scenario	**Equipment immediately available** Oxygen, equipment to measure vital signs **Equipment available on request** Resuscitation trolley, suction machine
Participant/ manikin preparations for scenario	**Gender** 26 year old female **Participant's position** Sitting upright on a chair/ bed **Appearance** Pale, sweaty and clammy **Concomitant medications** Ventolin inhaler prn
Medical documentation needed for scenario	**Available** Local study data file containing research study consent form, PIS, brief past medical history and current medications. Written entry by PI stating the consent process and brief medical history Set of baseline medical observations **Not available** Medical records

Scenario Clinical Course

Observations on initial assessment	Participant has collapsed and looks pale, sweaty and clammy. • A: Unconscious • B: RR10 • C: Pale and clammy. Pulse 40 BP 70/- • D: Unconscious • E: Nil
Initial clinical interventions required in response to the above	• Shout for help, emergency buzzer • Contact study doctor if present • Assess participant using ABCDE approach • A: Maintain airway • B: O_2 therapy – 100% rebreathing mask • C: Raise participant's legs, monitor BP • D: Vital signs - BP, PR, RR, Temps, BMs • E: Reassure participant • Optimum positioning • Communicate findings to attending colleagues
Clinical course progression	Participant improving; examination findings: • A: Patent • B: RR 14, Sats 98% on room air • C: HR 52, BP 109/70 • D: AVPU - alert and oriented • E: Nil
Further clinical interventions required in response to above progression	• Reassess: ABCDE • Offer fluids when participant regains consciousness • Medical review before discharge • Report as an AE
Further clinical course progressions (as required)	Participant is now breathing and has a central pulse
Further clinical interventions (as required)	Reassess using ABCDE assessment tool
Post-emergency care (Time dependent)	The participant can be discharged after medical review

Post-Scenario Discussion

Possible discussion points	• Include technical and non-technical points: • Assessment using ABCDE approach • Draw out attributes of a good team leader – roles planned in advance; identification of team leader; non-technical skills (task management, team working, situational awareness, decision making, structured communication) • Hand over to medical staff • Causes of syncope

Appendices

Attach any background information and supporting documents for the scenario as required, e.g. Clinical Records, X-rays, Observation Chart, Drug Chart, ECG, Fluid Balance Chart, Peak Flow Chart, Blood Results, ABGs results etc.

Core scenario 2b: Recognition and treatment of syncope caused by Bundle Branch Block

Case scenario	Recognition and treatment of syncope caused by Bundle Branch Block
Intended clinical (technical) learning objectives	• ABCDE approach to assessing and treating a collapsed participant • Call for help at appropriate time • Appropriate use of interventions/ emergency equipment (positioning of participant, oxygen, monitoring equipment, emergency drugs) • Understand the causes of syncope
Intended non-technical learning objectives	• To demonstrate good leadership and communication within the team and with the participant • Clear handover to medical team using SBAR approach or equivalent

Participant's name and age/ DOB	Gabriel Smith Age 51 years old
Learner information pre-scenario (Narrative case description)	**Use only if scenario is announced** Gabriel is attending the CRF for a phase II clinical trial. He is now awaiting a blood test and is anxious. Gabriel will complain to the first responders that he feels dizzy and then collapse in the chair. Past medical history of hypertension and hypercholesterolemia, on medication. Nil other significant history, nil drug allergies
Facilitator information pre-scenario (Narrative case description) **Use SBAR** (Situation, background, assessment, recommendations)	History as above NB: The scenario is to test response to attending collapsed participant - syncope with BBB

Scenario Preparation

Facilitators - at least 2 (You can use additional facilitators as role players)	1. To run the scenario 2. To role play as the relative (optional) 3. To role play as the participant (optional) 4. To observe and document scenario events
Learner (Options according to availability)	Clinical roles (maximum 6 learners) Learners should assume their own clinical role during the scenario
Area setup for scenario	**Environment** CRF **Specific setup** Manikin sitting upright on a chair/ bed
Equipment setup and possible props needed for scenario	**Equipment immediately available** Oxygen, equipment to measure vital signs **Equipment available on request** Resuscitation trolley, suction machine
Participant/ manikin preparations for scenario	**Gender** 51 year old male **Participant's position** Sitting upright on a chair/ bed **Appearance** Pale, sweaty and clammy **Concomitant medications** Irbesartan 150 mg OD Simvastatin 20mg OD
Medical documentation needed for scenario	**Available** Local study data file containing research study consent form, PIS, brief past medical history and current medications. Written entry by PI stating the consent process and brief medical history Set of baseline medical observations **Not available** Medical records

Scenario Clinical Course

Observations on initial assessment	Participant has collapsed and looks pale, sweaty and clammy. • A: Unconscious • B: RR 10, Sats 95% on room air • C: Pale and clammy. Pulse 40 BP 70/- • D: Unconscious • E: Nil
Initial clinical interventions required in response to the above	• Shout for help, emergency buzzer • Contact study doctor • Assess participant using ABCDE approach • A: Maintain airway • B: O_2 therapy – 100% rebreathing mask • C: Vital signs – BP/P/RR/Temp, elevate participant's legs, IV Access and IV fluids, monitor BP, check capillary refill time • D: BMs, ECG monitoring, blood tests (not a priority but consider FBC, U&E, CRP, Trop T, group and cross match) • E: Reassure participant • Optimum positioning • Communicate findings to attending colleagues
Clinical course progression	Participant improving; examination findings: • A: Patent • B: RR 12, Sats 98% on 15 litres oxygen • C: HR 52, BP 90/62, clammy, peripherally cold • D: Responding to voice, ECG-abnormal • E: Nil
Further clinical interventions required in response to above progression	• Medical help arrives - hand over to medic • ECG - bundle branch block • Continue monitoring. Reassess: ABCDE • Transfer participant to appropriate unit for further monitoring and investigations • Report as an SAE • Reassess participant and response to interventions
Further clinical course progressions (as required)	Insert / Delete as required
Further clinical interventions (as required)	Insert / Delete as required

Post-emergency care (Time dependent)	• Assessment of the critically ill participant using ABCDE approach • Draw out attributes of a good team leader – roles planned in advance; identification of team leader; non-technical skills (task management, team working, situational awareness, decision making, structured communication) • Cause of syncope - BBB and high risk group involved • Other causes of syncope • Importance of handovers, including the use of specific tools (SBAR or RSVP)

Appendices

Attach any background information and supporting documents for the scenario as required, e.g. Clinical Records, X-rays, Observation Chart, Drug Chart, ECG, Fluid Balance Chart, Peak Flow Chart, Blood Results, ABGs results etc.

Core scenario 3: Recognition and treatment of anaphylaxis

Case scenario	Recognition and treatment of anaphylaxis
Intended clinical (technical) learning objectives	• ABCDE approach to assessing and treating a participant with anaphylaxis • Appropriate use of emergency equipment, drugs and monitoring
Intended non-technical learning objectives	• Communication • Structured and effective teamwork • Leadership • Decision making

Participant's name and age/ DOB	Andy Jones 32 year old male
Learner information pre-scenario (Narrative case description)	**Use only if scenario is announced** Andy is a healthy volunteer who has been enrolled into a Phase I trial. He has no past medical history. He has had baseline observations of temperature, pulse, blood pressure, and respirations recorded and these are all within normal ranges. He is cannulated and commenced on an intravenous infusion of an investigational medicinal product - a new antibiotic 5 minutes after the infusion was started, Andy begins to complain that he feels dizzy and that his throat feels tight
Facilitator information pre-scenario (Narrative case description) **Use SBAR** (Situation, background, assessment, recommendations)	Andy is suffering from severe anaphylaxis related to the study drug He has no past medical history He will continue to worsen up until the point of adrenaline administration Recognition and treatment should be based on Resuscitation Council (UK) Guidelines 2008

Scenario Preparation

Facilitators - at least 2 (You can use additional facilitators as role players)	1. To run the scenario 2. To role play as Andy 3. To observe and document scenario events
Learner (Options according to availability)	Clinical roles (maximum 6 learners) Learners should assume their own clinical role during the scenario
Area setup for scenario	**Environment** The Clinical Research Facility ward area **Specific setup** Andy is sitting up in bed with the IMP infusion running. Andy has 3 lead ECG monitoring on and vital signs are scheduled to be recorded every 30 mins.
Equipment setup and possible props needed for scenario	**Equipment immediately available** Oxygen, cardio/ respiratory monitoring for blood pressure, oxygen saturation, pulse, respirations, temperature **Equipment available on request** Resuscitation trolley, defibrillator, airway adjuncts (e.g. Guedel/ nasopharyngeal airways), anaphylaxis kit containing pre-filled adrenaline syringe, hydrocortisone, salbutamol, chlorphenamine, intravenous fluids and IV administration sets
Participant/ manikin preparations for scenario	**Gender** Male **Participant's position** Sitting up in bed **Appearance** Anxious, pale, clammy, feeling sick Concomitant medications None
Medical documentation needed for scenario	**Available** Case report form Study site file Investigator brochure **Not available** Medical notes

Scenario Clinical Course

Observations on initial assessment	**(If applicable) Verbal handover to first responder as they enter the scenario:** • A: Tongue swollen, stridor audible from end of bed • B: Respiratory rate 29 bpm, using accessory muscles, oxygen saturations 87% on room air (if requested) • C: Heart rate 125 bpm, blood pressure 80/55 mmHg, clammy • D: Alert, distressed • E: Urticarial rash
Initial clinical interventions required in response to the above	• Stop the infusion • Call for help (Resuscitation Team should be called as soon as anaphylaxis recognised) • Immediate ABCDE assessment • Oxygen therapy (15 litres via a non-rebreather mask) • Consider airway adjuncts (e.g. Guedel airway/ nasopharyngeal) • Administer intramuscular adrenaline (500 mcg 1:1000) • Gain new IV access • Consider IV Fluids (Hartmanns or N/Saline are considered suitable for initial resuscitation) • Do not use the cannula that was used for IMP infusion • Consider Hydrocortisone 100 mg IV, Salbutamol 2.5 mg nebuliser, Chlorphenamine 10 mg IV
Clinical course progression	Participant improves if appropriate action taken
Further clinical interventions required in response to above progression	• A: Airway swelling resolves, stridor no longer audible • B: Respiratory rate now 28 bpm, oxygen saturations 100% via with oxygen therapy • C: Heart rate 90 bpm, blood pressure 105/70 • D: Alert but distressed • E: Rash resolving
Further clinical course progressions (as required)	Anaphylaxis resolves with appropriate treatment

Further clinical interventions (as required)	• Observe for at least 6 hours and up to 24 hours as per Resuscitation Council (UK) Guidelines 2008 • Blood samples for Mast cell tryptase,(3 samples) • As soon as possible after onset but do not delay resuscitation • 1-2 hours after initial reaction • 24 hours or in follow-up allergy clinic • Review by a senior clinician • Consider anti-histamine/ oral steroid therapy for up to 3 days post-incident
Post-emergency care (Time dependent)	Arrange appropriate transfer of participant for further observation – Critical Care/ HDU Handover of participant to an appropriate area using Situation Background Assessment Recommendation (SBAR) Transfer of minimum records required to accompany participant to ICU or other department as defined in local SOPs

Post-Scenario Discussion

Possible discussion points	• **This was a severe reaction to the study drug but in milder allergic reactions, what other medications could be considered before giving adrenaline?** Hydrocortisone 100mg IV, Chlorphenamine 10mg IV, Salbutamol for wheeze as per Resuscitation Council (UK) Guidelines 2008 • **What is meant by biphasic anaphylaxis?** A recurrence of symptoms up to 72 hours after initial symptoms. It has been found to develop in up to 20% of anaphylactic reactions (Tole and Lieberman, 2007) • **If giving an intravenous fluid challenge, how much fluid should you administer to an adult?** A rapid infusion of 500 - 1000 ml • **Should colloids or crystalloids be used?** There is no evidence to support the use of colloids over crystalloids. Consider colloids as a possible cause in a participant receiving a colloid at the time of onset of an anaphylactic reaction and stop the infusion

Appendices

Attach any background information and supporting documents for the scenario as required, e.g. Clinical Records, X-rays, Observation Chart, Drug Chart, ECG, Fluid Balance Chart, Peak Flow Chart, Blood Results, ABGs results etc.

Core scenario 4: Recognition and treatment of respiratory distress – bronchospasm

Case scenario	Recognition and treatment of respiratory distress - bronchospasm
Intended clinical (technical) learning objectives	• ABCDE approach to assessing and treating a participant with bronchospasm • Appropriate use of emergency equipment, drugs and monitoring • Identify increased risk of respiratory arrest
Intended non-technical learning objectives	• Communication • Leadership • Decision-making • Timing

Participant's name and age/ DOB	Alison Mitchell 25 year old female
Learner information pre-scenario (Narrative case description)	**Use only if scenario is announced** Alison has agreed to participate in a observational study of exercise tolerance in well-controlled asthmatics The learners enter the room following a call for help from a junior nurse who has been monitoring Alison on a treadmill. They find Alison in a chair and struggling for breath
Facilitator information pre-scenario (Narrative case description) **Use SBAR** (Situation, background, assessment, recommendations)	Alison is suffering an exercise-induced asthma attack She is short of breath, has an audible wheeze and is unable to speak in full sentences Her asthma is usually well controlled Her condition will continue to deteriorate until appropriate assessment and treatment has been undertaken

Scenario Preparation

Facilitators - at least 2 (You can use additional facilitators as role players)	1. To run the scenario 2. To role play as Alison 3. To role play as the nurse handing over 4. To observe and document scenario events
Learner (Options according to availability)	Clinical roles (maximum 6 learners) Learners should assume their own clinical role during the scenario
Area setup for scenario	**Environment** The Exercise Suite in the Clinical Research Facility **Specific setup** Alison, sitting in a chair
Equipment setup and possible props needed for scenario	**Equipment immediately available** Oxygen, stethoscope, spirometer, salbutamol inhaler, monitoring equipment **Equipment available on request** Nebuliser equipment, respiratory drugs, resuscitation trolley
Participant/ manikin preparations for scenario	**Gender** Female, usually well-controlled asthmatic, no other significant past medical history **Participant's position** Sitting in a chair **Appearance** No monitoring, anxious, speaking in short sentences, using accessory muscles **Concomitant medications** Salbutamol PRN
Medical documentation needed for scenario	**Available** Study file, medical notes, prescription chart with prescribed salbutamol inhaler (100 mcg/ metered inhalation) and salbutamol nebuliser (2.5 mg) to be given PRN

Scenario Clinical Course

Observations on initial assessment	**(If applicable) Verbal handover to first responder as they enter scenario:** • A: Patent • B: Respiratory rate 40 bpm, reduced bilateral air entry, expiratory wheeze, using accessory muscles, O_2 saturations 91% on room air (if requested) • C: HR 115 bpm regular, blood pressure 120/72 mmHg, clammy. • D: Alert, anxious • E: Nil
Initial clinical interventions required in response to the above	• Call for appropriate medical help • Immediate ABCDE assessment • O_2 therapy (15 litres via a non-rebreather mask) • Consider Salbutamol nebuliser • Is the participant in the optimum position? • Reassure participant throughout • Consider an Arterial Blood Gas, Chest X-ray and cannulation
Clinical course progression	Alison deteriorates further: • A: Patent • B: Air entry further reduced, respiratory rate 40 bpm, O_2 saturations 89% on 15 litres O_2, unable to speak, unable to obtain peak flow • C: Heart rate 140 bpm, blood pressure 100/58, clammy, peripherally cool • D: Extremely distressed, very anxious, appears to be tiring • E: Nil
Further clinical interventions required in response to above progression	• Summon the medical emergency team • Summon the resuscitation trolley (if not already requested) • Further nebulised salbutamol • Reassess: ABCDE throughout
Further clinical course progressions (as required)	Participant improving: • A: Patent • B: Respiratory rate 25 breaths per minute, improved bilateral air entry, wheeze improved, O_2 saturations 98% on 15 litres O_2, able to speak in sentences, reduced use of

	accessory muscles • C: HR 115 bpm, BP120/78, remains clammy • D: Alert, calmer • E: Nil
Further clinical interventions (as required)	• Continue to monitor • Reduce O_2 therapy as able • Prepare for transfer to high care area • Continue to reassess using ABCDE approach
Post-emergency care (Time dependent)	• Reassess using ABCDE • Request ECG, ABG, Chest X-ray • Handover of participant – Situation, Background, Assessment, Recommendation (SBAR) • Reason, Story, Vitals, Plan (RSVP) • Transfer of minimum records required to accompany participant to ICU or other department as defined in local SOPs

Post-Scenario Discussion

Possible discussion points	• What are the hallmarks and treatment for a severe asthma attack? • What is the local process of arranging a transfer to the High Dependency Unit or equivalent? • What equipment is required for transfer?

Appendices

Attach any background information and supporting documents for the scenario as required, e.g. Clinical Records, X-rays, Observation Chart, Drug Chart, ECG, Fluid Balance Chart, Peak Flow Chart, Blood Results, ABGs results etc.

4. Debriefing Delivery Tool

Debriefing is a critical aspect of simulation. Debriefing is described as "…the process whereby the healthcare team can re-examine the clinical encounter to foster the development of clinical reasoning, critical thinking, judgment skills and communication through reflective learning processes" (Arafeh 2010). Debriefing is an important process designed to synergise, strengthen, and transfer learning from the experiential exercise (Warrick 1979).

Most debriefing approaches are conducted soon after the experience, however some allow more time for formal reflection. Also, if skills or behaviours are seriously flawed, debriefing may need to occur during the scenario (Fanning and Gaba 2007).

Learners' emotions can run high immediately after a simulated experience as they begin to analyse their performance and the critical aspects of the scenario (Arafeh 2010). These emotions can be re-organised and focused in a productive manor by debriefing immediately after the scenario.

Fanning and Gaba (2007) suggest debriefing should be facilitated and coordinated by suitably qualified and experienced facilitators to ensure a safe environment. The resuscitation council ILS instructor and ALS instructor courses include training in debriefing skills. However, it may also be possible to negotiate in-house training with local resuscitation officers.

During a structured debriefing session, good ethical practice should ensure that the facilitator sets a safe, confidential and supportive environment where learners feel valued and respected, to ensure vital reflection.

The facilitator's role is to lead a safe discussion and encourage deep thinking by asking meaningful pre-planned questions.

Many topics can be discussed during a debrief. However, it is important to initially focus on what the learners want to discuss. Once discussion is underway, key learning objectives and other issues (strengths and weaknesses) that arise can also be discussed.

It is important to remember and understand that the expected learners are adults and come with their own personal experiences, knowledge and feelings which may influence and drive their actions (Fanning and Gaba 2007).

There are various different approaches to debriefing. Generally debriefings move without facilitation via their own power through three phases of description, analysis and application (Steinwachs 1992). Further guidance on facilitating these phases is provided below.

Stage 1: Opening the discussion or conversation

The discussion is to be conducted in a non-threatening/ non-judgmental manner. Start by communicating the session's expectations, using phrases such as:

- Debriefing is a time to discover together what happened and what it all means…
- We now have time to reflect…
- To make this discussion as rich as possible, please contribute ideas, and leave time for others to do the same…
- Listen and learn from each other…

Explain the ground rules:

- Honour confidentiality
- Give unconditional respect to self and others
- Participate as much as possible
- Speak only for myself, not others
- Be open and honest with group members
- Be silent if it feels right

Explain the debrief structure that will be followed:

- Factual description of the scenario
- As learners begin to discuss events, encourage them to continually analyse the events, thoughts, feeling and reactions
- Summarise the learning the group has discussed

Stage 2: Descriptive phase

Explore what happened (6 minutes)

Ask learners to describe what has happened in the scenario:

- Keep learners to the factual events as they occurred during the scenario
- Take notes of key phrases that are said by the group to use during the analysis phase
- Keep the focus on the group and not individual learners – no blame
- Try to encourage all learners to contribute

Summarise the clinical (technical) queries and issues by discussing clinical signs/ symptoms and treatment that the scenario was designed to show

Stage 3: Analysis phase

Explore jointly any issues that emerge (12 minutes)

Ask learners, “How did you feel?”

- Use key phrases/ quotes from notes taken in the descriptive phase to start discussions and explorations
- Acknowledge and facilitate discussion – remember to ask Why? Why? Why? Why? Why?
- Try to promote the “oh yes” moments
- Try to focus on one or two non-technical skills and how it influenced the course of the scenario; there will not be enough time to discuss all non-technical skills (decision making, planning, situation awareness, team-working, leadership, communication)
- Listen to what learners are saying; pick up on key issues from them.
- May need to ask additional questions for deeper thinking; may need to give your opinion
- Include and encourage impressions from all learners within the group

What have you (the learners) learnt from this experience?

- Support learners to share their observations and their perceptions, including strengths and areas for change
- Consider all of the group's learning; do not overload one learner
- Keep the learning objectives in mind and take opportunities to reinforce any particular technical or non-technical elements

Ask learners if there is anything that they would have done differently?

- Include impressions/ suggestions from the entire group – what ideas or suggestions have the group got for how to deal with that situation?

Do any events during this scenario reflect reality?

- Ask learners to share if they have been involved in situations like this during clinical practice
- Real clinical examples are powerful learning tools; seek experience from the 'real world' to emphasise points and help relate experience to the real world

Ask learners if there are any further issues, question or comments that they would like to offer

Stage 4: Key learning points

Ask the learners to summarise the learning the group has discussed (4 minutes)
Using examples from the learners, give your summary - keep it brief!
Finish on a positive note!

Useful facilitation techniques

Ask open ended questions – for example:

- How well did you feel the team performed?
- What caused you frustration or discomfort?
- What surprised you about how you operated?
- Why did you feel that affected your ability to make decisions?
- How did you feel when that happened?
- What did you understand of that instruction?
- What was happening at the time?
- What did you learn?
- How will you do it differently next time?
- Why did you say or do that?
- What do you think can be improved?

Probing questions:

- What would have made you more comfortable?
- What would you have preferred to have happened?
- Tell me more about how you felt when that was said?
- Explain your thoughts at the time…
- How could that be improved?
- What were you doing when this occurred?
- Why do you think they did that?

Closed questions:

- Is that what you meant when you said that you wanted …. to do that?
- Did anyone notice what he said to the surgeon?
- Did you understand the instruction/ was the instruction clear?
- Had you identified the cause of the tachycardia at this stage?

- Was that a reasonable request?
- Was that action expected?
- Did you not like that?
- Was that a good decision at that point?
- Does anyone have anything further to add?

Reflection and summarizing – for example:

- So you have said that we should do this/ that in the future…
- What you have agreed is that this is what happened…
- Is what you are saying…?
- You have agreed that you will…
- So, is that a fair summary of how you handled that problem?
- And you are willing to use the learning…

Allow silences as they naturally occur – it will promote further discussion (10 seconds is not to long).

5. References

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6. Appendices

Appendix 1: Template clinical emergency scenario plan (with guidance notes)

Case scenario	
Intended clinical (technical) learning objectives	The clinical skills (objectives) that are intended by the scenario: • Understand the approach to the participant with…? • Recognise the signs and symptoms of…? • Know how to manage the participant with…?)
Intended non-technical learning objectives	The human factors which are vital to the scenario: • Cognitive or mental skills - decision making, planning, situation awareness. • Social skills - team-working, leadership, communication

Participant's name and age/ DOB	
Learner information pre-scenario (Narrative case description)	**Use only if scenario is announced** Brief outline
Facilitator information pre-scenario (Narrative case description) **Use SBAR** (Situation, background, assessment, recommendations)	Brief outline

Scenario Preparation

Facilitators - at least 2 (You can use additional facilitators as role players)	1. To run the scenario 2. To role play as the relative (optional) 3. To role play as the participant (optional) 4. Observing and documenting scenario events
Learner (Options according to availability)	Clinical roles (maximum 6 learners) Learners should assume their own clinical role during the scenario
Area setup for scenario	**Environment** Where will the scenario take place? **Specific setup** The set-up of the manikin (where, with what etc.) and/or brief notes for the facilitator role-playing as the participant
Equipment setup and possible props needed for scenario	**Equipment immediately available** What is normally available in the area where the scenario is to take place **Equipment available on request** e.g. Oxygen, suction, ECG
Participant/ manikin preparations for scenario	**Gender** Male / Female **Participant's position** Where is the participant? Are they sitting/ lying on floor/ in bed? **Appearance** Does the participant have any monitoring equipment on or is there an infusion running? **Concomitant medications** If applicable
Medical documentation needed for scenario	**What is available** e.g. Clinical records, observation charts, medication chart **What is not available** e.g. Clinical records, observation charts, medication chart

Scenario Clinical Course

Observations on initial assessment	**(If applicable) Verbal handover to first responder as they enter scenario:** • A: • B: • C: • D: • E:
Initial clinical interventions required in response to the above	List interventions
Clinical course progression	How does the participant respond to initial interventions above?
Further clinical interventions required in response to above progression	List interventions Reassess: ABCDE
Further clinical course progressions (as required)	Insert / Delete as required
Further clinical interventions (as required)	Insert / Delete as required
Post-emergency care (Time dependent)	**Where should the participant go and what should be done first?** • Reassess using ABCDE • Request ECG, Bloods, Chest X-ray • Handover of participant - Situation Background Assessment Recommendation (SBAR)

Post-Scenario Discussion

Possible discussion points	**Include technical and non-technical points:** • Assessment of the critically ill participant using ABCDE approach • Draw out attributes of a good team leader – roles planned in advance; identification of team leader; non-technical skills (task management, team working, situational awareness, decision making, structured communication) • Points specific to the scenario topic • Importance of handovers, including the use of specific tools (SBAR)

Appendices

Attach any background information and supporting documents for the scenario as required, e.g. Clinical Records, X-rays, Observation Chart, Drug Chart, ECG, Fluid Balance Chart, Peak Flow Chart, Blood Results, ABGs results etc.

Appendix 2: Template for recording details of emergency scenario training sessions (blank copy)

Title of scenario	
Date of scenario	
Type of scenario (Announced or unannounced)	
Clinical location (Could include areas outside clinical locations such as reception, toilets, corridors)	
Was scenario training video recorded and if so, where is this stored?	
Name/Role of Facilitator 1	
Name/Role of Facilitator 2	
Name/Role of Facilitator 3	

Learner Attendance Log				
#	**Name**	**Job Title**	**Place of Work**	**Signature**
1				
2				
3				
4				
5				
6				

Observed Learning Notes Events – Technical (Clinical/ Medical)		
	Time	**Comments**
Time of Incident		
Summon help (Shout or use phone to get help)		
Pull/ push emergency alarm button		
Response time from awareness of emergency to initial call for help		
ABCDE assessment		
Call for resuscitation team		
Appropriate equipment arrives		
Appropriate interventions such as oxygen therapy		
Appropriate monitoring attached		
Cardiac rhythm recognition		
Airway management		
Quality of chest compressions		
Drug administration		
Transfer to hospital/ critical care		
Unblinding procedure		

Observed Learning Notes Events – Non-technical (human factor-related)	
	Comments
Decision making	
Planning	
Situation awareness	
Team working	
Leadership	
Communication	

Summary of scenario events (include times)

Discussion Points

Comments and feedback from Scenario Facilitators

Confirmation of Scenario Completion	
Name of Facilitators	**Signature**
Due date for next training	

The trainer should retain this document for proof of training

Appendix 3: Template for recording details of emergency scenario training sessions (copy completed with example observations)

Title of scenario	Recognition and treatment of anaphylaxis
Date of scenario	9th December 2011
Type of scenario (Announced or unannounced)	Unannounced
Clinical location (Could include areas outside clinical locations such as reception, toilets, corridors)	Ward 1 Toilet, CRF, 15th Floor
Was scenario training video recorded and if so, where is this stored?	No
Name/Role of Facilitator 1	AM – running the scenario
Name/Role of Facilitator 2	PD – role playing as the participant
Name/Role of Facilitator 3	PC – observing and documenting scenario events

Learner Attendance Log				
#	**Name**	**Job Title**	**Place of Work**	**Signature**
1	TK	CRN	CRF	
2	JS	CRN	CRF	
3	JD	CRN	CRF	
4	KC	CRN	CLRN	
5				
6				

Observed Learning Notes Events – Technical (Clinical/ Medical)		
	Time	**Comments**
Time of Incident	09:46:45	Pt collapsed in ward 1 toilet; relative pressed call bell
Summon help (Shout or use phone to get help)	09:48:42	Called for study doctor
Pull/ push emergency alarm button		Emergency Team not called; team decision to call study doctor as above
Response time from awareness of emergency to initial call for help	10 Seconds	Good response to call bell
ABCDE assessment	1 minute	A and B, no CDE assessment, monitoring
Call for resuscitation team		Call made with clear instructions of cardiac arrest and location
Appropriate equipment arrives	1 minute	Oxygen cylinder
Appropriate interventions such as oxygen therapy		Rebreathing mask used with 15L
Appropriate monitoring attached		No monitoring
Cardiac rhythm recognition		No monitoring
Airway management		Good airway management displayed. Use of bag valve mask using 2 members of staff
Quality of chest compressions		N/A
Drug administration	09:52	Second doses of Hydrocortisone administered (not prescribed?)
Transfer to hospital/ critical care		N/A
Unblinding procedure		Procedure followed as per protocol instructions

Observed Learning Notes Events – Non-technical (human factor-related)	
	Comments
Decision making	Good rapid assessment of ABC
Planning	Call for help Sent to crash trolley Third responder dealt with upset relative
Situation awareness	Identified need for participant notes
Team working	Effective communication noted between all responders
Leadership	Good clear leadership displayed by first responder
Communication	Effective communication noted between all responders

Summary of scenario events (include times)
(This will be generated from the observed learning notes)

09:46:45 - Call bell pulled by relative

09:46:55 – First responder

09:47:24 – Second responder, followed closely by third responder

Third responder took relative aside as was distressed and upset

09:48 – Participant's airway and breathing assessed – need O_2 and crash trolley

09:48 – Crash trolley arrived

09:48:42 – Verbal query of 2222 call or Study Doctor (Study Doctor called)

Participant re-assessed – Swelling noted, SOB

O_2 High Flow administered

Delay: unable to disconnect oxygen cylinder from suction

09:50 Responder 4 (non-clinical)

09:50 – Query anaphylaxis and need for infusion to be stopped and request made for anaphylaxis kit

09:51:47 – Identified need for participant's notes, collected from bedside table

09:52:27 – Hydrocortisone, Chlorphenamine and fluid replacement administered

09:53 – Need for Salbutamol Nebuliser identified

Delay: Due to accessing Salbutamol and location of nebuliser equipment

09:53:46 – Symptoms worsening (lips swelling, eyes swollen)

Request need for new portable O_2

09:54:28 – Responder 5 (non-clinical)

09:55:27 – Wheelchair brought to participant

09:55:27 – Salbutamol arrived, no nebuliser equipment

09:56:14 - Participant moved to chair by being lifted by clinical staff

Doctor arrived – Handover using SBAR

Discussion Points

- Call bell by relative. Emergency buzzer should have also been initiated
- Call for help went to Study doctor, 2222 call also required
- ABCDE initiated with airway and breathing assessment. However no further progression to circulation, disability, and exposure
- Participant given second dose of Hydrocortisone and Chlorphenamine (not prescribed)
- Adrenaline not administered
- Priority was given to moving the participant into a chair; moving a sick participant is not a priority
- There was good effective communication between all responders
- Adapt to the environment that you are faced with; bring the equipment needed to the situation and remove anything that can be moved

Comments and feedback from Scenario Facilitators

Call for help early to the appropriate expert teams. Do not be afraid to call 2222 if a participant is still conscious and you think there is potential for deterioration

ABCDE assessment is vital to identify clinical deterioration

Work through ABCDE to identify signs and symptoms to guide appropriate care and treatment

Remember to reassess

Anaphylaxis – severe life-threatening, generalised or systemic hypersensitivity reaction

Signs and symptoms - Any rapidly developing, life-threatening airway, breathing and/or circulatory problem usually with skin and/or mucosal changes

Recognise and treat – Supportive treatments e.g. oxygen, fluids etc. However the first line treatment for life-threatening anaphylaxis is intra-muscular adrenaline 0.5mg 1:1000 (500mcg) then repeat after 5 minutes if symptoms do not improve

Refer to local policies as relevant

Resuscitation Council UK Guidelines 2008 http://www.resus.org.uk/pages/reaction.pdf

Any nurse, teacher, parent etc. can administer adrenaline injection 1 in 1000 (1 mg in 1 ml) if the purpose is to save life, without needing permission from an authorised prescriber. If they do this, they will not commit an unlawful act under the Medicines Act 1968. Note adrenaline dosage is set out – further dosing over 1 mg in 1 ml must be prescribed. The Statutory Instrument is 1997 The Prescription Only Medicines (Human Use) Order no 1830. This legislation can be found at www.hmso.gov.uk

Note: nurses involved must work within the Nursing and Midwifery Council (NMC) standards, and must therefore be competent in being able to recognise the anaphylactic reaction and administer adrenaline using an auto-injector. Therefore it would be sensible for trusts/ employers to ensure that such a provision is included in their first aid or anaphylaxis guidelines.

Confirmation of Scenario Completion	
Name of Facilitators	**Signature**
AM	
PD	
PC	
Due date for next training	

The trainer should retain this document as proof of training.

Appendix 4: Template action plan following feedback/ debrief session (blank copy)

Title of emergency scenario training			
Date of emergency scenario training			
Date of feedback/debrief session			
Person responsible for distribution of scenario learning outcomes/ CA/PA to all staff and recording names on database			
Description of learning outcome	**Corrective and/or preventative action (CA/PA)**	**Time frame**	**Name of person responsible for delivery of CA/PA**

Appendix 5: Template action plan following feedback/ debrief session (copy completed with example actions)

Title of emergency scenario training		Recognition and treatment of anaphylaxis	
Date of emergency scenario training		9th December 2011	
Date of feedback/debrief session		9th December 2011	
Person responsible for distribution of scenario learning outcomes/ CA/PA to all staff and recording names on database		TM	
Description of learning outcome	**Corrective and/or preventative action (CA/PA)**	**Time frame**	**Name of person responsible for delivery of CA/PA**
Delay in the nebuliser arriving - staff not familiar with equipment location	Email to be sent to all staff highlighting the importance of being aware of all equipment locations	Immediate	TM

The UKCRF Network Emergency Scenario Group is accountable to the UKCRF Network

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