Clinical Skills Development Service

Advanced Life Support

Scenario Pack

CSDS

Metro North Health

Queensland Government

Clinical Skills Development Service and Metro North Health acknowledges the Traditional Custodians of the Land upon which we live, work and walk, and pay our respects to Elders both past and present.

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An electronic version of this document is available at www.als.csds.qld.edu.au

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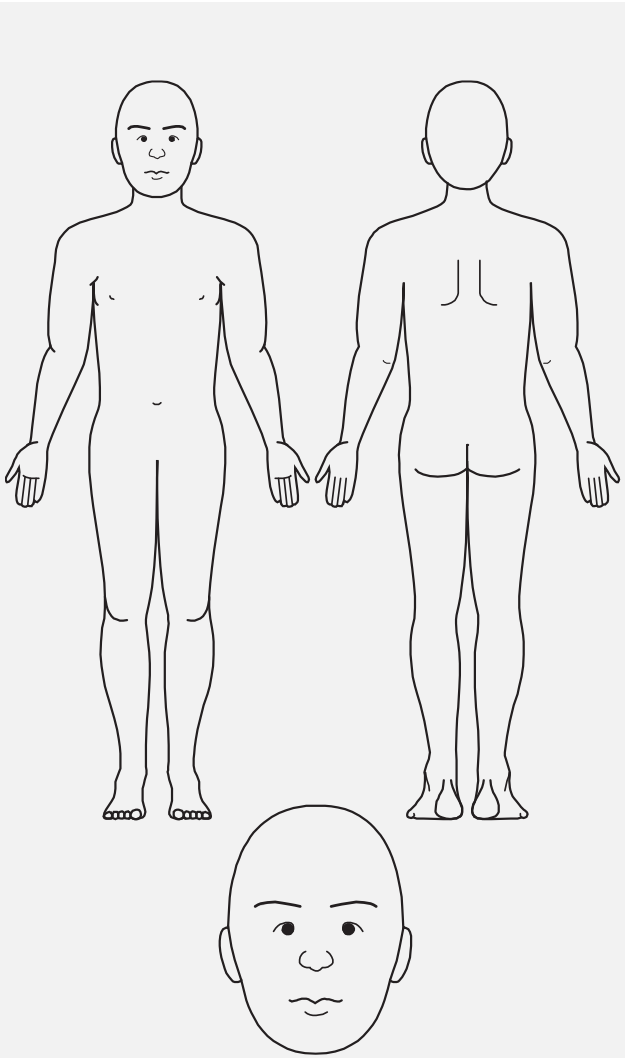
Sharon Jones – VF then PEA – Ward

TYPE OF SIMULATION	Immersive
TARGET AUDIENCE	• Medical staff • Nursing staff • Allied health staff
SCENARIO OVERVIEW	31 year old female, 20 weeks pregnant (G3P2) admitted to ward with left lower leg DVT. On return to the ward, following a cigarette, she complains of chest pain and collapses onto the bed. Patient's initial rhythm is a shockable rhythm, however, goes into a non-shockable rhythm after the 1st shock. Patient does not recover.
LEARNING OUTCOMES	By the end of the scenario the learners should: • Follow the ANZCOR ALS algorithm utilising the principles of crisis resource management • Discuss consideration of administration of fibrinolytic therapy or Surgical embolectomy and percutaneous mechanical thrombectomy
APPROXIMATE RUN TIME	30 mins including debrief

SET UP AND RESOURCES REQUIREMENTS

HUMAN RESOURCES	
FACULTY	1 x faculty to operate manikin and debrief
SIMULATION COORDINATORS	1 x to play confederate role
CONFEDERATES	Junior nurse
OTHER	

PHYSICAL RESOURCES	
ROOM SET UP	Ward
SIMULATOR/S	ALS Advanced
SIMULATOR/S SET UP	Manikin with female wig, in hospital gown, lying on a bed. TEDS stockings applied to both legs.
CLINICAL EQUIPMENT	Emergency trolley with defibrillator
ACCESS	2 x IV access: • 1 x IVC insitu • 1 with no IV stickers applied
ADDITIONAL PROPS	TEDS stockings Nicotine patch
OTHER	

INJURIES / MOULAGE	
LIMBS Nicotine patch right arm	
TORSO Prosthetic belly to simulate 20/40	
LIMBS TEDS on bed as removed by patient	

HANDOVER CARD / PATIENT DETAILS	
NAME: Sharon Jones	**AGE / SEX / WEIGHT:** Age: 31 Sex: female Weight: 90 kg
ALLERGIES: Penicillin	**MEDICATIONS:** Nicotine Patch
MEDICAL / SURGICAL HISTORY: 20/40 G3P2 Post-natal depression Asthma (ICU admissions for asthma) Known heavy smoker.	**SOCIAL HISTORY / EMPLOYMENT:** Accountant

START – 3 MINS	STATE ONE					
	Commencement of resuscitation					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	VF	**Handover**	I saw Sharon coming back from a cigarette, I told her earlier on that she wasn't' allowed to go, but she didn't listen. She looked pale and short of breath. I just had to quickly finish what I was doing and by the time I got here she wasn't breathing.	Provide further history only if asked. <u>Trending</u> After 1st defibrillation move to state 2	☐ Commence BLS algorithm ☐ Remove nicotine patch ☐ Commence ALS algorithm ☐ Attach defibrillator and assess rhythm immediately with minimal interruptions to CPR ☐ Safely defibrillate and recommence CPR for 2 minutes ☐ Call for help
	HR	Nil				
	SPO_2	Nil				
	BP/ART	Nil				
	RR	0				
	TEMP	36.0				
	CO_2	5	**Further history**	Another patient said she was complaining of chest pain.		
	BSL	3.8				
	GCS *E, V, M*	3/15 1, 1, 1				
	Other					

3 MINS – 15 MINS	STATE TWO					
	Consider reversible causes					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	Asystole				☐ Continue to follow the ALS algorithm ☐ Discuss reversible causes ☐ Consider definitive treatment as appropriate – administration of fibrinolytic therapy or surgical embolectomy and percutaneous mechanical thrombectomy ☐ Demonstrate CRM principles
	HR	Nil				
	SPO_2	Nil				
	BP/ART	Nil				
	RR	0				
	CVP	N/A				
	TEMP	35.8				
	CO_2	5				
	BSL	3.8				
	GCS *E, V, M*	3/15				
	Other					

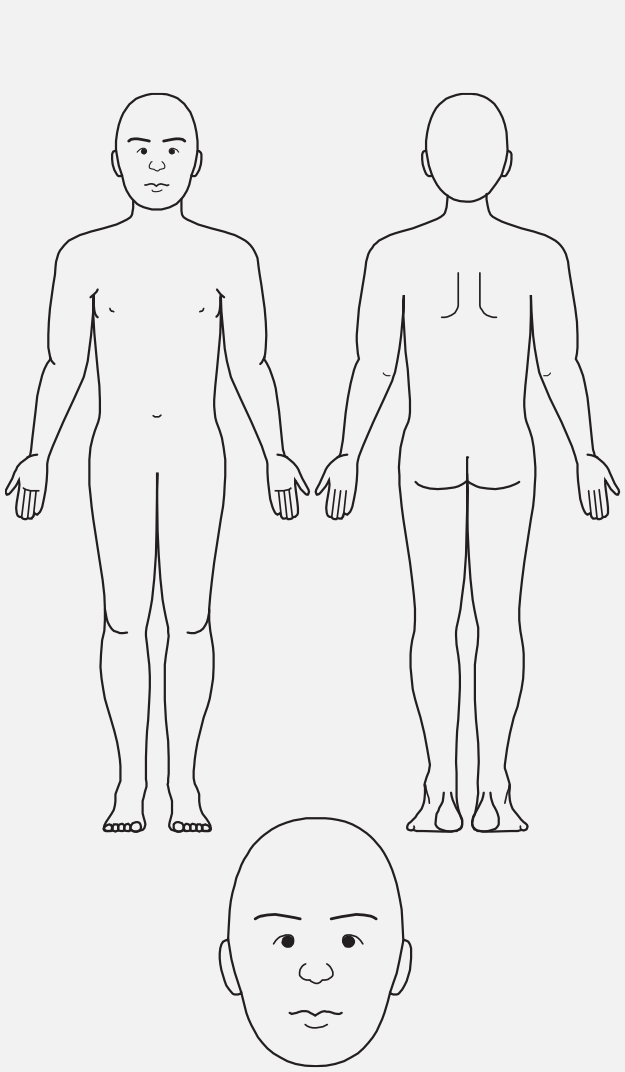
Julie McPherson – PEA – Surgical Ward

TYPE OF SIMULATION	Immersive
TARGET AUDIENCE	• Medical staff • Nursing staff • Allied health staff
SCENARIO OVERVIEW	79 year old woman in a surgical ward is found unresponsive in bed. Patient has a 2 day history of abdominal pain and is awaiting an ultrasound/CT scan. Monitoring reveals that the patient has Pulseless Electrical Activity (PEA). Patient progresses quickly into asystole and CPR continues. Possible causes are investigated, and it is observed that the patient's abdomen is distended, probably with a catastrophic bleed. The patient does not recover.
LEARNING OUTCOMES	By the end of the scenario the learners should: • Demonstrate principles of ARC ALS algorithm – non-shockable • Demonstrate principles of crisis resource management
APPROXIMATE RUN TIME	10 minute scenario and 15 minutes to debrief

SET UP AND RESOURCES REQUIREMENTS

HUMAN RESOURCES	
FACULTY	Participants on SPC to be lead debriefer and co-debriefer
SIMULATION COORDINATORS	Manikin Control Voice of patient
CONFEDERATES	Junior nurse
OTHER	

PHYSICAL RESOURCES	
ROOM SET UP	• Surgical Ward • Patient on bed
SIMULATOR/S	ALS Advanced
SIMULATOR/S SET UP	Patient in patient gown
CLINICAL EQUIPMENT	• Clinical equipment/ consumables found on a ward setting • Emergency trolley with defibrillator
ACCESS	2 x IV access, 1 with no IV sticker insitu 1 x IV fluid running
ADDITIONAL PROPS	
OTHER	

INJURIES / MOULAGE	
HEAD / FACE Wig	
TORSO Abdomen distended	

HANDOVER CARD / PATIENT DETAILS	
NAME: Julie McPherson	**AGE / SEX / WEIGHT:** Age: 79 Sex: Female Weight: 65 kg
ALLERGIES: KNDA	**MEDICATIONS:** Nil
MEDICAL / SURGICAL HISTORY: Two (2) day history of abdominal pain Recently admitted to surgical ward, awaiting ultrasound/CT scan	**SOCIAL HISTORY / EMPLOYMENT:** Retired accountant. Lives with husband.

START – 2 MINS

STATE ONE					
Alert participants to collapsed patient					
VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
ECG	Sinus Tachy	**Handover**	This is Julie, a 79 year old lady who presented two (2) days ago with abdominal pain. She was fasting awaiting an ultrasound, is now unresponsive in bed.	Patient remains in a PEA rhythm	☐ Assess patient ☐ Commencement of BLS algorithm ☐ Attach defibrillator ☐ Assessment of arrhythmia ☐ Identification of non-shockable rhythm and disarms defibrillator ☐ Continues CPR ☐ Use of CRM principles
HR	140				
SPO_2	Not readable				
BP/ART	Not readable				
RR	0				
CVP	N/A				
TEMP	36.0				
CO_2	N/A				
BSL	3.8				
GCS *V, M, E*	3				
Other					

2 MINS – 5 MINS	STATE TWO					
	Commencement of ALS algorithm					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	Sinus Tachy	**Faculty**	Respond as appropriate to questions from participants regarding 4H and 4T	• Towards end of state faculty to prompt: ○ The patient's abdomen is becoming distended ○ Last bloods normal except Hb 95	☐ Continues the ALS algorithm – non-shockable side ☐ Administer 1 mg Adrenaline ☐ Consider 4 H's and 4 T's ☐ Use of CRM principles ☐ Call for help
	HR	140				
	SPO_2	Not readable				
	BP/ART	Not readable				
	RR	0				
	CVP	N/A				
	TEMP	36.0				
	CO_2	N/A				
	BSL	3.8				
	GCS *V, M, E*	3				
	Other					

5 MINS – 10 MINS	STATE THREE					
	Patient goes into asystole					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	Asystole	**Faculty**	Respond as appropriate to questions from participants regarding 4H and 4T		☐ Continue CPR algorithms ☐ Team review of management of reversible causes ☐ Review of the treatment in light of probable catastrophic abdominal bleed
	HR	0				
	SPO_2	Not readable				
	BP/ART	Not readable				
	RR	0				
	CVP	N/A				
	TEMP	36.0				
	CO_2	5				
	BSL	4.0 mmol				
	GCS *V, M, E*	3				

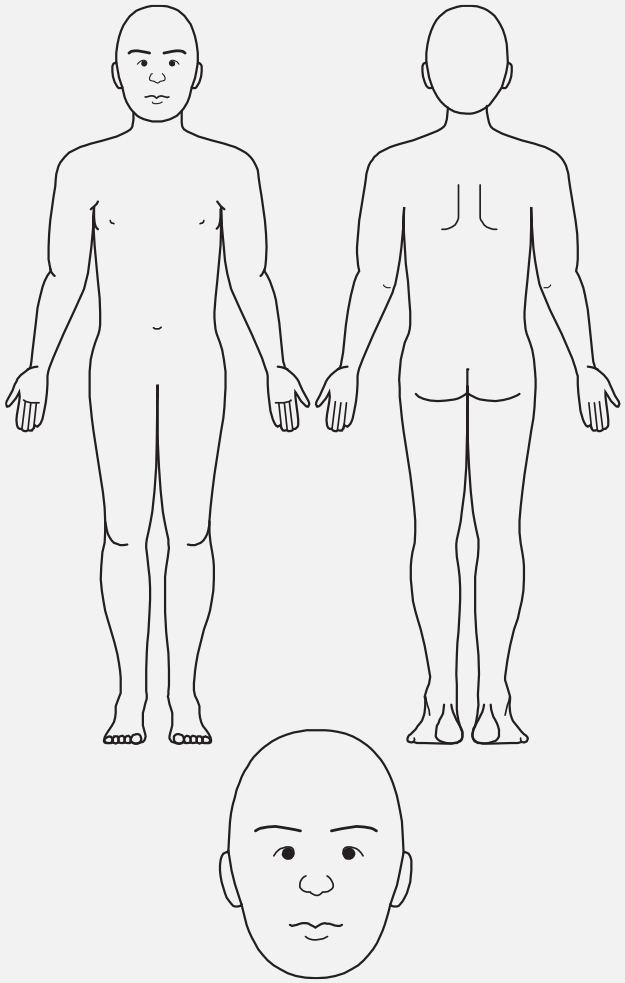
Marion Jones – VF then Asystole – Medical Ward

TYPE OF SIMULATION	Immersive
TARGET AUDIENCE	• Medical staff • Nursing staff • Allied health staff
SCENARIO OVERVIEW	Patient lying on the bed unconscious. A 3 day history of vomiting and diarrhoea. Patient will present with VF. GTN patch insitu which needs to be removed prior to defibrillation. After first shock the patient's rhythm will be asystole. The defibrillator will be charged in readiness of delivery of shock but on analysis will need to be disarmed. Patient does not recover.
LEARNING OBJECTIVES	• By the end of the scenario the learners should: • Demonstrate principles of ARC ALS algorithm – non-shockable • Demonstrate principles of crisis resource management
APPROXIMATE RUN TIME	30 minutes including debrief

SET UP AND RESOURCES REQUIREMENTS

HUMAN RESOURCES	
FACULTY	1 x Facilitator for manikin control and debrief
SIMULATION COORDINATORS	1 – control room
CONFEDERATES	1 x junior nurse
OTHER	

PHYSICAL RESOURCES	
ROOM SET UP	Medical ward
SIMULATOR/S	ALS Advanced
SIMULATOR/S SET UP	Patient in gown GTN patch insitu
CLINICAL EQUIPMENT	Emergency trolley with defibrillator
ACCESS	1 x IV access insitu with fluids running
ADDITIONAL PROPS	
OTHER	

INJURIES / MOULAGE	
RIGHT UPPER CHEST – GTN PATCH	

HANDOVER CARD / PATIENT DETAILS	
NAME: Marion Jones	**AGE / SEX / WEIGHT:** Age: 83 Sex: Female Weight: 65kg
ALLERGIES: NKDA	**MEDICATIONS:** GTN patch Atenolol Perindopril
MEDICAL / SURGICAL HISTORY: 3/7 hx of vomiting and diarrhoea Admitted for re-hydration. Angina HTN	**SOCIAL HISTORY / EMPLOYMENT:** Retired teacher

STATE ONE					
Alert participants to collapsed patient					
VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
ECG	VF	**Handover**	Marion lying on the bed unconscious. 3/7 hx of vomiting and diarrhoea. Admitted for rehydration.	• Patient lying on the bed in VF • Patient will go into asystole after first shock	☐ Assess patient ☐ Commence BLS ☐ Attach Defib ☐ Assessment arrhythmia ☐ Identification of shockable rhythm and deliver shock ☐ Continue CPR ☐ Use CRM principles
HR	Unreadable				
SPO_2	Unreadable				
BP/ART	Unreadable				
RR					
CVP					
TEMP	35.8				
CO_2					
BSL	3.8				
GCS *V, M, E*	3				

STATE TWO					
Identification of non-shockable rhythm					
VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
ECG	Asystole			• Patient remains in asystole	☐ Continues the ALS algorithm ☐ Identification of non-shockable rhythm ☐ Administer 1mg adrenaline ☐ Use CRM principles ☐ Continue CPR
HR					
SPO_2	Unreadable				
BP/ART					
RR	nil				
CVP					
TEMP	35.8				
CO_2	60				
BSL	3.8				
GCS ***V, M, E***	3				
Other					

15 MINS – 20 MINS	STATE THREE					
	Discussion of reversible causes.					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	Asystole			Blood results: • K+ 2.0 mmol/L (3.5 – 5.0 mmol/L) • Na 160 (135 – 145mEq/L) • Other results pending.	□ Continue ALS algorithm. □ Team review management of reversible causes □ Administer potassium □ Continue CPR
	HR					
	SPO_2	Unreadable				
	BP/ART					
	RR	nil				
	CVP					
	TEMP	35.8				
	CO_2	60				
	BSL	3.8				
	GCS *V, M, E*	3				
	Other					

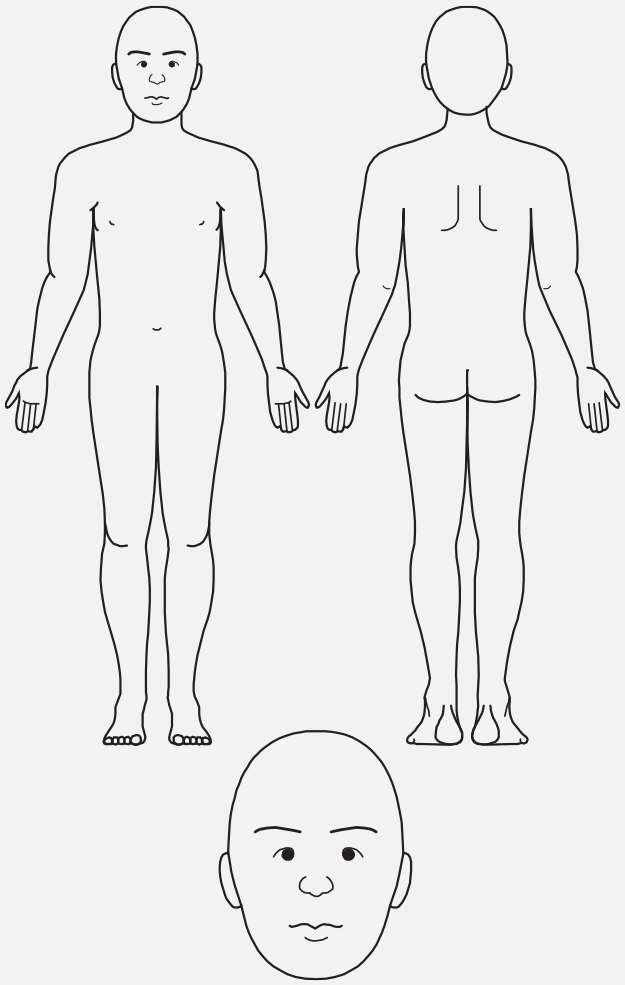
Meredith Rivera – PEA – Surgical Ward

TYPE OF SIMULATION	Immersive
TARGET AUDIENCE	ALS Patients
SCENARIO OVERVIEW	79-year-old woman in a surgical ward is found unresponsive in bed. Patient has a 2-day history of abdominal pain and is awaiting an ultrasound. Monitoring reveals that the patient has Pulseless Electrical Activity (PEA). Patient progresses quickly into asystole and CPR continues. Possible causes are investigated, and it is observed that the patient's abdomen is distended, probably with a catastrophic bleed, from which the patient does not recover
LEARNING OBJECTIVES	Learning outcome: Demonstrate principles of ARC ALS algorithm – non-shockable Demonstrate principles of crisis resource management
APPROXIMATE RUN TIME	30 mins including debrief

SET UP AND RESOURCES REQUIREMENTS

HUMAN RESOURCES	
FACULTY	2 x Faculty Assessing
SIMULATION COORDINATORS	Manikin Control
CONFEDERATES	
OTHER	

PHYSICAL RESOURCES	
ROOM SET UP	Surgical Ward
SIMULATOR/S	ALS Advanced
SIMULATOR/S SET UP	Patient in patient gown
CLINICAL EQUIPMENT	Emergency trolley with defibrillator Patient chart
ACCESS	PT has 20g cannula insitu with fluid running
ADDITIONAL PROPS	

INJURIES / MOULAGE	
Nil	

HANDOVER CARD / PATIENT DETAILS	
NAME: Meredith Rivera	**AGE / SEX / WEIGHT:** Age: 79 Sex: F Weight: 65 kg
ALLERGIES: NKDA	**MEDICATIONS:** Nil
MEDICAL / SURGICAL HISTORY: Presented two (2) days ago with abdominal pain. No surgical history	**SOCIAL HISTORY / EMPLOYMENT:** Retired accountant. Lives with husband.

START – 2 MINS	STATE ONE					
	Initial state					
	VITAL SIGNS			**SCRIPT**	**DETAILS**	**EXPECTED ACTIONS**
	ECG	**Sinus Tachy**		**Handover**: This is Meredith Rivera, a 79-year-old lady who presented two (2) days ago with abdominal pain. She was fasting awaiting an ultrasound, is now unresponsive in bed.		☐ Team assembly and role allocation ☐ CPR continued ☐ Attach defibrillator and rhythm check as soon as possible. Narrow complex tachycardia. No pulse. ☐ Continue CPR
	HR	**140**				
	SPO_2	**Not readable**				
	BP/ART	**Not readable**				
	RR	**0**				
	CVP					
	TEMP					
	CO_2					
	BSL					
	GCS *V, M, E*	**3** **1, 1, 1**				
	Other					

2 MINS – 6 MINS	STATE TWO				
	Patient in PEA				
	VITAL SIGNS		**SCRIPT**	**DETAILS**	**EXPECTED ACTIONS**
	ECG	**Sinus Tachy**	Faculty respond as appropriate to questions from participants regarding 4H and 4T. **Towards end of state faculty prompt:** ***The patient's abdomen is becoming distended*** **Last bloods normal except Hb 95**	• Last lot of bloods OK, except Hb was 95 • Patient's condition deteriorates at the end of state into asystole	☐ Continue CPR (Non-shockable algorithm) ☐ Give Adrenaline 1mg immediately and repeat every 3-5 minutes ☐ Consider intubation when appropriate ☐ IV fluid loading ☐ Charge defibrillator, assess rhythm (may check for pulse) disarm defibrillator ☐ Team consideration of reversible causes of PEA arrest and treatment ☐ H – Hypovolaemia/blood loss D fluid loading ☐ H – Hypoxia D ventilation with 100% oxygen ☐ H – Hyper/hypokalaemia D bloods, chart review ☐ H – Hyper/hypothermia D unlikely ☐ T – Tension pneumothorax (Assess for evidence clinically. Consider needle decompression.) ☐ T – Thrombosis (PE/cardiac. Continue CPR. No role for thrombolysis.) ☐ T – Toxins (Clinically unlikely. Empiric treatment not indicated. ECG is narrow complex, rather than broad complex, suggesting toxic cause.) ☐ T – Tamponade (Clinically unlikely.) ☐ Pericardiocentesis may be considered but unlikely of benefit
	HR	**140**			
	SPO_2	**No reading**			
	BP/ART	**0/0**			
	RR	**0**			
	CVP				
	TEMP				
	CO_2				
	BSL				
	GCS *V, M, E*	**3** **1, 1, 1**			
	Other				

6 MINS – 10 MINS	STATE THREE				
	Patient goes into asystole				
	VITAL SIGNS		**SCRIPT**	**DETAILS**	**EXPECTED ACTIONS**
	ECG	**Asystole**	Faculty respond as appropriate to questions from participants		☐ Continue CPR algorithms ☐ Team review of management of reversible causes ☐ Review of the treatment in light of probable catastrophic abdominal bleed
	HR	**0**			
	SPO_2	**Not readable**			
	BP/ART	**Not readable**			
	RR	**0**			
	CVP				
	TEMP				
	CO_2				
	BSL				
	GCS *V, M, E*	**3** **1, 1, 1**			

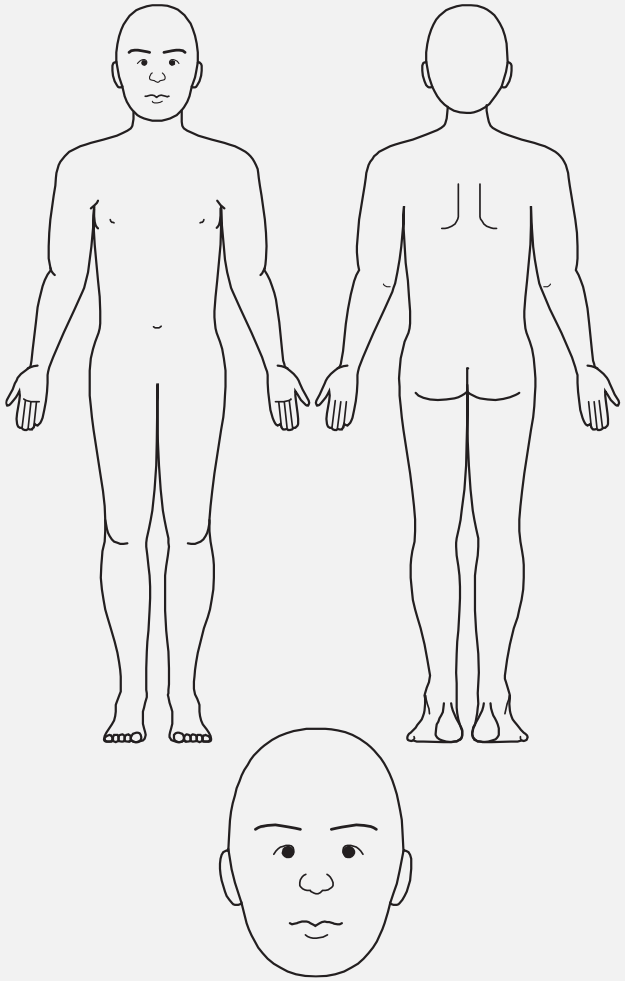
Bob Brown – VT/VF – Emergency Department

TYPE OF SIMULATION	Immersive
TARGET AUDIENCE	• Medical staff • Nursing staff • Allied health staff
SCENARIO OVERVIEW	Bob Brown, 57, a landscape gardener presents with chest pain. Patient is to be found collapsed on the ground with a laceration to head. Patient develops VT without a pulse. Re-verts to VF following first defibrillation. Reverts to SR following third defibrillation and administration of Adrenaline and Amiodarone. Discussion of differential diagnosis. Post ROSC ECG shows – extensive anterior STEMI (acute).
LEARNING OBJECTIVES	• Demonstrate principles of ARC ALS algorithm – shockable • Demonstrate principles of crisis resource management
APPROXIMATE RUN TIME	10 minute scenario and 15 minutes to debrief

SET UP AND RESOURCES REQUIREMENTS

HUMAN RESOURCES	
FACULTY	Participants on SPC to be lead debriefer and co-debriefer
SIMULATION COORDINATORS	Manikin Control Voice of patient
CONFEDERATES	Nurse to handover
OTHER	

PHYSICAL RESOURCES	
ROOM SET UP	Emergency department Patient on bed
SIMULATOR/S	ALS Advanced
SIMULATOR/S SET UP	Patient on monitor
CLINICAL EQUIPMENT	Cardiac Monitoring Emergency trolley with defibrillator
ACCESS	No IV access
ADDITIONAL PROPS	12 lead ECG post arrest
OTHER	

INJURIES / MOULAGE	
AD / FACE Wig Laceration to forehead	
TORSO	
LIMBS Abrasions to hands	

HANDOVER CARD / PATIENT DETAILS	
NAME: Bob Brown	**AGE / SEX / WEIGHT:** Age: 57 Sex: Male Weight: 70kg
ALLERGIES: NKDA	**MEDICATIONS:** Nil regular
MEDICAL / SURGICAL HISTORY: Nil	**SOCIAL HISTORY / EMPLOYMENT:** Landscape gardener Smokes 25 cigarettes a day Lives at home with wife

START – 2 MINS	STATE ONE					
	Initial handover and assessment					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	VT	**Triage nurse handover**	Bob Brown, 57 year old landscape gardener, driven to hospital by co-worker who found him collapsed on the ground. His is complaining of severe, central chest pain, radiating to left his shoulder, present for 1 hour. No past medical history of note. No allergies. Smoker 25 a day. I've changed him in a gown. I've got to get back to triage.	• Patient lying on ground conscious, pale and clammy. • Looks like patient has tried to stand and fallen over • On arrival of team patient develops pulseless VT	☐ Receive handover ☐ Perform assessment/observations ☐ Identify a crisis situation ☐ Call for help ☐ Clear space to allow for personnel to help.
	HR	200				
	SPO_2	97%				
	BP/ART	85/45				
	RR	12				
	CVP	N/A				
	TEMP	36.8				
	CO_2	35	**Patient**	I feel dizzy. I have a chest pain.		
	BSL	4.0				
	GCS *E, V, M*	15/15				
	Other					

2 MINS – MINS	STATE TWO					
	Commencement of pulseless VT					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	VT			• Patient develops pulseless VT • Rhythm changes to VF after first shock.	□ Allocate roles □ Commencement of CPR □ Attach defibrillator □ Assessment of arrhythmia □ Defibrillate at 200 joules □ Continue CPR for 2 minutes □ Use of CRM principles
	HR	200				
	SPO_2	Unreadable				
	BP/ART	Nil				
	RR	Nil				
	CVP	N/A				
	TEMP	36.8				
	CO_2	20				
	BSL	4.0				
	GCS *V, M, E*	3				
	Other					

STATE THREE					
ALS algorithm continues					
VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
ECG	VF			• Patient remains in VF after second shock	□ Continues to follow the ALS algorithm □ Perform ECC □ Obtain IV access □ Administer 1mg Adrenaline □ Use of CRM principles
HR	Nil				
SPO_2	Unreadable				
BP/ART	Nil				
RR	0				
CVP	N/A				
TEMP	36.8				
CO_2	20				
BSL	4.0				
GCS ***V, M, E***	3				
Other					

15 MINS – 20 MINS	STATE FOUR					
	Discussion of reversible causes.					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	SR			After third shock and administration of amiodarone, patient returns to SR.	□ Continue ALS algorithm □ Discuss reversible causes □ Hypovolaemia □ Toxins □ Thrombosis □ Administer 300mg IV Adrenaline after third shock
	HR	67				
	SPO_2	93%				
	BP/ART	94 / 46				
	RR	8				
	CVP					
	TEMP	36.0				
	CO_2	30				
	BSL	4.0 mmol				
	GCS *V, M, E*	9 / 15				
	Other					

STATE FIVE					
Return of spontaneous circulation.					
		SCRIPT		**DETAILS**	**EXPECTED ACTIONS**
ECG	SR	**Patient**	Moans	• Patient will revert to Sinus rhythm after the second shock and 30 seconds of CPR.	□ ECG post ROSC
HR	65				
SPO_2	96%				
BP/ART	100 / 60				
RR	12				
CVP					
TEMP	36.0				
CO_2					
BSL					
GCS *V, M, E*	15 / 15				

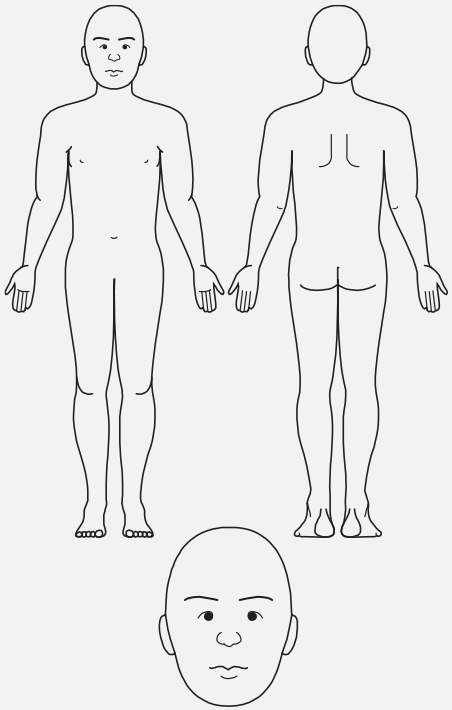
Harold Foot – VT/VF – Surgical Ward

TYPE OF SIMULATION	Immersive
TARGET AUDIENCE	Medical, Nursing, Allied Health
SCENARIO OVERVIEW	Harold is one day post knee replacement. He is found unconscious with no cardiac output. He presents with pulseless ventricular Tachycardia (VT). Following the first defibrillation patient will go into ventricular fibrillation (VF). Patient will revert to a sinus rhythm and get ROSC after the second shock and administration of adrenaline. Diagnosis: Pulmonary embolus resulting in a cardiac arrest.
LEARNING OBJECTIVES	By the end of the scenario the learner should: • Demonstrate the application of ALS algorithm – shockable • Demonstrate principles of crisis resource management
APPROXIMATE RUN TIME	30 mins including debrief

SET UP AND RESOURCES REQUIREMENTS

HUMAN RESOURCES	
FACULTY	1 x Facilitator
SIMULATION COORDINATORS	Manikin Control
CONFEDERATES	Junior Nurse
OTHER	

PHYSICAL RESOURCES	
ROOM SET UP	Surgical Ward
SIMULATOR/S	ALS Advanced
SIMULATOR/S SET UP	Right knee bandaged, patient in hospital gown. Patient sweaty, spray face and torso with water.
CLINICAL EQUIPMENT	Emergency trolley with defibrillator Patient chart
ACCESS	1 x 20g cannula with fluids running 1 x IV setup with no IV sticker applied
ADDITIONAL PROPS	

INJURIES / MOULAGE	
Left Knee bandaged with wound drain. Minimal output <50mL	

HANDOVER CARD / PATIENT DETAILS	
NAME: Harold Foot	**AGE / SEX / WEIGHT:** Age: 64 Sex: M Weight: 65 kg
ALLERGIES: NKDA	**MEDICATIONS:** Nil
MEDICAL / SURGICAL HISTORY: 1 day post knee replacement	**SOCIAL HISTORY / EMPLOYMENT:** Taxi driver

START – 2 MINS

STATE ONE					
Initial state					
VITAL SIGNS			**SCRIPT**	**DETAILS**	**EXPECTED ACTIONS**
ECG	**VT**		**Handover**: You have been called to the orthopaedic ward. You find 64-year-old Harold lying on the bed unconscious and very sweaty. Harold is one day post knee replacement surgery. He has no allergies.	Patient lying on bed. Patient will go into VF after first shock	☐ Assess patient ☐ Commencement of BLS algorithm ☐ Attach defibrillator ☐ Assessment of arrhythmia ☐ Defibrillate at 200j ☐ Continue CPR ☐ Use of CRM principles
HR	**200**				
SPO_2	**Not readable**				
BP/ART	**Not readable**				
RR	**0**				
CVP					
TEMP					
CO_2					
BSL					
GCS *V, M, E*	**3** **1, 1, 1**				
Other					

2 MINS – 6 MINS	STATE TWO				
	Commencement of ALS Algorithm				
	VITAL SIGNS		**SCRIPT**	**DETAILS**	**EXPECTED ACTIONS**
	ECG	**VF**		• Patient will revert to Sinus • rhythm after the second shock • and 30 seconds of CPR	□ Commencement of ALS Algorithm □ Continue CPR for 2 mins □ Charge defibrillator whilst □ continuing compressions □ Analyse rhythm – recognition of □ shockable rhythm and □ Defibrillate □ Administer 1 mg Adrenaline □ Use of CRM principles
	HR	**unreadable**			
	SPO_2	**No reading**			
	BP/ART	**0/0**			
	RR	**0**			
	CVP				
	TEMP				
	CO_2				
	BSL				
	GCS *V, M, E*	**3** **1, 1, 1**			
	Other				

6 MINS – 10 MINS	STATE THREE				
	Recovery				
	VITAL SIGNS		**SCRIPT**	**DETAILS**	**EXPECTED ACTIONS**
	ECG	**SR**	Patient moans		☐ Provide supportive cares
	HR	**50**			
	SPO_2	**93%**			
	BP/ART	**94/46**			
	RR	**8**			
	CVP				
	TEMP	**36.0**			
	CO_2	**30**			
	BSL	**4.0**			
	GCS *V, M, E*	**9**			
	Other				

Barry Goodman – PEA (Contrast Reaction) – Radiology

TYPE OF SIMULATION	Immersive
TARGET AUDIENCE	Medical staff Radiologists
SCENARIO OVERVIEW	Barry Goodman is a 59-year-old male who has presented to his GP with 3 days of R) LQ abdo pain. Barry has not had a CT scan before. The participants are called into the CT room mid procedure post patient complaining of lip tingling. The patient will be drowsy with a decreasing GCS on arrival. The patient will then become unconscious and be in PEA. Patient will then revert to sinus rhythm after three cycles of the ALS algorithm.
LEARNING OBJECTIVES	By the end of the scenario the learner should: • Demonstrate the application of ALS algorithm – non-shockable • Demonstrate principles of crisis resource management • Demonstrate how to elicit appropriate handover
APPROXIMATE RUN TIME	30 minutes including debrief

SET UP AND RESOURCES REQUIREMENTS

HUMAN RESOURCES	
FACULTY	Faculty for debrief
SIMULATION COORDINATORS	1 x for manikin voice and control.
CONFEDERATES	1 x handover (Radiographer)
OTHER	

PHYSICAL RESOURCES	
ROOM SET UP	Outpatient / private radiology
SIMULATOR/S	ALS Advanced on trolley
SIMULATOR/S SET UP	Patient in gown
CLINICAL EQUIPMENT	Emergency trolley with defibrillator
ACCESS	20g cannula L) arm for contrast
ADDITIONAL PROPS	
OTHER	

INJURIES / MOULAGE

LOCATION

Description

LOCATION

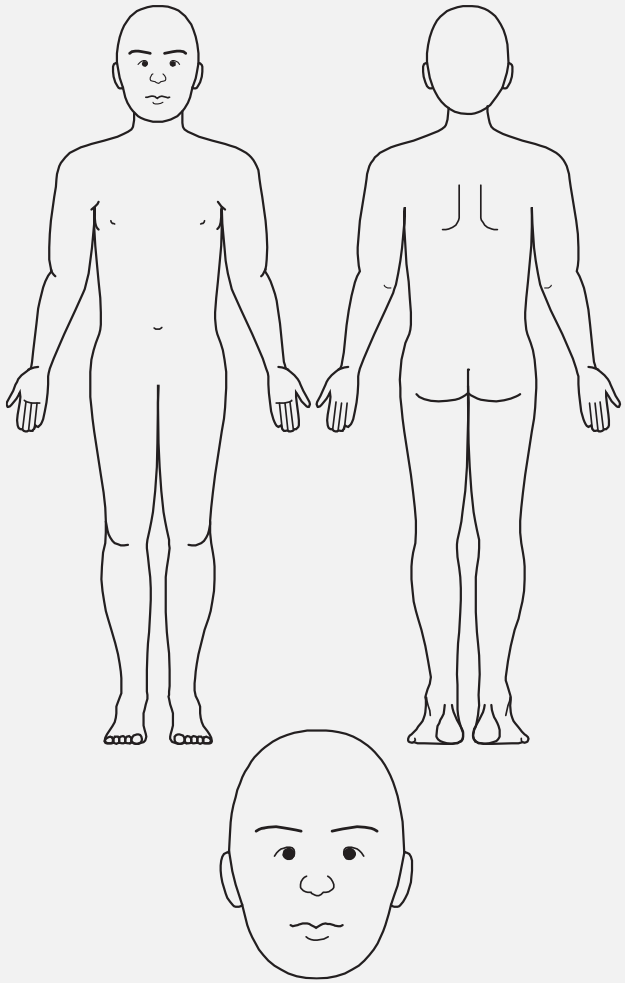
Description

LOCATION

Description

LOCATION

Description



HANDOVER CARD / PATIENT DETAILS

NAME:

Barry Goodman

AGE / SEX / WEIGHT:

Age: 59

Sex: Male

Weight: 95kg

ALLERGIES:

Ramipril (Anaphylaxis)

MEDICATIONS:

Metoprolol

MEDICAL / SURGICAL HISTORY:

3 days of R) LQ abdo pain sharp in nature.

History of HTN and fatty liver.

SOCIAL HISTORY / EMPLOYMENT:

Electrical linesman

STATE ONE					
Patient lying on CT table post emergency stop					
VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
ECG	SR	Patient	*"I just had a bit of tingling in my lips and want to throw up"* Do not state patient has had contrast unless directly asked for. Pt becomes increasingly wheezy Pt will become unconscious after two minutes.	• Pt lying on CT Table • Nil monitoring attached	▪ Identify patient, allergies, history, imaging etc. ▪ Identify allergic reaction ▪ Potentially give adrenaline as per protocol ▪ Apply monitoring ECG, BP, O2
HR	**140**				
SPO_2	**93**				
BP/ART	**90/60**				
RR	**24**				
CVP					
TEMP					
CO_2					
BSL					
GCS *V, M, E*	**15 (V 5, M 6, E 4)**				
Other					

STATE TWO					
PEA					
VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
ECG	PEA (Sinus)	Patient	Patient becomes unconscious	• Pt to remain in PEA for three cycles before reverting into SR	☐ Identify deterioration ☐ Identification of rhythm ☐ Commence ALS Pathway ☐ Identify need to not shock ☐ Identify cause of arrest (Contrast) ☐ Early CPR Call for help
HR	150				
SPO_2					
BP/ART					
RR	0				
CVP					
TEMP					
CO_2					
BSL					
GCS *V, M, E*	3 (V1, M1, E1)				
Other					

15 MINS – 20 MINS	STATE THREE					
	Resolution					
	VITAL SIGNS		SCRIPT		DETAILS	EXPECTED ACTIONS
	ECG	SR		Patient will start to groan and wake up	Patient returns to Sinus rhythm ALOC GCS12	□ Continue to monitor
	HR	135				
	SPO_2	94				
	BP/ART	100/70				
	RR					
	CVP					
	TEMP					
	CO_2					
	BSL					
	GCS *V, M, E*	12 (V3, M5, E4)				
	Other					

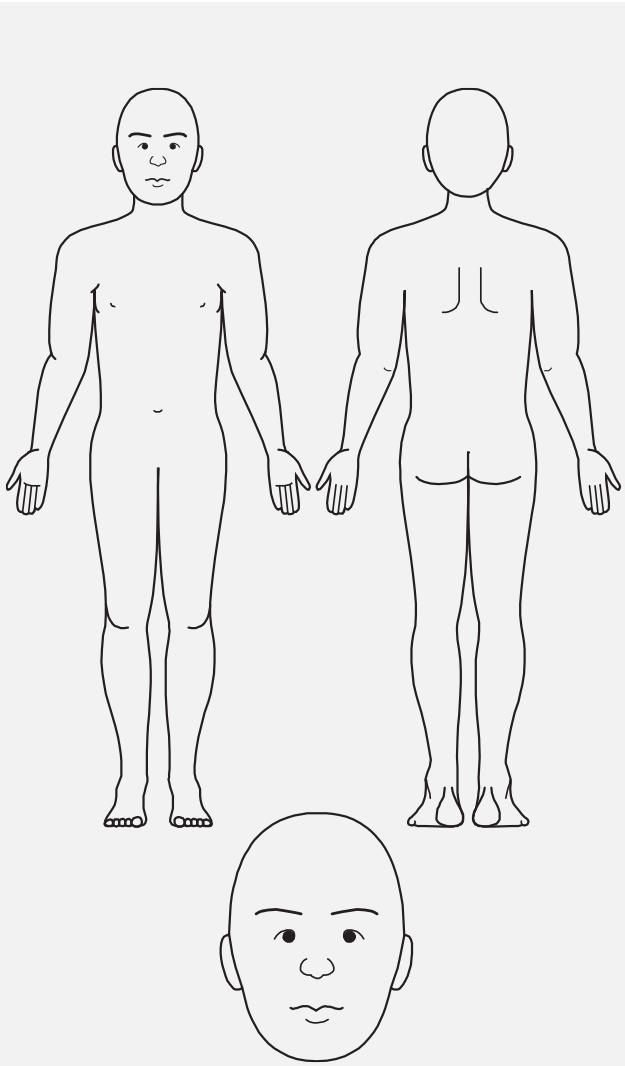
Edward Chubb – VF (Hyperkalaemia) – Emergency Department

TYPE OF SIMULATION	Immersive Scenario
TARGET AUDIENCE	• Medical staff • Nursing staff • Allied health staff
SCENARIO OVERVIEW	A 40 year old man (130 kgs) presents with central chest pain to the emergency department. Past medical history of hypertension. He is currently using Optifast to lose weight. Patient has a VF arrest due to hyperkalaemia. Patient recovers following recognition and treatment of the reversible cause.
LEARNING OUTCOMES	By the end of the scenario the learners should: • Demonstrates appropriate Primary survey and commences BLS • Follow the ANZCOR ALS algorithm utilising the principles of crisis resource management
APPROXIMATE RUN TIME	30 min including debrief.

SET UP AND RESOURCES REQUIREMENTS

HUMAN RESOURCES	
FACULTY	1 x faculty to operate manikin and debrief
SIMULATION COORDINATORS	1 x to play confederate role
CONFEDERATES	Triage nurse
OTHER	

PHYSICAL RESOURCES	
ROOM SET UP	Resus bay in ED
SIMULATOR/S	ALS Simulator
SIMULATOR/S SET UP	Manikin on bed in hospital gown
CLINICAL EQUIPMENT	Emergency trolley with defibrillator
ACCESS	2 x IV access: • 1 with no IV sticker in situ • 1 x 18-gauge IV access available
ADDITIONAL PROPS	H2O spray bottle
OTHER	

INJURIES / MOULAGE	
HEAD Pale and sweaty	
TORSO Sweaty	
LOCATION Description	
LOCATION Description	

HANDOVER CARD / PATIENT DETAILS	
NAME: Edward Chubb	**AGE / SEX / WEIGHT:** Age: 44 years old Sex: Male Weight: 130 kgs
ALLERGIES: Nil known	**MEDICATIONS:** Coveram
MEDICAL / SURGICAL HISTORY: Hypertension	**SOCIAL HISTORY / EMPLOYMENT:** Married Real Estate agent – on holiday in Torres Strait visiting relatives

START – 2 MINS	STATE ONE					
	Initial handover and commencement of resuscitation					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	VT	**Initial handover**	I've just asked Edwin to hop into a gown while I went to get the ECG machine and when I came back he wasn't breathing.	A – Difficulty ventilating with BVM- consider early intubation to prevent aspiration. Block lungs to prevent ventilation. • Removed blocked lungs following insertion of an advanced airway	☐ Commence BLS algorithm ☐ Commence ALS algorithm ☐ Attach defibrillator and assess rhythm immediately with minimal interruptions to CPR ☐ Safely defibrillate and recommence CPR for 2 minutes
	HR	Nil				
	SPO_2	Nil				
	BP/ART	Nil				
	RR	0	**Santa**	Difficulty with bilateral rise and fall of the chest due to excess weight.	• Provide history (state 2) only if asked.	
	CVP	N/A				
	TEMP	36.5			<u>Trending</u> After the first two minutes move to state two.	
	CO_2	N/A	**Confederate**	Following insertion of advance airway – See bilateral rise and fall of chest		
	BSL	4.5				
	GCS *E, V, M*	3/15				
	Other	CRT 3 sec				

2 MINS – 14 MINS	STATE TWO					
	Recognition and management of cardiac arrest – VT					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	VT	**Further history when asked**	Edwin Chubb presented with chest pain and dizziness. He was complaining that his heart was racing. When I felt his pulse, it was bounding and fast, too fast to count. He is overweight at 130 kgs holidaying in Torres Strait. Previous medical history – HTN on Coveram and he is using Optifast to lose weight.	A – Able to be ventilated with the use of an airway adjunct B – No breathing. No spO2 trace C – No cardiac output D – Unconscious, 3 ERL • Blood results: ○ K+ 8.0 mmol/L (3.5 – 5.0 mmol/L) ○ Na 120 (135 – 145mEq/L) Other results pending <u>Trending</u> Following consideration or administration of medication to treat hyperkalaemia move to state 3.	□ Follows ALS algorithm □ Systematic review of reversible causes □ Team review of management of reversible causes □ Review of the treatment considering blood results
	HR	150				
	SPO_2	Nil reading				
	BP/ART	Nil				
	RR	0				
	CVP	N/A				
	TEMP	35.8				
	CO_2	15				
	BSL	4.8				
	GCS *E, V, M*	3/15				
	Other					

14 MINS – 15 MINS	STATE THREE					
	Return of spontaneous circulation					
			SCRIPT		DETAILS	EXPECTED ACTIONS
	ECG	ST	**Patient**	Patient vomiting and moaning	A – Coughing / moaning B – Spontaneously breathing C – ECG rhythm shows hypokalaemia	☐ Discuss 4 H's and 4 T's ☐ Discuss post resus care ☐ Organise definite care Treatment • Calcium Chloride • Glucose (50ml D50) and insulin (10 units) • Sodium Bicarbonate 50mEq
	HR	110				
	SPO_2	96				
	BP/ART	80/45				
	RR	12				
	CVP	N/A				
	TEMP	36.0				
	CO_2	35				
	BSL	4.8				
	GCS *V, M, E*	11				
	Other					

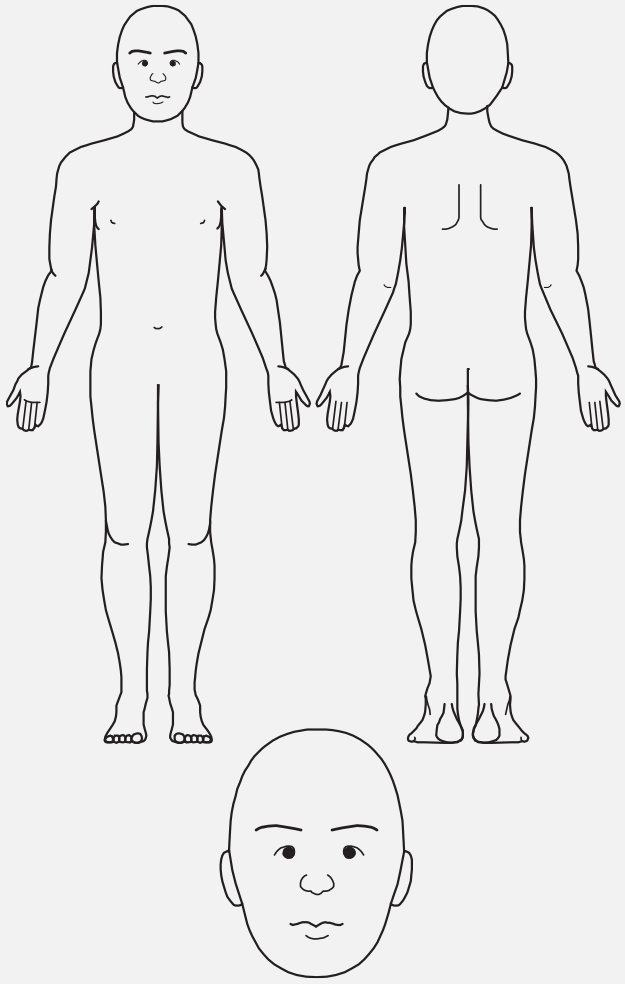
Brent Fletcher – VF (Heroin Overdose/STEMI) – Emergency Department

TYPE OF SIMULATION	Immersive
TARGET AUDIENCE	• Medical staff • Nursing staff • Allied health staff
SCENARIO OVERVIEW	Brent Fletcher, 28, a homeless IV drug user with past medical history of polysubstance abuse and Hepatitis C presents to QAS with drowsiness post IV heroin use. After transport to hospital he is left unattended in ED triage and a junior nurse notices that he isn't breathing. Pt is hypothermic, dyspnoeic and unresponsive. Pt goes into (STEMI) followed by VF. After 10 minutes of CPR, intubation, active warming, and fluid resuscitation the patient achieves ROSC.
LEARNING OUTCOMES	By the end of the scenario the learners should: • Follow the ANZCOR ALS algorithm 53tilizing the principles of crisis resource management • Demonstrate systematic review of reversible causes of arrest
APPROXIMATE RUN TIME	30 minutes including debrief

SET UP AND RESOURCES REQUIREMENTS

HUMAN RESOURCES	
FACULTY	1 x Facilitator for manikin control and debrief
SIMULATION COORDINATORS	1 – to play confederate
CONFEDERATES	1 x junior nurse
OTHER	

PHYSICAL RESOURCES	
ROOM SET UP	Emergency department Patient on bed
SIMULATOR/S	ALS Advanced
SIMULATOR/S SET UP	Patient on monitor
CLINICAL EQUIPMENT	Emergency trolley with defibrillator
ACCESS	2 x IV access: 1 with no IV sticker in situ 1 x 18-gauge IV access available
ADDITIONAL PROPS	12 lead ECG post arrest
OTHER	Moulage – makeup wheel

INJURIES / MOULAGE	
LIMBS Numerous injection sites on arms	

HANDOVER CARD / PATIENT DETAILS	
NAME: Brent Fletcher	**AGE / SEX / WEIGHT:** Age: 28 Sex: Male Weight: 70kg
ALLERGIES: KNDA	**MEDICATIONS:** Nil regular
MEDICAL / SURGICAL HISTORY: Polysubstance abuse Hepatitis C	**SOCIAL HISTORY / EMPLOYMENT:** Unemployed, previous arrests for assault / drug trafficking

START – 2 MINS

STATE ONE					
Initial patient assessment					
VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
ECG	Inf. AMI	**Handover**	This is Brent Fletcher, a 28y/o homeless IV drug user with past medical history of polysubstance abuse and HEP C. He presented to ambulance with drowsiness post suspected IV heroin use. He was left unattended here in the ED triage area and I (junior nurse) just noticed that he isn't breathing very well.	• Patient lying on bed, unresponsive, pale, dyspnoeic, bradycardic. • Rhythm progresses to asystole <30sec of participants entering room <u>Trending</u> Prior to administration of naloxone, patient arrest, move to state 2.	☐ Assess patient ☐ Commencement of BLS algorithm ☐ Airway management – BVM high flow O2 ☐ Attach defibrillator / monitor ☐ Assessment of cardiac rhythm ☐ Use of CRM principles ☐ Consider administration of naloxone
HR	55				
SPO_2	87				
BP/ART	80/40				
RR	8				
CVP	N/A				
TEMP	35.8				
CO_2	50				
BSL	4.0				
GCS *V, M, E*	3				
Other					

2 MINS – 8 MINS	STATE TWO					
	Recognition and commencement of ALS algorithm					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	VF			• CPR and oxygenation for 10 minutes – ROSC <u>Trending</u> Post administration of adrenaline and naloxone the patient had ROSC (state 3).	☐ Commencement of ALS algorithm ☐ Continue CPR ☐ Charge defibrillator whilst continuing compressions ☐ Analyse rhythm – recognition of non-shockable rhythm and dump charge ☐ Obtain IV access ☐ Warming of patient ☐ Administer naloxone ☐ Use of CRM principles
	HR	Nil				
	SPO_2	Unreadable				
	BP/ART	Nil				
	RR	Nil				
	CVP	N/A				
	TEMP	35.1				
	CO_2	20				
	BSL	4.0				
	GCS ***V, M, E***	3				
	Other					

8 MINS – 15 MINS	STATE THREE					
	Discussion of reversible causes					
	VITAL SIGNS		SCRIPT		DETAILS	EXPECTED ACTIONS
	ECG	Inf. AMI			ROSC	Post resuscitation care, including ECG Discuss differential diagnosis (respiratory arrest or cardiac thrombus/inferior MI) End of scenario In debrief discuss frequency gambling.
	HR	70				
	SPO_2	93%				
	BP/ART	88 / 46				
	RR	8				
	CVP	N/A				
	TEMP	36.0				
	CO_2	40				
	BSL	4.0 mmol				
	GCS *V, M, E*	9 / 15				

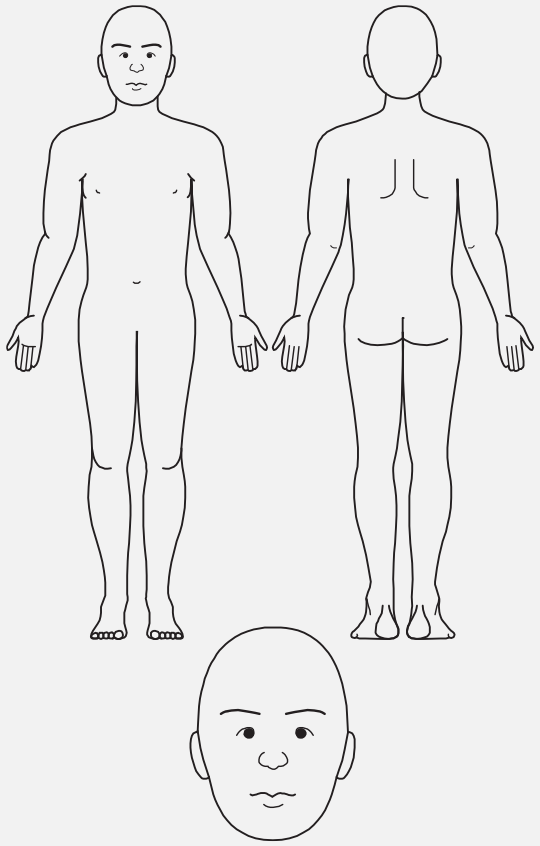
Eugene Pennington – VF (Irukandji Sting) – Emergency Department

TYPE OF SIMULATION	Immersive
TARGET AUDIENCE	• Medical staff • Nursing staff • Allied health staff
SCENARIO OVERVIEW	58 year old M tourist Eugene Pennington self presents to Cairns ED after feeling something sting him across the face, neck and chest while swimming. The patient complains of severe muscular cramping pains, sweating, anxiety, and nausea. The patient has sinus tachycardia and hypertension, and will deteriorate to VF (optional – if treated correctly within the first 5 minutes, patient recovers).
LEARNING OUTCOMES	By the end of the scenario the learners should: • Demonstrate management principles of low frequency high acuity envenomation including medication and precautions • Follow the ANZCOR ALS algorithm utilising the principles of crisis resource management
APPROXIMATE RUN TIME	30 mins including debrief

SET UP AND RESOURCES REQUIREMENTS

HUMAN RESOURCES	
FACULTY	1 x Faculty to operate the manikin and debrief
SIMULATION COORDINATORS	1 x to play the confederate role
CONFEDERATES	Junior nurse
OTHER	

PHYSICAL RESOURCES	
ROOM SET UP	Surgical Ward
SIMULATOR/S	ALS Advanced
SIMULATOR/S SET UP	Patient in swimming clothes
CLINICAL EQUIPMENT	Emergency trolley with defibrillator ABG collection tubes and forms 12 lead ECG
ACCESS	2 x IV access with no IV stickers applied
ADDITIONAL PROPS	
OTHER	Bloods results

INJURIES / MOULAGE	
	

HANDOVER CARD / PATIENT DETAILS	
NAME: Eugene Pennington	**AGE / SEX / WEIGHT:** Age: 58 Sex: Male Weight: 80 kg
ALLERGIES: KNDA	**MEDICATIONS:** 8mg warfarin
MEDICAL / SURGICAL HISTORY: Previous cardiac surgery (patient poor historian)	**SOCIAL HISTORY / EMPLOYMENT:** Tourist from UK

START – 5 MINS

STATE ONE					
Initial presentation					
VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
ECG	Sinus Tachy	**Handover**	This is Eugene, he is a 58-year-old male. He was swimming in the bay out here in Cairns, and was stung by something on his face, neck and chest. We think that it is an Irukandji envenomation. He was very tacky and his pulse feels bounding. In severe abdominal pain, nausea. Severe headache. Anxiety Complaining. Laboured heavy breathing. – Pulmonary oedema Nil stings or bites	A – Patent B – Laboured, SOB, speaking short sentences, widespread crackles C – Pulse weak, fast and regular D – Alert, eyes open to speech, complaining of severe pain E – Nil stings or bites <u>Trending</u> • Increase spO2 to 97 if oxygen given • IF GTN + analgesia + MgSO4 given – pt. BP, HR recovers (state 3) • If no GTN given within 5 mins progress to VF (state 2)	☐ Assess patient ☐ High flow O2 ☐ Monitoring – ECG, SPO2, BP ☐ Obtain IV access ☐ Draw blood for – FBE, U&E, Mg, TnI ☐ Perform 12 lead ECG ☐ Administer analgesia (Morphine, 0.05mg/kg) (Fentanyl, 0.5mcg/kg) ☐ Administer GTN – sublingual tablet ☐ Administer MgS04 – 0.15mmol/kg over 15 mins then start infusion ☐ Call for help (ICU consultant, retrieval as appropriate)
HR	143				
SPO_2	93 → 97%				
BP/ART	260/160				
RR	28				
CVP	N/A				
TEMP	37.5	**Patient**			
CO_2	N/A				
BSL	3.8				
GCS *V, M, E*	14 eyes	**Santa**			
Other					

5 MINS – 15 MINS	STATE TWO					
	Cardiac arrest					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	VF			Patient becomes unresponsive <u>Trending</u> Continue resuscitation however patient does not achieve ROSC	☐ Commence BLS ☐ Follow ALS Algorithm ☐ Utilise CRM principles ☐ Call for help (ICU consultant, retrieval as appropriate)
	HR	Nil				
	SPO_2	Nil				
	BP/ART	Nil				
	RR	0				
	CVP	N/A				
	TEMP	36.0				
	CO_2	10 → 5				
	BSL	3.8				
	GCS *V, M, E*	3				
	Other					

10 MINS – 5 MINS	STATE THREE					
	Return of spontaneous circulation					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	Sinus Tachy	**Patient**	c/o pain	A – Patent B – Mildly SOB, speaking full sentences, mild crackles C – Mildly D – Alert, complaining of pain E – Nil stings or bites	☐ Post resuscitation cares ☐ Re-assess patient ☐ Monitor vital signs ☐ Administer analgesia (Morphine, 0.05mg/kg) (Fentanyl, 0.5mcg/kg) ☐ Call for help (ICU consultant, retrieval as appropriate)
	HR	143 → 100				
	SPO_2	97%				
	BP/ART	260/160 → 200/100				
	RR	28 → 24				
	CVP	N/A				
	TEMP	37.5				
	CO_2	N/A				
	BSL	3.8				
	GCS *E, V, M*	15				
	Other					

OTHER

BLOOD RESULTS

INR – 4.9

Troponin T – 0.27ug/L

White blood cell count – 17.6 x 10^9/L

Aspartate aminotransferase – 51 U/L

Colin Mackeral – VT/VF (Marine Envenomation) – Emergency Department

TYPE OF SIMULATION	Immersive Scenario
TARGET AUDIENCE	• Medical staff • Nursing staff • Allied health staff
SCENARIO OVERVIEW	A 24-year-old man is brought in by QAS following marine envenomation. Patient has been liberally doused with vinegar. Tentacles visible on chest. Patient initially responsive and complaining of severe pain. Monitoring reveals sinus tachycardia and low BP. Patient rapidly deteriorates to unconsciousness with pulseless VT. Reverts to VF after first defibrillation. Remains in VF after 2nd defibrillation and administration of adrenaline. Reverts to SR following 3rd defibrillation.
LEARNING OUTCOMES	By the end of the scenario the learners should: • Demonstrates adherence to BLS algorithm – DANGER – Dons PPE and removes tentacles. Wipes away vinegar from chest • Follow the ANZCOR ALS algorithm 66tilizing the principles of crisis resource management
APPROXIMATE RUN TIME	30 min including debrief.

SET UP AND RESOURCES REQUIREMENTS

HUMAN RESOURCES	
FACULTY	1 x faculty to operate manikin and debrief
SIMULATION COORDINATORS	1 x to play confederate role
CONFEDERATES	QAS officer or Nurse
OTHER	

PHYSICAL RESOURCES	
ROOM SET UP	Resus bay in ED
SIMULATOR/S	ALS Simulator
SIMULATOR/S SET UP	Manikin on bed. Spontaneously breathing, Strips of clear plastic glad wrap across chest to simulate tentacles. Spray chest with diluted vinegar in spray bottle.
CLINICAL EQUIPMENT	Emergency trolley with defibrillator
ACCESS	2 x IV access: 1 with no IV sticker in situ 1 x 18-gauge IV access available
ADDITIONAL PROPS	Moulage – make-up wheel Cling wrap Vinegar
OTHER	

INJURIES / MOULAGE

ORSO

Strips of cling wrap across chest to simulate tentacles, spray chest with dilute vinegar

TORSO

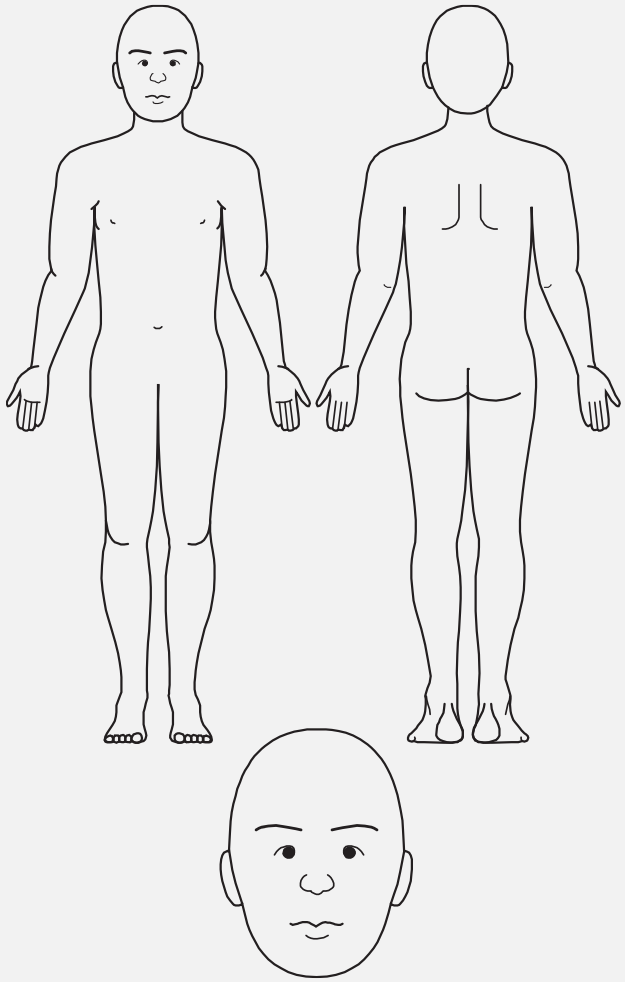
Red marks across chest from tentacles

LOCATION

Description

LOCATION

Description



HANDOVER CARD / PATIENT DETAILS

NAME: Colin Mackeral	**AGE / SEX / WEIGHT:** Age: 24 years old Sex: Male Weight: 90 kgs
ALLERGIES: Nil known	**MEDICATIONS:** Nil
MEDICAL / SURGICAL HISTORY: Nil	**SOCIAL HISTORY / EMPLOYMENT:** Recreational fisherman

START – 2 MINS	STATE ONE					
	Initial handover and assessment					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	ST	**Handover**	This is Colin Mackeral who was brought in by QAS after a jelly fish sting at local beach. Has been complaining of severe pain. Penthrane and Morphine given. No past medical history, no allergies. 18 gauge IV placed by QAS.	Initially spontaneously breathing with increased work of breathing, patient agitated and confused. <u>Trending</u> After finishing the actions for danger move to the next state (state 2)	☐ Receives handover ☐ Identifies danger • Don PPE • DRABC • Remove tentacles • Wipe off vinegar • Apply defib pads/ monitoring equipment ☐ Continues patient assessment – DRSABC
	HR	200				
	SPO_2	91%				
	BP/ART	68/32				
	RR	28				
	CVP	N/A				
	TEMP	36.5	**Patient**	Agitated and moaning in pain. My chest hurts; It's killing me.		
	CO_2	N/A				
	BSL	4.5				
	GCS *E, V, M*	14/15				
	Other	CRT 4 sec				

2 MINS – 4 MINS	STATE TWO					
	Recognition and management of cardiac arrest – VT					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	VT	Patient	No response	A – able to be ventilated with BVM B – No breathing. No spO2 trace C – No cardiac output D – Unconscious, 3 ERL <u>Trending</u> Rhythm changes to VF following 1st defibrillation (state 3)	□ Recognition of deterioration and emergency □ Commence BLS algorithm □ Commence ALS algorithm □ Attach defibrillator and assess rhythm immediately with minimal interruptions to CPR □ Safely defibrillate and recommence CPR for 2 minutes. □ Consider antivenom
	HR	150				
	SPO_2	Nil reading				
	BP/ART	Nil				
	RR	0				
	CVP	N/A				
	TEMP	35.8				
	CO_2	N/A				
	BSL	4.8				
	GCS *V, M, E*	3/15				
	Other					

4 MINS – 14 MINS	STATE THREE					
	Continual management of ALS shockable algorithm					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	VF	**Patient**	Nil	A – Able to be ventilated with BVM B – No breathing C – Cold, nil cardiac output <u>Trending</u> Option 1- ROSC at 3rd shock (state 4) Option 2 – ROSC only after administration of antivenom (state 4)	☐ Follow ALS algorithm ☐ Performs effective ECC (two minutes) with minimal interruptions ☐ Analyse rhythm and shock as required ☐ Administer 1 mg Adrenaline after 2nd shock ☐ Administer 300mg amiodarone after 3rd shock ☐ Appropriate attention to airway, initially airway BVM – later advanced airway LMA without distraction from defib and CPR ☐ Call for advice re: antivenom ☐ Teamwork and effective communication
	HR	Nil				
	SPO_2	Nil reading				
	BP/ART	Nil				
	RR	0				
	CVP	N/A				
	TEMP	35.8				
	CO_2	20				
	BSL	4.8				
	GCS *V, M, E*	3/15				
	Other					

14 MINS – 15 MINS	STATE FOUR					
	Return of spontaneous circulation					
			SCRIPT		DETAILS	EXPECTED ACTIONS
	ECG	ST	**Patient**	Patient irritable, moaning	A – Coughing / moaning B – Spontaneously breathing C – Weak rapid pulse	☐ Discuss post resus care ☐ Organise definite care ☐ Discuss 4 H's and 4 T's Debriefing: Treatment of Toxin with antivenom is the only successful treatment option. CPR should continue for one hour.
	HR	110				
	SPO_2	96				
	BP/ART	80/45				
	RR	12				
	CVP	N/A				
	TEMP	36.0				
	CO_2	35				
	BSL	4.8				
	GCS *V, M, E*	11				
	Other					

Harry Hardy – PEA (Trauma: Tension Pneumo/Hypovolaemia) – Emergency Department

TARGET AUDIENCE	• Medical staff • Nursing staff • Allied health staff
SCENARIO OVERVIEW	24yr old male Harry Hardy brought into ED by friends who appear drunk saying that he fell off the back of a ute. His friends place him on a bed and leave because they are afraid that the Police will be called. Harry has tension pneumothorax and stomach distention from internal haemorrhage. Harry proceeds to PEA arrest. If his exsanguination and pneumothorax is managed, he will respond to ALS measures and achieve ROSC.
LEARNING OUTCOMES	By the end of the scenario the learners should: • Follow the ANZCOR ALS algorithm 73tilizing the principles of crisis resource management • Gain an awareness of the ANZCOR trauma guidelines
APPROXIMATE RUN TIME	30 mins including debrief

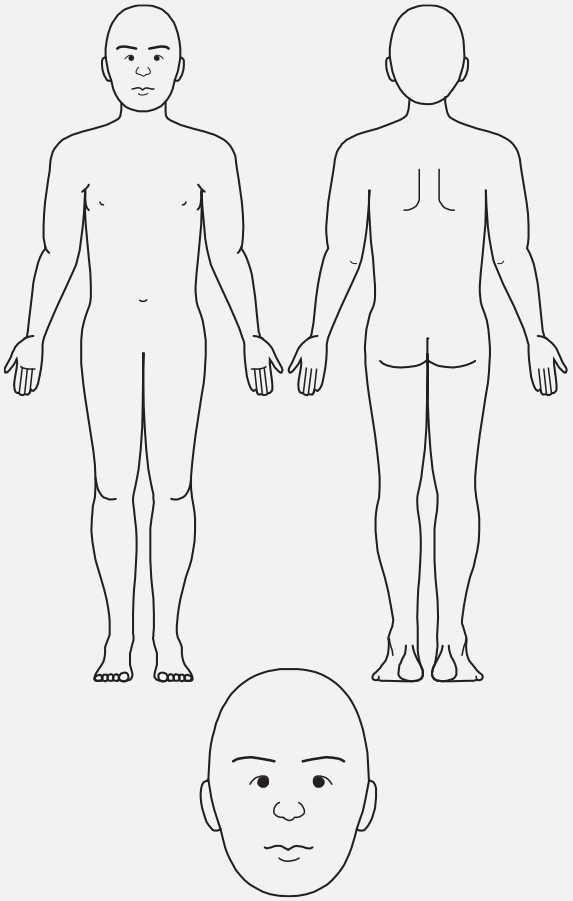
SET UP AND RESOURCES REQUIREMENTS

HUMAN RESOURCES	
FACULTY	1 x faculty to operate manikin and debrief
SIMULATION COORDINATORS	1 x to play confederate role
CONFEDERATES	Junior nurse
OTHER	

PHYSICAL RESOURCES	
ROOM SET UP	Resus bay in ED
SIMULATOR/S	ALS Advanced
SIMULATOR/S SET UP	Pt in bed, spontaneous breathing in street clothes
CLINICAL EQUIPMENT	Emergency trolley with defibrillator Fast scan accessible
ACCESS	2 x IV access: 1 with no IV sticker in situ 1 x 18-gauge IV access available
ADDITIONAL PROPS	Moulage – make-up wheel
OTHER	

HUMAN RESOURCES	
FACULTY	1 x faculty to operate manikin and debrief
SIMULATION COORDINATORS	1 x to play confederate role
CONFEDERATES	Junior nurse
OTHER	

PHYSICAL RESOURCES	
ROOM SET UP	Resus bay in ED
SIMULATOR/S	ALS Advanced
SIMULATOR/S SET UP	Pt in bed, spontaneous breathing in street clothes
CLINICAL EQUIPMENT	Emergency trolley with defibrillator Fast scan accessible
ACCESS	2 x IV access: 1 with no IV sticker in situ 1 x 18-gauge IV access available
ADDITIONAL PROPS	Moulage – make-up wheel
OTHER	

INJURIES / MOULAGE	
	
TORSO Bruising around right side of chest and abdomen	

HANDOVER CARD / PATIENT DETAILS	
NAME: Harry Hardy	**AGE / SEX / WEIGHT:** Age: 24 Sex: Male Weight: 80 kg
ALLERGIES: KNDA	**MEDICATIONS:** Nil
MEDICAL / SURGICAL HISTORY: Nil	**SOCIAL HISTORY / EMPLOYMENT:** Tradie

START – 2 MINS	STATE ONE					
	Initial handover and assessment					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	ST	**Handover**	This is Harry, he was dropped off by his friends after falling off the back of a ute that was travelling at about 50kph. Impacted on his R side chest and abdo. Have found Nil other injuries. Pt denies head hit / no c-spine tenderness.	A – Patent B – Unilateral chest rise, decrease air entry on left side C – Pale, weak peripheral pulses D – Alert, pupils 3 ERL Post decompression AE improves and Sp02 improves. <u>Trending</u> At two minutes patient becomes less response with decrease BP and RR to progress to state 2.	☐ DRSABC ☐ Apply oxygen ☐ Apply soft collar ☐ Perform primary survey ☐ Identify tension pneumothorax and perform needle decompression
	HR	144				
	SPO_2	89%				
	BP/ART	95/50				
	RR	36				
	CVP	N/A				
	TEMP	36.0	**Patient**	Harry moans in pain. I can't breathe!		
	CO_2	N/A				
	BSL	8				
	GCS *E, V, M*	15				
	Other	CRT 3 sec				

2 MINS – 8 MINS	STATE TWO					
	Cardiac arrest					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	PEA	**Faculty**	Patient to fade out /become unresponsive Santa to relay info related to 4hs 4ts	• Patient goes into hypovolemic arrest <u>Trending</u> ALS commenced for 5-10 minutes depending on attention to HHTT – then ROSC (state 3)	Follow ALS algorithm – traumatic arrest Treat – HOTT Manage airway / hypoxia Treat hypovolaemia Check air entry post needle decompression Perform FAST SCAN – tamponade Call to refer patient for immediate surgery / transfer or perform peri cardiocentesis
	HR	Nil				
	SPO_2	Not readable				
	BP/ART	Not readable				
	RR	Nil				
	CVP	N/A				
	TEMP	36.0				
	CO_2	20				
	BSL	3.8				
	GCS *V, M, E*	3				
	Other					

8 MINS – 15 MINS	STATE THREE					
	ROSC					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	SR	**Faculty**	Santa to relay info related to 4hs 4ts Pt to groan or cough and become GCS 11	• Post ROSC cares	□ Post resuscitation care □ Organise definitive treatment □ Aim to meet haemodynamic goals – SBP >100 □ End of scenario
	HR	90				
	SPO_2	98				
	BP/ART	89/52				
	RR	22				
	CVP	N/A				
	TEMP	36.0				
	CO_2					
	BSL	7.5				
	GCS *V, M, E*	11				
	Other					

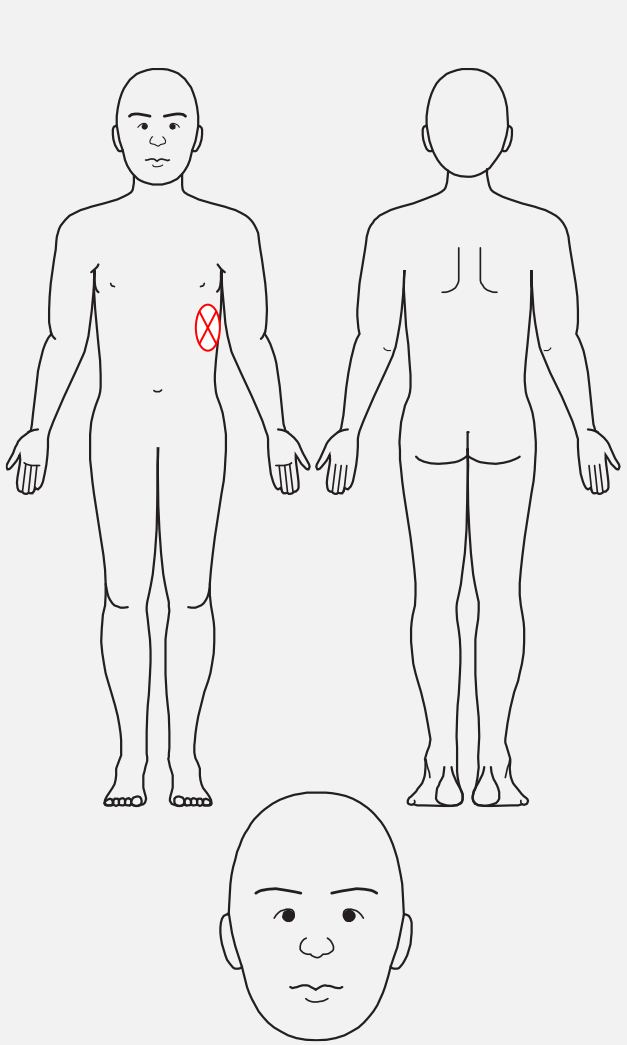
Ted Bundaberg – PEA (Chest Stabbing) – Emergency Department

TYPE OF SIMULATION	Immersive
TARGET AUDIENCE	• Medical staff • Nursing staff • Allied health staff
SCENARIO OVERVIEW	19 y/o male, patient bought in by friends, presents to ED with a knife embedded into his chest at the left mid axilla following an altercation. Patient develops a PEA arrest and participants are expected to provide treatment using the HOTT algorithm, as well as CRM principles.
LEARNING OUTCOMES	By the end of the scenario the learners should: • Follow the ANZCOR ALS algorithm 80tilizing the principles of crisis resource management • Gain an awareness of the ANZCOR trauma guidelines
APPROXIMATE RUN TIME	30 mins including debrief

SET UP AND RESOURCES REQUIREMENTS

HUMAN RESOURCES	
FACULTY	1 x faculty to operate manikin and debrief
SIMULATION COORDINATORS	1 x to play confederate role
CONFEDERATES	Junior nurse
OTHER	

PHYSICAL RESOURCES	
ROOM SET UP	Emergency Department
SIMULATOR/S	ALS Advanced
SIMULATOR/S SET UP	Patient in civilian clothes with knife embedded in chest
CLINICAL EQUIPMENT	Emergency trolley with defibrillator USS/ Fast scan available ABG tubes and forms Chest drain equipment Chest X ray
ACCESS	1 x IV access with N/S running 1 x No IV sticker insitu
ADDITIONAL PROPS	Knife moulage – coban to chest of manikin
OTHER	Blood products

INJURIES / MOULAGE	
TORSO Knife embedded	

HANDOVER CARD / PATIENT DETAILS	
NAME: Ted Bundaberg	**AGE / SEX / WEIGHT:** Age: 19 Sex: Male Weight: 80 kg
ALLERGIES: KNDA	**MEDICATIONS:** Nil
MEDICAL / SURGICAL HISTORY: Unknown	**SOCIAL HISTORY / EMPLOYMENT:** Unknown

START – 5 MINS	STATE ONE					
	Initial assessment					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	ST	**Handover**	This is Ted, he was involved in an altercation and was stabbed in the chest. He only reported one wound and the knife is still in situ. Groaning but responsive to pain, finding it difficult to breathe properly	Initially stable until the team arrives. <u>Trending</u> Start deteriorating BP to state 2. Pt is developing cardiac tamponade, tension pneumothorax on left side.	☐ Call for help ☐ Receive handover ☐ Assess patient ☐ Assess airway / breathing ☐ Monitoring – ECG, SPO2, BP ☐ Obtain IV access – fluid resuscitation 20ml/kg ☐ Call for fast track to surgery
	HR	105				
	SPO_2	97				
	BP/ART	100/73				
	RR	17	**Patient**			
	CVP	N/A				
	TEMP	36.4				
	CO_2	40				
	BSL	5				
	GCS *V, M, E*	13				
	Other					

5 MINS – 15 MINS	STATE TWO					
	Recognition and treatment of PEA arrest					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	PEA	**Patient**	Ted becomes unresponsive	• Cardiac arrest due to tamponade / tension pneumo <u>Trending</u> • If knife removed patient develops asystole	□ Commence BLS □ Follow ALS Algorithm and/or trauma arrest guideline Traumatic chest injury (HOTT) □ Hypovolaemic – commence IVT/blood products □ 100% 02 – 15LM – bvm □ Tension pneumothorax – decompress on left side. □ Cardiac tamponade – call for surgery or anyone who can perform pericardiocentesis or thoracotomy □ Organise referral / retrieval as appropriate □ Teamwork and CRM principles
	HR	105				
	SPO_2	Nil reading				
	BP/ART	Nil				
	RR	Nil				
	CVP	N/A				
	TEMP	36.0				
	CO_2	N/A				
	BSL	5				
	GCS *V, M, E*	3				
	Other					

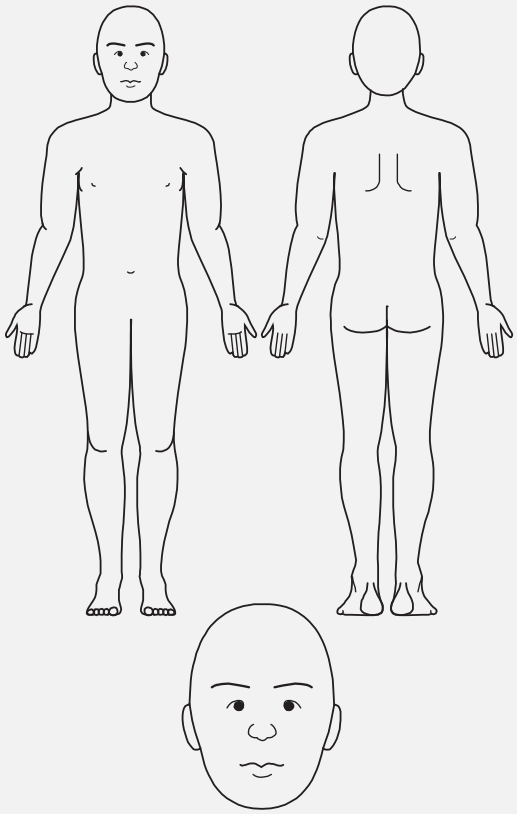
Phil Hardiman – PEA (Blunt Trauma: Tension & Surgical Abdomen) – Emergency Department

TYPE OF SIMULATION	Immersive
TARGET AUDIENCE	• Medical staff • Nursing staff • Allied health staff
SCENARIO OVERVIEW	38 yr old male Phil Hardiman brought into ED by friends who appear quite drunk saying that he fell off the back of a ute. His friends place him on a bed and leave because they are afraid that the Police will be called. Phil has torn clothing and minor stains but no glaringly obvious injury (Acute Abdomen/ Tension Pneumothorax). Phil proceeds to PEA arrest. Responds to ALS measures CPR and fluid boluses.
LEARNING OUTCOMES	By the end of the scenario the learners should: • Follow the ANZCOR ALS algorithm 85tilizing the principles of crisis resource management • Gain an awareness of the ANZCOR trauma guidelines
APPROXIMATE RUN TIME	30 mins including debrief

SET UP AND RESOURCES REQUIREMENTS

HUMAN RESOURCES	
FACULTY	1 x faculty to operate manikin and debrief
SIMULATION COORDINATORS	1 x to play confederate role
CONFEDERATES	Junior nurse
OTHER	

PHYSICAL RESOURCES	
ROOM SET UP	Resus bay in ED
SIMULATOR/S	ALS Advanced
SIMULATOR/S SET UP	Pt in bed, spontaneous breathing in street clothes
CLINICAL EQUIPMENT	Emergency trolley with defibrillator Fast scan accessible
ACCESS	2 x IV access: 1 with no IV sticker in situ 1 x 18-gauge IV access available
ADDITIONAL PROPS	Moulage – make-up wheel
OTHER	

INJURIES / MOULAGE	
TORSO Bruising around right side of chest and abdomen	

HANDOVER CARD / PATIENT DETAILS	
NAME: Phil Hardiman	**AGE / SEX / WEIGHT:** Age: 38 Sex: Male Weight: 90 kg
ALLERGIES: KNDA	**MEDICATIONS:** Nil
MEDICAL / SURGICAL HISTORY: Nil	**SOCIAL HISTORY / EMPLOYMENT:** Fencing contractor

START – 2 MINS	STATE ONE					
	Initial handover and assessment					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	ST	**Handover**	This is Harry, he was dropped off by his friends after falling off the back of a ute that was travelling at about 50kph. Impacted on his R side chest and abdo. Complaining shortness of breath. Pt denies head hit / no c-spine tenderness.	A – Patent B – Unilateral chest rise, decrease air entry on left side C – Pale, weak peripheral pulses D – Alert, pupils 3 ERL Post decompression AE improves and Sp02 improves.	☐ DRSABC ☐ Apply oxygen ☐ Apply soft collar ☐ Perform primary survey ☐ Identify tension pneumothorax and perform needle decompression
	HR	150				
	SPO_2	89%				
	BP/ART	95/50				
	RR	36				
	CVP	N/A				
	TEMP	36.0	**Patient**	• Harry moans in pain. I can't breathe! • My stomach hurts so much.	<u>Trending</u> • Slowly patient becomes less response with decrease BP and RR • Phil complains of abdominal pain and then moans and becomes unconscious (progress to state 2).	
	CO_2	N/A				
	BSL	8.8				
	GCS *E, V, M*	15				
	Other	CRT 3 sec				

2 MINS – 8 MINS	STATE TWO					
	Cardiac arrest					
	VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
	ECG	PEA	**Faculty**	Abdomen distended and firm to touch	Patient goes into hypovolemic arrest A – Able to be ventilated with BVM, spinal precautions remain B – No breathing. No SpO2 trace C – No cardiac output D – Nil response <u>Trending</u> After 3 loops of CPR, 2 doses of adrenaline and administration of adequate IVT, patient regains cardiac output (move to state 3).	☐ Recognition of PEA Participant may follow the ANZCOR ALS guidelines or the trauma guidelines ☐ Commence chest compressions ☐ Follow ALS algorithm 1st loop ☐ Attach defibrillator and assess rhythm immediately with minimal interruptions to CPR. ☐ Charge defib to 200 J and check rhythm – Recognise non-shockable rhythm (PEA) – dump shock and recommence CPR for 2 minutes. ☐ Administer Adrenaline 1 mg ☐ Find and treat reversible causes ☐ Hypovolaemia – will require fluid bolus ☐ Call for help – surgical, OT etc.
	HR	Nil				
	SPO_2	Not readable				
	BP/ART	Not readable				
	RR	Nil				
	CVP	N/A				
	TEMP	36.0				
	CO_2	20				
	BSL	3.8				
	GCS *V, M, E*	3				
	Other					

8 MINS – 15 MINS

STATE THREE					
ROSC					
VITAL SIGNS		**SCRIPT**		**DETAILS**	**EXPECTED ACTIONS**
ECG	ST	**Patient**	Pt to groan or cough	• Post ROSC cares	☐ Post resuscitation care ☐ Prepare for OT ☐ Organise definitive treatment End of scenario
HR	120				
SPO_2	96				
BP/ART	70/52				
RR	12				
CVP	N/A				
TEMP	36.0				
CO_2					
BSL	3.8				
GCS *V, M, E*	11				
Other					