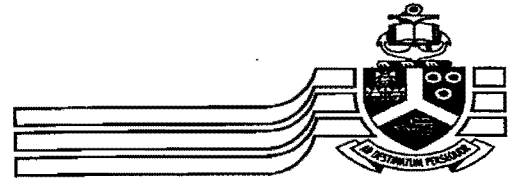


Annexure A

Permission for conducting this research



University of Pretoria

Faculty of Health Sciences Research Ethics Committee

University of Pretoria

Tel (012) 339 8612

Fax (012) 339 8587

E Mail manda@med.up.ac.za

Soutpansberg Road

Private Bag x 385

MRC-Building

Pretoria

Level 2

0001

Room 19

Date: 19/9/2002

Number	:	205/ 2002
Title	:	Core competencies of the A & E (accident and emergency) nurse in life-threatening situations in the emergency care environment
Investigator	:	Tanya Heyns, Department of Nursing Science, University of Pretoria
Sponsor	:	None

This Protocol has been considered by the Faculty of Health Sciences Research Ethics Committee, University of Pretoria on 18/09/2002 and found to be acceptable.

*Prof P Carstens	BLC LLB LLD (Pret) Faculty of Law
Prof S.V. Grey	(female) BSc (Hons); MSc; DSc: Deputy Dean
Prof C B Ijsselmuiden	MD; DTM & H; DPH ;FFCH (CM); MPH; School of Health Systems and Public Health
*Dr V.O.L. Karusseit	MBChB; MFGP (SA); M.Med (Chir); FCS (SA): Surgeon
Dr M E Kenoshi	MB,ChB; DTM & H (Wits); C.E.O. of the Pretoria Academic Hospital
Prof M Kruger	(female) MB.ChB.(Pret); Mmed.Paed.(Pret); PhD. (Leuven)
Dr N K Likibi	MB.BCh.; Med.Adviser (Gauteng Dept.of Health)
*Miss B Mullins	(female) BscHons; Teachers Diploma;
*Snr Sr J. Phatoli	(female) BCur (EtAl) Senior Nursing-Sister
*Prof H.W. Pretorius	MBChB; M.Med (Psych) MD: Psychiatrist
Prof P. Rheeder	MBChB; M.Med (Int); LKI (SA); MSc (CLIN.EPI): Specialist Physician
Reverent P Richards	B.Th. (UNISA), M.Sc. (Applied Biology) (Knights), M.Sc (Med) (Wits), TechRMS, DipRMS
*Dr L Schoeman	(female) Bpharm, BA Hons (Psy), PhD
Dr C F Slabber	BSc (Med) MB BCh, FCP (SA) Acting Head; Dept Medical Oncology
*Prof J.R. Snyman	MBChB, M.Pharm.Med: MD: Pharmacologist
*Prof De K. Sommers	BChB; HDD; MBChB; MD: Pharmacologist
*Dr R Sommers	(female) MBChB; M.Med (Int); MPhar.Med;
*Dr TJP Swart	BChD, MSc (Odont), MChD (Oral Path) Senior Specialist; Oral Pathology
Dr S.J.C.Christa v/d Walt	(female) D. Cur, M.Ed, Department of Nursing,

DR R. SOMMERS; MBChB, M.Med (Int); MPhar.Med.

SECRETARIAT of the Faculty of Health Sciences Research Ethics Committee - University of Pretoria

* = Members attended the meeting on 18/09/2002.

Annexure B

A letter of invitation to participate in the focus group interview

School of Health Care Sciences
Department of Nursing Science
PO Box 667
Pretoria
0001

Dear participant

RESEARCH TOPIC: Core competencies of the A&E (accident and emergency) nurse in life-threatening situations in the emergency care environment in South Africa

Thank you for your willingness to participate in the focus group interview regarding the above-mentioned topic on _____ at the Netcare Gauteng West Regional Office, Johannesburg. The total time scheduled for this group interview is two hours, starting at 13:30.

I am presently studying for the M Cur Clinical degree (specialising in trauma and emergency care) at the University of Pretoria.

The scope of practice of the A&E nurse in the emergency care environment has over the last few years become one of the most frequently debated issues. Apart from numerous oral discussions, little has, however, been written on the subject so far. The role and also the range of practice of the A&E nurse have expanded considerably and continuous advancement is taking place within the profession. Although curricula exist for the purpose of training A&E nurses, there is no concurrence regarding the core competencies in life-threatening situations. It has therefore become essential for us, as A&E nurses, to clarify our scope of practice.

To reach the aim of the research the following objectives were set:

- Describe the "emergency care environment" within which the A&E nurse practises
- Determine the core competencies required of the A&E nurse in life-threatening situations in the emergency care environment
- Make recommendations as to what core competencies are required by the A&E nurse in order to manage life-threatening situations in the emergency environment – in other words, what core competencies should be included in a curriculum for training these nurses

The researcher aims, with your help, to compile a questionnaire which will be distributed nationally. Your expertise and insights regarding the research topic are truly valued. Your participation will help to ensure that A&E nursing is seen as a highly esteemed profession and that the A&E nurse is accepted as an important role player in the emergency environment.

Permission for conducting this research has been granted by the relevant authorities. Your participation in this focus group is voluntary and you can refuse to participate or stop at any time without stating a reason. Attending and participating in the focus group imply that informed consent has been obtained from you. Data that may be reported in scientific journals will not include any information that identifies you as a participant in this study. As all information or data is anonymous, you must understand that you will not be able to recall your consent, as your information will not be traceable. All information supplied during the course of this research will remain strictly confidential.

If you have any questions, please do not hesitate to approach me.

Kind regards

Tanya Heyns

Annexure C

A sample of the transcribed focus group interview

A sample of the transcribed focus group interview

Facilitator: "What in your opinion is the context within which the A&E nurse can practise? That is the accident and emergency nurse. What do you think is the context or the environment that he/she can practise in? Who would like to start?"

Participant: "That is asking the most controversial question first, isn't it?"

Group confirmation: "Yes."

Participant: "In my opinion the A&E nurse can practise in whatever context she is comfortable with. There is no such a thing as an environment, if she is comfortable in that environment, as far as I am concerned she can work and operate in that environment."

Participant: "That should include the pre-hospital environment."

Group confirmation: "Yes...definitely."

Participant: "But with what she has available to her...as well. She can be limited if she doesn't have the correct equipment."

Facilitator: "What specific equipment would that be?"

Participant: "Well...you can't administer oxygen if you haven't got an oxygen bottle and a...mask to give it. You can't for circulation...you know it's basic stuff...you can't expect...every nurse can only work within well...their acts and omissions and scope of practice, depending on what they've got available. So whether they're got an emergency backup with everything or whether they've got nothing, because somebody who's out in a rural place would have to improvise, use sticks to splint or...so."

Facilitator: "Uh...uh...so it depends on the equipment you have?"

Participant: "Yes"

Participant: "Even in that situation though...to be able to phone...or activate the correct emergency services...you know...then do what you can while she is waiting. I don't think it is limited to one specific environment. I think that she should be able to care for any client or patient under any circumstance."

Facilitator: "Uhm...you talk about circumstances...and..."

Participant: "Pre-hospital, in-hospital...and...those are the...inter-transfers"

Participant: "Especially from rural areas...I mean you must be able to transfer the patient to a place where they can help her. So..."

Participant: "I think pre-hospital and inter-hospital is a very wide area you can actually work in. With pre-hospital we don't mean just the road...that can include the rural areas. So if you are alone in a rural area..."

Participant: "Such as a clinic for example"

Participant: "Such as a clinic somewhere where...the doctors are millions of miles away. You should be able to..."

Participant: "Occupational health"

Participant: "Occupational health is another one, yes"

Facilitator: "So pre-hospital...a few contexts...occupational health, clinics, the road...where else?"

Participant: "Aviation medicine"

Group confirmation: "Yes"

Participant: "Primary health care...services"

Group confirmation: "Yes, absolutely"

Participant: "In the air...in the air up there"

Participant: "I think also working...uhm...in the paramedical services, if they are either volunteering or they are working there as part of the staff, any...situation like that."

Facilitator: "Uhm...any specific context that you can name that you did not mention?"

Participant: "We haven't mentioned maybe that military forces...and that, that certainly there is a role for nurses there as well"

Facilitator: "Umh...any other context?"

Participant: "Industry, which falls under occupational health"

Participant: "Disaster management"

Facilitator: "Uhm"

Participant: "and education"

Participant: "I would also like to add that...uhm...they can also work in management...disaster management...uhm...cities...the management of...metro...uhm...metropolitan areas...things like that"

Annexure D

Questionnaire

Faculty of Health Sciences
Department of Nursing Science
PO Box 667
Pretoria
0001

Dear Colleague

RESEARCH QUESTIONNAIRE: Core competencies of the A&E (accident and emergency) nurse in life-threatening situations in the emergency care environment in South Africa

The scope of practice of the accident and emergency (A&E) nurse in the emergency care environment has over the last few years become one of the most frequently debated issues. Apart from numerous oral discussions, little has, however, been written on the subject so far. The role and also the range of practice of the A&E nurse have expanded considerably and continuous advancement is taking place within the profession. Although curricula exist for the purpose of training A&E nurses, there is no concurrence regarding the core competencies in order to manage in life-threatening situations. It has therefore become essential for us, as A&E nurses, to clarify our scope of practice.

This questionnaire will focus on the core competencies required by the A&E nurse to manage life-threatening situations. The researcher aims, with your help, to describe the emergency care environment within which the A&E nurse works, and to identify and determine the core competencies required by the A&E nurse to manage life-threatening situations. The data will be used to make recommendations regarding the core competencies to be included in the curriculum for the training of A&E nurses.

Registered nurses who are lecturing, studying or have completed one or more of the following additional qualifications, can participate in the research project:

- Medical and surgical nursing science: Critical care nursing (general surgery and trauma)
- Medical and surgical nursing science: Critical care nursing (trauma)
- Medical and surgical nursing science: Trauma and emergency nursing
- Certificate in traumatology for nursing
- Any other relevant post-basic programme relating to A&E nursing

Permission for conducting this research has been granted by the relevant authorities. Your participation in this research is voluntary and you can refuse to participate or stop at any time without stating a reason. The implication of completing the questionnaire is that informed consent has been obtained from you. Data that may be reported in scientific journals will not include any information that identifies you as participant in this study. As all information or data is anonymous, you must understand that you will not be able to recall your consent, as your information will not be traceable. All information supplied during the course of this research will remain strictly confidential.

Thank you for your participation. Your experience and insights regarding the core competencies required by the A&E nurse are truly valued. If you have any questions, please do not hesitate to approach me.

Kind regards

.....
Tanya Heyns
Researcher

.....
Dr ADH Botha
Supervisor

Instructions for completing the questionnaire

1. In this questionnaire the abbreviation A&E nurse refers to the **Accident and Emergency Nurse**.
2. Answer each question by indicating your chosen option with a cross (**x**) in the appropriate box or fill in the information asked for in the space provided. **Remember that your recommendations and suggestions are important.**
3. **PLEASE WRITE CLEARLY, USING CAPITAL LETTERS.**
4. You are welcome to include comments at the end of the questionnaire.
5. If you require any assistance regarding this questionnaire, you are most welcome to contact Ms T Heyns at (012) 354 2125 or 083 287 3929.
6. It will take approximately 45 minutes to complete the questionnaire.
7. The questionnaire consists of the following five (5) sections and you are required to complete **all** the sections:

Section A – Demographical information

Section B – Context

Section C – Advanced life-support **skills performed** by A&E nurses in life-threatening situations

Section D – Advanced **skills essential** for A&E nurses in life-threatening situations to be included in **curricula**

Section E – Attitudes and values of the A&E nurse

Please continue >

Questionnaire: Core competencies of the A&E nurse

Section A – Demographical information

Please tell us about yourself

a1 What is your **gender**?

a1_1	• Female	1
a1_2	• Male	2

a2 What is your **age**?

a2_1	• Younger than 25 years	1
a2_2	• 25 – 29 years	2
a2_3	• 30 – 34 years	3
a2_4	• 35 – 39 years	4
a2_5	• 40 – 44 years	5
a2_6	• 45 years or older	6

a3 In which **province** are you currently employed?

a3_1	• Eastern Cape	1
a3_2	• Free state	2
a3_3	• Gauteng	3
a3_4	• KwaZulu-Natal	4
a3_5	• Limpopo (Northern Province)	5
a3_6	• Mpumalanga	6
a3_7	• Northern Cape	7
a3_8	• North-West	8
a3_9	• Western Cape	9

a4 Indicate your **present professional status**

a4_1	• A&E nurse (trained)	1
a4_2	• A&E nurse (student)	2
a4_3	• A&E nurse (lecturer)	3
a4_4	• Other (please specify)	4

a5 How many years' **experience** do you have in the emergency care environment?

a5_1	• Less than 2 years	1
a5_2	• 2 – 3 years	2
a5_3	• 4 – 5 years	3
a5_4	• 6 – 7 years	4
a5_5	• 8 – 9 years	5
a5_6	• 10 years or more	6

a6 Indicate how many **hours on average per week** you work in an emergency care environment

a6_1	• Not applicable	1
a6_2	• Up to 12 hours/week	2
a6_3	• 13 to 24 hours/week	3
a6_4	• 25 to 36 hours/week	4
a6_5	• 37 to 48 hours/week	5
a6_6	• More than 48 hours/week	6

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a7 In which **type of hospital** are you currently working?

a7_1	• Not applicable	1
a7_2	• Provincial hospital	2
a7_3	• Private hospital/clinic	3
a7_4	• Military hospital	4
a7_5	• Other (please specify)	5

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a8 On what **accredited level** is the emergency care unit that you are currently working in?

a8_1	• Not applicable	1
a8_2	• Level I (highest)	2
a8_3	• Level II	3
a8_4	• Level III (lowest)	4
a8_5	• Do not know	5
a8_6	• Other (please specify)	6

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a9 Which **types of patients** are managed in your emergency care environment?
(Cross either the "Yes" or "No" box in each case.)

	Types of patients	Yes	No
a9_1	• Patients involved in accidents / trauma	1	2
a9_2	• Patients with medical emergencies	1	2
a9_3	• Paediatric emergencies	1	2
a9_4	• Primary health care patients	1	2
a9_5	• Occupational emergencies	1	2
a9_6	• Other (please specify)	1	2

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a10 How often do you make **independent decisions** in the absence of a doctor in your emergency care environment?

a10_1	• Never	1
a10_2	• At least once/year	2
a10_3	• At least once/six months	3
a10_4	• At least once/month	4
a10_5	• At least once/week	5
a10_6	• At least once/shift	6

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a11 Are you registered as a **midwife or accoucheur**?

a11_1	• Yes	1
a11_2	• No	2

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Section B – Context

This section focuses on your current and previous clinical and non-clinical professional experience

State which of the following areas you are currently working in, or have worked in previously. Mark the appropriate box with a cross (×) in each instance.

b1	Clinical practice within pre-hospital environment	Yes	No
b1_1	• Primary response (ambulance)	1	2
b1_2	• Inter-hospital transfers of the critically ill patient (ambulance)	1	2
b1_3	• Aviation medicine: primary response (helicopter)	1	2

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Clinical practice within pre-hospital environment (continued)		Yes	No
b1_4	• Aviation medicine: secondary response (helicopter)	1	2
b1_5	• Aviation medicine: secondary response (fixed-wing aircraft)	1	2
b1_6	• Field hospital	1	2
b1_7	• Disaster management	1	2
b1_8	• Sports events	1	2
b1_9	• Primary health care clinics	1	2
b1_10	• Occupational health	1	2
b1_11	• Other (please specify)	1	2
.....			

Clinical practice within hospital environment		Yes	No
b2			
b2_1	• Provincial hospital: accident and emergency unit	1	2
b2_2	• Private hospital/clinic: accident and emergency unit	1	2
b2_3	• Military hospital: accident and emergency unit	1	2
b2_4	• Outpatients department	1	2
b2_5	• Other (please specify)	1	2
.....			

Management		Yes	No
b3			
b3_1	• Consultant	1	2
b3_2	• Managing a crisis centre	1	2
b3_3	• Disaster planning and management	1	2
b3_4	• Event management (e.g. sports events)	1	2
b3_5	• Liaison management	1	2
b3_6	• Managing an ambulance service	1	2
b3_7	• Marketing	1	2
b3_8	• Risk management	1	2
b3_9	• Telephone triage	1	2
b3_10	• Other (please specify)	1	2
.....			

Education		Yes	No
b4			
b4_1	• Lecturing within the EMS (emergency medical service)	1	2
b4_2	• Lecturing A&E nurses	1	2
b4_3	• Educating community regarding health needs	1	2
b4_4	• Injury prevention campaign	1	2
b4_5	• Other (please specify)	1	2
.....			

Research		Yes	No
b5			
b5_1	• Honours degree (research for report)	1	2
b5_2	• Master's degree (research for dissertation)	1	2
b5_3	• Doctoral degree (research for thesis)	1	2
b5_4	• Research projects (other than the three above)	1	2
b5_5	• Project development	1	2
b5_6	• Other (please specify)	1	2
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Section C – Advanced life-support skills performed by A&E nurses in life-threatening situations

The following skills pertain to trauma and medical life-threatening emergencies of the neonatal, infant, paediatric, adult, elderly and pregnant patient managed by A&E nurses within the emergency care environment.

The list includes **advanced life-support skills** that you might have **had to perform** in life-threatening situations in the emergency care environment.

Indicate how often you perform/performed these skills in your professional practice as A&E nurse by using the following five-point scale:

- (1): Never
 (2): At least once a year
 (3): At least once a month
 (4): At least once a week
 (5): At least once a shift

Skills		Never	Once a year	Once a month	Once a week	Once a shift
c1	Assessment and recording					
c1_1	• Primary assessment (ABCDE)	1	2	3	4	5
c1_2	• Medical history taking	1	2	3	4	5
c1_3	• Secondary (head-to-toe) assessment	1	2	3	4	5
c1_4	• Recording	1	2	3	4	5
c2	Safety within pre-hospital environment					
c2_1	• Rescue work	1	2	3	4	5
c2_2	• Extrication	1	2	3	4	5
c2_3	• Scene safety	1	2	3	4	5
c2_4	• Hazmat precautions	1	2	3	4	5
c2_5	• Prioritisation of patient management	1	2	3	4	5
c2_6	• Use of extrication devices	1	2	3	4	5
c2_7	• Crisis intervention	1	2	3	4	5
c2_8	• Conflict management	1	2	3	4	5
c2_9	• Debriefing	1	2	3	4	5
c2_10	• Counselling skills	1	2	3	4	5
c3	Safety within hospital environment					
c3_1	• Hazmat precautions	1	2	3	4	5
c3_2	• Prioritisation of patient management	1	2	3	4	5
c3_3	• Use of extrication devices	1	2	3	4	5
c3_4	• Crisis intervention	1	2	3	4	5
c3_5	• Conflict management	1	2	3	4	5
c3_6	• Debriefing	1	2	3	4	5
c3_7	• Counselling skills	1	2	3	4	5

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Skills		Never	Once a year	Once a month	Once a week	Once a shift	
c4	Airway and cervical spine control						
c4_1	• Foreign body removal: upper airway	1	2	3	4	5	12
c4_2	• Oropharyngeal airway insertion	1	2	3	4	5	13
c4_3	• Nasopharyngeal airway insertion	1	2	3	4	5	14
c4_4	• Cricoid pressure technique (Sellick's manoeuvre)	1	2	3	4	5	15
c4_5	• Airway intubation:						16
c4_51	Laryngeal mask airway	1	2	3	4	5	17
c4_52	Oesophageal-tracheal combitube airway (Combitube)	1	2	3	4	5	18
c4_53	Orotracheal intubation	1	2	3	4	5	19
c4_54	Nasotracheal intubation	1	2	3	4	5	20
c4_55	Blind endotracheal intubation	1	2	3	4	5	21
c4_56	Retrograde intubation	1	2	3	4	5	22
c4_6	• Percutaneous transtracheal ventilation	1	2	3	4	5	23
c4_7	• Needle cricothyroidotomy	1	2	3	4	5	24
c4_8	• Surgical cricothyroidotomy	1	2	3	4	5	25
c4_9	• Surgical tracheostomy	1	2	3	4	5	26
c4_10	• Endotracheal suctioning	1	2	3	4	5	27
c4_11	• Spinal immobilisation	1	2	3	4	5	
c4_12	• Immobilisation devices:						
c4_121	Cervical collars	1	2	3	4	5	28
c4_122	Head immobilising device (HID/Ferno blocks)	1	2	3	4	5	29
c4_123	Spine board	1	2	3	4	5	30
c4_124	Scoop stretcher	1	2	3	4	5	31
c4_125	Vacuum splints	1	2	3	4	5	32
c4_13	• Log-rolling	1	2	3	4	5	33
c4_14	• Cervical spine X-ray interpretation	1	2	3	4	5	34

c5	Breathing and ventilation						
c5_1	• Initiate appropriate oxygen therapy	1	2	3	4	5	35
c5_2	• Nebulisation therapy	1	2	3	4	5	36
c5_3	• Bag-valve-mask ventilation	1	2	3	4	5	37
c5_4	• Anaesthesia bag ventilation (Boyles machine)	1	2	3	4	5	38
c5_5	• Confirmation of proper advanced airway placement	1	2	3	4	5	39
c5_6	• Oxygenation and ventilation monitoring:						
c5_61	Peripheral saturation monitoring	1	2	3	4	5	40
c5_62	Arterial blood gas (ABG) monitoring	1	2	3	4	5	41
c5_63	Exhaled or end-tidal CO ₂ monitoring (capnograph)	1	2	3	4	5	42
c5_64	Peak expiratory flow monitoring (e.g. asthma patients)	1	2	3	4	5	43
c5_7	• Non-invasive mechanical ventilation	1	2	3	4	5	44
c5_8	• Mechanical ventilation	1	2	3	4	5	45
c5_9	• Drawing an arterial blood gas (ABG) sample	1	2	3	4	5	46
c5_10	• Interpretation of arterial blood gas (ABG)	1	2	3	4	5	47
c5_11	• Manipulation of treatment according to arterial blood gas (ABG)	1	2	3	4	5	48
c5_12	• Occlusive dressing for open pneumothorax (tape only three sides)	1	2	3	4	5	49

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Skills		Never	Once a year	Once a month	Once a week	Once a shift	
Breathing and ventilation (continued)							
c5_13	• Emergency needle decompression of tension pneumothorax	1	2	3	4	5	50
c5_14	• Emergency placement of an underwater drain for treatment of a tension pneumothorax	1	2	3	4	5	51
c5_15	• Emergency placement of an underwater drain for treatment of a pneumothorax and/or haemothorax	1	2	3	4	5	52
c5_16	• Chest drainage system management	1	2	3	4	5	53
c5_17	• Chest X-ray interpretation	1	2	3	4	5	54

c6		Circulation with haemorrhage control					
c6_1	• Haemodynamic monitoring of the critically ill patient	1	2	3	4	5	55
c6_2	• Analyse 12-lead ECG: myocardial infarction	1	2	3	4	5	56
c6_3	• Analyse ECG strips: lethal rhythms	1	2	3	4	5	57
c6_4	• Analyse ECG strips: non-lethal rhythms	1	2	3	4	5	58
c6_5	• Control external bleeding	1	2	3	4	5	59
c6_6	• Suturing of skin lacerations	1	2	3	4	5	60
c6_7	• Administration of resuscitation fluids	1	2	3	4	5	61
c6_8	• MAST suit application	1	2	3	4	5	62
c6_9	• Intravenous access:						
c6_91	Peripheral line access	1	2	3	4	5	63
c6_92	Internal jugular venous access	1	2	3	4	5	64
c6_93	External jugular venous access	1	2	3	4	5	65
c6_94	Femoral venous access	1	2	3	4	5	66
c6_95	Intraosseous access	1	2	3	4	5	67
c6_96	Central line access	1	2	3	4	5	68
c6_97	Peripheral vein cutdown	1	2	3	4	5	69
c6_98	Umbilical venous access	1	2	3	4	5	70
c6_99	Umbilical arterial access	1	2	3	4	5	71
c6_10	• Emergency pericardiocentesis for treatment of a pericardial tamponade	1	2	3	4	5	72
c6_11	• Effective performance of CPR (ventilation and compression)	1	2	3	4	5	73
c6_12	• Splinting of limbs	1	2	3	4	5	74
c6_13	• Splinting of pelvis	1	2	3	4	5	75
c6_14	• Limb X-ray interpretation	1	2	3	4	5	76
c6_15	• Pelvic X-ray interpretation	1	2	3	4	5	77

c7		Disability, differential diagnosis, defibrillation and drugs					
c7_1	• Monitoring patient's level of consciousness:	1	2	3	4	5	
c7_11	AVPU scale	1	2	3	4	5	3
c7_12	Glasgow coma scale	1	2	3	4	5	4
c7_13	Neonatal stress response	1	2	3	4	5	5
c7_2	• Blood glucose monitoring	1	2	3	4	5	6
c7_3	• Differential diagnosis for cardiac arrest(correctable causes)	1	2	3	4	5	7
c7_4	• Defibrillation	1	2	3	4	5	8
c7_5	• Cardioversion	1	2	3	4	5	9
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Skills		Never	Once a year	Once a month	Once a week	Once a shift	
Disability, differential diagnosis, defibrillation and drugs (continued)							
c7_6	• External pacing	1	2	3	4	5	12
c7_7	• Vagal manoeuvres	1	2	3	4	5	13
c7_8	• Prescribe appropriate medication to facilitate:						
c7_81	Sedation	1	2	3	4	5	14
c7_82	Analgesia	1	2	3	4	5	15
c7_83	Skeletal muscle relaxation	1	2	3	4	5	16
c7_84	Treatment of cardiac arrest	1	2	3	4	5	17
c7_85	Correction of hypoxia	1	2	3	4	5	18
c7_86	Increased cardiac output with the use of positive inotropes	1	2	3	4	5	19
c7_87	Correction of metabolic acidosis	1	2	3	4	5	20
c7_88	Thrombolysis in acute myocardial infarction	1	2	3	4	5	21
c7_89	Treatment of acute pulmonary oedema	1	2	3	4	5	22

c8	Exposure and environmental control						
c8_1	• Measures to reverse hypothermia	1	2	3	4	5	23
c8_2	• Measures to reverse hyperthermia	1	2	3	4	5	24

c9	Adjuncts						
c9_1	• Arterial line insertion	1	2	3	4	5	25
c9_2	• Nasogastric tube insertion	1	2	3	4	5	26
c9_3	• Urine catheter insertion	1	2	3	4	5	27

c10	Special circumstances						
c10_1	• Supportive management for obstetric emergencies:						
c10_11	Normal delivery	1	2	3	4	5	28
c10_12	Breech presentation	1	2	3	4	5	29
c10_13	Prolapsed cord	1	2	3	4	5	30
c10_14	Shoulder presentation	1	2	3	4	5	31
c10_15	Multiple pregnancy	1	2	3	4	5	32
c10_16	Placenta abruptio	1	2	3	4	5	33
c10_17	Placenta previa	1	2	3	4	5	34
c10_18	Premature labour	1	2	3	4	5	35
c10_2	• Supporting the rape victim	1	2	3	4	5	36
c10_3	• Collecting forensic evidence from the rape victim	1	2	3	4	5	37
c10_4	• Neonatal stress management	1	2	3	4	5	38
c10_5	• Selecting an appropriate transport mode for the critically ill or injured patient	1	2	3	4	5	39

c11	Do you have any remarks to add?

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Section D – Advanced skills essential for A&E nurses in life-threatening situations to be included in curricula

The following list includes **possible advanced life-support skills** the A&E nurse **might be able to apply** in life-threatening situations in the emergency care environment.

Indicate to what extent you personally agree or disagree with the inclusion of the following skills as core competencies with regard to the A&E nurse by using the following four-point scale:

- (1): Strongly disagree (SD)
 (2): Disagree (D)
 (3): Agree (A)
 (4): Strongly agree (SA)

	Skills	SD	D	A	SA	
d1	Assessment and recording					
d1_1	• Primary assessment (ABCDE)	1	2	3	4	40
d1_2	• Medical history taking	1	2	3	4	41
d1_3	• Secondary (head-to-toe) assessment	1	2	3	4	42
d1_4	• Recording	1	2	3	4	43
d2	Safety within pre-hospital environment					
d2_1	• Rescue work	1	2	3	4	44
d2_2	• Extrication	1	2	3	4	45
d2_3	• Scene safety	1	2	3	4	46
d2_4	• Hazmat precautions	1	2	3	4	47
d2_5	• Prioritisation of patient management	1	2	3	4	48
d2_6	• Use of extrication devices	1	2	3	4	49
d2_7	• Crisis intervention	1	2	3	4	50
d2_8	• Conflict management	1	2	3	4	51
d2_9	• Debriefing	1	2	3	4	52
d2_10	• Counselling skills	1	2	3	4	53
d3	Safety within hospital environment					
d3_1	• Hazmat precautions	1	2	3	4	54
d3_2	• Prioritisation of patient management	1	2	3	4	55
d3_3	• Use of extrication devices	1	2	3	4	56
d3_4	• Crisis intervention	1	2	3	4	57
d3_5	• Conflict management	1	2	3	4	58
d3_6	• Debriefing	1	2	3	4	59
d3_7	• Counselling skills	1	2	3	4	60
d4	Airway and cervical spine control					
d4_1	• Foreign body removal: upper airway	1	2	3	4	5
d4_2	• Oropharyngeal airway insertion	1	2	3	4	6
d4_3	• Nasopharyngeal airway insertion	1	2	3	4	7
d4_4	• Cricoid pressure technique (Sellick's manoeuvre)	1	2	3	4	8
d4_5	• Airway intubation:					
d4_51	Laryngeal mask airway	1	2	3	4	9
d4_52	Oesophageal-tracheal combitube airway (Combitube)	1	2	3	4	10
d4_53	Ortotracheal intubation	1	2	3	4	11
d4_54	Nasotracheal intubation	1	2	3	4	12
d4_55	Blind endotracheal intubation	1	2	3	4	13
d4_56	Retrograde intubation	1	2	3	4	14

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Skills		SD	D	A	SA
Airway intubation (continued)					
d4_6	• Percutaneous transtracheal ventilation	1	2	3	4
d4_7	• Needle cricothyroidotomy	1	2	3	4
d4_8	• Surgical cricothyroidotomy	1	2	3	4
d4_9	• Surgical tracheostomy	1	2	3	4
d4_10	• Endotracheal suctioning	1	2	3	4
d4_11	• Spinal immobilisation	1	2	3	4
d4_12	• Immobilisation devices:				
d4_121	Cervical collars	1	2	3	4
d4_122	Head immobilising device (HID/Ferno blocks)	1	2	3	4
d4_123	Spine board	1	2	3	4
d4_124	Scoop stretcher	1	2	3	4
d4_125	Vacuum splints	1	2	3	4
d4_13	• Log-rolling	1	2	3	4
d4_14	• Cervical spine X-ray interpretation	1	2	3	4

d5	Breathing and ventilation				
d5_1	• Initiate appropriate oxygen therapy	1	2	3	4
d5_2	• Nebulisation therapy	1	2	3	4
d5_3	• Bag-valve-mask ventilation	1	2	3	4
d5_4	• Anaesthesia bag ventilation (Boyles machine)	1	2	3	4
d5_5	• Confirmation of proper advanced airway placement	1	2	3	4
d5_6	• Oxygenation and ventilation monitoring:				
d5_61	Peripheral saturation monitoring	1	2	3	4
d5_62	Arterial blood gas (ABG) monitoring	1	2	3	4
d5_63	Exhaled or end-tidal CO ₂ monitoring (capnograph)	1	2	3	4
d5_64	Peak expiratory flow monitoring (e.g. asthma patients)	1	2	3	4
d5_7	• Non-invasive mechanical ventilation	1	2	3	4
d5_8	• Mechanical ventilation	1	2	3	4
d5_9	• Drawing an arterial blood gas (ABG) sample	1	2	3	4
d5_10	• Interpretation of arterial blood gas (ABG)	1	2	3	4
d5_11	• Manipulation of treatment according to arterial blood gas (ABG)	1	2	3	4
d5_12	• Occlusive dressing for open pneumothorax (tape only three sides)	1	2	3	4
d5_13	• Emergency needle decompression of tension pneumothorax	1	2	3	4
d5_14	• Emergency placement of an underwater drain for treatment of a tension pneumothorax	1	2	3	4
d5_15	• Emergency placement of an underwater drain for treatment of a pneumothorax and/or haemothorax	1	2	3	4
d5_16	• Chest drainage system management	1	2	3	4
d5_17	• Chest X-ray interpretation	1	2	3	4

d6	Circulation with haemorrhage control				
d6_1	• Haemodynamic monitoring of the critically ill patient	1	2	3	4
d6_2	• Analyse 12-lead ECG: myocardial infarction	1	2	3	4
d6_3	• Analyse ECG strips: lethal rhythms	1	2	3	4
d6_4	• Analyse ECG strips: non-lethal rhythms	1	2	3	4
d6_5	• Control external bleeding	1	2	3	4
d6_6	• Suturing of skin lacerations	1	2	3	4
d6_7	• Administration of resuscitation fluids	1	2	3	4
d6_8	• MAST suit application	1	2	3	4

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	Skills	SD	D	A	SA
d6_9	• Intravenous access:				
d6_91	Peripheral line access	1	2	3	4
d6_92	Internal jugular venous access	1	2	3	4
d6_93	External jugular venous access	1	2	3	4
d6_94	Femoral venous access	1	2	3	4
d6_95	Intraosseous access	1	2	3	4
d6_96	Central line access	1	2	3	4
d6_97	Peripheral vein cutdown	1	2	3	4
d6_98	Umbilical venous access	1	2	3	4
d6_99	Umbilical arterial access	1	2	3	4
d6_10	• Emergency pericardiocentesis for treatment of a pericardial tamponade	1	2	3	4
d6_11	• Effective performance of CPR (ventilation and compression)	1	2	3	4
d6_12	• Splinting of limbs	1	2	3	4
d6_13	• Splinting of pelvis	1	2	3	4
d6_14	• Limb X-ray interpretation	1	2	3	4
d6_15	• Pelvic X-ray interpretation	1	2	3	4

d7	Disability, differential diagnosis, defibrillation and drugs				
d7_1	• Monitoring patient's level of consciousness:	1	2	3	4
d7_11	AVPU scale	1	2	3	4
d7_12	Glasgow coma scale	1	2	3	4
d7_13	Neonatal stress response	1	2	3	4
d7_2	• Blood glucose monitoring	1	2	3	4
d7_3	• Differential diagnosis for cardiac arrest (correctable causes)	1	2	3	4
d7_4	• Defibrillation	1	2	3	4
d7_5	• Cardioversion	1	2	3	4
d7_6	• External pacing	1	2	3	4
d7_7	• Vagal manoeuvres	1	2	3	4
d7_8	• Prescribe appropriate medication to facilitate:				
d7_81	Sedation	1	2	3	4
d7_82	Analgesia	1	2	3	4
d7_83	Skeletal muscle relaxation	1	2	3	4
d7_84	Treatment of cardiac arrest	1	2	3	4
d7_85	Correction of hypoxia	1	2	3	4
d7_86	Increased cardiac output with the use of positive inotropes	1	2	3	4
d7_87	Correction of metabolic acidosis	1	2	3	4
d7_88	Thrombolysis in acute myocardial infarction	1	2	3	4
d7_89	Treatment of acute pulmonary oedema	1	2	3	4

d8	Exposure and environmental control				
d8_1	• Measures to reverse hypothermia	1	2	3	4
d8_2	• Measures to reverse hyperthermia	1	2	3	4

d9	Adjuncts				
d9_1	• Arterial line insertion	1	2	3	4
d9_2	• Nasogastric tube insertion	1	2	3	4
d9_3	• Urine catheter insertion	1	2	3	4

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	Skills	SD	D	A	SA
d10	Special circumstances				
d10_1	• Supportive management for obstetric emergencies:				
d10_11	Normal delivery	1	2	3	4
d10_12	Breech presentation	1	2	3	4
d10_13	Prolapsed cord	1	2	3	4
d10_14	Shoulder presentation	1	2	3	4
d10_15	Multiple pregnancy	1	2	3	4
d10_16	Placenta abruptio	1	2	3	4
d10_17	Placenta previa	1	2	3	4
d10_18	Premature labour	1	2	3	4
d10_2	• Supporting the rape victim	1	2	3	4
d10_3	• Collecting forensic evidence from the rape victim	1	2	3	4
d10_4	• Neonatal stress management	1	2	3	4
d10_5	• Selecting an appropriate transport mode for the critically ill or injured patient	1	2	3	4

d11	Do you have any remarks to add?
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Section E – Attitudes and values of the A&E nurse

1.1 Indicate to what extent you personally agree or disagree with the following statements relating to the A&E nurse by using the following four-point scale:

- (1): Strongly disagree (SD)
 (2): Disagree (D)
 (3): Agree (A)
 (4): Strongly agree (SA)

	A practising A&E nurse should:	SD	D	A	SA
e1.1_1	• have self-respect	1	2	3	4
e1.1_2	• respect others	1	2	3	4
e1.1_3	• respect the possessions of others	1	2	3	4
e1.1_4	• respect the values of others	1	2	3	4
e1.1_5	• respect the views of others	1	2	3	4
e1.1_6	• respect the religious beliefs of others	1	2	3	4
e1.1_7	• be aware of the need for the clinical specialist to have applicable knowledge, skills, attitudes and values	1	2	3	4
e1.1_8	• accept accountability for his/her decisions	1	2	3	4
e1.1_9	• accept accountability for his/her activities	1	2	3	4
e1.1_10	• acknowledge his/her own limitations	1	2	3	4
e1.1_11	• acknowledge the importance of knowledge	1	2	3	4
e1.1_12	• acknowledge the importance of skills	1	2	3	4
e1.1_13	• acknowledge the importance of attitudes	1	2	3	4
e1.1_14	• acknowledge the importance of values	1	2	3	4

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Annexure E

**Spearman correlation between the variables in
Section C and Section D**

Spearman correlation between the variables in Section C and Section D

Pair	N (number of paired ranked scores)	r_s
C1_1 : D1_1	128	0.233**
C1_2 : D1_2	128	-0.033
C1_3 : D1_3	128	0.211*
C1_4 : D1_4	128	-0.020
C2_1 : D2_1	119	0.245**
C2_2 : D2_2	114	0.324**
C2_3 : D2_3	117	0.303**
C2_4 : D2_4	109	0.383**
C2_5 : D2_5	117	0.332**
C2_6 : D2_6	113	0.271**
C2_7 : D2_7	115	0.126
C2_8 : D2_8	115	0.243**
C2_9 : D2_9	118	0.299**
C2_10 : D2_10	118	0.293**
C3_1 : D3_1	107	0.538**
C3_2 : D3_2	124	0.188*
C3_3 : D3_3	116	0.297**
C3_4 : D3_4	121	0.221*
C3_5 : D3_5	123	0.291**
C3_6 : D3_6	123	0.131
C3_7 : D3_7	122	0.231*
C4_1 : D4_1	125	0.196*
C4_2 : D4_2	126	0.139
C4_3 : D4_3	125	0.152
C4_4 : D4_4	127	0.096
C4_51 : D4_51	122	0.257**
C4_52 : D4_52	117	0.292**
C4_53 : D4_53	122	0.140
C4_54 : D4_54	125	0.293**
C4_55 : D4_55	122	0.291**
C4_56 : D4_56	116	0.342**
C4_6 : D4_6	109	0.155
C4_7 : D4_7	122	0.218*
C4_8 : D4_8	120	0.249**
C4_9 : D4_9	124	0.384**
C4_10 : D4_10	127	0.003
C4_11 : D4_11	124	0.031
C4_121 : D4_121	128	0.200*
C4_122 : D4_122	127	0.185*
C4_123 : D4_123	128	0.212*
C4_124 : D4_124	126	0.191*
C4_125 : D4_125	120	0.333**
C4_13 : D4_13	128	0.175*

Spearman correlation – (continued)

Pair	N (number of paired ranked scores)	r_s
C4 14 : D4 14	124	0.291**
C5 1 : D5 1	128	0.296**
C5 2 : D5 2	128	0.162
C5 3 : D5 3	127	0.190*
C5 4 : D5 4	122	0.458**
C5 5 : D5 5	122	0.383**
C5 61 : D5 61	126	0.316**
C5 62 : D5 62	125	0.304**
C5 63 : D5 63	125	0.412**
C5 64 : D5 64	127	0.347**
C5 7 : D5 7	120	0.250**
C5 8 : D5 8	124	0.240**
C5 9 : D5 9	125	0.192*
C5 10 : D5 10	129	0.198*
C5 11 : D5 11	127	0.343**
C5 12 : D5 12	126	0.230**
C5 13 : D5 13	128	0.042
C5 14 : D5 14	128	0.323**
C5 15 : D5 15	125	0.359**
C5 16 : D5 16	127	0.138
C5 17 : D5 17	128	0.153
C6 1 : D6 1	129	0.103
C6 2 : D6 2	128	0.011
C6 3 : D6 3	125	0.139
C6 4 : D6 4	122	0.111
C6 5 : D6 5	129	0.168
C6 6 : D6 6	129	0.151
C6 7 : D6 7	127	0.091
C6 8 : D6 8	121	0.299**
C6 91 : D6 91	126	0.170
C6 92 : D6 92	123	0.183*
C6 93 : D6 93	124	0.338**
C6 94 : D6 94	125	0.378**
C6 95 : D6 95	123	0.319**
C6 96 : D6 96	126	0.384**
C6 97 : D6 97	121	0.343**
C6 98 : D6 98	125	0.376**
C6 99 : D6 99	125	0.275**
C6 10 : D6 10	121	0.242**
C6 11 : D6 11	127	0.015
C6 12 : D6 12	126	0.250**
C6 13 : D6 13	125	0.221*
C6 14 : D6 14	126	0.228*

Spearman correlation – (continued)

Pair	N (number of paired ranked scores)	r_s
C6 15 : D6 15	126	0.174
C7 11 : D7 11	114	0.623**
C7 12 : D7 12	127	0.178*
C7 13 : D7 13	122	0.216*
C7 2 : D7 2	127	0.058
C7 3 : D7 3	117	0.047
C7 4 : D7 4	126	0.151
C7 5 : D7 5	125	0.168
C7 6 : D7 6	126	0.284**
C7 7 : D7 7	124	0.209*
C7 81 : D7 81	123	0.455**
C7 82 : D7 82	121	0.411**
C7 83 : D7 83	119	0.483**
C7 84 : D7 84	120	0.192*
C7 85 : D7 85	121	0.242**
C7 86 : D7 86	121	0.330**
C7 87 : D7 87	117	0.230*
C7 88 : D7 88	123	0.523**
C7 89 : D7 89	119	0.361**
C8 1 : D8 1	122	0.218*
C8 2 : D8 2	122	0.218*
C9 1 : D9 1	123	0.406**
C9 2 : D9 2	125	0.179*
C9 3 : D9 3	124	0.208*
C10 11 : D10 11	123	0.227*
C10 12 : D10 12	121	0.078
C10 13 : D10 13	122	0.149
C10 14 : D10 14	121	0.059
C10 15 : D10 15	121	0.100
C10 16 : D10 16	119	0.173
C10 17 : D10 17	119	0.134
C10 18 : D10 18	120	0.164
C10 2 : D10 2	122	0.144
C10 3 : D10 3	122	0.224*
C10 4 : D10 4	121	0.011
C10 5 : D10 5	121	0.170

* $p < 0.05$: Significant Spearman correlation coefficient

** $p < 0.01$: Highly significant Spearman correlation coefficient