

ANNEXURE I

BIOGRAPHIC INFORMATION

CODE ()

You are requested to fill in the following information by placing a tick in the appropriate Box or indicating the number of years worked in a particular unit or ward.

1. Age

20-24	
25-29	
30-34	
35-39	
>40	

2. Rank

SNO	
NO I	
NO II	
NO III	

3. Gender

Male	
Female	

4. Previous experience

Ward or Unit worked in	Duration
Theatre	
Renal	
Trauma	
Ophthalmology	
Surgical	
Medical	
ICU	
Midwifery	
Dental	

5. Specialty

ICU	
Theatre	
Renal	
Trauma	
Ophthalmology	
Midwifery	
Community	
Psychiatry	

Other (specify).....

Other (specify).....

I would be very grateful if you would answer the following questions about your Cardiopulmonary resuscitation experience and training by cycling the appropriate response:

6. Did you receive CPR training during your basic training? Yes/No

If yes which one? BLS/ALS

7. Have you received any CPR training during this course? Yes/No

If yes which one? BLS/ALS

8. What qualification did you get after your basic training? KRN / KRCHN / KRM

Thank you for your help.

ANNEXURE II

Performance Evaluation Checklist for Adult One Rescuer CPR

Instruction to Rescuer: You enter a room and find an adult lying still on the floor. There are no signs of trauma. Demonstrate how you would approach the casualty and the emergency actions you will take to resuscitate. There is no equipment on sight. I shall not offer any advice or opinion other than to report the condition of the casualty. Please start and continue until I ask you to stop. ***(Score the participant by placing 1 on the performed column if the step is performed or 0 in the not performed column if the step is not performed as the rescuer demonstrates).***

Participant code ()

Date.....

Performance guidelines (Research assistant cues to rescuer are in bold italics)	Performed	Not Performed
1. Checks responsiveness (taps shoulders and calling aloud) <i>(Unresponsive)</i>		
2. Calls for help or indicates help should be called		
3. Opens airway (head tilt-chin lift maneuver)		
4. Assesses for breathing (look listen and feel) <i>(no breathing)</i>		
5. Gives 2 slow breaths that cause the chest to rise (2 seconds per breath) repositions the head if does not rise and try again <i>(chest rises)</i> .		
6. Checks carotid pulse unilaterally for at least 5 seconds <i>(no signs of circulation)</i> .		
7. Locates compression position by land marking.		
8. Performs 15 compressions.		
9. Opens airway using head tilt-chin lift maneuver.		
10. Gives 2 slow breaths such that the chest rises twice		
11. Repeats steps 8, 9, 10 and 11 three more times.		
12. Opens airway using head tilt-chin lift maneuver between every set of compressions.		
13. Gives 2 slow breaths with 2 chest rises between every set of compressions.		
14. Locates compression position between every set of compressions.		
15. Re-assess for circulation at the end of the four cycles		
<i>Total score</i>		

Final score.....

ANNEXURE III

STUDY TITLE: CARDIOPULMONARY RESUSCITATION (CPR) COMPETENCE AMONG ADVANCED STUDENT NURSES IN A KENYAN MEDICAL TRAINING COLLEGE.

INFORMATION SHEET

RESEARCHER: KIPSANG JOHN Msc. NURSING STUDENT

Dear-----

(Potential participant)

I am a master's student currently registered at the University of the Witwatersrand, Department of Nursing Education. I am conducting a study to find out Cardio-pulmonary resuscitation (CPR) competence among advanced nursing students as part of my course requirement. You are invited to participate in the study. Your inclusion will be subject to your informed consent to participate in the study. Although the study may not benefit you directly, it will provide essential information that may be used to effect changes in CPR training, assessment and re-training of nurses on CPR. Your participation in the study does not pose any risk or discomfort to you. You are assured that I am not a staff member in the college in which you are studying and therefore I am not involved in the decision making in the college and neither am I involved in evaluation of the students. The two research assistants who will assist in data collection are not employees of the college and are not linked to the teaching or evaluation of students in the college you are enrolled in. You are assured that this study does not form part of the college evaluations or examinations and will not be used for that purpose. The quality of your performance during the study will be held in confidence and will not be discussed with the college administration. The use of research assistance is solely for the purpose of enhancing study credibility and to shorten the data collection period.

The study and its procedures have been approved by postgraduate and the ethics committees of the University of the Witwatersrand, Johannesburg, South Africa. Permission to conduct study has been sought from the Director of the Medical Training College and permission has been granted. Once you consent to participate in the study you will be requested to: (1) Fill in the checklist your age, gender, past experience your specialty, CPR training that you received in the past and the one you received in the current training. (2) You will also be requested to perform a one rescuer adult CPR on a manikin. Participation in the study will take approximately 20 minutes. Participation in the study is voluntary and you can withdraw consent at any point without penalty or loss. Steps will be taken to ensure that during data collection, you and the research assistant will be the only ones in the room and no other person will witness the demonstration, this is in order to ensure your privacy.

Your name as a participant will not be used in the checklist but a code will be used so that the information collected in the checklist will not be linked to your name. Raw data captured during data collection will be handled by me (researcher) and the research assistants only. Once data analysis is complete the raw data will be destroyed.

Feel free to ask any questions concerning the study and your participation in the study through the following contacts +27723493260, +254722433620 and arsenwo@yahoo.com.

Yours faithfully

John Kipsang

ANNEXURE IV

**CARDIOPULMONARY RESUSCITATION (CPR) COMPETENCE AMONG
ADVANCED STUDENT NURSES IN A KENYAN MEDICAL TRAINING
COLLEGE**

CONSENT FORM

I----- read the information sheet and I have been accorded the opportunity to ask questions regarding the study. I have comprehended the information and do give my consent to take part in the study by appending my signature.

Subjects signature-----Date-----

I John Kipsang have explained the study to the above subject and have sought his /her understanding for informed consent.

Investigators signature-----Date-----

ANNEXURE V

AMERICAN HEART ASSOCIATION ONE RESCUER ADULT BLS GUIDELINES

The association recommends that before performing CPR the rescuer or rescuers should ensure scene safety. One-rescuer CPR should be performed as follows:

1. **Assessment:** Determine unresponsiveness (tap or gently shake the victim and shout). If unresponsive,
2. **Activate the EMS system:** This should be performed according to local practice. In many countries and regions, activation of the EMS system is delayed until it has been determined that the victim is not breathing.
3. **Airway:** Position the victim and open the airway by the head tilt–chin lift or jaw-thrust maneuver.
4. **Breathing:** Assess breathing to identify absent or inadequate breathing.
 - If the victim is unresponsive with normal breathing, and spinal injury is not suspected, place the victim in a recovery position, maintaining an open airway.
 - If the adult victim is unresponsive and not breathing, begin rescue breathing. In the United States and many other countries, 2 initial breaths are provided, but up to 5 breaths are recommended in areas such as Europe, Australia, and New Zealand. If you are unable to give the initial

breaths, reposition the head and reattempt ventilation. If you are still unsuccessful in making the chest rise with each ventilation after an attempt and reattempt: Lay rescuers should provide chest compressions and begin the cycle of 15 compressions and 2 ventilations. Each time you open the airway to attempt ventilation, look for an object in the throat. If you see an object (such as a foreign body), remove it. Healthcare providers follow the unresponsive FBAO sequence.

- Be sure the victim's chest rises with each rescue breath you provide.
- Once you deliver the effective breaths, assess for signs of circulation.

5. Circulation. Check for signs of circulation: after the initial breaths, look for normal breathing, coughing, or movement by the victim in response to the initial breaths. Healthcare providers should also feel for a carotid pulse, take no more than 10 seconds to do this. If there are no signs of circulation, begin chest compressions:

- Locate proper hand position.
- Perform 15 chest compressions at a rate of approximately 100 per minute.

Depress the chest 1 1/2 to 2 inches (4 to 5 cm) with each compression.

Make sure you allow the chest to rebound to its normal position after each compression by removing all pressure from the chest (while still maintaining contact with the sternum and proper hand position). Count "1 and, 2 and, 3 and, 4 and, 5 and, 6 and, 7 and, 8 and, 9 and, 10 and, 11, 12, 13, 14, 15." (Any mnemonic that accomplishes the same compression rate

is acceptable. For ease of recollection, use the "and" only up to the number 10.)

- Open the airway and deliver 2 slow rescue breaths (2 seconds each).
- Find the proper hand position and begin 15 more compressions at a rate of 100 per minute.
- Perform 4 complete cycles of 15 compressions and 2 ventilations.

6. Reassessment: Reevaluate the victim according to local protocol.

- In the United States, this will be after 4 cycles of compressions and ventilations (15:2 ratio); elsewhere, reevaluation may be recommended only if the victim shows some sign of recovery. Check for signs of circulation (10 seconds). If there are no signs of circulation, resume CPR, beginning with chest compressions. If signs of circulation are present, check for breathing.
- If breathing is present, place the victim in a recovery position and monitor breathing and circulation.
- If breathing is absent but signs of circulation are present, provide rescue breathing at 10 to 12 times per minute (1 breath every 4 to 5 seconds) and monitor for signs of circulation every few minutes.
- If there are no signs of circulation, continue compressions and ventilations in a 15:2 ratio.
- Stop and check for signs of circulation and spontaneous breathing every few minutes (according to local protocol).
- Do not interrupt CPR except in special circumstances.

- If adequate spontaneous breathing is restored and signs of circulation are present, maintain an open airway and place the patient in a recovery position.



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Telegrams: MEDSUP", Nairobi.
Email: KNHplan@Ken.Healthnet.org

Ref: KNH-ERC/ 01/3916

Date: 22nd November, 2006

Dr. Kipsang John,
University of Witwatersrand R14/49
South Africa

Dear Dr. Kipsang

**RESEARCH PROPOSAL: "CARDIOPULMONARY RESUSCITATION (CPR)
COMPETENCE AMONG ADVANCED STUDENT NURSES IN A KENYAN MEDICAL
TRAINING COLLEGE" (P148/7/2006)**

This is to inform you that the Kenyatta National Hospital Ethics and Research Committee has reviewed and **approved** the revised version of your above cited research proposal for the period 22nd November, 2006 – 21st November, 2007.

You will be required to request for a renewal of the approval if you intend to continue with the study beyond the deadline given.

On behalf of the Committee, I wish you fruitful research and look forward to receiving a summary of the research findings upon completion of the study.

This information will form part of database that will be consulted in future when processing related research study so as to minimize chances of study duplication.

Yours sincerely

PROF A N GUANTAI
SECRETARY, KNH-ERC

c.c. Prof. K.M.Bhatt, Chairperson, KNH-ERC
The Deputy Director CS, KNH
The Dean, Faculty of Medicine,
Chairman, Dept. of Obs & Gynae, UON
The HOD, Medical Records, KNH
Supervisors: Prof. J. Bruce, University of Witwatersrand, South Africa
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Please address all correspondence to:
The Director



KENYA MEDICAL TRAINING COLLEGE
P.O. BOX 30195-00100
NAIROBI

When replying please quote

KMTC/ADM/23B/VOL.II/(74)

18TH JANUARY 2007

Ref: No.

Date

Dr. Kipsang John
University of Witwatersrand r14/49
South Africa

RE: PERMISSION TO CONDUCT RESEARCH AT KENYA MEDICAL TRAINING COLLEGE

Please refer to our letter Ref. KMTC/ADM/23B/VOL. I/(6) of 3rd July 2006. Since Kenyatta National Hospital's letter dated 22nd November 2006 Ref. KNH-ERC/01/3916 approves that you do your research there. The College has decided to grant your request.

V.M. Kagero
FOR: DIRECTOR



Faculty of Health Sciences
UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

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MR J KIPSANG
ROOM 413, WEST CAMPUS VILL
PO WITS 2050
1 JAN SMUTS AVENUE
2050

APPLICATION NUMBER 0502499H
STATUS (DEG 67) (MM033) PZZ

2006-06-06

Dear Mr Kipsang

Approval of protocol entitled Cardiopulmonary resuscitation (CPR) competence among advanced student nurses in a Kenyan medical training college

I should like to advise you that the protocol and title that you have submitted for the degree of Master Of Science In Nursing (Full-Time) (Coursework) have been approved by the Postgraduate Committee at its recent meeting. Please remember that any amendment to this title has to be endorsed by your Head of Department and formally approved by the Postgraduate Committee.

Prof JC Bruce has/have been appointed as your supervisor/s. Please maintain regular contact with your supervisor who must be kept advised of your progress.

Please note that approval by the Postgraduate Committee is always given subject to permission from the relevant Ethics Committee, and a copy of your clearance certificate should be lodged with the Faculty Office as soon as possible, if this has not already been done.

Yours sincerely

A handwritten signature in cursive script, appearing to read 'S Benn'.

S Benn (Mrs)
Faculty Registrar
Faculty of Health Sciences

Telephone 717-2075/2076

Copies - Head of Department____Supervisor/s

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

R14/49 Kipsang

CLEARANCE CERTIFICATE

PROTOCOL NUMBER M060445

PROJECT

Cardiopulmonary Resuscitation
Competence among Adadvanced student
Nurses in a Kenyan Medical Trainging Coll.

INVESTIGATORS

J Kipsang

DEPARTMENT

Dept of Nursing Education

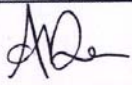
DATE CONSIDERED

06.05.05

DECISION OF THE COMMITTEE*

Unless otherwise specified this ethical clearance is valid for 5 years and may be renewed upon application.

DATE 06.06.02

CHAIRPERSON

PP (Professor PE Cleaton-Jones)

*Guidelines for written 'informed consent' attached where applicable

cc: Supervisor : Prof J Bruce

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10005, 10th Floor, Senate House, University.
I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. I agree to a completion of a yearly progress report.

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

Competence Definitions

Item 1

Checks unresponsiveness by touching the manikin and speaking loudly: participant is close to the manikin, uses a loud voice, touches and shakes the manikin: the unresponsiveness check must precede any intervention including opening of the airway.

Item 2

Calls for help or indicates help should be called: participant either simulates a phone call or just shouts help! Or any other clear instruction calling for help. Sequence: this must occur after a check of unresponsiveness and before starting chest compressions. If there is no unresponsiveness check, call for help must follow either a pulse or breathing check.

Item 3

Opens airway using head tilt/chin lift: participant kneels beside the manikin near the shoulders and uses one hand to push down on the forehead and the other to lift the chin. There should be obvious movement of the head from the neutral position. Nose may or may not be pinched. Sequence: this step must precede the breathing check. If the airway is opened for the first time to give breaths, do not count it as the open airway step.

Item 4

Checks breathing for at least 5 seconds: participant places his/her face near the manikin's (the participant's ear should be above the manikin's nose) and looks at the chest, listens

for breath sound and feel for the breath. Participant counts silently to him/her self or loudly one-one thousand, two one thousand up to five. Short breathing checks do not count. Sequence: this must occur before any breaths are given and the airway must have been opened.

Item 5

Attempts at least two breaths such that the chest rises at least once and not more than twice: participant places his/her mouth over the mouth of manikin and exhales into the manikin. At least once and not more than twice, chest rise should be visible. Sequence: this must precede any chest compressions. Note: do not consider the volume of ventilation, leaking of air, or stomach distention.

Item 6

Second attempt in giving rescue breaths if the first attempt in item 5 fails, by performing head-tilt chin-lift maneuver. Conditions set in item 5 apply.

Item 7

Checks carotid pulse for a minimum of 5 seconds: participant places fingers on 'Adam's apple' and slips fingers towards him or herself into the 'groove' unilaterally or uses an alternative method to establish correct position and then maintains position of fingers for 5 seconds by counting loudly or silently one-one thousand, two-one thousand up to 5. Short pulse checks do not count. Sequence: this must occur before any chest compressions.

Item 8

Locates compression position by feeling or baring chest and looking: participant finds position by using one of the following methods: (1) tracing the outline of the ribs and finding the place two fingers above where the ribs come together, (2) finding the xiphoid process and placing two fingers above it, (3) baring the chest and visually finding a point on the sternum between the nipples. Note: this item does not assess where the hands are ultimately positioned, only whether one of the three methods was used.

Item 9

Performs 15 compressions. Compressions must result in visible depression of the sternum and complete release of the sternum. 13 to 17 compressions are accepted. Note: do not consider the dept of compressions and rate.

Item 10

Opens airway using head-tilt/chin-lift maneuver: as in item 3, but following the first sequence of compressions.

Item 11

Attempts at least two breaths such that the chest rises at least twice and not more: as in item 5, but following first sequence of compressions

Item 12

Repeats items 8, 9, 10 and 11 at least 3 more times: performs at least 3 more cycles of 15 compressions interspersed with breathing attempts.

Item 13

Opens airway between every set of compressions using head tilt/chin-lift maneuver. As in item 3, but check only if done for each additional set of compressions.

Item 14

Attempts at least two breaths such that the chest rises at least once and not more than twice between every set of compressions: as in item 5, but check only for if done for each additional set of compressions.

Item 15

Locates compression position between every set of compressions: as in item 8, but only check if done for each additional set of compressions.