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Validation of the simplified therapeutic intervention scoring system in the intensive care units of a public sector hospital in Johannesburg

Kisorio, Leah Chepkoech

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APPENDIX A

VALIDATION OF THE SIMPLIFIED THERAPEUTIC INTERVENTION SCORING SYSTEM IN THE INTENSIVE CARE UNITS OF A PUBLIC SECTOR HOSPITAL IN JOHANNESBURG

PANEL OF EXPERTS INFORMATION LETTER

Dear Colleague,

My name is Leah Kisorio. I am currently registered as a student at the University of the Witwatersrand, in the Department of Nursing Education for the degree of Master of Science in Nursing (Intensive Care Nursing). I am hoping to conduct a research project to determine the validity and reliability of the simplified therapeutic intervention scoring system (TISS-28) instrument as measure of quantifying nursing workload and staffing requirements in the ICUs.

I hereby invite you as an expert in the field to be part of an expert group in assisting me to validate the data collection instrument. The validation will involve a checklist of the simplified therapeutic interventions scoring system (TISS-28) by Reis Miranda et al. (1996) that I would like you to complete. This will require you to rate all the TISS-28 items independently using a four-point Likert Scale, as to whether you find the items being relevant and if they represent critical attributes of nurses working in the ICUs in our (South African) setting.

Participation in the validation process is entirely voluntary. Due to the need to contact you, I would kindly request that you provide your personal details on the check list that will be presented to you. As you are an acknowledged expert in the area under study, you will appreciate that your anonymity may be compromised. However, I undertake to ensure that no identification of your personal information will be given in reporting on your opinions so as to ensure your confidentiality. If you consent to be part of the expert group, please complete the attached consent form and return it to me in the addressed and stamped envelope enclosed.

I appreciate that you will not derive any benefit from participation in this study. However, I hope that the results of the study will help clarify nursing workload and staffing requirements in the ICUs with regard to the implementation of a valid measurement tool.

The appropriate people and research committees of the University of the Witwatersrand, Gauteng Department of Health and Johannesburg Hospital have approved the study and its procedures.

Thank you for taking the time to read this information letter. Should you require any further information regarding the study or your rights as a study participant you are free to contact me in the Department of Nursing Education or on the following telephone number **076 6813094** or email me using the following address: *ljkisorio@yahoo.co.uk*

Yours faithfully

Leah Kisorio
Date_____

APPENDIX B

VALIDATION OF THE SIMPLIFIED THERAPEUTIC INTERVENTION SCORING SYSTEM IN THE INTENSIVE CARE UNITS OF A PUBLIC SECTOR HOSPITAL IN JOHANNESBURG

PANEL OF EXPERTS CONSENT FORM

I _____ (name) give permission to be included in the study.

I have read with understanding the content of the information sheet and I have been given the opportunity to ask questions I might have regarding the procedure and my consent to my being included in the study.

_____ _____

Date Signature

_____ (Witness)

APPENDIX C

VALIDATION OF THE SIMPLIFIED THERAPEUTIC INTERVENTION SCORING SYSTEM IN THE INTENSIVE CARE UNITS OF A PUBLIC SECTOR HOSPITAL IN JOHANNESBURG

PANEL OF EXPERTS CHECKLIST

1.0 **BIOGRAPHICAL DATA**

1.1 What age group do you belong to:

20 - 29 years	
30 - 39 years	
40 - 49 years	
50 - 59 years	
60 years and above	

1.2 Please list your academic qualifications

1.3 State the length of experience you have had in the intensive care unit as an intensive care nurse

1.4 Indicate your position in the ICU by ticking one of the following:

ICU Nurse	Shift Leader	Unit Manager	Clinical Instructor

1.5 Please state your contact details

name	
unit	
telephone number	

2.0 SIMPLIFIED THERAPEUTIC INTERVENTION SCORING SYSTEM (TISS-28)

RATING SCALE
1 = Not relevant
2 = unable to assess relevance without item revision/ or item is in need of such revision, that it is no longer relevant
3= relevant but needs minor alteration
4= very relevant and succinct

	Variables / Scoring Guidelines	TISS-28 Score	Rating Scale 1	2	3	4	Comments
	Basic Activities						
2.1	**Standard monitoring;** *hourly vital signs, and calculation of fluid balance*	5					
2.2	**Laboratory investigations;** *biochemical and microbiological* *Arterial Blood Gas* *Point of care glucose testing*	1					
2.3	**Single medication;** *any route (IV, PO, IM etc)*	2					
2.4	**Multiple intravenous medication;** *more than one drug, single shots or continuously*	3					
2.5	**Routine dressing change;** *care and prevention of decubitus and daily dressing changes* *Prone ventilation*	1					
2.6	**Frequent dressing changes;** *at least one time each nursing shift or extensive wound care*	1					
2.7	**Care of drains;** *all except gastric tube*	3					
	Cardiovascular Support						
2.8	**Single vasoactive medication;** *any vasoactive drug*	3					
2.9	**Multiple vasoactive medications;** *more than one vasoactive drug disregard type and dose*	4					
2.10	**Intravenous replacement of large fluid losses;** *fluid replacement >3L per square meter/ per day, disregard type of fluid administered*	4					
2.11	**Peripheral arterial catheter**	5					
2.12	**Left atrial monitoring,** *PAC with / without cardiac output measure*	8					
	Intra-aortic balloon pump	8					
2.13	**Central venous line**	2					
2.14	**Cardiopulmonary resuscitation after cardiac arrest:** *in past 24 hrs (single precordial percussion not included)*	3					

	Variables / Scoring Guidelines	TISS-28 Score	Rating Scale 1	2	3	4	Comments
	Ventilatory Support						
2.15	**Mechanical ventilation;** *any form of mechanical ventilation or assisted ventilation with or without PEEP, with or without muscle relaxants, spontaneous breathing with PEEP*	5					
2.16	**Supplemental ventilatory support;** *breathing spontaneously through ET-tube without PEEP, supplemental oxygen by any method except mechanical ventilation parameters apply*	2					
2.17	**Care of artificial tube;** *endotracheal or tracheostoma*	1					
2.18	**Treatment of improving lung function;** *thorax physiotherapy, incentive spirometry, inhalation therapy, intratracheal suctioning*	1					
	Renal Support						
2.19	**Dialysis;** *hemofiltration and dialysis techniques*	3					
	CVVHD / HD						
2.20	**Quantitative urine output measurement**	2					
2.21	**Active diuresis ;** *eg furosemide > 0.5 mg/kg/day for overload* single shots / continuous	3					
	Neurological Support						
2.22	**Measurement of intracranial pressure**	4					
	Metabolic Support						
2.23	**Treatment of complicated metabolic acidosis / alkalosis**	4					
2.24	**Intravenous hyperalimentation** **Rate of TPN**	3					
2.25	**Enteral feeding** **Rate of feed**	2					
	Specific Interventions						
2.26	**Single interventions in ICU;** *naso or tracheal intubation, introduction of a pacemaker, cardioversion, endoscopies, emergency surgery in past 24h, gastric lavage. Routine interventions without consequences to the clinical condition of the patient such as radiographs, echography, ECG, dressings or introduction of venous or arterial catheters are not included*	3					
2.27	**Multiple specific interventions;** *more than one, as described above*	5					
2.28	**Specific interventions outside of ICU;** *surgery or diagnostic procedures*	5					
	SUM RATING SCALE						

APPENDIX D

VALIDATION OF THE SIMPLIFIED THERAPEUTIC INTERVENTION SCORING SYSTEM IN THE INTENSIVE CARE UNITS OF A PUBLIC SECTOR HOSPITAL IN JOHANNESBURG

PATIENTS' FAMILY MEMBER INFORMATION LETTER

Dear _____

(Name of patients' family member)

My name is Leah Kisorio, I am currently registered as a student at the University of the Witwatersrand, in the Department of Nursing Education for the degree of Master of Science in Nursing (Intensive Care Nursing). I hope to conduct a research project and I would like to invite you to participate and kindly consent to my including your family member in my sample of patients that I hope to study while they are in the intensive care unit.

The purpose of the study is to validate the Simplified Therapeutic Intervention Scoring System (TISS-28), which is a tool that has been found to be very useful in many ICUs of different countries. It has been widely used to measure the amount of work nurses provide to the admitted ICU patients as well as the severity of the patients' illness based on the number and type of treatment provided. From this measurement, it will be possible for the nurses to know the different needs of each patient depending on his or her severity of illness. This will also enable adequate allocation of nurses providing care based on level of skills and experience to match the patients' needs so as to promote good patient outcome. I hope the completed study will bring the tool into use as a valid and reliable instrument that will help to improve the quality of nursing care in our South African context.

Should you agree to participate, I will ask that you allow me to access the patient's records and ICU charts daily for two days. The information that I will obtain from the records will include: personal data such as age, gender of the patient, the severity of illness scores and interventions or treatments that were done for the patient for the past 24 hours.

Participation in the study is entirely voluntary. You may choose not to participate or withdraw from the study at any time, which will have no effects on the services that your relative may receive from this institution. I will also contact your relative in the recovery period to give permission for the information obtained to be included in the study. Your relative has the right not to participate or to withdraw from the study at any time, should they so feel the need to. This will not affect their treatment in anyway. Anonymity and confidentiality will be ensured by using a code number instead of patients' names and no personal information will be reported through out the study so as to avoid you or your relatives' identification. I appreciate that you or your relative will derive no direct benefit from participating in the study. However, I hope that the completed study will clarify nursing workload and staffing requirements that are more suitable for critically ill patients in the intensive care units. Results of the study will be given to you should you so wish.

The appropriate people and research committees of the University of the Witwatersrand, Gauteng Department of Health and Johannesburg Hospital have approved the study and its procedures.

Thank you for taking the time to read this information letter. Should you require any further information regarding the study or your rights, you are free to contact me in the Department of Nursing Education or on the following telephone number **076 6813094.**

APPENDIX E

VALIDATION OF THE SIMPLIFIED THERAPEUTIC INTERVENTION SCORING SYSTEM IN THE INTENSIVE CARE UNITS OF A PUBLIC SECTOR HOSPITAL IN JOHANNESBURG

FAMILY MEMBER / RELATIVE CONSENT FORM

I _____ (name) the _____(relationship) of the patient give permission to be included in the study.

I have read with understanding the content of the information sheet and I have been given the opportunity to ask questions I might have regarding the procedure and my consent to my being included in the study.

_____ _____

Date Signature

_____ (Witness)

APPENDIX F

VALIDATION OF THE SIMPLIFIED THERAPEUTIC INTERVENTION SCORING SYSTEM IN THE INTENSIVE CARE UNITS OF A PUBLIC SECTOR HOSPITAL IN JOHANNESBURG

PATIENTS' INFORMATION LETTER

Dear _____

(Name of patient participant)

My name is Leah Kisorio, I am currently registered as a student at the University of the Witwatersrand, in the Department of Nursing Education for the degree of Master of Science in Nursing (Intensive Care Nursing). I hope to conduct a research project and would therefore like to invite you to consent to my including you in my sample of patients that I hope to study while they were critically ill in the intensive care unit.

The purpose of the study is to validate the Simplified Therapeutic Intervention Scoring System (TISS-28), which is a tool that has been found to be very useful in many ICUs of different countries. It has been widely used to measure the amount of work nurses provide to the admitted ICU patients as well as the severity of the patients' illness based on the number and type of treatment provided. From this measurement, it will be possible for the nurses to know the different needs of each patient depending on his or her severity of illness. This will also enable adequate allocation of nurses providing care based on level of skills and experience to match the patients' needs so as to promote good patient outcome. I hope the completed study will bring the tool into use as a valid and reliable instrument that will help to improve the quality of nursing care in our South African ICU context.

I am glad to inform you that I contacted your relative while you were in the ICU and he/she gave me permission to obtain information from your records and to include you in the study. Your relative had the right not to participate or to withdraw from the study at any time, if he/she felt so. Should you therefore agree to participate, I will request that you allow me to use the information that I have already obtained so as to complete the project. The information that I will be using was obtained from your records and this included: personal data such as age, gender, the severity of illness scores and interventions or treatments that were done to you in the ICU.

Participation in the study is entirely voluntary. You may choose not to participate or withdraw from the study at any time, which will have no effects on the services that you may receive from this institution or the health care providers. This will not affect your treatment in anyway. Anonymity and confidentiality will be ensured by using a code number instead of your real name and no personal information will be reported in the study so as to protect your identification. I appreciate that you will derive no direct benefit from participating in the study. However, I hope that the completed study will clarify nursing workload and staffing requirements that are more suitable for critically ill patients in the intensive care units. Results of the study will be given to you should you so wish.

The appropriate people and research committees of the University of the Witwatersrand, Gauteng Department of Health and Johannesburg Hospital have approved the study and its procedures.

Thank you for taking the time to read this information letter. Should you require any further information regarding the study or your rights as a study participant you are free to contact me in the Department of Nursing Education or on the following telephone number **0766813094.**

APPENDIX G

VALIDATION OF THE SIMPLIFIED THERAPEUTIC INTERVENTION SCORING SYSTEM IN THE INTENSIVE CARE UNITS OF A PUBLIC SECTOR HOSPITAL IN JOHANNESBURG

RETROSPECTIVE PATIENT CONSENT FORM

I _____ (name of the patient) understand that my relative _____ (name of relative), has given consent to my being included in the study and hereby consent for the information obtained to be used in the study.

I have read with understanding the content of the information sheet and I have been given the opportunity to ask questions I might have regarding the procedure and my consent to my being included in the study.

_____ _____

Date Signature

_____ (Witness)

APPENDIX H

VADLIDATION OF THE SIMPLIFIED THERAPEUTIC INTERVENTION SCORING SYSTEM IN THE INTENSIVE CARE UNITS OF A PUBLIC SECTOR HOSPITAL IN JOHANNESBURG

DATA COLLECTION INSTRUMENT

1.0 **PATIENT DATA**

1.1	RESEARCH CODE NUMBER	
1.2	AGE	
1.3	GENDER	Male / Female
1.4	DATE OF ADMISSION	
1.5	DIAGNOSIS	
1.6	REASON FOR ICU ADMISSION	Medical / Scheduled Surgery / Unscheduled Surgery
1.7	SEVERITY OF ILLNESS SAPS II score on admission < 24 hrs	
1.8	LEVEL OF PROVIDED CARE TISS-28 score on day 1 (>24 hrs)	
1.9	LEVEL OF PROVIDED CARE TISS-28 Score on day 2 (48 hrs)	
1.10	LEVEL OF PROVIDED CARE TISS-76 Score on day 1 (24hrs)	
1.11	LEVEL OF PROVIDED CARE TISS-76 Score on day 2 (48hrs)	
1.12	LENGTH OF STAY IN ICU Total number of days	
1.13	LEVEL OF PROVIDED WARD CARE TISS-28 Score 24 -48 hrs on discharge	

2.0 SIMPLIFIED ACUTE PHYSIOLOGICAL SCORE (SAPS II)

	Variable / Scoring Guidelines	Findings	Points	Score
2.1	**Age in Years** *age in years at time of last birthday*	< 40 40 - 59 60 - 69 70 - 74 75 - 79 > = 80	0 7 12 15 16 18	
2.2	**Heart Rate in beats per minute** *use the highest or lowest heart rate in past 24 hours whichever gives the higher number of points*	< 40 40 - 69 70 - 119 120 - 159 > = 160	11 2 0 4 7	
2.3	**Systolic Blood Pressure in mmHg** *use the highest or lowest blood pressure in past 24 hours whichever gives the highest number of points*	< 70 70 - 99 100 - 199 > = 200	13 5 0 2	
2.4	**Body temperature** *use highest temperature*	< 39 C > = 39 C	0 3	
2.5	**If on ventilation or CPAP PaO2 / FiO2** *use only if on ventilation or CPAP using the lowest ratio*	< 100 100 - 199 > = 200	11 9 6	
2.6	**Urinary Output in L per 24 hours** *if time period less than 24 hours adjust urine output for period to 24 hours*	< 0.500 0.500 - 0.999 > = 1.000	11 4 0	
2.7	**Serum Urea mmol/L** *use the highest value*	< 10 10 - 29.9 > 30	0 6 10	
2.8	**WBC count in 1000 per uL** *use the highest or lowest WBC in past 24 hours whichever gives the higher number of points*	< 1.0 1.0 - 19.9 > = 20	12 0 3	
2.9	**Serum Potassium in mmol/L** *use the highest or lowest potassium in past 24 hours whichever gives the higher number of points*	< 3.0 3.0 - 4.9 > = 5.0	3 0 3	
2.10	**Serum Sodium in mmol/L** *use the highest or lowest sodium in past 24 hours whichever gives the higher number of points*	< 125 125 - 144 > = 145	5 0 1	
2.11	**Serum Bicarbonate in mmol/L** *use the lowest value*	< 15 15 - 19 > 20	6 3 0	
2.12	**Serum Bilirubin in umol/L** *use the highest value*	< 4.0 4.0 - 5.9 > = 6.0	0 4 9	
2.13	**Glasgow Coma Scale** *use the lowest value if patient sedated* *use the score before sedated*	< 6 6 - 8 9 - 10 11 - 13 14 - 15	26 13 7 5 0	
2.14	**Chronic Diseases** *HIV positive with AIDS defining opportunistic infection or tumor; malignant lymphoma Hodgkins disease leukemia or multiple myeloma; metastases demonstrated at surgery, radiographically or other suitable method*	none metastic carcinoma hematologic malignancy AIDS	0 9 10 17	
2.15	**Type of admission** *scheduled surgery if scheduled at least 24h prior to operation; unscheduled if operated on with less than 24h notice; medical if no surgery within 1 week of admission to ICU*	scheduled surgery medical unscheduled surgery	0 6 8	

SAPS II Score	

3.0 SIMPLIFIED THERAPEUTIC INTERVENTION SCORING SYSTEM (TISS-28)

	Variables / Scoring Guidelines	TISS-28 Score	OA Patient Score	Day 1 Patient Score	Day 2 Patient Score
	Basic Activities				
3.1	**Standard monitoring;** *hourly vital signs, and calculation of fluid balance*	5			
3.2	**Laboratory investigations;** *biochemical and microbiological* *Arterial Blood Gas* *Point of care glucose testing*	1			
3.3	**Single medication;** *any route (IV, PO, IM etc)*	2			
3.4	**Multiple intravenous medication;** *more than one drug, single shots or continuously*	3			
3.5	**Routine dressing change;** *care and prevention of decubitus and daily dressing changes* *Prone ventilation*	1			
3.6	**Frequent dressing changes;** *at least one time each nursing shift or extensive wound care*	1			
3.7	**Care of drains;** *all except gastric tube*	3			
	Cardiovascular Support				
3.8	**Single vasoactive medication;** *any vasoactive drug*	3			
3.9	**Multiple vasoactive medications;** *more than one vasoactive drug disregard type and dose*	4			
3.10	**Intravenous replacement of large fluid losses;** *fluid replacement >3L per square meter/ per day, disregard type of fluid administered*	4			
3.11	**Peripheral arterial catheter**	5			
3.12	**Left atrial monitoring,** *PAC with / without cardiac output measure*	8			
	Intra-aortic balloon pump	8			
3.13	**Central venous line**	2			
3.14	**Cardiopulmonary resuscitation after cardiac arrest:** *in past 24 hrs (single precordial percussion not included)*	3			
	Ventilatory Support				
3.15	**Mechanical ventilation;** *any form of mechanical ventilation or assisted ventilation with or without PEEP, with or without muscle relaxants, spontaneous breathing with PEEP*	5			
3.16	**Supplemental ventilatory support;** *breathing spontaneously through ET-tube without PEEP, supplemental oxygen by any method except mechanical ventilation parameters apply*	2			
3.17	**Care of artificial tube;** *endotracheal or tracheostoma*	1			
3.18	**Treatment of improving lung function;** *thorax physiotherapy, incentive spirometry, inhalation therapy, intratracheal suctioning*	1			
	Renal Support				
3.19	**Dialysis;** *hemofiltration and dialysis techniques*	3			
	CVVHD / HD				
3.20	**Quantitative urine output measurement**	2			
3.21	**Active diuresis ;** *eg furosemide > 0.5 mg/kg/day for overload* single shots / continuous	3			
	Neurological Support				
3.22	**Measurement of intracranial pressure**	4			
	Metabolic Support				
3.23	**Treatment of complicated metabolic acidosis / alkalosis**	4			
3.24	**Intravenous hyperalimentation** **Rate of TPN**	3			
3.25	**Enteral feeding** **Rate of feed**	2			
	Specific Interventions				
3.26	**Single interventions in ICU;** *naso or tracheal intubation, introduction of a pacemaker, cardioversion, endoscopies, emergency surgery in past 24h, gastric lavage. Routine interventions without consequences to the clinical condition of the patient such as radiographs, echography, ECG, dressings or introduction of venous or arterial catheters are not included*	3			
3.27	**Multiple specific interventions;** *more than one, as described above*	5			
3.28	**Specific interventions outside of ICU;** *surgery or diagnostic procedures*	5			
	SUM TISS-28 POINTS		0	0	0

4.0 THERAPEUTIC INTERVENTION SCORING SYSTEM (TISS-76)

CATEGORY A - 4 POINTS		1	2	3	4
4.1	Cardiac arrest or countershock, or both within past 24 hours				
4.2	controlled ventilation with, or without PEEP				
4.3	Controlled ventilation with intermittent or continuous muscle relaxant				
4.4	Balloon tamponade of varices				
4.5	continuous arterial infusion				
4.6	Pulmonary artery catheter				
4.7	Arterial or ventricular pacing, or both				
4.8	Hemodialysis in an unstable patient				
4.9	Peritoneal dialysis				
4.10	Induced hypothermia				
4.11	Pressure activated blood transfusion				
4.12	Mast Suit				
4.13	Intracranial pressure monitoring				
4.14	Platelet transfusion				
4.15	Intra-aortic balloon assist				
4.16	Emergency operative procedure (within past 24 hours)				
4.17	Lavage of GI bleeding				
4.18	Emergency endoscopy or bronchoscopy				
4.19	Vasoactive drug infusion (more than one drug)				
	SUM TOTAL CATEGORY A				

CATEGORY B - 3 POINTS		1	2	3	4
4.20	Central IV hyperalimentation (includes renal, cardiac, hepatic failure food)				
4.21	Pacemaker on standby				
4.22	Chest tubes				
4.23	IMV or assisted ventilation				
4.24	Continous positive airway pressure CPAP				
4.25	Concentrated potassium infusion via central line				
4.26	nasotracheal or orotracheal intubation				
4.27	Blind intratracheal suctioning				
4.28	Complex metabolic balance (frequent intake/ output)				
4.29	Multiple ABG, bleeding or STAT studies (more than 4 per shift)				
4.3	Frequent infusions of blood products (more than 5U / 24 hours)				
4.31	Bolus IV medication (non scheduled)				
4.32	Vasoactive drug infusion (1 drug)				
4.33	Continous anti-arrthmia infusion				
4.34	Cardioversion for arrthmia (not defribrillation)				
4.35	Hypothermia blanket				
4.36	Acute digitalization (within 48 hours)				
4.37	Measurement of cardiac output by any method				
4.38	Active diuresis for fluid overload or cerebral oedema				
4.39	Active treatment for metabolic alkalosis				
4.4	Active treatment for metabolic acidosis				
4.41	Emergency thora-para and pericardiocentesis				
4.42	Active anticoagulation (initial 48h)				
4.43	Phlebotomy for volume overload				
4.44	Coverage with more than 2 IV antibiotics				
4.45	Treatment of seizures or metabolic encephalopathy (within 48 hrs of onset)				
4.46	complicated orthopaedic traction				
	SUM TOTAL CATEGORY B				

CATEGORY C - 2 POINTS		1	2	3	4
4.47	CVP (central venous pressure)				
4.48	2 peripheral IV lines				
4.49	hemodialysis (unstable patient)				
4.50	Fresh tracheostomy (less than 48 hours)				
4.51	Spontenous respirations via endotracheal tube or tracheostomy (T-piece or mask)				
4.52	GI feedings				
4.53	replacement of excessive fluid loss				
4.54	parenteral chemotherapy				
4.55	hourly neurological observations				
4.56	multiple dressing changes				
4.57	Pitressin infusion IV				
	SUM TOTAL CATEGORY C				

CATEGORY D - 1 POINT		1	2	3	4
4.48	ECG monitoring				
4.59	Hourly vital signs				
4.6	1 peripheral IV catheter				
4.61	Chronic anticoagulation				
4.62	Standard intake and output (q 24hours)				
4.63	STAT blood tests				
4.64	Intermittent scheduled IV medication				
4.65	Routine dressing changes				
4.66	Standard orthopaedic traction				
4.67	Tracheostomy care				
4.68	Decubitus ulcer				
4.69	Urinary catheterisation				
4.70	supplemental oxygen (nasal or mask)				
4.71	chest physiotherapy				
4.72	extensive irrigations, packing or debridement of wound, fistula or colostomy				
4.73	GI compression				
4.74	Peripheral hyperalimentation / intralipid therapy				
	SUM TOTAL CATEGORY D				

TOTAL SCORE

Key to interpretation

CLASS 1 - < 10 POINTS
Inappropriate admission other than to rule out MI

CLASS 2 - 10 to 19 POINTS
Patient os physiolgically stable requiring only prohylactic observation

CLASS 3 - 20 - 39 POINTS
Patient is physiolgically stable requires intensive nursing and monitoring

CLASS 4 - > 40 POINTS
Patient is physiologically unstable requiring intensive nursing and physician care with frequent observations and order changes

CLASS

APPENDIX I

Faculty of Health Sciences Medical School, 7 York Road, Parktown, 2193
Fax: (011) 717-2119 / Tel: (011)717-2125

Reference: Ms Helen Selolo E-mail: monyai.selolo@.wits.ac.za
04 June 2008

Person No: 0705936E
PAG

Dear Ms Leah Kisorio
Campus Lodge Residence
48 De Korte Street
Braamfontein
2001

Master of Science in Nursing : Approval of Title

We have pleasure in advising that your proposal entitled *Validation of the simplified therapeutic intervention scoring system in intensive care units of a public sector hospital in Johannesburg* has been approved. Please note that any amendments to this title have to be endorsed by the Faculty's higher degrees committee and formally approved.

Yours sincerely

Mrs Sandra Benn
Faculty Registrar
Faculty of Health Sciences

APPENDIX J

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
R14/49 Kisorio

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER M080211**
PROJECT	Validation of the simplified therapeutic intervention scoring system in the ICU of a public sector hospital in Johannesburg
INVESTIGATORS	Miss L Kisorio
DEPARTMENT	Nursing Education
DATE CONSIDERED	08.02.29
DECISION OF THE COMMITTEE*	Approved unconditionally

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

DATE 08.03.13 **CHAIRPERSON** .....
(Professor P E Cleaton Jones)

*Guidelines for written 'informed consent' attached where applicable

cc: Supervisor : S Schmollgruber

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 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

KISORIO LEAH 08.04.02

APPENDIX K

Private bag X39, Johannesburg 2000, South Africa
Tel: +27 (0) 11 488 4911, Fax: +27 (0) 11 643 1612
www.johannesburghospital.org

Gauteng Department of Health

Office of the CEO
Enquiries: M. Motjelele
(011): 488-3785
(011) 488-3753

08 May 2008

Ms Leah Kisorio
Department of Nursing Education
Faculty of Health Sciences
University of the Witwatersrand

Dear. Ms Kisorio

RE: Permission to Undertake Research on the validation of the Simplified Therapeutic Intervention Scoring System in the Intensive Care Units of a Public Sector Hospital in Johannesburg

Permission is granted for you to conduct the above research as described in your request provided:

1. Johannesburg hospital will not in anyway incur or inherit costs as a result of the said study.
2. Your study shall not disrupt services at the study sites.
3. Strict confidentiality shall be observed at all times.
4. Informed consent shall be solicited from patients participating in your study.

Please liaise with the Head of Department and Unit Manager or Sister in Charge to agree on the dates and time that would suit all parties.

Kindly forward this office with the results of your study on completion of the research.

I wish you success in your studies.

Yours sincerely

Sagie Pillay
Chief Executive Officer