

https://dspace.org/

Wound documentation by doctors in Academic Emergency Departments, Gauteng, South Africa

Kleynhans, Roche

2025

University of the Witwatersrand, Johannesburg

https://hdl.handle.net/10539/50042

Kleynhans, Roche . (2025). Wound documentation by doctors in Academic Emergency Departments, Gauteng, South Africa [Master's dissertation, University of the Witwatersrand, Johannesburg]. WIReDSpace. https://hdl.handle.net/10539/50042

Downloaded from a DSpace repository. https://dspace.org/

Final submission:

Wound documentation by doctors in Academic Emergency Departments, Gauteng, South Africa

Research article in fulfilment of the degree for Masters in Medicine (Emergency Medicine)

Dr. Roché Kleynhans (2632911)

MBChB (UFS), DipPEC (SA)

Supervisors:

- Dr. Jana du Plessis, MBChB (UP), DipPEC (SA), Mmed (Emergency Medicine), FCEM (SA)
- Dr. Pravani Moodley, MBChB (UKZN), DipPEC (SA), Mmed (Emergency Medicine), FCEM (SA)

13/11/2025

Contents of document: Page:

1. Copy of research article 3-21
2. Plagiarism declaration form 22
3. Ethics clearance certificate (HREC) 23

Wound documentation by doctors in Academic Emergency Departments, Gauteng, South Africa.

R Kleynhans, MBChB (UFS), DipPEC (SA); J du Plessis, MBChB (UP), DipPEC (SA), Mmed (Emergency Medicine), FCEM (SA); P Moodley, MBChB (UKZN), DipPEC (SA), Mmed (Emergency Medicine), FCEM (SA)

Division of Emergency Medicine, Faculty of Health Sciences, School of Clinical Medicine, University of Witwatersrand, Johannesburg, South Africa

Corresponding author: R Kleynhans (rochekleynhans@gmail.com)

Abstract:

- **Background:** Medical doctors manage trauma cases daily, most needing medicolegal documentation. Wound documentation is a vital skill required by doctors.
- **Objectives**: To describe and compare the knowledge and practices of documentation of clinical findings on the J88 form, looking at the accuracy of wound features and wound size estimation, focusing on participant sex, medical level of experience, and type of injury simulated.
- **Methods:** This was a multi-centre, prospective, observational, cross-sectional study of three academic emergency departments in the University of Witwatersrand academic circuit using questionnaires, moulage, and wound characteristic rubrics.
- **Results:** Eighty-three doctors participated in the study. This was equally spread between sexes. According to wound rubrics, participants scored an average of 48% for accuracy of J88 form completion. The most precise wound description was the abrasion (62.5%). The least precise wound description was a stab wound (33.3%). Most participants (63.8%) noted on the questionnaire that they always indicate bruises, however, 25.3% missed the simulated bruise. The most frequently documented wound features were location and size estimation (98.8%). The least documented wound feature was the age and mechanism of the injury (<6%). Large wounds (>5cm length) were underestimated (p-value < 0.001), with accurate size estimations of smaller wounds (<5cm). Perceptions of undergraduate training in wound documentation were evenly divided between ‘acceptable’ and ‘poor’, while postgraduate training was generally regarded as ‘poor’.

- **Conclusion**: This study found that wound documentation among emergency department doctors was poor, with participants scoring an average of 48% across the marking rubric. More training at both undergraduate and postgraduate levels is recommended.

Background:

The trauma crisis in South Africa (SA) is witnessed daily by doctors working in Emergency Departments (EDs).[1–8] KwaZulu-Natal (KZN) and the Western Cape are the only provinces in SA with electronic trauma registries.[1,4] A KZN study of data from one of these electronic registries found 1 263 847 ED visits for assault, gunshots, and motor vehicle accidents from 2012 to 2022.[1] Intentional trauma exceeds non-intentional trauma with a ratio of 2:1.[1] A single-centre study in the Eastern Cape found that 42.2% of trauma-related ED visits were due to interpersonal violence (IPV).[2]

Doctors are not only responsible for treating victims of IPV but also need to record injuries to aid as evidence for legal investigations.[5–9] The J88 form is a medicolegal document from the Department of Justice and is unique to SA. [6,8] The first attending medical practitioner completes it.[8] Kotzé et al. and Müller et al. have published papers with guidelines outlining how to complete the J88 form, aiming to improve documentation.[6,8,9] Multiple studies have emphasized the importance of accurate documentation and its effect on criminal prosecution.[5–10]

In a sensory ethnographic study by Mogale et al., prosecutors stated the following: '(The) J88 is real and conclusive evidence because it is presented under Section 212 of the Criminal Procedure Act as amended'.[10] Additionally, prosecutors stated that medical practitioners were not completing the J88 forms accurately.[10]

A 2018 study of community service medical officers (CSO) who had graduated from the University of the Free State (UFS) drew attention to their lack of training on medicolegal documentation. Only 26.8% of participants reported having had undergraduate training on completing the J88 form for assault cases.[7] This highlighted the knowledge gap experienced by doctors regarding adequate medicolegal documentation.[7]

This study aimed to assess the accuracy of wound documentation by doctors working in mixed medical and trauma EDs based on clinical findings documented on the J88 form, according to a simulated scenario.

Methods:

Design:

This multi-centre prospective, observational, cross-sectional study was approved by the University of the Witwatersrand Human Research Ethics Committee (M230251) (Annexure A). The population size was estimated at 100 doctors. For a confidence level of 95% and a margin error of 5%, the convenience sample size was approximated at 80 doctors.

The study population comprised emergency medicine consultants and registrars, medical officers (MO), community service medical officers (CSO), and medical interns. Years post qualification as independent medical practitioners categorise medical officers. Grade 1 medical officers (MO 1) have less than five years' work experience, grade 2 medical officers (MO 2) have five to ten years' experience, and grade 3 medical officers have more than ten years' experience.

Study sites included Helen Joseph Tertiary Hospital and two regional hospitals: Tambo Memorial Hospital and Thelle Mogoerane Regional Hospital. All three hospitals have mixed EDs with large trauma burdens.

Data collection:

Moulage of various injuries was made by the primary investigator using silicone and a clothing mannequin limb (Figure 1). Six injuries were depicted: three stab wounds, one laceration, one bruise, and one abrasion (Figures 1, 2, and 3). All injuries were described, measured, and validated by two specialist emergency physicians and one trauma surgeon. A station was set up with the mannequin and a short clinical scenario was given to the participants. An information sheet was supplied to each participant. Informed consent was implied by the completion of the questionnaire and J88 form. Participants were requested to complete a questionnaire and document injuries (as simulated by moulage on the mannequin) on a J88 form. Sections of the J88 form given for completion by participants were the clinical findings of section F (appendix A) and the anatomical diagrams (appendix B). The questionnaire consisted of basic demographics, experience in the ED, how often participants manage IPV, frequency of J88 form completion, documentation of wound characteristics, and participants' impression of undergraduate and postgraduate training on wound documentation and measurement.



Figure 1: Moulage on mannequin

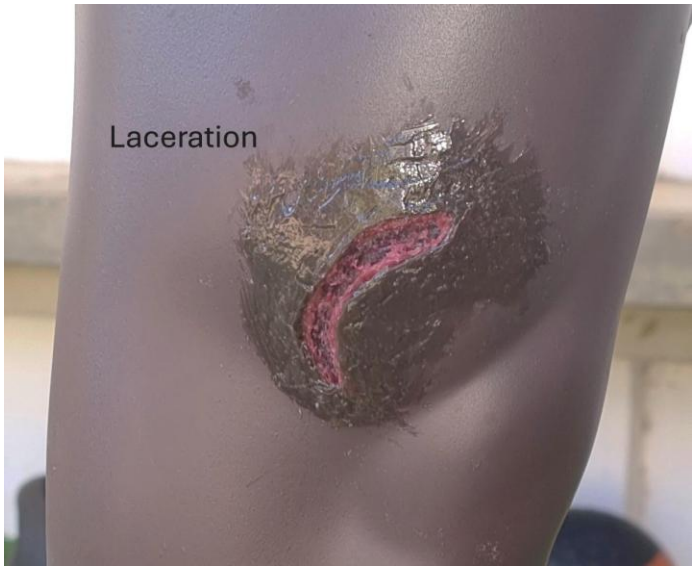


Figure 2: Moulage of laceration



Figure 3: Measurement of stab 3

Assessment of wound documentation:

Wound documentation relating to demographics was analysed according to the total number of participants that completed the relevant question of the questionnaire. Wound documentation on the J88 form that did not relate to demographics was analysed according to the total number of participants that completed the J88 form.

Completed J88 pages were marked against a pre-set validated rubric for each wound. (Appendix C) The rubric was based on a study by Loots et al (appendix D).[5] Each rubric assessed specific wound characteristics: type of injury, wound description (location, size, shape, age estimation), mechanism, and correlation of wound description to the anatomical diagram. A rubric was compiled for stab wounds, incisions and lacerations with a total score of nine. A separate rubric was compiled for abrasions and bruises, with a total score of eight. These weighted scores contributed to a global mark representing the accuracy of wound documentation across blunt and sharp force injuries, as well as the overall accuracy of wound documentation. Data was collected over three months from July 2023 to September 2023.

Data analysis:

Data was analysed by an external statistician with IBM SPSS Statistics version 28. Descriptive statistics are presented as frequencies and percentages for categorical variables, and in means (with standard variation) or medians (with interquartile range) for continuous scale variables. Where data was skewed, the comparisons were done using the Kruskal-

Wallis test. The sample t-test was used to examine for under and overestimation. Significance testing was done using ANOVA for normal distributed data. Statistical significance was accepted as a P-value < 0.05.

Results:

Demographics:

Eighty-three participants completed the J88 form, and eighty completed the questionnaire. Three participants gave no reason why they did not complete the questionnaire. Demographics are documented in Table 1.

Table 1: Demographic characteristics of participants (N=80)

Characteristics		**n (%)**
Sex (n=80)	Male	41 (51.3)
	Female	39 (48.7)
Level of experience (n=80)	Intern	9 (11.2)
	CSO	11 (13.8)
	MO Grade 1	16 (20)
	MO Grade 2	6 (7.5)
	MO Grade 3	5 (6.2)
	Emergency medicine registrar	25 (31.3)
	Emergency medicine consultant	8 (10)
Years registered as a doctor post qualification (n=79)	Less than 1 year	5 (6.3)
	1 to 5 years	35 (44.3)
	6 to 10 years	25 (31.7)
	More than 10 years	14 (17.7)
Years of experience in the ED (n=79)	Less than 1 year	20 (25.3)
	1 to 5 years	36 (45.6)
	6 to 10 years	16 (20.2)
	More than 10 years.	7 (8.9)

Current practices on wound documentation:

Participants rated their usual practice in terms of several aspects of wound documentation, from ‘never’ to ‘always.’ Most participants self-reported that they ‘always’ document lacerations (82.5%), bruises (63.8%), and abrasions (62.5%), with little variability between participants’ answers. While 71.8% of participants stated that they ‘always’ document stabs, 2.6% indicated that they ‘sometimes’ indicate stabs, 3.8% ‘rarely’ and 1.3% of participants indicated ‘never’. Participant answers had high variability ranging from ‘never’ to ‘always’.

Most participants (72.5%) reported that they ‘always’ document incisions, 2.5% ‘never’ document incisions, and 7.5% stated that they did so ‘rarely’.

Most participants (42.5%) indicated that wound measurement is ‘always’ important, although they ‘never’ (20%), ‘rarely’ (41.3%), and ‘sometimes’ (35%) measure wounds to ensure accuracy.

Wound description of simulated injuries:

According to the pre-set rubric, the average overall accuracy of wound documentation was 48%. The overall score for blunt force injuries was an average of 56% and sharp force injuries scored 40.7%. The accuracy of individual wound documentation was as follows: abrasion (62.5%), laceration (55.5%), bruise (50%), stab 1 and 3 (44.4%), and stab 2 (33.3%). The location and size of the wound were documented by 98.8% (n=82) of participants across all wounds. (Table 2).

Most participants (89.2%, n=74)) correctly signed pages 4 and 6 of the J88 form. One participant described an additional wound that was not part of the wound moulage.

There was no statistically significant relationship between qualification, years qualified as a doctor, and years of experience in the ED in improved wound documentation.

Table 2: Accuracy of J88 wound description (N=83)

	Type of injury	**Injury missed, n (%)**	**Wound characteristics noted, n (%)**					**Injury not correlating with diagram, n (%)**	**Accuracy according to rubric, %**
			Shape	Age	Mechanism	Depth	Edge		
Blunt	Abrasion	2 (2.4)	27 (32.5)	4 (4.8)	3 (3.6)	N/A	N/A	8 (9.6)	62.5
	Laceration	2 (2.4)	47 (56.6)	3 (3.6)	4 (4.8)	16 (19.2)	7 (8.4)	1 (1.2)	55.5
	Bruise	21 (25.3)	8 (9.6)	3 (3.6)	3 (3.6)	N/A	N/A	2 (2.4)	50
Sharp	Stab 1	0 (0)	7 (8.4)	3 (3.6)	4 (4.8)	14 (16.9)	2 (2.4)	0 (0)	44.4
	Stab 2	3 (3.6)	7 (8.4)	4 (4.8)	5 (6)	12 (14.5)	2 (2.4)	0 (0)	33.3
	Stab 3	0 (0)	6 (7.2)	4 (4.8)	5 (6)	13 (15.7)	1 (1.2)	0 (0)	44.4

Wound size estimations:

Wound size was underestimated in most large wounds (>5cm length), but accurate in smaller wounds. There was a statistically significant underestimation of abrasion length (p-value <0.001), abrasion width (p-value <0.001), bruise length (p-value <0.001), and laceration

length (p-value <0.001). Blunt force injuries were underestimated, while sharp force injuries were accurate to within 2mm. (Table 3).

Table 3 Wound size estimations

Wound size (actual mm)	Mean (Standard deviation)	Mean difference (mm)	P-value
Abrasion length (100mm)	86.9 (26.98)	-13.1	<0.001
Abrasion width (90mm)	80.86 (23.57)	-9.14	<0.001
Bruise length (160mm)	115.37 (45.09)	-44.63	<0.001
Bruise width (80mm)	79.78 (28.17)	-0.22	0.96
Laceration (71mm)	52.05 (14.55)	-41.05	<0.001
Stab 1 (21mm)	22.1 (7.31)	1.1	0.18
Stab 2 (37mm)	33.68 (13.6)	-3.32	0.03
Stab 3 (11mm)	13.79 (10.45)	2.79	0.02

Subgroup analysis of wound size estimations:

There were no statistically significant differences between sexes, qualifications, or years since qualification as a medical practitioner.

Perception of training:

Likert scale analysis was done with a focus on central tendency. Wound documentation training during undergraduate education was considered either ‘poor’ or ‘acceptable’ by 30% each of participants, ‘very poor’ by 18.8%, and ‘very good’ by only 2.5%. Postgraduate wound documentation training was considered ‘very poor’ (34.2%) or ‘poor’ (43.4%) by most participants, with only 10.5% finding it ‘acceptable’, 9.2% ‘good’ or 2.6% ‘very good’.

Both undergraduate and postgraduate training in wound measurement was considered ‘poor’ or “very poor” by the majority of participants (70.5% and 84% respectively)

Discussion:

Trauma is a widespread issue in SA, placing significant demands on both medical and legal systems.[1,5,6] The J88 form provides the judicial system with relevant medical evidence regarding the clinical assessment of a patient, as well as the opinion of the doctor regarding the significance of these clinical findings.[5–10] Information obtained from the J88 form is more useful to the justice process when the documentation is complete and accurate.[5–9] Wounds should be described using accurate medical terminology in terms of location, size,

shape, depth, edge, and age.[5,6,8,9] Training is essential for the accurate completion of the J88 form.[6–8]

Most of the participants in our study expressed that undergraduate training in wound documentation was 'acceptable' or 'poor', with postgraduate training being mostly 'poor'. Fouché et al. found that while more than 65% of UFS Medical School graduate CSOs had had prior training in general medicolegal and wound documentation over 73% of CSOs had never had training specifically on J88 completion.[7] Training encompasses medicolegal documentation in terms of overall accuracy and specific wound features.

In our study, the overall average accuracy of wound documentation was 48%. These findings are in keeping with a Pretoria study, which found that wounds are poorly described, with less than 20% of cases being appropriately documented.[5]

Interestingly, our study found that the description of blunt force injuries scored higher than sharp force injuries. This could be attributed to the study design, where the total weighted score for blunt force injuries was 8, rather than 9. Other studies found that blunt force injuries were often missed or inadequately described.[5,7] The improved documentation of injuries in this study could further be explained by the Hawthorne effect – participants searched more intently for wounds on the mannequin. Caution must be used when interpreting this data, as further studies are needed on the discrepancy between blunt and sharp force injuries.

Despite the improved scoring of blunt force injuries, a sizeable proportion of bruises in our study were missed (25.3%) – it is hard to say if these missed wounds would have contributed to improved weighted scores or not. Loots et al. found that doctors mostly documented the location (>50%) of blunt force injuries without further description.[5] Blunt and sharp force injuries have specific characteristics that set them apart.[6] Documentation of positive features may allow identification of the weapon of assault. [6]

Participants self-reported that they often described the shape of injuries, however, less than 10% of participants indicated the shape of sharp force injuries in this study. Age and suspected mechanism of injury were specified in less than 6% of injuries. These findings are consistent with Loots et al., who also noted that specific wound characteristics, like shape, were documented in none of the sharp force injury cases and age was only noted by one practitioner.[5] Our study noted a discrepancy between perceived competence and actual documentation of findings, highlighting the Dunning-Kruger effect. Poor documentation of wounds may be attributed to several factors, including a lack of knowledge of specific

characteristics needed to describe a wound and the time available to document findings accurately.[5] In addition, J88 forms are not audited for the accuracy of findings, thus no feedback is provided to doctors. With no concrete feedback mechanism, doctors are often unaware of the inaccuracy of their wound documentation and the need to improve their skills.

This study found that the most documented (98.8%) wound features were location and size. Again, Loots et al. had similar findings, with more than 50% of injuries indicating location.[5] Our study found that large wounds (>5cm length) were underestimated, while size estimation was more accurate for wounds <5cm (within 2mm accuracy).

A study in the United Kingdom found that consultants had larger error proportions, and that males and females were equally inaccurate, with males overestimating and females underestimating wound sizes.[11] The authors speculated that junior staff were directly involved in acute wound management, but did not explain why sexes differ.[11] Sex and level of experience did not play a role in improved wound documentation or wound size estimation in our study. The authors speculate that SA doctors have more exposure to trauma, and therefore no difference between levels of experience. Our high trauma burden highlights the importance of medicolegal documentation.

Medicolegal documentation is an essential skill for doctors. However, as Mogale et al. stated, doctors documented from a health and not a legal perspective.[10] This has various implications for the accuracy and completeness of the J88 form, including the ability of this document to be used in the justice proceedings.[5–10] Current training is not sufficient to equip doctors in the specialised field of medicolegal documentation and legal proceedings of the justice system.[5–8,10] Improved training and cognitive unloading could improve documentation.[5,11,12]

Furthermore, medical documentation can be improved by the availability of protocols, rubrics, and templates in units and the accessibility of measuring devices.[5,11,12] Postgraduate medicolegal workshops and continuing professional development (CPD) activities (focussing on medicolegal documentation) should be encouraged. Undergraduate training needs to be improved, equipping junior doctors to care for victims of IPV.[5,7,10]

“There is a kind of medical knowledge which is not so much concerned with the cure of disease as the detection of error and the conviction of guilt.” – Samuel Farr 1788.[6]

Conclusion:

Wound documentation is a vital skill that requires more training at both undergraduate and postgraduate levels. It is necessary to address this skill deficit and improve accurate medicolegal documentation. Doctors can impact legal proceedings if they improve the accuracy of wound documentation. Implementing wound description templates and the use of measuring devices in EDs may improve documentation and should be investigated in future studies.

Study limitations:

This was a small study. It was performed in academic regional and tertiary hospitals and may not be reflective of the practices at smaller hospitals and community health centres. Convenience sampling was done.

Dissemination of results:

The results of this study will be shared with the Division of Emergency Medicine at the University of Witwatersrand. The study and its findings will be presented at future academic meetings and forwarded to the participating EDs.

Authors contributions: Kleynhans (60%), Du Plessis (20%), Moodley (20%)

Funding: None

Conflict of interest: None

Special thanks: To Robin Burrow for his continued support during this study.

Bibliography:

1. Tefera A, Lutge EE, Moodley N, Xaba XW, Hardcastle TC, Brysiewicz P, et al. Tracking the Trauma Epidemic in KwaZulu-Natal, South Africa. World J Surg. [Internet]. 2023 May 9;47(8):1940–5. Available from: http://dx.doi.org/10.1007/s00268-023-07032-2
2. Mitra A, Okafor UB, Kaswa R, Adeniyi OV. Epidemiology of interpersonal violence at a regional hospital emergency unit in Eastern Cape, South Africa. S Afr Fam Pract [Internet]. 2022 May 24;64(1). Available from: http://dx.doi.org/10.4102/safp.v64il.5511
3. Hardcastle T, Oosthuizen G, Clarke D, Lutge E (2016) Trauma, a preventable burden of disease in South Africa: review of the evidence, with a focus on KwaZulu-Natal. In: Padarath A, King J, Mackie E, Casciola J (eds) South African health review. Health Systems Trust, Durban, pp 179-189.
4. Bhana M, Fru P, Plani F. A long walk to freedom: the epidemiology of penetrating trauma in South Africa – analysis of 4 697 patients over a six-year period at Chris Hani Baragwanath Academic Hospital. South Afr J Surg [Internet]. 2022 Jun 1;60(2):77–83. Available from: http://dx.doi.org/10.17159/2078-5151/sajs3582
5. Loots DP, Saayman G. Medicolegal perspectives of interpersonal violence: A review of first-contact clinical notes. S Afr Med J [Internet]. 2019 Sep 30;109(10):792–800. Available from: http://dx.doi.org/10.7196/samj.2019.v109i10.13951
6. Müller K, Saayman G. Clinical forensic medicine: Completing the Form J88 – what to do and what not to do. S Afr Fam Pract [Internet]. 2003 Aug 30;45(8):39-43. Available from: http://dx.doi.org/10.4102/safp.v45i8.1886
7. Fouché L, Bezuidenhout J, Liebenberg C, Adefuye AO. Practice of community-service doctors in the assessment and medico-legal documentation of common physical assault cases. S Afr Fam Pract [Internet]. 2017 Sep 13;60(1):21–5. Available from: http://dx.doi.org/10.1080/20786190.2017.1364014
8. Kotzé JM, Brits H, Botes BA. Part 1: Medico-legal documentation South African Police Service forms, Department of Justice forms and patient information. S Afr Fam Pract. 2014;56(5):16-22.
9. Kotzé JM, Brits H, Monatisa MS, Botes J. Part 2: Medico-legal documentation. Practical completion of pages 1 and 4 of the J88 form. S Afr Fam Pract. 2014;56(6):32-37.

10. Mogale R, Kushner KE, Richter MS. ‘If it is a tear let it be a tear, not a laceration’: Form J88 as evidence in prosecution of violence against women in South Africa. Vol. 13, Original contributions African Safety Promotion Journal. 2015.
11. Peterson N, Stevenson H, Sahni V. Size matters: How accurate is clinical estimation of traumatic wound size? Injury [Internet]. 2014 Jan;45(1):232–236. Available from: http://dx.doi.org/10.1016/j.injury.2012.04.018
12. Twaij A, Carballido FC, Maryosh J, Pucher PH. Results of a simple intervention to improve documentation quality in major trauma. Int J Surg [Internet]. 2013 Oct; 11(8):710. Available from: http://dx.doi.org/10.1016/j.ijsu.2013.06.658

Annexure A: Ethics clearance certificate

M230251 MED23-02-006

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

R14/49 Dr Roche Kleynhans

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

CLEARANCE CERTIFICATE NO. M230251 MED23-02-006

NAME: (Principal Investigator)	Dr Roche Kleynhans
DEPARTMENT:	Emergency Medicine Thelle Mogoerane Regional Hospital Helen Joseph Hospital Tambo Memorial Hospital
PROJECT TITLE:	Wound documentation by doctors in Academic Emergency Departments in Johannesburg, South Africa
DATE CONSIDERED:	24/02/2023
DECISION:	Approved unconditionally
CONDITIONS:	
SUPERVISOR:	Dr Jana Du Plessis and Dr Pravani Moodley
APPROVED BY:	Dr C Penny, Chairperson, HREC (Medical)
DATE OF APPROVAL:	30/05/2023 **EXPIRY DATE:** 30/05/2028

This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

DECLARATION OF INVESTIGATORS

I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated, from the research protocol as approved, I/we undertake to resubmit the application to the Committee. **I agree to submit a yearly progress report** in February each year until study is closed. Failure to submit annual report will result in ethics clearance certificate suspension. The date for annual re-certification will be one year after the date of convened meeting where the study was initially reviewed. In this case, the study was initially reviewed in February and will therefore be due in the month of February each year. Unreported changes to the application may invalidate the clearance given by the HREC (Medical). Login to upload signed copy of this ethics clearance certificate prior to commencing with the study https://www.witsethics.co.za/login.aspx

Principal Investigator Signature Date

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

Appendix A: J88 form section F (page 4)

J88

F. CLINICAL FINDINGS

Clinical findings: Describe the nature, position, extent and estimated age of the abrasion, bruise, cuts, laceration, scars or other injury together with its possible causation (add pages if required). Indicate whether any of the injuries are life threatening. The general position of all injuries must be noted on the sketches .....

G. SPECIFIC EXAMINATIONS

G.1 ORAL EXAMINATION (delete if not applicable)

1. Gums	2. Frenulum of tongue
3. Frenulum of upper and lower lips	4. Tongue
5. Palate	6. Teeth
7. Inside of cheeks	8. Other

G.2 ANAL EXAMINATION (delete if not applicable)

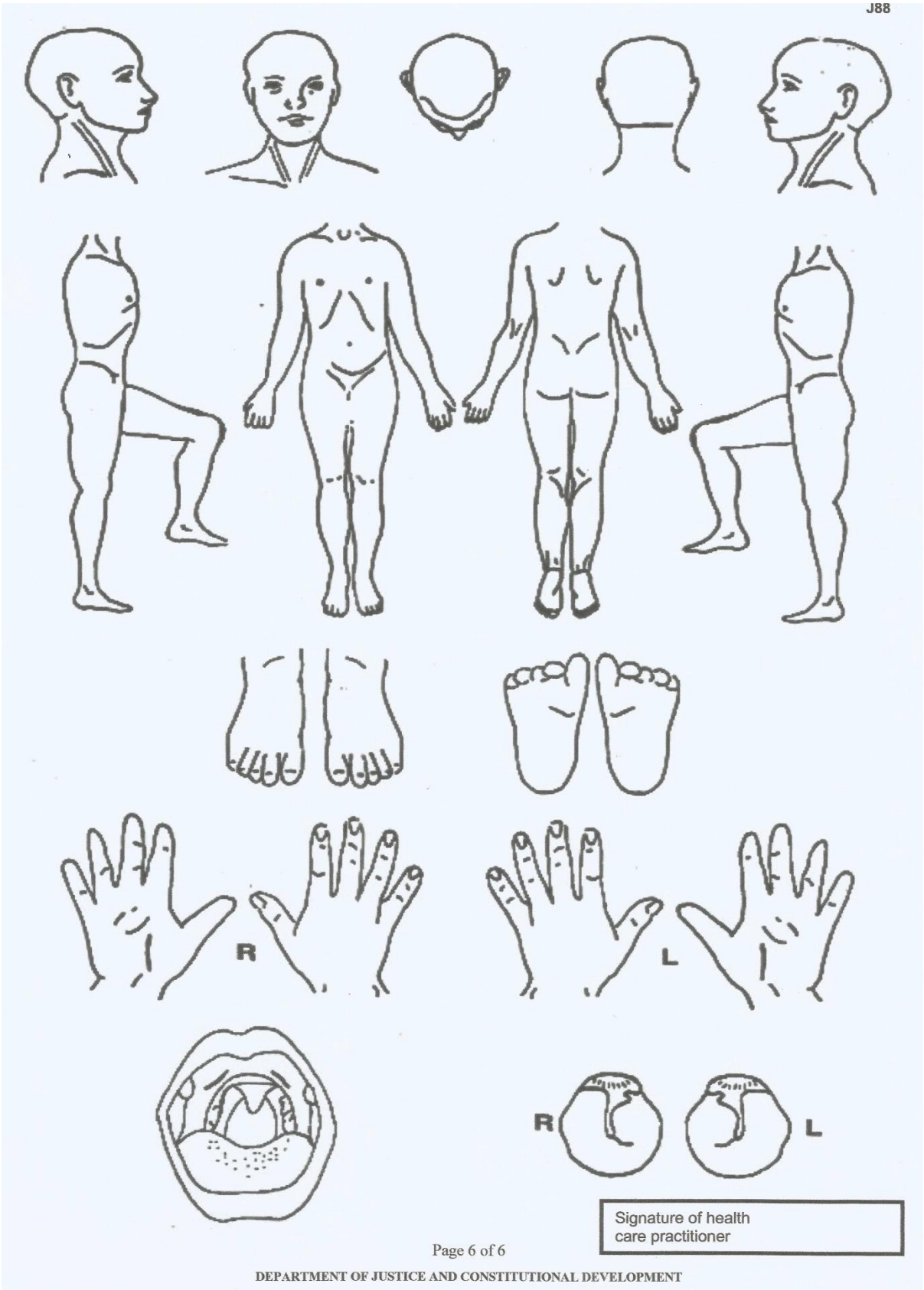
1. Perineum	
2. Acute injuries:	
3. Mucocutaneous changes:	
Skin surrounding orifice:	Orifice:
4. Venous engorgement	
5. Dilatation	

G.3 MALE GENITALIA EXAMINATION (delete if not applicable)

1. Genital development (children) Tanner stage 1-5: ☐	2. Pubic hair (children) Tanner Stage 1-5: ☐
3. Prepuce & frenulum	4. Glans
5. Shaft	6. Scrotum

Signature of health care practitioner

Appendix B: J88 form anatomical diagram (page 6)



Appendix C: Rubric for clinical findings

Participant number:

Station 1 / 2			**Wound #**			**Wound #**		
Documented features Abrasions and bruises	**Characteristic assessed**		Validated answer	Weighted score 1 for each indicated	Weighted score 1 for each correctly indicated	Validated answer	Weighted score 1 for each indicated	Weighted score 1 for each correctly indicated
Type of injury	Yes / No	Incision / stab Laceration Abrasion Bruise						
Wound description	Location	Anatomical region						
	Size	Length measured in cm						
		Width measured in cm						
	Shape	Pointed / circular Linear Curved Angled Irregular / Stellate Specific characteristic						
	Age estimation	Fresh / acute Old / chronic Subacute / acute-on-chronic						
Mechanism mentioned	Yes / No							
Correlated with diagram	Yes / No							
Total out of 8								

Station 1 / 2			**Wound #**			**Wound #**		
Documented features Stabs / incisions / lacerations	**Characteristic assessed**		Validated answer	Weighted score 1 for each indicated	Weighted score 1 for each correctly indicated	Validated answer	Weighted score 1 for each indicated	Weighted score 1 for each correctly indicated
Type of injury	Yes / No	Incision / stab Laceration Abrasion Bruise						
Wound description	Location	Anatomical region						
	Size	Measured in cm						
	Shape	Pointed / circular Linear Curved Angled Flap / pedinculated Irregular / Stellate Specific characteristic						
	Wound edges	Smooth Ragged / irregular Bevelling Surrounding contusions One sharp edge Two sharp edges						
	Depth	Superficial Deep						
	Age estimation	Fresh / acute Old / chronic Subacute / acute-on-chronic						
Mechanism mentioned	Yes / No							
Correlates with diagram	Yes / No							
Total out of 9								

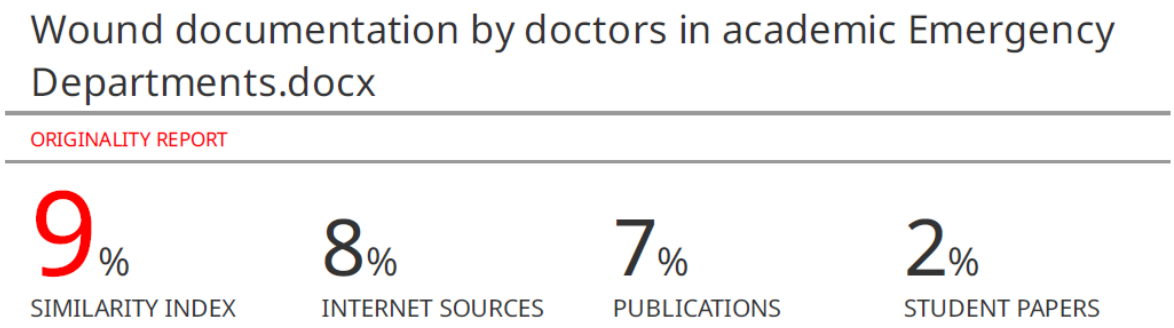
Appendix D: Rubric used by Loots et al.

Table 1. Standardised rubric for the assessment of medicolegal documentation of sharp-force injuries

Documented features		Characteristics assessed by investigator that contribute to weighted score		Weighted score assigned to answers in rubric*
1	Number of wounds	Yes or no	Yes = number of wounds provided	1/0
2	Type of sharp-force injury	Yes or no	Yes =	1/0
			Stab wound	
			Slash wound	
			Incised wound	
3	Wound description	Location	Anatomical region (face, arm, chest, etc.)	0 = not noted
			Anatomical marker (clavicle, knee, etc.)	1 = poor
			Height above heel (cm)	2 = below average
			Distance from midline (cm)	3 = average
		Size	Measured in cm	4 = good
		Shape	Boat shaped	5 = excellent
			Linear	
			Curved	
			Angled	
			Spur	
			Irregular	
		Wound features/edges	Smooth margins	
			Ragged irregular	
			Bevelling	
			Surrounding contusions	
			One sharp edge	
			Two sharp edges	
		Depth	Superficial	
			Deep	
			Measured in cm	
		Age estimation	Acute	
			Chronic	
			Acute-on-chronic/subacute	
4	Associated injuries	Yes or no	Yes = type of associated injuries	1/0
			Pneumothorax	
			Haemothorax	
			Tamponade	
			Vascular injury	
			Amputation	
5	Type of weapon mentioned	Yes or no	Yes = knife, bottle, machete, screwdriver, etc.	1/0
6	Defensive injuries	Yes or no	Yes =	1/0
			Number	
			Location (hands, forearms, etc.)	

*The weighted scores used to assess the quality of the clinical notes depict whether the specific parameters regarding wound description were included in the notes. If all 5 parameters were included, a score of 5 was allocated to that specific case; if only 1 or 2 descriptors were documented, a score of 1 or 2 was allocated.

Turnitin originality report:



PLAGIARISM DECLARATION TO BE SIGNED BY ALL HIGHER DEGREE STUDENTS

SENATE PLAGIARISM POLICY: APPENDIX ONE

I Roche Kleynhans (Student number: 2632911) am a student registered for the degree of Masters of Medicine in Emergency Medicine in the academic year 2025.

I hereby declare the following:

- I am aware that plagiarism (the use of someone else's work without their permission and/or without acknowledging the original source) is wrong.
- I confirm that the work submitted for assessment for the above degree is my own unaided work except where I have explicitly indicated otherwise.
- I have followed the required conventions in referencing the thoughts and ideas of others.
- I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this is not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.
- I have included as an appendix a report from "Turnitin" (or other approved plagiarism detection) software indicating the level of plagiarism in my research document.

Signature: _____ Date: 11/11/2025

M230251 MED23-02-006

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

R14/49 Dr Roche Kleynhans

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

CLEARANCE CERTIFICATE NO. M230251 MED23-02-006

NAME: (Principal Investigator)	Dr Roche Kleynhans
DEPARTMENT:	Emergency Medicine Thelle Mogoerane Regional Hospital Helen Joseph Hospital Tambo Memorial Hospital
PROJECT TITLE:	Wound documentation by doctors in Academic Emergency Departments in Johannesburg, South Africa
DATE CONSIDERED:	24/02/2023
DECISION:	Approved unconditionally
CONDITIONS:	
SUPERVISOR:	Dr Jana Du Plessis and Dr Pravani Moodley
APPROVED BY:	Dr C Penny, Chairperson, HREC (Medical)
DATE OF APPROVAL:	30/05/2023 **EXPIRY DATE:** 30/05/2028

This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

DECLARATION OF INVESTIGATORS

I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated, from the research protocol as approved, I/we undertake to resubmit the application to the Committee. **I agree to submit a yearly progress report** in February each year until study is closed. Failure to submit annual report will result in ethics clearance certificate suspension. The date for annual re-certification will be one year after the date of convened meeting where the study was initially reviewed. In this case, the study was initially reviewed in February and will therefore be due in the month of February each year. Unreported changes to the application may invalidate the clearance given by the HREC (Medical). Login to upload signed copy of this ethics clearance certificate prior to commencing with the study https://www.witsethics.co.za/login.aspx

Principal Investigator Signature _____ Date _____

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES