J Surg Med. 2026;10(3):84-86.
https://doi.org/10.28982/josam.8310

JOSAM

Journal of Surgery and Medicine

e-ISSN: 2602-2079

Research article
https://jsurgmed.com/

Enhancing operative documentation in emergency hernia repairs: Minimizing medico-legal risk and promoting best practices

Mohamed F Mohamud [1], Chloe M Lawrence [1], Andrew J Beamish [2], Brian M Stephenson [3]

[1] Department of General Surgery, University Hospitals Birmingham, Birmingham, UK
[2] Department of General Surgery, Morriston Hospital, Swansea, Wales, UK
[3] Department of General Surgery, Royal Gwent Hospital, Newport, Wales, UK

ORCID of the author(s)

MFM: https://orcid.org/0000-0002-2112-5940
CML: https://orcid.org/0009-0003-3232-2864
AJB: https://orcid.org/0000-0001-9170-2195
BMS: https://orcid.org/0000-0002-8488-2818

Corresponding Author
Mohamed F. Mohamud
Department of General Surgery, University Hospitals Birmingham, Birmingham, UK
E-mail: mohamedm@doctors.org.uk

Ethics Committee Approval
Approval of the local ethics committee was sought and gained prior to commencing the study. Patient data were anonymized, and the study was conducted in accordance with institutional guidelines for retrospective audits. All procedures in this study involving human participants were performed in accordance with the 1964 Helsinki Declaration and its later amendments.

Conflict of Interest
No conflict of interest was declared by the authors.

Financial Disclosure
The authors declared that this study has received no financial support.

Previous Presentation
36th Annual International Congress of the European Hernia Society, Edinburgh, Scotland, May 2014
ASiT 2023 conference in Liverpool

Published
2026 March 10

Abstract

Background/Aim: Chronic groin pain (CGP) after inguinal hernia repair is a multi-factorial problem of variable incidence. To date, the literature has concentrated on the management of CGP after elective repair; litigation for pain accounts for up to 40% of claims for negligence.
Methods: We analyzed computerized, surgeon-typed operative reports of all emergency inguinal hernia repairs conducted at a single district general hospital over the course of two years. We specifically sought out descriptions of the handling of the spermatic cord and the nerves of the canal.
Results: Forty-three repairs were performed by surgeons in training using an open approach. The majority of the cases were primary hernias (37/43; 86%), and the repair was typically augmented with prosthetic mesh (88%). Cord handling was described in 35 patients (81%), but identification of the ilioinguinal nerve was documented in only three patients. No report mentioned 'seeking but not finding' the nerve(s).
Conclusion: Surgeons in training appear to disregard documenting the status of nerves following emergency repair. Lawyers can be forgiven for arguing negligence if operative records omit observations on structures prone to 'inadvertent' damage. Recognition of this issue by clinicians involved in the emergency repair of inguinal hernias is essential to maintain high standards of patient care and minimize medicolegal risk.

Keywords: inguinal hernia, operative report, chronic groin pain, litigation

How to cite: Mohamud MF, Lawrence CM, Beamish AJ, Stephenson BM. Enhancing operative documentation in emergency hernia repairs: Minimizing medico-legal risk and promoting best practices. J Surg Med. 2026;10(3):84-86.

Introduction

Chronic groin pain (CGP) following inguinal hernia repair is a well-recognized, multi-factorial complication of variable incidence. Reports in the literature have concentrated on its occurrence after elective surgery with prosthetic mesh. However, emergency inguinal hernia repair presents its own challenges, due to time constraints and the complexity of the procedure. CGP can be a debilitating complication, and in the UK, testicular complications and chronic pain account for approximately 35% of litigation claims following open inguinal hernia repair. Over 4 million pounds in settlements were paid out in the United Kingdom between 1995 and 2016 [1]. A review of litigation trends reveals that poor communication and operative documentation leaves clinicians vulnerable to medico-legal proceedings, despite what may be a technically sound procedure [2, 3]. While it is clear whether preservation of the ilioinguinal nerve is beneficial, it is important to document the status of this nerve following the procedure. Doing so is best surgical practice and can help to defend against claims of negligence [4].

This study assessed the quality of surgeon-typed operative records of patients undergoing emergency inguinal hernia repair at a district general hospital (DGH). Our goal was to determine whether good practices were being followed when it comes to documenting the spermatic cord and nerve handling; we also sought to identify areas for improvement.

Materials and methods

Study Design

This retrospective review considered typed operative reports from emergency inguinal hernia repairs performed at a single district general hospital from 2012–2013.

Data Collection

Reports were retrieved from ORMIS (Operating Room Management Information System) using OPCS (Office of Population Censuses and Surveys) codes. Only cases of emergency inguinal hernia repair were included; femoral hernia repairs were excluded.

Data Analysis

Reports were assessed for the following key variables: a description of the operative findings, the method of repair, prosthetic mesh use, documentation of spermatic cord handling, and identification of the ilio-inguinal nerve.

Approval of the local ethics committee was sought and gained prior to commencing the study. Patient data were anonymized, and the study was conducted in accordance with institutional guidelines for retrospective audits.

Results

The ORMIS database search revealed 53 cases of emergency inguinal hernias from 2012–2013 (19 in 2012 and 34 in 2013). The typed reports revealed that 10 repairs were femoral hernias; those cases were accordingly excluded. All of the resulting 43 emergency inguinal hernia repairs were conducted in men; the mean age of the cohort was 64 years (range: 24–93 years).

All of the operations were performed by surgeons trained in using an open approach. Four of the cases involved senior surgeons, two of which were present as ‘telephone advice’. The majority of the cases were primary hernias (37/43; 86%); there were well-described operative findings in all of the reports.

The risk of CGP was consistently documented on consent forms. However, the risk of orchidectomy was seldom mentioned, and testicular injury was never mentioned (Table 1).

There was a glaring lack of documentation in the operative records whether the nerves were searched for or identified (Table 2). The postoperative instructions were generally well documented.

Table 1. The percentage of consent forms that noted each significant risk.

Risk included in consent form	Percentage of consent forms (%)
CGP	100
Orchidectomy	14
Testicular injury	0

Table 2. The percentage of consent forms that documented significant aspects in the operative report.

Aspects included in the operative report	Percentage of operative reports (%)
‘Good’ description of repair	100
Usage of a prosthetic mesh	88
Documentation of cord handling	81
Identification of the ilioinguinal nerve	7
‘Search’ for nerve	0

There are some limitations to this data set. The first is that it was temporally limited; it was collected from 2012–2013. It is possible that practices have changed since then; The use of structured, often electronic, operative note templates has become increasingly widespread in contemporary surgical practice, in keeping with current guidance favoring clear, preferably typed operative documentation.

Discussion

Complications following groin hernia repair are not uncommon in emergency surgery, [5] and good consenting practice is both important and well appreciated by all parties involved. Our hospital performed emergency inguinal hernia repair every other week, and most repairs used prosthetic mesh. To date, our facility has not received any complaints about this procedure; however, it is possible that our consenting and operative records would not stand up to legal scrutiny, should our organization face litigation in the future.

This audit of case notes demonstrates that although surgeons in training clearly comprehend the value of consent, a discussion of certain key risks is being neglected. This is reflected by the consistent documentation of chronic groin pain (CGP) as a risk, in contrast to earlier UK studies reporting substantially lower rates of consent documentation, ranging from 7% to 35% [2, 3, 6]. On the other hand, most consent forms that we examined did not include the significant risks of testicular injury or removal.

An analysis of 55,000 inguinal hernia repairs sheds some light on how often complications lead to litigation [7]. In this 5-year Finnish registry, the overall complication rate was 4.5 per 1,000 hernia repairs; CGP was the most frequent complaint among the 94 patients (<0.2%) who received compensation after an elective repair. Whilst this fraction of patients may indeed be small, these individuals nevertheless constitute an important clinical and financial problem.

The ‘anatomy of a claim’ may be complex and relies on evidence that there has been a breach in the duty of care. While brief operative records do not in and of themselves denote poor treatment, they are much harder to defend. Indeed, such a scenario led us to scrutinize the records of our own patient; we found

documentation of the status of the ilioinguinal nerve in only three patients (7%). This practice is not good. Although the emergency situation may make nerve identification more difficult, as compared to elective herniorrhaphy, for instance, we could not find evidence that the nerve(s) had even been sought. This situation certainly makes a lack of causation—that is, a breach of duty that caused or contributed to the injury (‘post hoc ergo propter hoc’)—difficult to support.

A review of the literature demonstrates that this problem is not unique to our DGH [8]. We found that identification and status of the inguinal nerves were only documented in 17% of operative notes.

Surgeons in training today undergo much more rigorous appraisal than in the past; current training regimens include procedure-based assessments for various operations [9]. We believe that appropriate handling of the spermatic cord and identification of the ilioinguinal nerve should be essential steps in open inguinal hernia repairs, both for elective and non-elective cases. In doing so, such steps will then become routine and improved documentation will become more frequent, as in the case of obtaining informed consent.

Finally, although the debate as to how to best manage the sensitive nerves of the inguinal canal might still be with the ‘jury’ [10-13], it seems prudent to document that they were ‘sought but not found’ rather than to not refer to them at all.

Conclusion

In conclusion, we recommend that operative notes include explicit documentation of spermatic cord handling, whether the inguinal nerves were identified, and the status of these nerves at the conclusion of the procedure. The use of a standardized template for operative notes may be beneficial in ensuring that these critical details are consistently recorded.

Accurate operative documentation is essential not only for medico-legal protection but also for patient care. Clear records improve communication within the clinical team, facilitate early recognition and management of complications, and provide reliable data for quality improvement initiatives.

In closing, it is therefore imperative that surgeons in training are taught to prioritize writing comprehensive operative notes, both to enhance patient safety and to minimize medico-legal risks.

References

1. Varley R, Lo C, Alkhaffaf B. Litigation claims following laparoscopic and open inguinal hernia repairs. Hernia. 2020;24(5):1113-20.
2. Hall DE, Hanusa BH, Fine MJ, Arnold RM. Do surgeons and patients discuss what they document on consent forms? J Surg Res. 2015;197(1):67-77.
3. Hoosein MM, Towse H, Conn G, Stoker DL. Consenting practice for open inguinal hernia repairs – are we failing to warn patients of serious complications? Ann R Coll Surg Engl. 2008;90(8):643-6.
4. Machin J, Cheetham M, Abercrombie J, Briggs T. Best practice for open and laparoscopic inguinal hernia repair documentation. London: GIRFT (Get It Right First Time), Royal College of Surgeons of England; 2022.
5. NIHR Global Health Research Unit on Global Surgery. Access to and quality of elective care: A prospective cohort study using hernia surgery as a tracer condition in 83 countries. Lancet Glob Health. 2024;12(7):e1094-103.
6. Shiwani MH, Gosling J. Variations in the quality of consent for open mesh repair of inguinal hernia. Hernia. 2009;13(1):73-6.
7. Paajanen H, Scheinin T, Vironen J. Commentary: Nationwide analysis of complications related to inguinal hernia surgery in Finland: A 5 year register study of 55,000 operations. Am J Surg. 2010;199(6):746-51.
8. Farquharson BJ, Sivarajah V, Mahdi S, Bergman H, Jeyarajah S. Where is the nerve? Review of operation note documentation practice for inguinal hernia repair. Ann R Coll Surg Engl. 2021;103(9):651-5.
9. Marriott J, Purdie H, Crossley J, Beard JD. Evaluation of procedure-based assessment for assessing trainees' skills in the operating theatre. Br J Surg. 2011;98(3):450-7.
10. Charalambous MP, Charalambous CP. Incidence of chronic groin pain following open mesh inguinal hernia repair, and effect of elective division of the ilioinguinal nerve: Meta-analysis of randomized controlled trials. Hernia. 2018;22(3):401-9.
11. Hu Q, Du Y, Wang D, Yang Y, Lei Y, Wei J. Efficacy and safety of ilioinguinal neurectomy in open tension-free inguinal hernia repair: A meta-analysis of randomized controlled trials. Am J Surg. 2023;226(4):531-41.
12. Bischoff JM, Aasvang EK, Kehlet H, Werner MU. Does nerve identification during open inguinal herniorrhaphy reduce the risk of nerve damage and persistent pain? Hernia. 2010;16(5):573-7.
13. Johner A, Faulds J, Wiseman SM. Planned ilioinguinal nerve excision for prevention of chronic pain after inguinal hernia repair: A meta-analysis. Surgery. 2011;150(3):534-41.