From Discipline to Quality of Care: How Neurologists Can Learn from Decisions of Disciplinary Tribunals

Inge A. Gimbel[a], Menno Mostert[a], Barend J. van Leeuwen[b], and Roeland B. van Leeuwen[c]

[a] Department of Public Health, Health Technology Assessment and Medical Humanities, University Medical Centre Utrecht, Utrecht University, Utrecht, the Netherlands

[b] Durham Law School, Durham University, Durham, United Kingdom

[c] Department of Neurology, Gelre Ziekenhuizen, Apeldoorn, The Netherlands

Short title: From Discipline to Quality of Care

Corresponding Author:

Full name: Roeland B. van Leeuwen

Department: Department of Neurology

Institute/University/Hospital: Gelre Ziekenhuizen, Apeldoorn

Street Name & Number: Albert Schweitzerlaan 31

City, State, Postal code, Country: 7334 DZ, Apeldoorn, The Netherlands

Tel: 0031-55-5818400

E-mail: r.b.van.leeuwen@gelre.nl

Number of Tables: 3 (2 tables and 1 supplement)

Number of Figures:

Word count: 3206

Keywords: Disciplinary tribunals, quality of care, neurology, evaluation, lessons

Abstract

Background: One of the primary aims of medical disciplinary law is to improve the quality of care. However, the decisions of disciplinary tribunals are not sufficiently analysed to identify the learning elements.

Aim: To investigate the frequency and nature of complaints for the specialty neurology which were upheld by the disciplinary tribunals. To learn from disciplinary law through an analysis of which factors contributed to complaints being upheld.

Design: Retrospective, observational study

Methods: All upheld complaints in the field of neurology were collected for the period of 01-01-2010 to 01-01-2020. A qualitative analysis of the decisions was conducted using the usual characteristics set out by disciplinary tribunals in their annual reports. The relevant factors which potentially played a role in the complaint being upheld were identified for more detailed analysis.

Results: In the ten-year period, a complaint was submitted to the disciplinary tribunals against 299 neurologists. 44 complaints were upheld (15%). The most common sanction was a warning (70%). A large majority of cases were directly related to patient care, such as decisions about the patient's diagnosis and the treatment. Recordkeeping (50%), interpretation and discussion of imaging (30%) and the involvement of several consultants of one or more specialties (34%) frequently played a role in the successful complaints.

Conclusion: Medical disciplinary cases in the field of neurology are usually about diagnosis- and treatment-related aspects. Recordkeeping, interpretation of neuro-imaging and the involvement of several consultants frequently play a role in a complaint being upheld. It is important that specialties evaluate disciplinary decisions on a structural and continuous basis.

Introduction

Medical disciplinary law is about the quality of care. The impression of many doctors is that medical disciplinary law is focussed on punishment. However, in the Netherlands, its primary aim is to protect the quality of medical practice, and to protect patients from incompetent and reckless treatment [1]. Unfortunately, other aspects of disciplinary law receive more regular attention among patients, doctors and the general population in the Netherlands. The length of the procedure, the emotions which are evoked by disciplinary cases, and the way in which disciplinary tribunals work have been put under the spotlight [2, 3].

To ensure that disciplinary law has a positive impact on the quality of care, it is important that a collective effort is made to learn from decisions of disciplinary tribunals. Therefore, doctors and their

professional associations should ensure that they are informed about decisions in their area of practice. Furthermore, they should make an effort to identify the lessons that can be learnt from disciplinary decisions. They should assess whether the decisions require changes to their way of working, and whether professional standards or guidelines should be revised or supplemented. In the Netherlands, some of the important disciplinary decisions are published in a general medical journal published in Dutch. However, overall, it is difficult for doctors to follow developments in a certain area of medical practice. Moreover, the busy daily practice of doctors makes it difficult for them to find the time to identify and analyse the decisions of disciplinary tribunals.

Some of the professional associations in the Netherlands have analysed decisions of disciplinary tribunals for their own specialty over a certain period. This has usually been done on a one-off basis. Most of the results have been published in Dutch journals only. However, several professional associations, like the association of neurology, have not conducted this kind of analysis. Moreover, they have not established a mechanism to monitor disciplinary decisions on a continuous basis. In our study, we investigated which factors contributed to disciplinary complaints being upheld for the specialty of neurology. Furthermore, our aim was to analyse which lessons can be learnt from the decisions for the clinical practice of neurologists. We analysed the frequency of successful complaints, the nature of these complaints and the type of sanction that was imposed. In addition, we investigated which factors contributed to the decision of a disciplinary tribunal to uphold the complaint.

Methods

In the Netherlands, most complaints submitted to disciplinary tribunals are brought by patients or their family members. Moreover, complaints can be brought by the Health and Youth Care Inspectorate, the public agency responsible for the supervision of doctors in the Netherlands. Similarly, a complaint can be submitted by another health professional. Cases are heard by ad-hoc panels with two lawyers (one of whom will be the chair), three doctors and a legal secretary. In the Netherlands, there are four Regional Disciplinary Tribunals. The decisions of these tribunals can be appealed to the Central Disciplinary Tribunal.

In our study, we searched for decisions of the Regional Disciplinary Tribunals ("RDTs") and the Central Disciplinary Tribunal ("CDT") which involved doctors working in the field of neurology (consultants and residents) for the period from 1st January 2010 to 1st January 2020. For these decisions, we identified all cases in which (a part of) the complaint was upheld. For cases which had been decided both by the RDT and the CDT, only the final decision of the CDT was included. To identify the decisions, we used the publicly available website of the Dutch Government, where most of the decisions of disciplinary tribunals (both the RDTs and the CDT) are published [4]. We used "neurologist", "neurology" and

connected terms as our search terms to identify all the relevant decisions which involved doctors working in the field of neurology.

After this search, three authors (IG, MM and RvL) conducted a qualitative analysis of all included decisions. The nature of the complaint was identified in accordance with the categories used in the annual report of the disciplinary tribunals in the Netherlands [5]. We then added a number of relevant factors to these categories (Table 2). The qualitative analysis adopted a holistic approach to the decision. We took into account how the error made by the doctor had come about, and which considerations had played a role in the decision of the disciplinary tribunal to uphold the complaint. We collected data about the average number of medical doctors in the period of study from the register of the Royal Dutch Medical Association [6].

Results

In the period of 1st January 2010 to 1st January 2020, a total of 10,917 disciplinary cases was brought against doctors in the Netherlands. The average number of doctors working in the Netherlands on an annual basis was 43,131 [6]. This figure is the average number of doctors on a yearly basis in the period of 2010 to 2019. A total of 299 cases were brought against neurologists. The average number of neurologists working on an annual basis was 988 [6]. In 44 of the 299 cases, the complaint was (partially) upheld (14.7%) (Table 1). The tribunal imposed a warning in 31 cases. A reprimand was imposed in 5 cases. The doctor's registration was erased in 5 cases. A partial restriction on the doctor's practice, which means that the doctor is no longer allowed to provide a certain type of treatment or to treat a certain category of patients, was imposed in one case. The same applies to a conditional suspension. In two cases, no sanction was imposed at all. In none of the cases did the tribunal impose a fine.

Out of the 44 upheld complaints, 10 cases were appealed before the CTD. Overall, most cases involved the out-patient clinic (24), followed by the in-patient clinic (16) and Emergency Room (ER) (4) (Table 1). The most common diagnosis in successful complaints was a stroke.

In comparison with other specialties, neurologists receive slightly more complaints [5]. The number of upheld complaints is similar to the average percentage of successful complaints. Nevertheless, a total of about 300 neurologists has had to appear before a disciplinary tribunal in a period of ten years. In a large majority of upheld complaints, the sanction imposed was a warning. This is the most lenient sanction that can be imposed by disciplinary tribunals [7]. A warning is imposed to emphasise that a doctor has acted incorrectly, while a reprimand is a more severe sanction which can be imposed in cases where the doctor's conduct was blameworthy.

Our analysis shows that neurologists, who spend about 18% of their time on out-patient care, are most likely to receive complaints from patients who were seen in the out-patient clinic. Complaints are more likely in cases with a serious diagnosis, such as a stroke or oncological treatment. Furthermore, the diagnosis of brain abscess remains a potential pitfall. In the majority of upheld complaints, the patient complained about having received no or insufficient care (30 cases) or about an incorrect treatment or diagnosis (32 cases). Recordkeeping was insufficient in 22 cases. In 15 cases, the fact that several specialties were involved in the treatment of the patient played a role. The use of neuro-Imaging procedures (radiology) came up in 13 cases, while 12 cases showed that the doctor had adopted a tunnel vision in reaching their diagnosis. The manner in which the patient was treated by the doctor played a role in 11 cases. The involvement of a resident was an issue in 9 cases. Finally, in 4 cases, the patient complained about the division of tasks and responsibility among different specialties (Table 2).

Discussion

To our knowledge, this study is the first structural and systematic evaluation of disciplinary cases brought against neurologists. Therefore, it is not possible to make a comparison with other countries. The number of studies from other specialties is low, and most of these studies were conducted in the Netherlands [8,9,10,11,12, 13]. In all studies, the authors emphasised that it is important to learn from decisions in disciplinary cases. The learning elements have already been identified for radiologists, general practitioners and neurosurgeons. For example, the study on radiologists showed that breast imaging was most likely to lead to incorrect diagnoses [11]. The general practitioner's evaluation established that the "gut feeling" is a diagnostic tool which should play a role in the professional standard on how to make a diagnosis [9].

In our study, we searched for the lessons for the daily practice of neurologists in those decisions of disciplinary tribunals in which the complaint had been upheld. Our evaluation shows that learning elements can be identified in the decisions. In this discussion, we will focus in more detail on three of the aspects which came up in the upheld complaints: recordkeeping, neuro-imaging and the division of tasks and responsibility between several doctors and specialties. Moreover, we will discuss *how* the lessons from the decisions of disciplinary tribunals can best be identified and implemented.

(1) Recordkeeping

One of the most significant findings of our analysis is the impact of recordkeeping. In half of the cases, insufficient recordkeeping played a role. The cases involved several aspects of the medical file: insufficient reporting of the history-taking; insufficient or incorrect recordkeeping of the patient's clinical course; insufficient recordkeeping of discussions with the family; no recordkeeping of

discussions with colleagues or about treatment restrictions. For example, in one case, the interpretation of an abnormal MRI was discussed in the morning's neuro-radiology meeting, but the agreed treatment plan was not written down in the patient's file (See Supplement, Case No 13). In another case, the decisions which had been made in a neuro-oncology meeting could not be retrieved in the file (Case No 1). Similarly, in a third case, discussions with a resident who had called about the clinical condition of a patient were not written down (Case No 22). The disciplinary tribunals emphasise that careful recordkeeping is not only a part of good medical practice – it also serves as a tool for doctors to establish that they have acted in accordance with professional standards.

These examples show that adequate recordkeeping is important for good patient care and sometimes (also) for being accountable. Therefore, it is important that there is consensus about what adequate recordkeeping means and requires. Colleagues should be expected to alert other colleagues if they identify examples of inadequate recordkeeping. Furthermore, the importance of adequate recordkeeping should be emphasised in the training of doctors and neurologists.

(2) Neuro-imaging (radiology) procedures

The policies on neuro-imaging and the interpretation of neuro-imaging also play an important role in several decisions. The following factors frequently lead to an incorrect or late diagnosis: errors in the interpretation of neuro-imaging; a failure to read the radiologist's report; and insufficient discussions between colleagues in cases of doubt. A number of examples show the particular pitfalls which have been identified. In one case, the radiologist's report referred to a stroke, with the possibility of a tumour as differential diagnosis. The neurologist was convinced that it was a stroke, but it later turned out to be a tumour. The disciplinary tribunal held that the neurologist should have written down in the file that they had taken the report into account, and should have provided reasons for their decision not to do any follow-up investigations (Case No 40).

In another case, an MRI of the cervical spine was conducted in a patient with pain in the neck. Both the neurologist and the radiologist missed a retropharyngeal abscess. In his request for an MRI, the neurologist had failed to indicate that the patient had a CRP of 225. The disciplinary tribunal found that this was important information. If the radiologist had received this information, they would have adopted a broader perspective on the imaging. Therefore, it was important to have an additional discussion with the radiologist about this information (Case No 23). In another case, the neurologist had requested an urgent MRI, but remained passive afterwards and simply waited for a response from the radiologist. The disciplinary tribunal concluded that the neurologist should not have been so passive (Case No 11). In urgent situations, the doctor who has requested the MRI is responsible for obtaining the report and has to act pro-actively.

The examples above show that a detailed discussion of the report of the radiologist is crucial. First and foremost, this discussion should take place among neurologists. Moreover, radiologists should be involved in these discussions. Radiology meetings provide an excellent opportunity for a joint discussion of complicated cases by both specialties.

(3) The involvement of several specialties and the division of tasks and responsibility

A situation in which several consultants of one or more specialties are involved is a risk factor for errors. This could lead to problems with communication and the assignment of tasks. In these circumstances, there might be uncertainty about who is primarily responsible for obtaining and analysing the results of investigations or tests. Disciplinary tribunals consistently emphasise the role of the primary or supervisory physician. The same applies to the co-operation with residents, which played a role in 20% of the cases. In these cases, the responsibility of the primary physician in supervising the division of tasks is important.

Only one of all the upheld complaints was brought against a resident (Case No 27). In the Netherlands, hundreds of residents – who might or might not be training to become a neurologist – work at the ER, out-patient clinic and in-patient clinic. However, residents are not easily held responsible by disciplinary tribunals. Disciplinary tribunals have consistently held that, in the relationship between resident and supervisor, an assessment should always be made of the experience of the resident and the nature and seriousness of the patient's complaints. The supervisor should provide adequate compensation for a lack of experience on the part of the resident.

It may seem obvious, but the cases show that the involvement of several doctors in the treatment of a patients is more likely to lead to errors. In the last decades, it has become more common to work in teams in hospitals. As a result, it is important to adopt clear policies and make unequivocal decisions about who has the primary responsibility for a patient. The same applies to the relationship between supervisor and resident.

Learning from decisions of disciplinary tribunals

Our analysis shows that the large majority of upheld complaints focus on diagnosis- and treatment-related aspects. These cases were about aspects that were directly linked to patient care, and which were significant in the treatment and the patient-doctor relationship. As such, our study confirms the importance of structural evaluations of decisions of disciplinary tribunals. These evaluations will help to identify the learning elements in the decisions and to decide whether professional standards have to be amended.

A number of practical obstacles can be identified. First, disciplinary tribunals have a reputational problem in the Netherlands, and the support for their work has decreased over the last decade. Moreover, the general knowledge of how disciplinary tribunals work is limited [3]. Second, in the education and training of doctors and consultants, disciplinary law could receive more attention. It is a complicated topic in a "dark corner" of medical practice. Disciplinary law is not regularly covered in medical journals.

Finally, and most importantly, there is a lack of continuous evaluation of decisions of disciplinary tribunals. An important role should be played by medical professional associations in facilitating such processes. To our knowledge, the Dutch Society for Radiology is the only association which has set up a system in which disciplinary decisions are monitored and evaluated on a continuous basis. They have created a website where their members can find more information about recent decisions. Furthermore, the Dutch Society of Neurology has decided that the society is responsible for the monitoring of disciplinary decisions. At the moment, they are setting up a structural mechanism to evaluate disciplinary decisions. Such a structural and continuous evaluation process will help to identify the relevant lessons for neurologists.

When it comes to the implementation of these lessons, different tools can be identified. First, independent members of the association – with no links to the disciplinary tribunals – should be asked to analyse the decisions of disciplinary tribunals with the aim to identify the learning elements. These lessons should then be presented to the members through publications in Dutch medical journals. Moreover, the learning elements should be discussed and integrated in CPD (continuing professional development) sessions to improve peer-to-peer discussion about disciplinary decisions in a more structured and regular way. The outcome of the evaluation should be shared and discussed with the supervisors of trainee neurologists in the Netherlands. As such, it would be possible to implement the lessons of disciplinary decisions directly into the training of neurologists. Furthermore, a more direct link should be made between disciplinary decisions and the adoption and updating of professional standards. The independent members of the association should also be able to recommend that existing professional standards should be revised or updated. Finally, adopting a broader perspective, disciplinary tribunals also have a role to play in improving the link between disciplinary law and quality of care. In their decisions, the tribunals could identify the general lessons in a more explicit and more detailed way. This would make it easier for doctors to identify the general learning elements of decisions.

Limitations of the study

Our study has a number of limitations. First, we have only analysed complaints that were upheld. As a next step, the complaints which were dismissed could also be analysed. This would make it possible to investigate whether any common characteristics can be identified in successful and unsuccessful complaints. Furthermore, this would show whether any learning elements can be identified in dismissed complaints.

Second, our study has been conducted in the Netherlands. The decisions of the disciplinary tribunals were focussed on the Dutch healthcare system and were made in the context of Dutch law. Nevertheless, the findings of our study are useful beyond the Netherlands, because they relate directly to the clinical care provided by neurologists. The general message is that medical errors are made, and that we can and should learn from these errors.

Conclusion

Our analysis of decisions in disciplinary cases involving neurologists leads to a number of conclusions. Upheld complaints are regularly based on diagnosis- and treatment-related aspects. The majority of the sanctions imposed was lenient. The main factors which contributed to a successful complaint were inadequate recordkeeping, inadequacies in the assessment of neuro-imaging, and a failure to divide tasks and responsibility between different specialties in an effective and reasonable way. These risk factors should receive more attention from professional associations, and in the training of doctors and neurologists. For all specialties, it is important that decisions of disciplinary tribunals are monitored and evaluated on a continuous basis. If the lessons of decisions are not identified, there is a risk that decisions of disciplinary tribunals would primarily lead to defensive medicine [14].

Statement of Ethics

This study did not require ethics approval, because no patient data were used. The article is based on analysis of publicly available decisions of disciplinary tribunals.

Conflict of Interest Statement

The authors have no conflict of interest to declare.

Funding Sources

No funding was obtained for this study.

Author Contributions

IAG, MM, BJvL and RBvL all contributed to the study design. IAG and MM were responsible for the data collection. IAG, MM and RBvL were responsible for the data analysis. All authors wrote and critically revised several versions of the manuscript. All authors approved the final version of the manuscript.

Data Availability Statement

No data were generated in this study. The study and the article are entirely based on publicly available sources.

References

1. Article 47 of the Individual Healthcare Professions Act ("Wet BIG"), https://wetten.overheid.nl/BWBR0006251

2. Verhoef LM, Weenink J-W, Winters S, et al. The disciplined healthcare professional: a qualitative interview study on the impact of the disciplinary process and imposed measures in the Netherlands. BMJ Open 2015;5: e009275. Doi:10.1136/bmjopen-2015-009275

3. Appelo M. Verslagen door het tuchtrecht. Boom Uitgevers Amsterdam. ISBN 978 90 244 0293 9

4. https://tuchtrecht.overheid.nl

5. Annual Reports of the Medical Disciplinary Tribunals in the Netherlands, https://www.tuchtcollege-gezondheidszorg.nl/over-de-tuchtcolleges/jaarcijfers-tuchtcolleges

6. https://www.knmg.nl/opleiding-herregistratie-carriere/rgs/registers/aantal-registraties-specialistenaois.htm

7. Article 48 of the Individual Healthcare Professions Act ("Wet BIG"), https://wetten.overheid.nl/BWBR0006251

8. Pinto-Sietsma SJ, Zwinderman AH, Oude Ophuis T. [Medical disciplinary boards punish more often and more severely; an observational study of 10 years of medical disciplinary law]. Ned Tijdschr Geneeskd. 2020 Aug 20;164:D4587

9. Stolper E, Legemaate J, Dinant GJ. How do disciplinary tribunals evaluate the "gut feelings" of doctors? An analysis of Dutch tribunal decisions, 2000-2008. J of Law and Medicine 2010; 68-75

10. Birkeland S, Depont Christensen R, Damsbo N, Kragstrup J. Characteristics of complaints resulting in disciplinary actions against Danish GP's. Scand J Prim Health Care. 2013 Sep; 31(3): 153–157

11. Kwee RM, Kwee TC. Medical disciplinary jurisprudence in alleged malpractice in radiology: 10-year Dutch experience. European Radiology 2020; 30: 3507-3515

12. Gaal S, Hartman Ch, Giesen P et al. Complaints Against family physicians submitted to disciplinary tribunals in the Netherlands: Lessons for patient safety, Ann Fam Med 2011; 9: 522-527

13. Dronkers WJ, Amelink QJMA, Buis DR et al. Disciplinary law and neurosurgery: a 10 year analysis of cases in the Netherlands. Neurosurgical Focus 2020; 49 (5): E9. DOI: 10.3171/2020.8.FOCUS20561

14. Cunningham W. Complaints: Their Toll, Why and How We Need the Medical Profession to Act. J Prim Health Care 2021; 13(3): 195-197