How often do doctors report serious clinical incidents? A comparison to other healthcare workers and the experience of clinical incident reporting in the NHS.

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Rationale, aims and objectives:

Clinical incident reports are the primary means by which UK hospitals are alerted to avoidable harm in healthcare. However, data demonstrating the patterns in real-world reporting by healthcare workers have never been published in the UK. Though this journal has previously published survey data describing the discrepancies between respondents' own behaviour compared to the incidence of perceived avoidable harm, we set out to collect data on actual reporting patterns between healthcare workers. Given the concerns raised by Robert Francis following the Mid-Staffordshire Inquiry, we specifically wished to examine the rate of reporting of doctors compared to other healthcare workers.

Methods:

We selected for incidents causing at least 'moderate' levels of harm, theorising that such levels of harm are most likely to be noticed by doctors. Data from 2011 to 2019 from the clinical governance departments of 2 NHS hospitals was requested and all available data subsequently charted and tabulated.

Results:

This is the first study examining NHS incident reporting patterns in the medical profession. We demonstrated a stark level of underreporting of clinical incidents causing harm ranging from 'moderate' to death by doctors. This was particularly dramatic at the non-consultant grade level. In 1 hospital, only 2 deaths were reported by non-consultant grade doctors in 6 years. Notably 1 hospital had not stored any incident reporting data until 2017.

Conclusion:

The reporting behaviour of doctors has not significantly changed despite the Francis Reports. This could be improved by creating incentives for doctors to engage with patient safety initiatives and disclosure of error, as well as the use of automated systems.

Introduction:

Clinical incident reports are an important means by which patient safety concerns are flagged up by NHS staff to be dealt with by the NHS' clinical governance processes. Doctors have been described as underreporting clinical incidents based on extrapolations from other countries' medical professions and survey data from UK doctors. [1,2] It was also a subject of discussion in Robert Francis' 2013 report into the Mid Staffordshire Hospital NHS Trust, followed by a more detailed discussion in Francis' 2015 Freedom to Speak Up report. [3,4] A valuable survey of UK doctors conducted by Archer and Colhoun in 2016 reported that significant clinical incidents were underreported, with explanations ranging from a lack of time to a lack of belief that an investigation into the incident would make any

difference.[5] However raw data from NHS clinical incident reports has not, to the authors' knowledge, ever been analysed to examine the reporting tendencies of the medical profession compared to other healthcare professions. The aim of this retrospective study was to examine the reporting behaviour of doctors compared to other NHS staff. We believe the experience of acquiring this data to be of unexpected importance and we therefore briefly describe this, along with our own experiences with incident reporting.

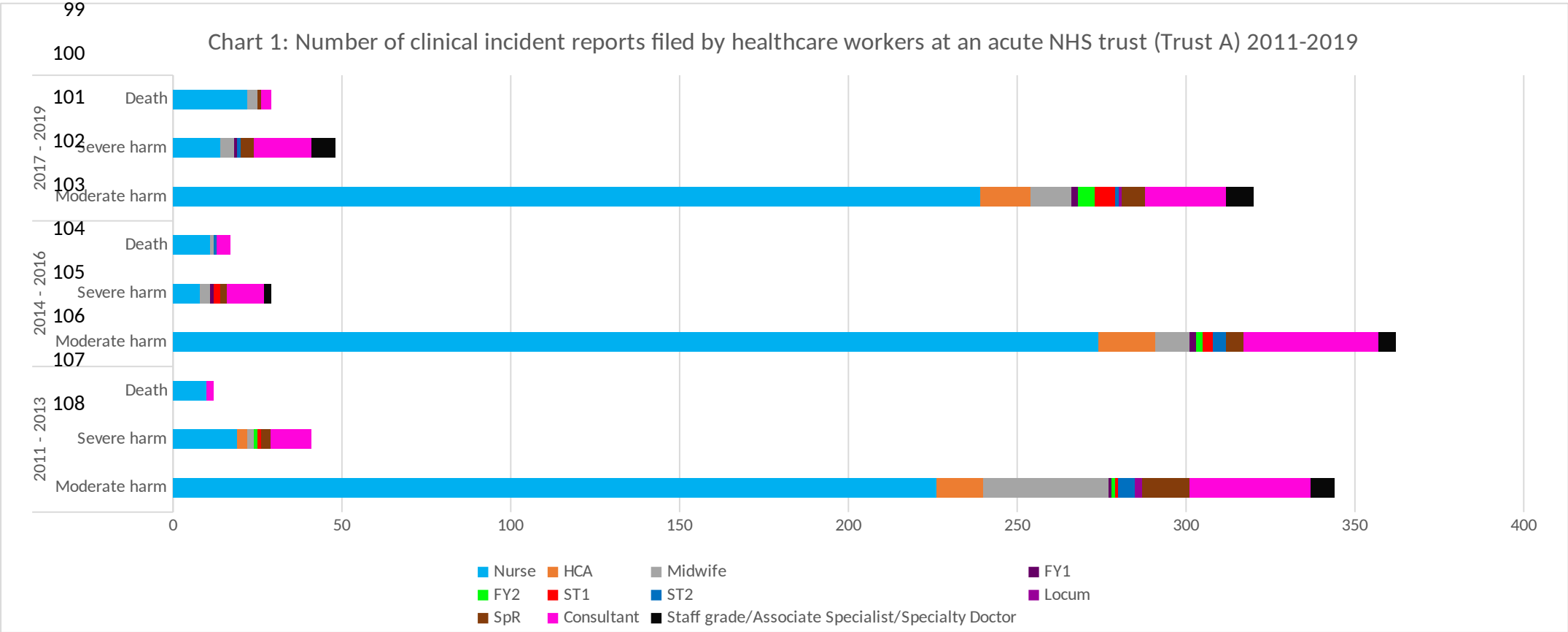
Methods:

Identical emails were sent to the clinical governance departments of 2 similarly sized acute NHS hospital trusts, labelled Trust A and Trust B. The trusts had approximately 950 and 830 beds respectively with similar total professional staff numbers according to data obtained from NHS Digital. The emails requested retrospective data from Datix reports (Datix is one of the most commonly used clinical incident reporting programs for NHS secondary care Trusts, and the primary means for clinical incident reporting in both Trust A and Trust B) from 2011 until 2019 inclusive. We asked for reports of at least 'Moderate' harm, defined by the NHS as 'short term harm, or harm where the patient required further treatment' (higher levels are 'Severe' or 'Catastrophic/Death') to try and limit the reports to those which are most likely to have been brought to a doctor's attention and would have prompted the doctor to file a Datix report. Non-doctor occupational groups with less than 5 Datix reports in the study period were excluded. Ethical approval was not required as the data was already collected as part of the hospital's clinical governance processes and remained anonymised. The assumption here is that low levels of harm, or incidents where there was no harm, are less likely to have been noticed by or reported to a doctor, and therefore more likely to have been reported by a nurse even if reporting behaviours were equal across the professions. We also asked for the data to be broken down by the type of staff member reporting the incident and, when the reporter was a doctor, their training grade or level of seniority. We expected that doctors would

have a similar, if not higher rate of reporting clinical incidents with at least moderate levels of harm than nurses given the normative expectations of doctors' responsibilities.

Results:

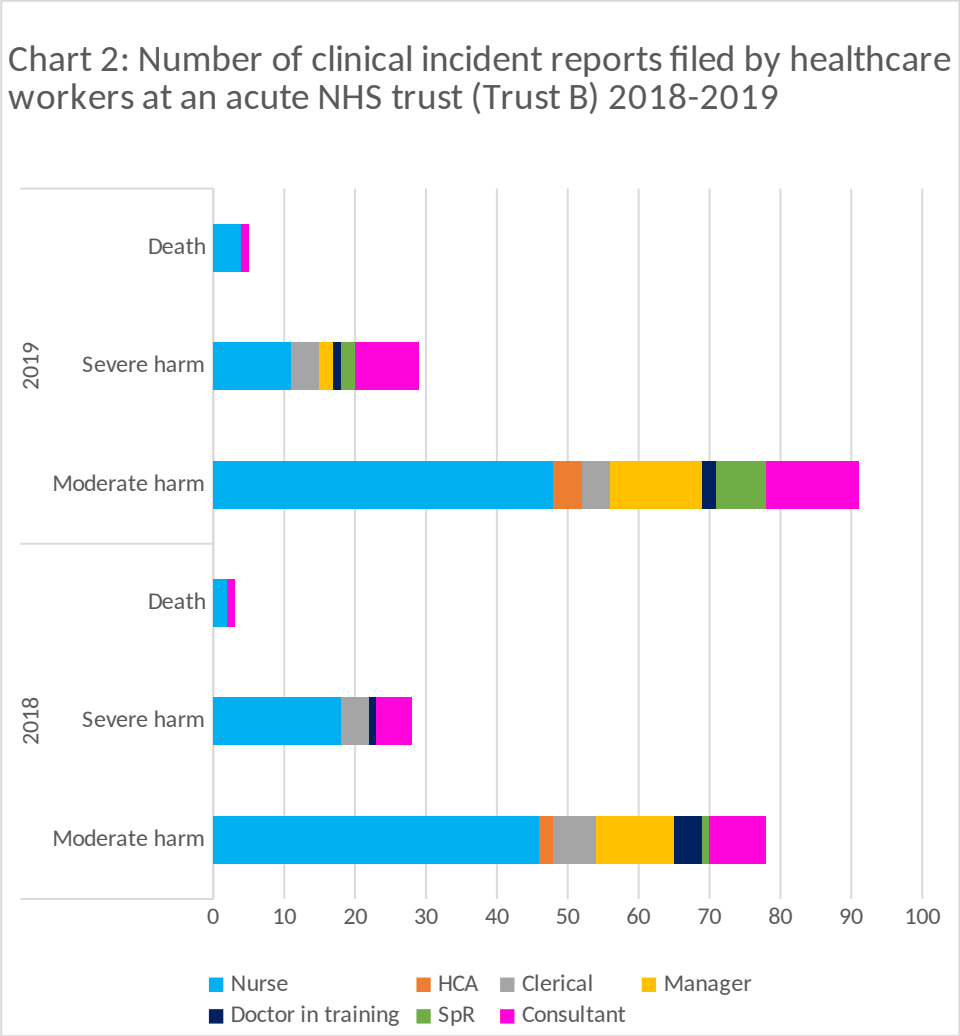
The data was recorded in different forms by each trust and it was therefore impossible to combine the data sets. For this reason the data from each trust is presented separately. The data from Trust A is presented in Table 1 and Chart 1.



	2011			2012			2013			2014			2015			2016			2017			2018			2019		
	Moderate harm	Severe harm	Death	Moderate harm	Severe harm	Death	Moderate harm	Severe harm	Death	Moderate harm	Severe harm	Death	Moderate harm	Severe harm	Death	Moderate harm	Severe harm	Death	Moderate harm	Severe harm	Death	Moderate harm	Severe harm	Death	Moderate harm	Severe harm	Death
Nurse	71	9	3	76	6	1	79	4	6	99	5	4	79	2	5	96	1	2	91	2	5	87	6	9	61	6	8
HCA	1	0	0	10	3	0	3	0	0	2	0	0	10	0	0	5	0	0	6	0	0	6	0	0	3	0	0
Midwife	17	1	0	0	0	0	20	1	0	6	3	0	3	0	1	1	0	0	2	1	0	6	1	2	4	2	1
FY1	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	1	0	0	1	1	0
FY2	0	0	0	0	0	0	1	1	0	1	0	0	1	0	0	0	0	0	1	0	0	1	0	0	3	0	0
ST1	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	2	2	0	4	0	0	0	0	0	2	0	0
ST2	1	0	0	3	0	0	1	0	0	0	0	1	4	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Locum	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
SpR	7	2	0	3	0	0	4	1	0	2	0	0	0	0	0	3	2	0	1	1	1	4	1	0	2	2	0
Consultant	12	5	1	12	2	0	12	5	1	15	3	1	8	6	2	17	2	1	8	7	1	6	5	2	10	5	0
Staff grade/Associate Specialist/Specialty Doctor	1	0	0	1	0	0	5	0	0	0	0	0	3	2	0	2	0	0	1	3	0	1	3	0	6	1	0

(Table 1 here)

Trust B did not store Datix data before 2015. Furthermore, data on the characteristics of the staff reporting the incident was not recorded until February 2017 and was still recorded differently to Trust A, with no data on the level of training of the junior doctor filing the report. This means that though comparisons between different healthcare professionals reporting practices could be made, it was not possible to break this down at the level of different types of junior doctor as certain categories had considerable overlap, e.g. 'registrar' and 'doctor in training'. The data from Trust B is presented in Chart 2 and Table 2.



(Table 2 here)

Discussion:

In all categories of severity and in both hospital trusts, nurses highlight significant clinical incidents more than all grades of doctor combined. In particular, non-consultant grade doctors reported few clinical incidents. In Trust A, only 2 deaths were reported by non-consultant grade doctors in the entire 6 year period. As a comparison, 4 were reported by midwives and 43 were reported by nurses. Similarly Trust B had 6 deaths reported by nurses, 2 reported by consultants and none reported by registrars or doctors in training in 2 years, though notably non-training, non-registrar doctors were not coded for in Trust B's data.

The authors expected that consultants would be the main reporting group for clinical incidents causing death. We were surprised to see that across both Trusts no more than 2 deaths per year were reported by the consultant body and were outnumbered by deaths reported by nurses in every year of the study period. Trust A and B employ approximately 320 and 250 consultant doctors respectively, this equates to considerably less than 1 death being reported per 100 consultants each year. There are more nurses compared to doctors of all grades in each trust (approximate ratio of 2.3:1 and 3:1 in Trusts A and B respectively), and the reporting patterns could partially reflect this staffing disparity, assuming an equal responsibility between nurses and doctors for reporting patient

safety concerns. However many nurses do not work in acute care environments, e.g. clinic nurses, and are therefore less likely to come across patient safety incidents.

This retrospective study looking at 2 acute NHS hospital trusts in the South of England has 1 key strength and a number of limitations. Its strength is that this is the first analysis of clinical incident reporting patterns in the English language. The limitations are that both hospital trusts are in the South of England within 100 miles of each other, and the results could therefore simply reflect local practices. In addition, in the authors' experience clinical incidents are sometimes attended to via different means, such as private meetings with consultants or emails. While not undermining the main study finding, this leaves open the possibility that significant clinical incidents were given attention outside of the formal clinical governance structures. Lastly the authors' own experiences of clinical incident reporting are that review panels can often upgrade or downgrade the severity of the incident based on the judgement of the clinical lead, usually a consultant. In our experience it is more common for the severity of harm to be downgraded, so it is likely that the number of investigations triggered by our data is actually lower than the figures would suggest. Following enquiries with the clinical governance departments in both Trusts we found that data on alterations of severity grading following review are not stored.

Specific attention to which healthcare workers report clinical incidents is infrequently discussed. We believe this to be of particular relevance in the UK following the publication of Francis' 2013 Report which described trainee doctors as 'the eyes and ears' of the hospital. [3] Notwithstanding this, there is

171 a codified duty for all doctors to speak up on behalf of patient safety enunciated in the General
172 Medical Council (GMC) document *Good Medical Practice*, while the *Duty of Candour* specifies the
173 role that senior doctors have in reporting clinical incidents. [6]

174 *"Senior clinicians have a responsibility to set an example and encourage openness and honesty in*
175 *reporting adverse incidents and near misses."* [7]

176 The authors' opinion is that the training and remuneration that doctors receive has a bearing on the
177 degree of responsibility they have to prevent avoidable harm. However, there is no evidence that
178 this is encouraged, the postgraduate training programs offer no incentive for doctors to speak up for
179 their patients and the GMC has taken little action to hold doctors who abdicate their duty to patient
180 safety to account. Published data has demonstrated that no doctor has ever been sanctioned for
181 failing to speak up when clear evidence of harm to patients existed. [8] Reasons for this disparity in
182 acting on concerns of patient safety were discussed in particular by the medical sociologist Justin
183 Waring's important 2005 study, a passage from which is worth quoting at length:

184 "The way in which doctors talked about incident reporting and nursing was often off-hand and
185 demeaning, but at a cultural level it may be the case that for doctors incident reporting is associated
186 with divergent forms of professionalism and quality improvement. The way doctors talked about
187 their own work in relation to nursing tended to emphasise the importance of their individual
188 expertise and discretion, while the work of nurses was regarded as more rule-based, process driven
189 and procedural. This may demonstrate an underlying assumption that medical practice is
190 characterised by a special kind of expertise, experience and reflective practice that is different from

nursing. In consequence, reporting is not regarded as an appropriate tool to engage with medical quality, but because nursing lacks this special quality, it is believed that reporting is an appropriate device for enhancing the quality of nursing care." [9]

Though junior doctors could be discussing clinical incidents with consultants rather than filing clinical incidents through the formal reporting system, this diverts responsibility of the concerned doctor onto the consultant to decide whether or not the issue should be formally reported. Moreover, the involvement of a consultant is not necessarily more likely to result in the concern being taken more seriously. Archer and Colhoun's 2016 survey respondents were predominantly consultants and their results showed that across 11 NHS trusts the vast majority of clinical incidents went unreported. The respondents were described as having an:

'overwhelming sentiment that completing incident reports does not lead to improvement. It was felt that feedback is rushed to complete and meet targets.'

The latter sentiment echoes our experiences with clinical incident reporting. Though feedback on clinical incidents has been mandated since Robert Francis' publications after the Mid-Staffordshire Inquiry, this feedback is usually brief, often perfunctory and sometimes misses the point of the concern raised. There is no means by which 'reporter satisfaction' on the feedback can be provided and unresolved concerns then need to be raised ad hoc. Even if the original clinical incident report triggers a root cause analysis (RCA) investigation, the reporter is not necessarily involved in the investigation and often does not receive a copy of the RCA report. The quality of these investigations has itself been a cause of concern, the Parliamentary and Health Service Ombudsman's (PHSO) 2015

report showed that in 73% of investigations in which the PHSO found problems, the NHS Trust in question had found none. [10] We agree with Archer and Colhoun‘s survey respondents that the lack of importance with which clinical incident reports are treated by the NHS has a discouraging effect on NHS staff.

This sense of a lack of seriousness was reiterated in our experiences with acquiring the data used in this study. Though identical emails were sent to both Datix departments, it took several months and several emails to receive the dataset from Trust B while it took just a few days to receive Trust A’s data. Notwithstanding this, the recording of Datix data is markedly different between the two hospital trusts despite use of the same reporting program. We were particularly surprised to find that no data on the staff reporting the incident was stored by Trust B until the Spring of 2017.

The lack of engagement from the medical profession on issues of clinical governance has been well documented in several historic public inquiries into the NHS, as well as the more recent James report into the jailed breast surgeon Iain Paterson and Dr. Kirkup’s Report on the death of Elizabeth Dixon. [11,12,13,14] Doctors are not incentivised into engaging with clinical governance and though the UK Royal Training Colleges could provide more incentive for doctors to engage with patient safety initiatives, it should be noted that nurses are also not incentivised to do so yet in our data they outperformed doctors in regards to incident reporting. Furthermore, incentivisation of incident reporting could result in a predictable reduction of data quality as described by Strathern in the 1990s. [15] It remains to be seen as to whether or not such strategies might be effective. The campaign for Robbie’s Law, initiated by the Powell Family following the avoidable death of Robbie Powell in 1990, seeks to create

a legal duty of candour for doctors (not just for NHS organisations as instituted in 2014), this is likely to be a step forward given the lack of any previous sanctioning for lack of candour by doctors' UK regulator. The use of automatic electronic incident reporting has been trialled in Canada with promising results but, at the time of writing, no published data suggesting any previous attempts at using this in the UK. [16]

Conclusion:

NHS doctors of all grades markedly underreport clinical incidents compared to nurses. This is likely to be due to a failure of role modelling at more senior levels, the lack of emphasis placed on the responsibility to report clinical incidents in doctors' postgraduate training programs and the NHS' flawed clinical governance systems. The large variance in the way in which clinical incident data is handled might be reflective of the lack of attention given to strengthen clinical governance systems in the NHS more broadly. Based on our data and previous studies, there is little evidence that the lessons of the Francis Reports have been learned by the medical profession.

Contributors:

HR wrote the article with contributions from NC. HR is the guarantor. The authors read and approved the final manuscript.

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Nil

Data statement:

Anonymised raw dataset available upon request.

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