



# A third pillar of patient safety: exploring the critical role of administration and clerical staff

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**Abstract:** The contribution to patient safety made by administration and clerical (A&C) staff, a major staff group in healthcare, is inadequately described or under-recognised with few relevant or systematic studies. This review seeks to provide insights into the role of A&C in this area, describing risks, causation and potential mitigations. Evidence relating to A&C and patient safety discovered in indexed publications and 'grey' literature (public and statutory inquiries, special interest group reports, policy documents) is reviewed, before addressing specific challenges to safe 'backroom' or office-based activities. There is sufficient evidence to conclude that A&C staff and associated tasks are important to patient safety. Risks can be organised into themes. These include: team working and shared understanding; departmental stability and memory; responding to change and innovation [especially information technology and new electronic health record (EHR) systems]; healthcare emergencies or fluctuations in demand [such as the coronavirus disease 2019 (COVID-19) pandemic]; human factors and repetitiveness of tasks; just culture. Mitigations are presented in each area, encompassing departmental organisation, culture and an emphasis on applying the theory and learning from clinical practice (such as human factors) to this staff group. The contribution by A&C to patient safety should be clearly acknowledged and consciously considered when recruiting and inducting staff, and in designing the environment in which they work. Arrangements should be put in place to encourage close co-working between A&C and clinical staff. There is a potential for ongoing digital transformation and artificial intelligence (AI) to improve workflows and reduce risks.

**Keywords:** Human factors; performance; staffing; electronic health records; artificial intelligence (AI)

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## Introduction

### Background

Very little happens in hospitals without the involvement of administration and clerical (A&C) staff. They are the enablers of clinically led decisions who ensure that the right patient is invited to attend the right place at the right time. This is especially true for patients having elective (planned)

visits, investigations or procedures. The A&C staff group sits alongside nursing and medical groups and are almost as numerous. Yet, there is little literature on how errors in administration impact on patient safety. Consequently, neither "The NHS Patient Safety Strategy" [2019] nor the "Patient Safety Incident Response Framework" [2020] (which are intended to improve patient safety over the following decades) mention the A&C staff group and its

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critical importance to safe care (1,2).

### **Knowledge gap**

A systematic approach to patient risks associated with A&C staff has not yet been established, though some data does exist to allow such an approach. Thus, it is difficult to gauge the size of the problem and to design strategies that reduce any risk. The following background review collates the available evidence.

### **Objective**

This review will attempt to categorise the main risks and explore mitigations.

### **Methods**

A focussed review was undertaken using PubMed, keywords including ‘administration’, ‘administrative’, ‘clerical’, ‘admin’, ‘patient safety’, ‘safety’, ‘error’, ‘harm’, and ‘investigation’. A wide-ranging review of ‘grey literature’ (existing outside indexing databases) was also undertaken, using the same search terms through search engines (Google) and within relevant reports, audits, patient safety investigations and patient experience libraries that were publicly accessible. The resulting areas of focus relate to themes taken from that research as medical conditions. The searches were performed between June and October 2023. The author is a clinician-manager in the UK’s National Health Service (NHS).

### **Agreeing the definition of administration**

First, it is necessary to define clearly what administrative error is, and what it is not. The WHO definition is ‘*failure(s) to carry out a planned action or undertaking an incorrect action as part of the systems and processes involved*’; this could be easily translated to this article which concerns secondary care (3). For the purposes of this review, it is not the processing or communication of test results or requests (which is primarily the responsibility of clinicians); failures in clinical documentation; general management; strategic planning; or clinical priority setting. These responsibilities may be owned by, or overlap with the duties belonging to clinical, A&C and senior managerial staff, but are not directly related to office processes that impact on the organisation of patients.

### **Visibility of A&C staff and processes in patient safety literature**

In a report of poor care at Mid Staffordshire NHS Trust, Francis cites lack of administrative support, a new patient administration system, and deployment of A&C personnel to perform emergency room triage as potential causes (4). In the Francis report, ‘Admin’ is mentioned frequently in the accounts of clinicians, who decry the lack of support in managing waiting lists or completing serious untoward incident reports. National Guardian “Freedom to Speak Up” reports have not identified or quantified the amount of feedback or internal whistleblowing from A&C staff. The National Learning and Reporting System (NLRs) categorises patient safety incidents under the following headings: implementation of care and ongoing monitoring/review; patient accident; treatment, procedure; access, admission, transfer, discharge; and ‘all other incident categories’. It is not possible for readers of their regular reports to ascertain how many significant harm events are related to A&C errors. Although the US publication, “To Err Is Human: Building a Safer Health System” [2000], does not explore A&C activity explicitly, it does include a summary into adverse events: of 480 incidents, 9.8% were felt to be due to administrative decisions (5). The World Health Organisation produced a report “Administrative Errors” [2016] with a particular focus on safer primary care (3). It was stated that up to 50% of errors in primary care are administrative. It referenced a study that reviewed of 191 significant events submitted by two general practice groups, finding that 13% of events were due to administrative errors, e.g., poor task delivery, ineffective administrative system/protocol (6).

A&C efficiency directly impacts patient experience, which is known to be related to patient safety; patients accounts are therefore an important source of intelligence (7). A Healthwatch England report analysed feedback from 112 patients, but the only reference to harm in the report related to self-harm among those with mental health problems who experienced delayed referrals (8). In 2021, National Voices, a patient experience organisation, published a report on the impact on the quality of their care of administration problems; this was then referenced in an internet article, “Admin matters: the impact of NHS administration on patient care” (9,10). The National Voices report includes examples of frustration, delay and poor communication (inter-departmental, inter-Trust, or between patients and healthcare staff); it also includes accounts that could be

categorised as significant harm if formally reported (10).

While relatively few studies examine the A&C role or seek their views on patient safety, those that do provide evidence of its importance and impact. Zaheer *et al.* included their opinions in a survey of safety perceptions, alongside nursing and allied health professionals, while an evaluation of safety culture at John Hopkins Hospital encouraged clerical staff to contribute alongside other groups (11,12). Other studies have acknowledged the role of clerical staff in contributing to overall safety. For example, Hickner and colleagues concluded that managers needed to focus on the training needs of ‘office staff’ and that communication between physicians and office managers was important (13).

In a study restricted to human error around phlebotomy, of an overall 3.1% error rate, 44.9% were found to be ‘clerical’ (14). These were largely of minor significance in terms of harm caused, but interestingly, in light of the discussion to follow, the majority of clerical errors were made by newly recruited staff. A study of errors in the field of diagnostic radiology found that 10% were due to administrative errors: these included the wrong patient being examined, films going missing from department and delays in communicating unexpected results to referring clinicians (15). Although somewhat historical, a 1993 study examining the efficiency and safety of anti-coagulation clinics found a high incidence of missing referral letters or case notes, and generally inadequate referral information; the authors concluded ‘*that health professionals should better appreciate the administrative and organisational influences that affect teamwork and quality of care*’ (16). The importance of A&C staff in recording the output multi-disciplinary team working was acknowledged in a safety orientated review (17).

### *Thematic review of patient safety risks related to A&C*

#### **Whole team working and shared understanding**

A&C staff are instrumental in ensuring that clinical prioritisation and management decisions are effectively carried out. As medical conditions fluctuate and priorities change, there will be continual updates to arrangements; therefore, the communication between clinical and A&C groups needs to be frequent and frictionless. The clinico-administrative axis, for want of a better term, is arguably as important as any other relationship in a health organisation. Relationships between administrative staff and clinical staff need to be close, such that both understand the other’s milieu: pressures, targets, challenges and limitations.

To encourage these relationships, there must be easy

access to one another (ideally, they will be co-located, facilitating day to day exchanges), the ability to ask questions, to challenge and exist in an environment of psychological safety (18). Exposure to clinical environments (e.g., operating theatres, clinics) is also important, so that A&C staff can visualise what they are arranging for patients, and how their actions translate to patient experience.

#### **Departmental stability and organisational memory**

‘Churn’ in personnel is an organisational risk. Whereas doctors and nurses often work in the same organisation for decades, A&C staff change roles frequently. After one or two years at one grade, individuals with ambition to progress are expected to apply for more senior roles in different departments in order to widen their experience and learn how to manage teams. Any lessons learned from patient safety incidents, or ‘tricks of the trade’ learned informally, will be lost as that individuals vacate their desks. Organisational memory is a well-studied subject, largely in non-healthcare settings (where it may be referred to a corporate memory) (19,20). It encompasses more than safety—what to do and what not to do—but also relates to culture, history and values. At a practical level, if an administrative error or oversight leads to harm, a mechanism should exist that reduces or removes the risk of it happening again. Here, there are good parallels with clinical practice, where human factors are considered, and barriers erected to divert staff away from error (21). Another area for potential translation of methods designed to reduce clinical risk is an integrated and pro-active approach to areas known to carry more risk (22). Even with these approaches, Never Events (those errors that the NHS should be able to eradicate by installing protocols) have not been eradicated, and the risk of repeat remains (23). The need for safe NHS organisations to have a memory has been recognised: for instance, the publication by the Chief Medical Officer contained numerous clinical vignettes and examples of error, but there is no reference to administrative error (the word administration pertains only to the incorrect dosing and giving of drugs) (24).

#### **Responding to change and innovation**

In the NHS, there has been a continual trend towards paper-light or paperless systems. Each iteration in this direction has required overturning established bureaucratic practice and presents a significant transformational challenge within the organisation (25,26). Although the long-term benefits to patients appear clear (though unproven as

yet), the transition period represents an administrative risk (27). In 2014 Cambridge University Hospitals NHS Foundation Trust experienced significant disruption with their EPIC™ (Verona, Wisconsin, USA) ‘go live’ (this is an integrated digital platform comprising scheduling, clinical notes, imaging reports, laboratory results and medicines administration; it has been implemented in numerous large organisations) (28). Failures of communication between pathology systems resulted in missing blood tests and the need for samples to be discarded or repeated, referrals to the community went astray and the system itself became unstable and had to be taken offline (with a read-only version kept available). Transition to new systems requires lists of patients to be abstracted and transferred. Although this can often be done in tranches, any errors are likely to involve whole cohorts of patients rather than individuals.

As more UK Trusts seek to update their EHRs, such incidents are likely to occur again. Even if lessons are learned in one particular area, the huge variability in existing administrative structures and arrangements, resulting from decades of organic growth and the addition of multiple bespoke solutions, means that unforeseen challenges are bound to arise (6). It should be acknowledged that new EHRs are often acquired in the expectation that there will be efficiencies and savings down the line; if A&C staff feel that they are implementing a new system that will ultimately render their role unnecessary, there are bound to be complexities around engagement.

Artificial intelligence (AI) would appear to offer opportunities in this area. Although most studies and opinion articles have focussed on direct clinical benefits (e.g., faster and more accurate diagnosis), there are likely to be positive impacts on hospital management and administrative work flows. These advantages may derive from earlier recognition of the correct allocation of patients, fewer attendances to hospital with increasing use of personal health records or worn devices (‘internet of things’) and reduced involvement in repetitive tasks (29).

### **Unpredictable healthcare emergencies or fluctuations in demand**

The COVID-19 pandemic resulted in several major administrative challenges. It is estimated that, worldwide, over 28,000,000 operations had to be cancelled during the pandemic’s peak (30). Simultaneously, there was large scale conversion to virtual working, or telehealth (31). These rapid shifts required untold hours of administration, involving overtime and challenges to individual administrator’s

resilience. In the post-pandemic period, there has been (anecdotally) a significant uptick in complaints about ongoing delays to treatment or surgery, and much of this is directed to A&C staff who contact patients with the bad news. The temporary halt in all clinical activity in 2020 required the categorisation of patients on waiting lists into cohorts based on risk or urgency. This necessary exercise is now undergoing continual validation, as patients are brought back into the system with the resumption of normal activities. It is likely that in such a large and prolonged exercise, instances of harm due to delay are likely. Although these can be connected to the pandemic itself, the risk of patients going missing or being delayed inappropriately must be acknowledged.

### **Human factors and repetitiveness of tasks**

Many tasks in administration are repetitive and may not be associated with the kind of emotional or intellectual rewards that maintain the interest of frontline clinical staff. Fatigue, reduced levels of concentration and errors are seen in repeated cognitive tasks (32). Over time, short cuts may be found that seem to work, leading to a ‘normalisation of deviance’ from processes that were set up to maximise reliability (33). A common outcome of safety investigations that touch on administrative processes is it develop a standard operating policy (SOP). In clinical environments, this approach may be challenged because it appears to restrict personal autonomy and remove the allowance for initiative (34). However unpopular they may be, guidelines, protocols and checklists are proven to improve safety in many areas (35). In the administrative arena, strict homogenisation of processes would appear to promote a dystopian existence where staff work to rigid patterns without opportunities to make individual decisions. In reality, patients present an infinite variety of problems, attitudes and communication styles or challenges, such that A&C staff have to exercise highly developed skills to explain, placate and even negotiate. In an extremely busy service, expectations must be managed and tempers settled when appointments cannot be offered in an acceptable timeframe. However, as the ever evolving and increasingly complex ecology of pathways and administrative routes multiplies, periodic reviews are required to ensure that they are not running into cul-de-sacs or creeping away from standard, safe practice.

### **Just culture, blame free approach to investigations and resilience**

When things go wrong in healthcare, it is natural for blame

to be attributed. Yet, just as we have learnt to investigate clinical incidents by looking at the wider environment, the whole team or the whole organisation, so we must apply this approach to clerical errors (20). And just as we have become accustomed to applying ‘just culture’ principles when individuals are in the frame, so we must with A&C staff (36). If there are repeated errors, attitude problems or a clear inability to learn, we may conclude that the person is not well suited to the job. However, this assessment must be made not by the surgeon who is angered that their practice has suffered, but through line management. Just as nurses and doctors must feel safe psychologically, in order that they can raise concerns and express ideas, so must administrative staff. For as the NHS changes month by month, they will be involved in developing new pathways and their opinions as to what works well and what does not are of undoubted importance.

When patient safety investigations are required, input from administrative staff must be sought sensitively. Clinical staff may become accustomed to the fact that their decisions, actions or omissions may be directly related to an episode of harm, or even death (37). There are support systems in place and ways in which such negative experiences lead to greater expertise and resilience. For A&C staff, to hear that a slip-up resulted in a patient being forgotten about for four months while their tumour grew and then metastasised, could be devastating. Prior orientation of A&C staff, during on-barding and induction, may help to alert them to their proximity to clinical risk. During investigations, it is important to understand where A&C responsibilities stop and those of clinical staff start. For instance, in the example of failure to communicate a test result, this may be due to a clinician or scientist not recognising its importance, rather than A&C staff failing to pass the message along.

The resilience of A&C staff to the above circumstances is difficult to define and has not been studied specifically. A recent analysis of NHS staff sickness and absence, which included A&C staff (25% of the 15,400 staff included), compared absence rates with responses in annual staff surveys (38). Non-clinical staff groups including A&C had higher absence rates than clinical groups, and these were associated with lower staff engagement scores and higher reported abuse by managers and colleagues. There is no data regarding the response of A&C staff to unhappy or rude patients whose cancellations or delays in care may prompt them to contact services. However, the author can attest to the fact that special arrangements including coaching and recommended scripts have been offered to

support A&C staff who are working through periods of instability such as COVID-19 pandemic or, in the UK recently, industrial action.

## Discussion

It is evident that patient harm can arise from errors in the A&C field, and this should be recognised in the planning and implementation of healthcare services. As in clinical medicine, there are no universal solutions that guarantee against harm, but the principles that appear successful in that arena could reasonably be translated across, especially as the work of A&C and clinical staff clearly overlaps. Mitigations will include both local organisational measures and broader, cultural changes (*Table 1*). The same human responses to fear of blame are likely to apply, and an environment in which staff feel safe to speak up, challenge and contribute ideas is crucial (18). In the UK's NHS, ‘Love admin’ week is now a regular fixture in the calendar, and includes awards ceremonies for stand-out performers or groups. This recognises the importance of A&C staff and attempts to make them and their work more visible to colleagues in other professional groups (39). It is important however for this sentiment and focus to be maintained throughout the year and to become normalised.

More strategic solutions are likely to be founded in technology. In the UK, much store is being put into established systems (including EPIC), where scheduling and other functions should become easier and joined up (40). The next big opportunity appears to be AI, with opportunities to monitor large and complex datasets, identify delays, triage according to risk (perhaps without requiring direct clinical involvement) and interpret natural language (41). AI may also represent a threat, as routine tasks given over to it may result in human redundancy. This will align with ever-present financial pressures—both internal and governmental—to find efficiencies that results in savings. It will be important to engage A&C staff in periodic reviews of activity and changing demands to ensure that efficiencies are real and to plan future workforce strategies.

## Conclusions

The importance of the A&C staff group and its activities to patient safety is clear, but has evaded most organisational and nationally mandated NHS improvement initiatives. This review has illustrated what is known, demonstrating that the evidence is largely unstructured and anecdotal.



**Table 1** Recommended mitigations to administrative risks in healthcare

Domain	Recommendation	Challenges
Operational	Minimum staffing levels	Financial pressures
	Co-location with clinical staff	Space near clinical areas hard to ring-fence
	Reduce 'churn' of staff	Rapid advancement or horizontal moves required to retain staff
	Minimise fatigue related to task repetitiveness	Variation in working patterns; rotation
	Adopt AI based solutions to scheduling	Risk of staff redundancies
New IT systems, EHRs and clinical pathways	Engage with transformational vision	Additional work on top of business as usual
	Identify champions	Additional responsibilities and pressure; requirement for compensation
	Business plans to consider A&C burden	Financial pressures
Safety culture	Allow settling in period after change in process	Pressure to increase productivity
	Adopt Just Culture principles	Cultural change
	Involvement in safety investigations	Recognise in job plans/timetables
	Avoid cumulative SOPs	Requires long-term approach to SUI investigations
	Support staff who are verbally abused	Possible exclusion of patient who offend persistently
	Exposure to patients in clinical environment	Requires space in timetable

IT, information technology; EHR, electronic health record; AI, artificial intelligence; A&C, admin and clerical; SOP, standard operating procedures; SUI, serious untoward incident.

It is possible to categorise risks and possible mitigations based along the lines described here, but these headings are open to further refinement. Clear recognition of the issues is a necessary start, and awareness will encourage a pro-active approach to prevention. This review has limitations, including the author's lack of formal training in administration and the experiential approach taken to the focussed literature search. However, the clinical perspective provides a 'view from the ward/clinic/operating theatre' which offers an understanding of clinical consequences and areas of overlap between clinical and administrative boundaries. Future work in this area will involve application of proven safety principles and processes, attention to human behaviours and factors, the reliability of digital solutions and possibly the advent of AI.

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