



Royal College of
General Practitioners

Patient safety implications of general practice workload

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Introduction

This discussion paper looks at fatigue among GPs – as caused by persistent and excessive workload – its potential impact on patient safety, and methods available to improve this situation in future.

The paper intends to act as a catalyst for the development of new solutions to both fatigue and workload in general practice. RCGP is asking GPs, patients, other healthcare professionals and policy makers for their views on this paper, and suggestions – at a practice, system, and national level – for how GP workload can be alleviated, therefore reducing the risk of fatigue and burnout. Please email comments and suggestions to: policy@rcgp.org.uk.

Between 2008/09 and 2013/14, the number of GP consultations in England rose by 19%. Case complexity also increased: the number of patients (in England) with multi-morbidities has risen and is set to increase by 53% between 2008 and 2018. Yet the number of headcount GPs in the UK only rose by 4.1% between 2008 and 2013. In 2013 across the UK, there were 1,481 patients for every GP – up from 1,420 in 2009.¹

Greater administrative / bureaucratic work is also required of GPs (e.g. inspection visits, appraisals, QOF requirements, etc.), with no protected time set aside for these; while political / public pressure for provision of expanded access, extended hours and seven-day working continues to increase. Doctor / staff fatigue is only likely to increase at this rate. Despite GP fatigue being potentially as dangerous as that in any other healthcare setting, currently it has inadequate recognition, few or no accepted response strategies in place, and no process to indicate it as 'full' or overloaded (e.g. as with acute care).

This paper argues that practice-based, regional and national strategies must be developed and implemented, both to minimize the risk to patient safety of fatigued / overloaded GPs and practice staff, and to prevent this tiredness and fatigue being developed in the first place.

Background

Healthcare is a safety-critical industry.² The term 'safety-critical' describes sectors such as aviation, construction and oil-and-gas, where – if something goes wrong – people can be harmed or die. In many respects, general practice can be regarded as less safety-critical than the acute sector of health care. Our patients are more likely to be well, mobile and less vulnerable. We perform fewer invasive tests and procedures and we work in 'office hours'. We are also more likely to know our patients well. These factors, with others, help protect patients from many of the major safety incidents that generally are more likely to occur in acute settings.

Realistically, however, there is still considerable potential for patient harm within general practices when these protective factors are put under strain.^{3, 4} Important areas for our colleagues include:

- Quality of diagnosis (including missed and delayed diagnosis, and over-diagnosis and over-medication)
- Patient misidentification
- Medication errors
- Vaccination errors

- Failure of systems (repeat prescribing, monitoring of conditions, handling of investigations etc.)

When things go wrong in general practice, as in other healthcare settings, patients can be harmed. Over the years, most practices have evolved systems and techniques that support safe care and practices are increasingly expected to be more explicit about the mechanisms they have developed to minimise risks to patient safety (e.g. vaccine storage protocols, emergency procedures), but unlike most other healthcare settings, general practice has no generally recognised mechanisms to address doctor and staff fatigue. This paper aims to identify this as an important patient safety factor in general practice in the UK, and to initiate discussion on appropriate methods and systems to prevent and mitigate patient harm that may arise from tired, over-worked doctors and practice staff in ways that minimise disruption to patient services.

Safety implications of fatigue

Most, if not all, safety-critical industries recognise fatigue as an important cause of error and harm.^{5 6, 7} This is generally well-known and well-understood by the public at large. People may be upset if a flight is delayed or cancelled due to a crew exceeding allocated hours of work, but very few would voluntarily board an aircraft when the pilots are demonstrably tired. Likewise, we have laws that prevent excessive time spent at the wheels of heavy goods vehicles.⁸ Fatigue is well understood to affect concentration and ability to successfully complete tasks and is therefore recognised to be a possible root cause of safety incidents.^{9, 10}

In safety related industries, there is a commonly known acronym that references tiredness – **Hungry, Angry, Late, Tired (HALT)**, with the implication that where one or more of these factors are present, individuals are more likely to make mistakes. The well known ‘Swiss Cheese Model’ [see [Annex 1](#)] developed by Professor James Reason to assist with the understanding of root causes of safety incidents would always consider whether fatigue was a factor in any incident.¹¹ Fatigue is also recognised in Reason’s ‘Three Buckets Model’ that considers the state of an individual, together with the task and the context in consideration of whether a situation is more or less likely to provoke error and harm.¹²

There are a number of causes of fatigue, including poor sleep and side-effects of medication, but in this paper we are specifically concerned with fatigue caused by persistent, excessive workload.

Workload in general practice

Workload has increased significantly in general practice across the UK. According to estimates commissioned by the RCGP from Deloitte, the number of GP consultations in England rose from 303 million in 2008/09 to 361 million in 2013/14, an increase of 19%¹³, and these patients also have higher expectations of GPs, both in the provision and delivery of services. At the same time case complexity has risen, with the number of patients in England with multi-morbidities set to grow from 1.9m in 2008 to 2.9m in 2018.¹⁴ Patients with multi-morbidities can account for up to 78% of all consultations.¹⁵

This growth in the number and complexity of consultations has coincided with a period of very limited growth in the number of GPs and real terms reductions in resources. Between 2009 and 2014, the number of UK GPs (headcount) grew by just 0.2%. In England, the number of full time equivalent GPs grew by 1.6% over the same period. In 2013 across the UK, there were 1,481 patients for every GP – up from 1,420 in 2009.¹⁶ Across Great Britain,

the share of NHS expenditure given to general practice has fallen from 10.3% in 2004/05 to 8.4% in 2011/12 – an historic low, and at a time when spending on secondary care has continued to rise significantly. By 2017/18, there will exist a substantial funding shortfall in general practice; with the most optimistic forecasts estimating this will be £1.6bn.¹⁷

Additionally, over the last decade, practices have also been forced to devote considerably increased time and resource to meet contractual and regulatory requirements including, but not limited to:

- QOF thresholds
- Enhanced services (national or local)
- Revalidation and appraisal
- CQC and/or other inspection regimes

GP time is also sought to participate in running and administering inspection visits and in appraisal, as well as other NHS activities such as commissioning. Some of these activities, such as GP appraisal, can in fact be supportive to doctors, but cumulatively they are a significant pressure on doctor time and energy. Unlike other medical colleagues with weekly SPA allocations, GPs have no protected time for these activities which have to be fitted into the normal working week and commonly are dealt with in personal time at evenings and weekends.

It is important to note that GPs are not the only member of the general practice team to experience high levels of workload. Nurses and other general practice staff also feel the strain that general practice is currently under and research has shown that nurses feel QOF requirements makes up a large proportion of their workload¹⁸.

Practices across the UK are also noting considerable additional requests/demands being placed on them from colleagues in other sectors, generally in the form of hospital letters or discharge notes that specify 'GP to do...', 'GP to arrange...', 'GP to perform...' Another well-known cause of frustration for GPs and patients alike is the difficulty patients have in being able to contact hospital out-patient departments to change appointment times (often having been given unacceptably short notice of an appointment in the first place). This obstacle leads to patients defaulting on appointments and being informed that they will have to contact their GP for a re-referral. As well as all of the above examples leading to additional workload on GPs and practices, there are also clear patient safety implications should any of these tasks be overlooked within the general practice.

To add to these already onerous requirements, there is political and public pressure on GPs and practices for increased access to GPs over extended hours and seven day working, within specified time frames.

The consequences of increased pressure for clinical time, together with increased contractual and regulatory requirements have resulted in a profession that is struggling to recruit and retain doctors, with increasing doctor emigration and with a number of practices folding as remaining doctors recognise they are unable to maintain safe clinical practice within the constraints of clinical and non-clinical workload requirements with insufficient staff and support. Where practices do implode, neighbouring practices come under increasing strain with the risks of 'domino effects' developing within localities. Even practices that are properly staffed express concerns at the time doctors have to commit to meet their obligations and question whether such demanding workloads are sustainable over extended periods of time.

Workload management

Other sectors within the NHS have developed a number of mechanisms to manage workload and pressure on services, often on patient safety grounds. Some of the better known methods are the declaration of 'red' or 'black' alerts issued by acute hospitals when bed occupancy reaches certain levels; or the diversion of labouring mothers to more distant maternity units when the local unit is full. However, there is no equivalent of 'full' in the general practice setting, despite 93% of GPs stating that heavy workloads negatively affect the care they provided to patients, and 37% feeling their workload is unmanageable¹⁹.

Practices can, if necessary, close their lists to new patients, however this is by no means a method of workload and doesn't act as a cap on the amount of consultations GPs will undertake. Practices do not turn patients away if the patient has an urgent problem and practices need to meet their contractual and regulatory requirements in order stay open and functioning. The commonest outcome when practices have difficulty in matching supply of appointments against demand for them is for 'routine' appointments to be put off – sometimes for as long as several weeks. This in itself has safety implications as many serious conditions do not present with 'urgent' symptoms and sometimes a delay in being seen can have adverse consequences for the patient's condition. The subject of access to general practice services has been the subject of a recent RCGP position statement that can be accessed [here](#)²⁰.

Burnout

Burnout can be defined as 'a work-related syndrome associated with high scores on the Maslach Burnout Inventory (MBI)'²¹. The inventory has been used in both primary and secondary care and states that burnout occurs when the workload of an individual is greater than their ability to deal with this demand. As a result, burnout is different to fatigue. Doctors showing signs of fatigue may be at risk of burnout.

A study by Orton, Orton and Gray, utilised the MBI to establish burnout rates in a sample of GPs. The survey found that 46% of doctors reported high levels of emotional exhaustion, combined with 42% who reported high levels of depersonalisation and 34% who had low levels of personal accomplishment²². Whilst patients who took part in the study did not rate doctors who reported high levels of depersonalisation with lower interpersonal skills, there is an obvious risk that doctors showing signs of burnout have greater potential to put patients at risk.

The Royal College of Physicians' paper Work and Wellbeing in the NHS: Why staff health matters to patient care²³, clearly states that staff in good health, i.e. those not at burnout, provide better patient safety, better patient experience of care, reduce costs and have higher job satisfaction. The RCGP has argued that we need to work to reduce burnout, in addition to fatigue, by establishing a nationally funded occupational health service for general practice, as outlined in the College's Blueprint for building the new deal general practice in England²⁴, and the prevalence and impact of GP burnout should be taken into account in the design of new NHS policy initiatives that impact on general practice.

Recommendations

So there is clearly an issue on how GPs and practices can safely respond to excessive workload pressures that may be sustained over long periods. The best solution will be for practices to have the infrastructure, workforce and financial resources that allow them to scale up services in respond to legitimate patient demand. The RCGP campaign '[Put patients first; Back general practice](#)'²⁵ has been working to secure those resources for the medium and longer term. In the short-term however, a number of strategies might be considered by government and regulators:

- **Review potential for reduction in daily pressures.** An urgent full-scale review into how bureaucracy and unnecessary workload can be cut, significantly freeing up GPs' time to deliver high-quality patient care. This should include an urgent review into how CQC inspection and regulatory processes can be simplified, and consideration of the potential to replace the Quality and Outcomes Framework (QOF) with a new funding arrangement that provides more baseline core funding and places less of an administrative burden on practices and affords GPs greater flexibility to focus on providing the best possible care to patients.
- **Limiting the number of patient contacts that clinical staff will have in one day.** This already happens in respect of the 'routine' work of the practice. However, as described above, when demand continuously outstrips supply then there is a danger that patients with problems that are serious, but not perceived as 'urgent', will experience delay in diagnosis and treatment.
- **Limiting the number of hours worked by clinical staff.** This is related to the strategy described above, but is complicated by the need for staff to respond to urgent situations such as a patient becoming acutely ill on practice premises; difficulty in arranging an emergency admission; needing to locate and talk to a duty social worker etc., etc. Such scenarios commonly occur in practices and often result in clinics running late. Finishing a clinic before everyone has been seen would result in huge frustrations and dissatisfaction for patients and staff; would risk even those patients with urgent problems having a delay in being seen; would mean that appointments would regularly have to be re-scheduled; and would have clear safety implications.
- **Practices insisting on regular breaks for staff.** Most practices will schedule regular breaks for staff. However, under pressure of surgeries running late, many clinical staff will use the designated break times to catch up. This may superficially be attractive, but carries the risk of taking staff into the Hungry, Angry, Late, Tired category and therefore more prone to errors. Even short breaks of 10-15 minutes have been shown to improve concentration and effectiveness²⁶ and it should be possible for practices to insist that doctors and staff have mandatory breaks. Practices that work in this way should be clear to patients why they are doing so and should communicate the importance to patient safety of working in this manner. It should always be understood however that the need to respond to an emergency in the practice will always 'trump' the mandatory break. Practices also need to ensure a strong ethos of teamwork, whereby colleagues will be willing to take up some of the work to ensure everyone gets the chance to have a break, a drink and something to eat, throughout the working day.
- **Review existing interpretation of professionalism.** The central tenet of professionalism will always be to put patient needs first. Most commonly, GPs translate this into doing what is necessary to meet their ever-increasing workload:

working before and after surgery, throughout lunch breaks, during personal time at home, at evenings, at weekends, etc. But we now approach a point where trying to 'keep up' with the work, from a primarily quantitative perspective of contact time and consultation numbers, will begin to have an adverse effect on the service, if it is not accompanied by an increased weighting of qualitative considerations. That is to say: the value of seeing more patients, and for longer, is not worth the cost of any reduction in patient safety. This must be made explicit in a new consideration of professionalism (such as that espoused by Reason's 'three bucket' model.²⁷ [see [annex 1](#)])

- **Temporary postponement and permanent reduction of contractual or regulatory obligations.** There needs to be a mechanism in place to identify those practices under extreme workload pressures, such as those who are carrying several doctor and/or nurse vacancies and who are unable to recruit locum or temporary staff. These practices should have access to a non-judgemental process that allows them to issue a 'distress-signal'. At this point, the responsibility for the safety and viability of the practice should be able to be shared with the CCG and/or health authority and possibly with the wider health economy. Practices that would normally perform well with sufficient staff should not be forced to fold on patient safety grounds (and risk a domino effect) for the lack of support that can tide them over until substantive appointments are made. The safe clinical care of patients should at this point become the over-riding objective for the accountable health authority. If the suspension of work related to contractual or regulatory obligations allows doctors and staff to focus on face to face clinical activity and service provision then it should be possible to invoke a mechanism that allows this suspension for a defined period of time, without reputational or financial risk to the practice. Additionally, there may be times of severe stress on the national service of general practice, such as extreme winter pressures and/or an outbreak of disease such as influenza, where every practice comes under significant workload stress for a prolonged period. Consideration should be given to national processes that would allow practices to concentrate of clinical priorities at such times. The British Medical Association, in their paper *Quality first: Managing workload to deliver safe patient care*, also state that there should be a permanent reduction of contractual or regulatory obligations, reducing the amount of non-essential, administrative work general practice has to undertake²⁸.
- **Consider impact of NHS initiatives on GP capacity.** All new NHS initiatives should be tested to consider their likely impact on the time and workload of GPs; any initiatives involving an increase in workload should be matched by measures to reduce workload elsewhere (informally, a 'one-in-one-out' approach).

Conclusion and next steps

Doctor and staff fatigue in general practice is a patient safety issue that currently has inadequate recognition or accepted response strategies. Unlike other healthcare settings, general practice has no process to deploy to indicate it is 'full' or overloaded and the common consequence of delay in achieving routine appointments has, in itself, significant safety challenges. Practice-based, regional and national strategies need to be developed and implemented to minimise the risk to patient safety from tired and overloaded GPs and practice staff.

This paper intends to act as a driver for the development of solutions to both fatigue and workload within general practice. We are interested in innovative solutions that are occurring at practice level, as well as regional or national level suggestions. RCGP welcomes comments from all members of the general practice team, in addition to healthcare professionals outside of general practice, patients and policy makers. We request that any comments be sent to policy@rcgp.org.uk.

The College will collate ideas and suggestions and disseminate them, to encourage GPs, system leaders and national decision makers to work together to take steps to reduce the risk of fatigue within general practice.

Annex 1 – Patient safety models

Two common models used to illustrate core concepts of patient safety are examined below:

The ‘Swiss Cheese’ model

James Reason’s Swiss Cheese model²⁹ suggests each step in a process has weaknesses which can lead to failure, including both individual errors and inherent weaknesses within a system.

Reason’s model likens this to slices of Swiss cheese, with the holes in the cheese representing potential weaknesses. If a hazard arises, it can progress through a hole in the first slice; that is, a weakness in the first stage of the process will allow it to go unchecked. But ideally, the hazard will encounter a solid section of cheese in a subsequent slice, and progress no further; i.e. one of the subsequent stages of the process will identify the hazard and prevent it developing.

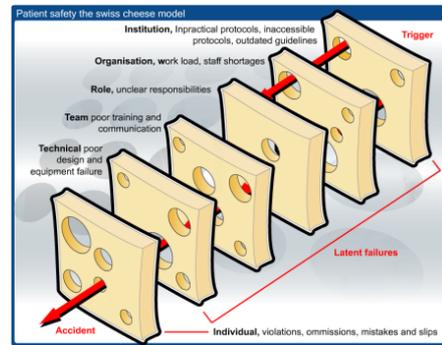


Figure 1: Patient Safety Swiss Cheese Model³⁰

However, if a system is set up in such a way that holes in the cheese can become aligned across all slices, then a hazard could develop unchecked, and eventual failure of the system is inevitable. Therefore, in Reason’s model, maximising safety requires more slices, and smaller and fewer holes; i.e. more defence stages across a model, and fewer and better-identified weaknesses at each stage, minimising the aligned-weakness outcome.³¹

The ‘Three Bucket’ model

Reason’s three bucket model³² aims to help clinicians take an appropriate approach to considering their surrounding and limitations, so as to estimate the degree of risk present, and from a number of perspectives.

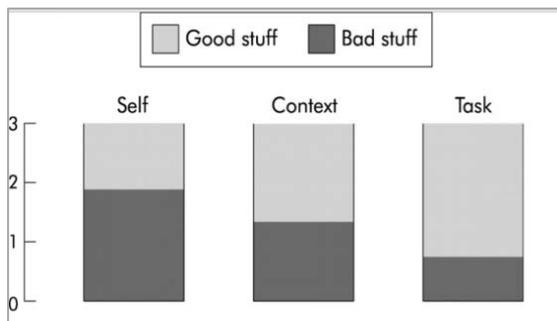


Figure 2: Reasons Three Bucket Model³³

The model advises staff to consider three areas in which risks may be present – ‘Self’, ‘Context’ and ‘Task’ – and in the model, illustrates these as three separate buckets. At any one time, each bucket will be filled with a mixture of ‘Good Stuff’ and ‘Bad Stuff’; and the overall risk of error in a task will be in line with the total amount of Bad Stuff present across all three buckets.

The NPSA have produced examples of factors which may be present in the three buckets³⁴; e.g. in the Self bucket, knowledge, skill, expertise, as well as their current capacity. If workload, fatigue and stress levels all increase, the Self bucket will contain more Bad Stuff, and the risk of error rises.

All buckets are then considered. An example of this is given by McKimm & Forrest³⁵: if a clinician were to insert a cannula to a compliant patient with large veins at the start of a day shift, they would not likely foresee any issues. But if the patient were uncooperative, and an intravenous drug user with poor veins; it were the middle of the night; and the clinician were tired, stressed and hungry, then ideally the clinician should stop and consider their three ‘buckets’ as being full, and so reconsider the task before deciding how best to proceed.

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