


Please cite the Published Version

Finucane, LM, Greenhalgh, SM, Mercer, C and Selfe, J  (2022) Defensive medicine: A symptom of uncertainty? *Musculoskeletal Science and Practice*, 60. p. 102558. ISSN 2468-8630

DOI: <https://doi.org/10.1016/j.msksp.2022.102558>

Publisher: Elsevier

Version: Accepted Version

Downloaded from: <https://e-space.mmu.ac.uk/629783/>

Additional Information: This is an Author Accepted Manuscript of an article published in *Musculoskeletal Science and Practice* by Elsevier.

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‘Defensive medicine: A symptom of uncertainty?’

In the UK in the last few decades, advanced practice roles have been developed, where non-medical professionals take on roles traditionally carried out by the medical profession. These roles offer great opportunities to therapists, but come with additional responsibility and accountability. The most recent of these roles is first contact practitioners (FCP). The FCP role supports general practitioners (GPs), provides musculoskeletal expertise, increases capacity, sign-posts patients more effectively and improves appropriateness of onward referrals (Health Education England (HEE) 2021). FCPs must have the ability to manage patients with undifferentiated diagnoses at the start of their healthcare intervention. These roles commonly present situations with high degrees of uncertainty in relation to patients’ presenting conditions (Bhise et al., 2017).

Defensive medicine is a well-documented phenomenon and refers to the practice of over-cautious management of patients, leading to excessive clinical activity, such as over-investigation, unnecessary appointments and additional interventions (Vento et al., 2018). Defensive practice may reassure clinicians in the face of uncertainty and is often seen to offer some mitigation against medico-legal claims. (Hermer and Brody, 2010). However it adds no value in addressing the patient’s problem and often exposes patients to unnecessary investigations, or additional appointments and cannot be considered in the best interest of a patient (Vento et al., 2018).

The focus of the consultation potentially shifts from a personalised care approach and what matters most to the patient, to one that focuses on giving the clinician additional reassurance,

reduced uncertainty, and reduced concern of potential litigation (Assing Hvidt et al., 2017). With the development of advanced practice roles within physiotherapy, and particularly since the COVID-19 epidemic, where face to face consultation has been restricted, there is potential that this practice could become more common, compromising clinical reasoning processes and increasing the demand on services across the healthcare system (Sloan et al., 2021).

The drivers of defensive medicine are varied and relate to the environment that the clinician is working in, clinical experience and system pressures (see figure 1). For example, a single serious case that didn't go well, or a negative 'near miss' experience relating to situations or events, can drive a clinician to adopt a defensive medicine approach (Laurent et al., 2014).

Figure 1 Drivers of Defensive Medicine



The need for investigation should be part of the clinical reasoning process, and requested with a specific purpose, i.e. exclude serious pathology, or help guide onward management of the patient (Cuff et al., 2020). Investigations should not be a substitute for a thorough

consultation, or be used as a fishing expedition to “find a diagnosis”; rather they should be based on sound clinical reasoning to confirm diagnostic suspicions. Careful requesting and interpretation of results must always relate to the clinical context of the specific patient. Prior to requesting investigations, consider three principles;

- Investigations should support clinical hypotheses and help further management of the patient
- Ability to interpret and act on the results
- Be prepared to deal with unexpected findings

(Greenhalgh and Selfe, 2010)

In many parts of the world direct access to physiotherapy is increasing and along with these autonomous roles comes an increased risk of defensive medicine and associated litigation (Beswetherick, 2019). Litigation within clinical settings is increasing. In the UK the total potential liabilities from all negligence claims made up to the end of 2020/21 was £82.8 billion increasing by around 5.7 billion annually (Department of Health 2021). This profile of legal liability is potentially an added contributing driver in defensive practice missing in Figure 1.

Whilst at present the number of litigation cases involving physiotherapists in the UK appears to be small, it is predicted to rise (Leech et al., 2021). The impact on a patient’s life following any failure in health care cannot be underestimated (Greenhalgh et al., 2016). Equally, the

impact on a clinician being involved in litigation is often grossly underestimated. It can be an emotionally difficult and challenging experience often negatively affecting an individual's confidence and the way they practice (Finucane et al., In press). Mitigating against litigation requires sound clinical reasoning supported by robust documentation, clear communication with patients and colleagues and adherence to evidence based clinical pathways.

In the event that litigation should occur, learning from the process is crucial, to prevent retreating to a position of defensive medicine. Support mechanisms and strategies must be in place to enable colleagues to move forward that avoids a defensive approach and keeps the patient at the centre of care. (See Table 1.)

Table1: Key strategies of good practice in the face of uncertainty

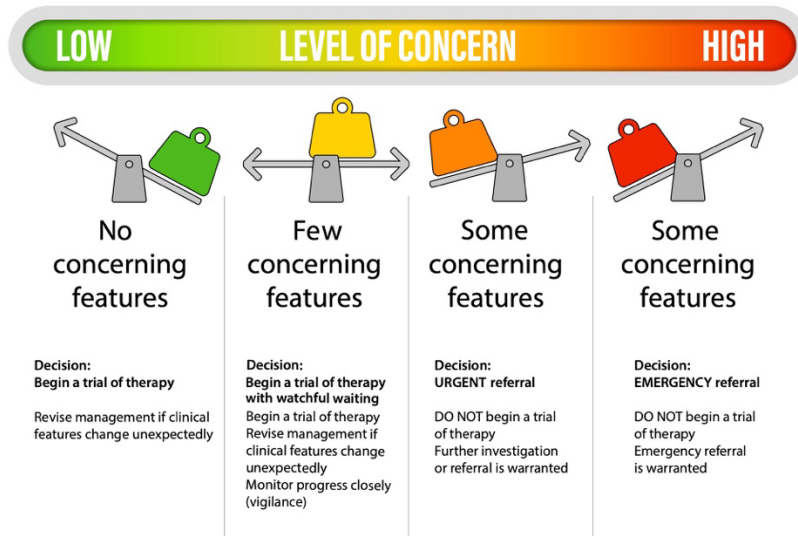
Strategy	Description
Safety netting	Provide information for patients Empower patients to recognise Red Flags and seek timely and appropriate health care advice on how and where to seek help if Red Flags develop

	Likely natural history and time scale of illness (Greenhalgh et al., 2020)
Watchful wait	Watchful wait allows symptoms to be safely monitored for changes that may cause concern. (Cook et al., 2018)
Debrief	A Debriefing conversation is a key component of learning from a situation to enhance future practice. It allows processing of an initial emotional reaction to a situation and understanding why that scenario took place (Forrest and McKimm, 2019)
Peer support	Cases are shared and discussed to allow collaborative and supported shared decision making with colleagues (Greenhalgh et al., 2020).

With the challenges of increased risk and uncertainty (Greenhalgh et al., 2020), clinicians need to be agile in their thinking and consider broad hypotheses, with an ability to screen systems within a tight timeframe where necessary, or observe over time when safe to do so. Whatever the timeframe, screening for Red Flags is a priority in all clinical consultations. Recent data suggests the prevalence of serious pathology is over 2% of all musculoskeletal physiotherapy patients in Denmark (Budtz et al., 2020). Populations around the world are ageing and with that comes increased complexity and risk of developing serious pathology (Finucane et al., 2020). Identifying serious pathology early is well known to be associated with better outcomes yet early signs and symptoms of serious pathology often masquerade as musculoskeletal disorders (Finucane et al., 2017). The concern of missing or delaying a diagnosis of serious pathology and the potential consequences, are significant drivers of defensive medicine. Yet few people will come to significant harm if the diagnosis of a serious cause for their back pain is delayed for a moderate time (Underwood 2009). Equally very few serious conditions such as abdominal aortic aneurysm and Cauda Equina Syndrome need to be acted on as an emergency (Finucane et al., 2020). Time can be a helpful tool in this process along with the close therapeutic alliance with the patient. Watchful wait where symptom progression is observed over time, along with safety netting the patient, can help avoid over investigation and referral. However, if symptoms do not resolve over time, or are unresponsive to evidence-based intervention and the level of concern is high, then further investigations or onward referral can be considered. (figure1).

Figure 1; Decision model (Finucane et al 2020)

Decision model



COVID-19 has added another layer of complexity to clinical practice. At the height of lockdown many people stopped going to see their GP or attending emergency departments, with the fear of the risk of catching COVID-19 outweighing the worry about the life-threatening symptoms of stroke, heart disease and cancer. (Giamello et al., 2020, Cousino et al., 2021, Zhao et al., 2020). The pandemic disrupted global healthcare provision, with the delivery of services for non - urgent conditions and screening programmes paused (Zhao et al., 2020). Screening programmes for primary cancers saw a significant drop in the number of cancers diagnosed over the period of the pandemic (MacMillan 2020) and the impact of the delay to diagnosis in primary cancers such as breast and lung cancer may not be realised for up to 5 years (Maringe et al., 2020). Knock-on effects, related to a surge in demand for services, coupled with an increase in advanced-stage disease due to diagnostic delays and under treatment, could overwhelm health services and contribute to an excess in mortality in the coming years (Giamello et al., 2020).

The consequence of COVID-19 is that clinicians in a musculoskeletal setting are likely to see an increase in a range of life-threatening pathologies presenting at a more advanced stage. Health care services are now not only overloaded with COVID -19 patients, but also with those who delayed seeking care for other conditions (Ham 2020). It is therefore imperative that sound clinical reasoning drives management of patients, and the urge to over investigate or over review is mitigated by sound clinical reasoning. In short, action should only be triggered when clinical reasoning identifies concern. Avoiding defensive practice has never been more important.

The COVID-19 pandemic has accelerated the digital health agenda (Vrdoljak et al., 2020). There are clear advantages of digital health care including better access and convenience, (Gajarawala and Pelkowski, 2020). There are also challenges including the concern of missed diagnosis (Maringe et al., 2020). This shift away from traditional face-to-face to remote working has intensified the anxiety of missing serious conditions. There have been assumptions that remote consultation is no different to face-to-face, but it is not the same and requires a different skill set (Sloan et al., 2021). When we see patients face-to-face we use 4 of our senses ; sight , smell, touch, hearing. We observe the whole patient, pallor, anxious expression, the slight limp, the wide based gait or the wringing of hands, rocking with pain or visibly sweating, we will hear the groans and cries on movement and recognise the smells of the unwell. We start making decisions about what needs to be addressed within a few minutes of seeing a patient. We have to work much harder when we can only use one sense (telephone) or two senses (video). Recent evidence suggests that misdiagnoses were frequently reported and often attributed to the absence of examinations and visual cues,

creating anxiety around missing critical information. Consequently leading to an increase in investigations to compensate for the lack of face to face data. (Sloan et al., 2021).

Patients play a role in driving defensive medicine, often seeking reassurance that nothing serious is wrong, believing investigations will achieve a level of diagnostic certainty (Vento et al., 2018), with little appreciation that findings on imaging may well be normal age-related changes (Brinjikji et al., 2015). There is often a high expectation that changes found on imaging are the cause of symptoms (Lewis et al., 2020). The reassuring value of investigations depends on how well the investigation matches the concerns and fears of the patient, the quality of the therapeutic alliance and the information provided about the consequences of a positive or negative test result (van Ravesteijn et al., 2012). An assumption that a normal scan will reassure patients who are worried is unfounded (Rolfe and Burton, 2013). A normal scan often leaves patients with increased worry making it far from effective in reassuring them (van Ravesteijn et al., 2012). This misinterpretation may result in catastrophising, and low expectation for recovery (Darlow et al., 2017).

Unexpected situations and events have, and will continue to change healthcare delivery, with increased complexity of presentations, a rise in patient expectations and an increase in serious pathology presenting to musculoskeletal services. Add to this a clinician's anxiety of missing serious pathology, creates a perfect storm to increase a defensive medicine approach. There is a danger that clinical reasoning could be replaced by lists, guidelines and algorithms which do not consider the complexity of a patients presentation or the reasoning

inherent in clinical judgement (Vento et al., 2018). Clinical diagnosis can be complex, identifying serious pathology is not black and white and Red Flags must be used in a holistic manner and not in a formulaic way (Finucane et al., In Press).

Using strategies described in box 1 may help to reduce the risk of defensive medicine;

Box 1 Strategies to support practice

Safety netting those at risk (Greenhalgh et al., 2020)

Use time (watchful wait) to assist clinical reasoning.

Develop a therapeutic alliance to empower patients to take responsibility for their own care.

Address patients concerns of whether something serious is causing their symptoms. Concerns can be addressed through reassurance and education rather than imaging (Hall et al., 2021).

Explain the reason why tests are either requested or not requested (Darlow et al., 2017)

Reflect and learn from serious cases.

Amend practice as a consequence of learning

Share learning in a supportive environment with colleagues

Whilst new roles bring new challenges and additional levels of responsibility and accountability, they also offer great opportunities to physiotherapists to support and influence the management of patients and delivery of high quality musculoskeletal services.

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