Thou shalt have a fishy

Mohan and colleagues report that a fish intake of at least 175 g (roughly two servings) a week is associated with a lower risk of major cardiovascular disease in people with prior cardiovascular disease, but not in the general population. This is based on large numbers of patients across the globe in a mixture of observational and randomised studies, but this analysis is not informative for changing practice.

The authors write: “The consumption of fish (especially oily fish) should be evaluated in randomized trials of clinical outcomes among people with vascular disease.” Well yes, but I’m not sure such a trial would be practical, although there have been randomised trials of fish oil supplements (which have been a mixed bag). We’ll probably never know if a fish diet in general is protective because those more likely to eat fish are also more likely to do all sorts of other things—the classic nutrition research dilemma.

CNS drugs in dementia

Maust and colleagues’ prevalence study of over a million older adults with dementia in the community in the US found that 13.9% of them had prescriptions for three or more central nervous system (CNS)-active drugs for at least 30 days. These could include antidepressants, opioids, benzodiazepines, and antipsychotics. This won’t come as much of a surprise, but it is worrying because these drugs can increase the risk of impaired cognition, falls, and death. The authors comment that they could not assess the appropriateness of the prescriptions. Even if these data had been available, it still would have been debatable whether reducing pain is worth an increased risk of falls, for example. A rate of 13.9% polypharmacy could well be achieving the best outcomes possible in this population—these patients have pain and mental disorders among many other conditions—but I find it hard to believe that three or more CNS drugs can be in many patients’ best interests.

New drug for early Alzheimer’s disease

Eli-Lilly’s new drug donanemab was tested in the 257 patient double blind randomised TRAILBLAZER-ALZ trial. It was positive for the primary outcome of change in the Integrated Alzheimer’s Disease Rating Scale at 76 weeks, but the aim to reduce disease progression by at least half was not achieved. Patients had to have early symptomatic Alzheimer’s disease with evidence of tau and amyloid deposition on positron emission tomography to be eligible to receive the intravenous injections of donanemab or placebo every four weeks. There was no benefit of donanemab over placebo seen on the secondary outcomes, which further calls into question the significance of the positive primary endpoint. There were no safety concerns.

FROM THE JOURNALS
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Gestational diabetes screening

Hillier and colleagues compared two gestational diabetes screening tests in a large randomised trial with the same subsequent guideline directed management. The one step approach (a fasting 2 hour oral glucose tolerance test) resulted in more diagnoses of gestational diabetes (16.5% v 8.5%) than the two step approach (non-fasting 1 hour glucose tolerance followed by a 3 hour fasting test if positive), but there was no difference between the groups in subsequent perinatal or maternal complications from gestational diabetes. This suggests that there may be little advantage to the broader diagnostic approach compared with the two step approach. This is an example where the additional diagnoses detected by the one step approach can be considered overdiagnosis—where there was no advantage to knowing or treating the condition for maternal or perinatal outcomes. Perhaps these people are more likely to develop diabetes subsequently, but that doesn’t mean we need to screen for it in pregnancy. There is already enough to worry about that has more immediate implications.

STEMI without risk factors

In a large Swedish registry, 14.9% of ST elevation myocardial infarctions (STEMIs) occurred in people without standard modifiable cardiovascular risk factors. The “big four” of these risk factors (known as SmuRFs) are smoking, hypertension, hypercholesterolaemia, and diabetes. People without SmuRFs were less likely to receive statins, ACE inhibitors or angiotensin receptor blockers, or β blockers at discharge. This seems suboptimal. Worse still, 30 day mortality was higher in those without SmuRFs. This underlines the need for evidence based post-STEMI medication initiation even in people perceived to be low risk. People without SmuRFs who have STEMI must have a substrate for developing cardiovascular disease even if we don’t yet know how to measure this.


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Diagnosing groin lumps

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Groin lumps are a common presentation in primary care in both sexes. Hernias are possibly the commonest cause of a groin lump. A prospective study (54 patients) found that a strangulated hernia was misdiagnosed by general practitioners in a third of patients (17) and by admitting surgeons in 15% of patients (8).1 Timely referral is critical in patients with complications or a suspected malignancy. This article outlines the presenting features of the different causes of groin lumps to aid primary care physicians in diagnosis and appropriate referral.

What are the likely causes of groin lumps?

Groin lumps can broadly be divided as occurring due to infection, malignancy, or a surgical condition. Few published data exist on the incidence of the various causes of groin lumps.

Infective lymphadenopathy
Leg cellulitis or ulcers—These are commonly associated with enlarged inguinal lymph nodes and are probably the most common cause of abnormal lymphadenopathy in the inguinal region.

Herpes simplex—More than 30 000 people in the UK received a diagnosis of genital herpes in 2018, with twice as many diagnoses in women and girls. HSV-1 was the commonest subtype.3 Herpetic inguinal lymphadenitis is usually bilateral and tender, with blistering or ulceration of the external genitalia or perianal region.4 Rarely, lymphadenitis precedes skin lesions.5

Syphilis—New diagnoses of syphilis in the UK rose from 2874 cases in 2008 to 7541 in 2018.3 Non-tender rubbery enlargement of the inguinal lymph nodes, frequently bilateral, accompanied by a single painless papule at the site of inoculation, are characteristic. Generalised lymphadenopathy, a mucocutaneous rash, and multisystem features are seen in secondary syphilis.6

HIV—Persistent generalised lymphadenopathy is common in the early stages of infection with HIV, and is often accompanied by fever, rash, sore throat, and later by opportunistic diseases such as tuberculosis or lymphomas.

What are the important anatomical features of the groin?

The figure shows how the groin is traversed obliquely by the inguinal canal. The groin contains one or two deep inguinal lymph nodes, and about 11 (range 3-18) superficial inguinal lymph nodes, as per imaging studies. Inguinal lymph nodes are often palpable in healthy people.2 Their largest dimension ranges from 2.1 mm to 13.6 mm. They drain the penis, scrotum, vulva, perineum, inferior abdominal wall, and buttocks, as well as the lower leg.
Catheterisation. This is reduced to a frequency of 1% or less if compression post-procedure is maintained for at least five minutes. These pseudoaneurysms are typically pulsatile, sometimes accompanied by a discharging abscess, or oozing of blood.

A saphena varix is a varicosity of the saphenous vein just distal to the sapheno-femoral junction, caused by venous valvular incompetence. It presents as a groin mass, often mistaken for a femoral hernia. It disappears completely when the patient is lying flat and remains soft and is compressible. It also exhibits a characteristic thrill on coughing.

Undescended testicles occurred in 5.9% of a UK cohort of full-term male infants, with diagnosis delayed until adulthood in 1% of these. Undescended testicles may be palpable in the inguinal canal.

Lymphogranuloma venereum – This is caused by a subtype of Chlamydia trachomatis. One form (found most commonly in tropical regions) is generally in heterosexual people, and lymphadenopathy is unilateral and painful. It can suppurate to form inguinal abscesses or buboes, sometimes creating chronic fistulas. In the UK, a proctocolitis form of the condition is endemic in men who have sex with men, with 919 diagnoses in 2016, mostly in men who were HIV positive. This form is more common than the bubo form in this group. Chancroid, another sexually transmitted infection, caused by Haemophilus ducreyi, can also cause inguinal lymphadenopathy, although it is exceptionally rare in the UK.

Malignant lymphadenopathy

Skin malignancies can cause palpable lymph node metastases.

Lymphoma—Lymphadenopathy at a solitary site occurs in approximately 10% of lymphomas. Other symptoms may not have been detected by the patient, or may be difficult to detect, as with other bone marrow disease. Some patients report a rapidly enlarging node or associated weight loss, night sweats, or fever.

Chronic lymphocytic leukaemia is characterised by widespread lymphadenopathy (differentiated from HIV infection by the absence of associated rash, fever, or sore throat).

Surgical conditions

Hernias—A hernia is the abnormal protrusion of tissue of an organ through the wall of the anatomical cavity containing it. Inguinal hernias account for around 95% of groin hernias. They are palpable above the inguinal ligament, above and medial to the pubic tubercle, where they emerge through the superficial inguinal ring. Femoral hernias—which account for the remaining small percentage—exit the abdomen through the femoral canal directly medial to the femoral artery and vein, so are below the inguinal ligament, and below and lateral to the pubic tubercle.

Symptoms of groin hernias are highly variable and they can often be asymptomatic. Discomfort can be worsened by exertion or coughing, or less commonly by defecation or micturition. Patients can present with complications such as bowel obstruction or strangulation. These are more common in the first six months after a hernia is first noticed by the patient. Strangulation or obstruction occurs within the first three months of presentation in 3% of inguinal and 22% of femoral hernias. The tight anatomical space through which femoral hernias pass increases the risk of early complications, particularly strangulation.

Vascular groin masses—These are rare but potentially serious. True femoral aneurysms (which involve all three components of the arterial wall) are less common than femoral pseudoaneurysms (involving only the external two layers of the wall). Pseudoaneurysms may arise as a result of illicit intravenous drug use. Rarely, they represent iatrogenic injury from arterial catheterisation. This is reduced to a frequency of 1% or less if compression post-procedure is maintained for at least five minutes. These pseudoaneurysms are typically pulsatile, sometimes accompanied by a discharging abscess, or oozing of blood.

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What to cover on history and examination

An evaluation of the patient’s symptoms and risk factors can help identify likely causes.

Ask about

- Pain and associated symptoms: ulceration, fever, weight loss, and night sweats. Infectious lymphadenopathy and strangulated hernia are usually painful and tender. Malignant lymphadenopathy can occasionally be painful but pain is not a diagnostic feature.
- Duration of symptoms is very rarely recorded in the medical literature. In our experience, strangulated hernias have the shortest duration to presentation (less than a week). Duration of symptoms of one to four weeks is common with infectious lymphadenopathy. Malignant lymphadenopathy usually has an insidious onset, often over weeks, as do most surgical conditions.

Risk factors

- Age—Groin hernias are common in young children, and again become increasingly common through adult life.
- A study of national data from Denmark showed two peaks of prevalence of groin hernia repair at ages 0-5 and 75-80.
- Sexually transmitted infections are more common in those aged 16-34. Lymphomas present later, with the median age at diagnosis 70 years.
- Sex—Nearly 90% of groin hernias occur in men and boys.
- The estimated lifetime incidence of groin hernia is 27-43% in men and 3-6% in women.
- Sexual history—If you suspect that the patient has an infection, seek their permission to inquire about their sexual history. This may cover sex of partners and their country of origin (to help identify sexually transmitted infections not usually found in the UK), type of sex, previous testing for sexually transmitted infection, and HIV status. A preceding genital ulcer may be reported, though not in HIV. A recent history of generalised lymphadenopathy or a rash can suggest established or primary HIV or syphilis.
- Other medical conditions or surgery—Hernia is more common in those with chronic obstructive pulmonary disease and connective tissue disorders, such as Ehlers-Danlos and Marfan’s syndromes, as per a case-control study.
- Cohort studies show that previous hernia repair, intravenous drug use, or angiography increase the likelihood of surgical conditions such as recurrent hernia, pseudoaneurysm, aneurysm, or abscess.
- For patients with previous groin surgery—such as hernia repair or orchidectomy—haematomas, seromas, prosthetic material, or scar tissue can produce a lump. Past cancers, particularly melanoma in the leg, may spread to inguinal lymph nodes.

Examination

Seek the patient’s permission to examine the groin lump, and provide necessary privacy to undress. Examination for hernias is best initially with the patient standing, then supine, particularly when seeking a cough impulse.

Examine the lump for features of specific diagnoses (tender/non-tender, bilateral/unilateral, size, specific location, pulsatile). Distinguishing enlarged lymph nodes from a hernia is usually straightforward. Induration, abscess, sinus, or genital ulcer suggest infection. Attempt once to reduce the hernia with the patient supine. For a tender and irreducible hernia immediate referral to secondary care is warranted, as this may represent obstruction or strangulation.

Strangulation is associated with severe tenderness and, later, erythema.

Look for lymphadenopathy elsewhere, which can point to a haematological malignancy or infection.

What are the investigations?

Routine blood investigations lack sufficient sensitivity to rule out a diagnosis. A full blood count may occasionally reveal chronic lymphocytic leukaemia with raised white cell count (lymphocytosis). Thrombocytosis has been linked with several cancers in a large cohort study. A raised inflammatory marker may point towards infection. Depending on particular inflammatory markers, the sensitivity for cancer was 44-50% in a cohort study of electronic primary care records. A composite outcome of a new cancer, autoimmune disease, or infection was recorded in 15% of patients in primary care with a raised inflammatory marker, 6% of those with a normal inflammatory marker, and 3% of the untested population.

If a sexually transmitted infection is suspected, test using viral sampling from genital lesions for herpes, or serological testing such as for syphilis or HIV.

Imaging is not usually required to diagnose groin hernias.

When to refer

Patients with groin lumps will mostly require a referral to appropriate specialist services for further investigations and management.

Refer patients to sexual health services if they have tender lymphadenopathy where infection is suspected or if syphilis or HIV is suspected or confirmed by testing.

A surgical referral is often necessary for men and boys with hernias, except for patients with minimally symptomatic or recurrent hernias who wish to delay or avoid surgery.

We recommend a surgical referral for women with a hernia because femoral hernias are more common in women and difficult to differentiate from inguinal hernias.

Patients with complications such as obstructed or strangulated hernia require emergency surgical referral.

Immediate surgical referral is advisable for expanding or tender vascular masses of the groin or an abscess.

Surgical referral for biopsy may be needed for a suspicious groin node or lymphadenopathy of unknown cause. This may be offered on an urgent basis to rule out a malignancy if the node is rapidly growing or accompanied with fever, night sweat, and weight loss.

A referral to haematology usually follows a finding of chronic lymphocytic leukaemia in the full blood count or lymphoma detected on biopsy.

Children with undescended testicles require referral to a paediatric general surgeon or urologist for further evaluation.

Competing interests

None declared.

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Assessing risk for healthcare workers during the covid-19 pandemic

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Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a new strain of coronavirus that causes coronavirus disease 2019 (covid-19). In March 2020, the World Health Organization classified covid-19 as an international pandemic. Initial guidance from many organisations identified people who might be more vulnerable to covid-19, based on knowledge of those known to be most susceptible to adverse outcomes from the influenza virus. Health conditions divided individuals into those who are “extremely vulnerable,” for whom shielding is required, and those at “increased risk of severe illness.”

Studies of hospital admissions and mortality have subsequently enabled identification of more specific risk factors. They include age, sex, and underlying health conditions, the most important of which are diabetes, hypertensive disease, cardiovascular disease, and obesity. Concerns have also been raised in the UK and the US about ethnicity as a risk factor, because of the disproportionately higher rates of covid-19 infection and deaths in ethnic minority populations compared with white populations.1 In the UK’s NHS, 21% of staff are from ethnic minority backgrounds, but non-white ethnicities accounted for 75.8% of deaths.2 In the US, Black people account for more than 20% of covid-19 cases among health professionals despite only 5% of doctors and 10% of nurses in the US being from this group.3 5

The extent to which covid-19 mortality is linked to workplace exposure, cultural or social factors, ethnicity, housing, and comorbidities is not fully understood. However, as increasing data have emerged about risk factors for severe covid-19, employers are carrying out risk assessment and management as part of their responsibility to protect employees from harm.

Why is occupational risk assessment necessary?

In the UK, employers have a responsibility created by the Health and Safety at Work Act, 1974, to protect the health and safety of their workforce, as far as reasonably practicable.4 Tackling risks under the remit of UK health and safety law involves a preventive, risk assessment approach. This includes an equitable and inclusive approach to risk management and risk reduction of potential workplace hazards for all staff regardless of ethnicity and diversity. It involves identification of what could cause injury or illness (hazard), deciding how likely it is that someone could be harmed, and how seriously (risk). Action needs to be taken to eliminate the hazard, or if this is not possible, to control the risk. The Health and Safety Executive also recommended a risk assessment framework, for example, to employers to reduce the risk of work related stress.7

During the pandemic, there have been calls for the protection of all healthcare workers in primary, secondary, or community care,8 and various frameworks and tools for risk stratification have been developed in the UK and internationally.9 13 The European Agency for Safety and Health at Work has issued guidance for organisations to implement measures in place to prevent covid-19 infections, including risk assessment tools,16 and the World Health Organization has issued guidance on understanding and managing risk.15 These tools are based on best practice in occupational health and expert opinion; their effectiveness has not yet been evaluated. In this article, we present a simple framework: principles for assessing and managing covid-19 risk in healthcare settings. We describe a pragmatic approach that may be incorporated into existing risk procedures and be used as an aid to decision making. Several frameworks are currently in use in various NHS contexts, and they can be adapted to suit other healthcare settings.14 16

WHAT YOU NEED TO KNOW

- In addition to risk factors for severe covid-19 identified across broader populations, such as older age and male sex, data from the UK and the US have shown that healthcare staff of ethnic minority backgrounds have been disproportionately affected by covid-19
- Risk assessment of the workplace, workforce, and individual can help reduce potential workplace hazards for all staff, regardless of ethnicity
- Individuals who are at greatest risk of adverse outcomes from infection may need adjustments to their roles
How do you conduct a risk assessment?

Clinicians are familiar with the concept of Clinical Risk Assessment that seeks to improve the quality and safety of healthcare. Most clinicians are less familiar with the concept of workplace risk assessment. The framework presented here suggests three aspects to a risk assessment that are necessary for effective decision making (fig 1). It is important to consider all three: workplace, workforce, and individual. Several published frameworks give detailed practical methods of implementing these in practice, and are aimed at employers and individual line managers.

First, an assessment of workplace factors should include measurement of exposure to help identify who may encounter the hazard in their work environment. Factors include environmental hygiene, increased environmental cleaning, social distancing, and hierarchy of other control measures, including eliminating risks if possible. With covid-19, we can identify the hazard, and to some extent the exposure (by environmental survey and testing) involved in the type of work being undertaken.

Employers have a duty of care requiring them, as far as reasonably practical, to secure the health, safety, and welfare of their employees. Managing and reducing the risk of potential workplace hazards for all staff involves assessment of the workplace, the workforce, and the individual.

**Workplace assessment**

Take into consideration healthcare setting ie, primary, community, or hospital setting

- Review of aerosol generating procedures

- Potential exposure to SARS-CoV-2 in the workplace

- Application of an appropriate hierarchy of control measures including:
  - Elimination if possible
  - Reduction by hygiene measures
  - Safe systems of work
  - Election and correct use of personal protective equipment including training and fit testing

**Risk assessment for pregnant staff**

- smokedcircles

**Individual assessment**

- Covid-19 risk factors associated with severe illness and mortality.
  - Age
  - Sex
  - Underlying health conditions or co-morbidities
  - Ethnicity
  - Disabilities
  - Individual covid-19 vaccination status

**Workforce assessment**

- Consider staff location
- Identify those individuals with increased vulnerability to infection or poorer outcomes for covid-19
- Consider demographic makeup of staff by age, sex, and ethnicity
- Identify availability of appropriate redeployment options

*Using a validated risk assessment tool, when available

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An open and positive workplace culture supports health workers to share their concerns about risk with employers

Second, an assessment of the workforce will help employers identify, in their team or service, to what extent those staff are at risk of exposure. Employers need to consider the availability of options to redeploy staff. Key considerations include staff location (primary or community care, or hospital setting) and an exploration of activities and risks in their typical working environments—for example, whether staff work in an environment where aerosol generating procedures are performed. Managers should seek to identify in their team or service the proportion of staff who may have increased vulnerability, including data on age and ethnicity.

Third, an individual risk assessment is required for every employee to identify those with increased vulnerability to infection and adverse outcomes from covid-19. These one-to-one conversations may be conducted by a line manager, supervisor, senior manager, or health and safety representative. They should take into account age, sex, chronic health conditions, ethnicity, and pregnancy, and vaccination status of the individual. Details of criteria recommended in this framework are presented in fig 1 and will be updated and refined in the light of new evidence. Several risk assessment tools have been developed based on these criteria and are in operation within the NHS. These are suitable for use by non-clinicians (fig 2). However, most risk tools are based on consensus and have not been validated. Exceptions include the QCOVID risk score in the UK, which uses individual level data from primary care. Although developed for assessment of population level risk, the tool can be used for healthcare workers.

Assessments should consider psychological and social factors, risk behaviours, and mental wellbeing. Individuals’ understanding of risk will vary, as will their willingness to engage in a work activity that they perceive to be hazardous. Managers may not be aware of underlying health conditions in their staff, as in normal circumstances it is not appropriate to seek such information beyond functional capabilities. However, in the current situation, health assessment of all staff by a specialist (eg, occupational health) service may not be practical and inquiry by managers about the presence of health conditions is reasonable, subject to cautions about confidentiality. Such conversations between managers and staff need to be handled sensitively and supportively, to create an environment in which individuals can openly discuss their concerns. Staff may be more anxious, depressed, or traumatised than under normal working conditions. An open and positive workplace culture supports health workers to share their concerns about risk with employers and consider their preferences. Some staff may require additional advice and support.
How will this help reduce the risk?

Risk assessment should be followed by risk management: the application of a hierarchy of control measures. A holistic system of risk assessment aims to help employers make adjustments to mitigate the risk of covid-19 to staff. This starts with elimination of exposure to the hazard if possible, engineering controls of exposure to the hazard, hygiene measures, and safe systems of work, and by the selection and correct use of personal protective equipment (PPE), including training and fit testing. In doing so, it may be possible to minimise potentially high risks of infection.

Individuals who are at greatest risk of adverse outcomes from infection may need adjustments to their roles, and some may require redeployment across the health system to environments that pose a lower risk. Several practical examples of how to conduct a risk assessment of the workplace, workforce, and the individual have been published, and are relevant to all workplaces, including healthcare settings.14 19

Where do we go from here?

Research and audit programmes are under way to determine the impact of covid-19 on healthcare workers, with several longitudinal studies ongoing.20 21 As more scientific evidence on covid-19 becomes available, more accurate validated risk prediction scores will facilitate more precise estimates of individual risk.

Figures to date do not suggest that doctors or nurses, particularly in intensive care units, have a higher mortality rate than the general working population.22 This may reflect a controlled working environment where exposure to the hazard can be minimised by safe systems of work and provision and correct use of PPE. Nonetheless, because of the disproportionate number of overall deaths in ethnic minority healthcare workers, risk assessments should be implemented for all healthcare workers.

Finally, risk management should involve training, measuring how well control measures are working, and learning from that experience. A risk management process should also involve consultation with staff. The pandemic has created an opportunity to improve safety in the workplace beyond covid-19, to consider cultural factors, and to ensure that all staff feel included and supported to raise concerns. How such processes have been conducted should also be evaluated to help improve risk management in the current pandemic and in any similar events in future.

Competing interests: KK and AM developed with others the Risk Reduction Framework currently being supported by NHS Employers.

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Further information


Age and ethnicity

- People of Black, Asian, and minority ethnicities aged above 55, particularly in those with co-morbidities
- People of white European ethnicity aged over 60

Sex

- Men

Underlying health conditions including:

- Hypertension
- Cardiovascular disease
- Diabetes mellitus
- Chronic kidney disease
- Chronic obstructive pulmonary disease
- Obesity

Pregnancy

- All pregnant women should have risk assessment
- Women >28 weeks pregnant or who have underlying conditions should be recommended to stay at home
- Women < 28 weeks pregnant should only work in patient facing roles where risk assessment supports this

Fig 2 | Risk assessment for the individual

EDUCATION INTO PRACTICE

- What is the most effective way to ensure that all staff know they need an individual risk assessment?
- How might you approach a member of staff for a discussion about their risk profile?
- Who will know how managers, and other people responsible for carrying out these assessments, find these discussions in practice? Do they require additional information and support?

HOW PATIENTS WERE INVOLVED IN THE CREATION OF THIS ARTICLE

Patients were not directly involved with creation of this article but the authors included clinicians and managers who are involved in day-to-day decision making on occupational health and risk assessments of healthcare staff.
The treatment terrifies me more than the diagnosis

Brenda Denzler describes how earlier traumatic childhood experiences of medical treatment continue to have an impact to this day.

I was only 5 years old when I had my first big encounter with the medical profession. I always had clear, though fragmented, memories of what happened, but none of how I felt about it. I remember being forcibly restrained for a lifesaving procedure and being isolated for six weeks in a hospital room.

As an adult, I had recurring nightmares and experienced hypervigilance in all medical settings. I never knew why. Then, when I was diagnosed with an aggressive form of cancer, all the medical demons from my past came roaring out of my unconscious, where they’d been doing their quiet work for decades.

I found I had lots of emotional memories from my earliest medical encounters. Cancer scared me a lot, but the idea that I was going to have to submit myself to strangers who would do hurtful things to me in the name of treating me was beyond terrifying. I considered rejecting conventional treatment and trying holistic methods instead.

I accepted conventional treatment, but only with great difficulty. A decade later and the cancer is gone, but I still struggle with my medical demons. I’ve made progress via talk therapy, but I doubt I will ever be able to totally overcome them. My stomach still knots up when I get a message in my patient portal. Sometimes the smallest medical interaction will trigger a full blown panic attack. Having to take on a new doctor fills me with intense dread. Coping with treatment trauma is exhausting.

Transformed by fear
People who have experienced treatment trauma may be some of your most difficult patients. But it is not because we want to be. It is because in a healthcare setting, we are transformed by fear.

Neuroscience says this is because the neural pathways created by the original events have become hardwired in us. Being with health professionals awakens those fears, and we find ourselves reliving the trauma. I find it hard to trust you. I find it hard to trust you include me as an active partner in diagnosis and treatment decisions implicitly. I can get extremely weepy and emotional, or maybe a little too shrill or loud and come across as a bit threatening. Sometimes I can seem dissociated or blank. It’s because I am fighting a quickly rising tide of panic that could totally overwhelm me. No matter how much I may need your help, I want to run away.

When you encounter someone like me, consider asking open-ended questions about their earlier experiences receiving medical treatment. The patient may not yet be aware of how deeply they’ve been affected, but their behaviour and their answers may help you understand how best to help them.

Help me feel involved
I am the co-moderator of a support group for people who, like me, have been traumatised by their medical treatments. The reasons for our trauma vary a lot, and include being forcibly restrained, being subject to medical mistakes, anaesthesia snafus, or being ignored or disbelieved. Sometimes it is just the fact that medical treatment can be traumatic.

You can help by making me feel empowered and in control. First, be willing to take the time I need. Don’t rush through the visit. Second, listen to me without preconceptions based on what may be in my chart; believe what I tell you about my medical situation, not just what someone else wrote about it.

Third, include me as an active partner in diagnosis and treatment decisions. Feeling like I am the passive recipient of decision making scares me. Fourth, don’t take it personally. As my positive experiences with you accumulate, my treatment trauma is less likely to be active when we meet.

Finally, remember who I really am: a survivor of a very specific kind of trauma who’s doing the best she can. When I’m not on your turf, I’m a very different person.

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CASE REVIEW

Acute onset dysphagia and neck pain after eating

A woman in her 40s presented to the emergency department late in the evening with dysphagia and discomfort in her throat at the level of the suprasternal notch. Her symptoms had started while she was eating a pork chop for dinner. She was able to swallow saliva and was not drooling, but any attempt to swallow fluids resulted in severe pain and immediate regurgitation. Her airway was assessed and found to be clear; she was able to speak in full sentences, and no change to her voice was discerned. She had no stridor and no difficulty breathing.

Observations on admission were:
- Temperature: 37.2°C
- Blood pressure: 131/85 mm Hg
- Pulse rate: 97 beats/min
- Respiratory rate: 17 breaths/min
- Pulse oximetry: 99% on room air.

Nothing remarkable was seen on examination of the patient’s neck and oral cavity. The patient was otherwise fit and well, and she had no history of swallowing difficulties. A plain film radiograph was obtained, which showed a radio dense opacity within the proximal oesophagus at about the level of the C6/C7 vertebrae (figure).

The absence of prevertebral soft tissue swelling or surgical emphysema suggests that this is unlikely to be reactive oedema, perforation is unlikely. Assess for possible airway compromise. Operative management with rigid or flexible oesophagoscopy is required because no abnormalities were seen during rigid oesophagoscopy.

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MINERVA

“Salmon patch” on the eye
This is a plasmacytoma of the conjunctiva of a woman in her 50s who reported a lump under her eyelid that had increased in size over three months.

Examination showed a soft pink conjunctival mass with the characteristic appearance of a “stuck on” piece of salmon. Biopsy confirmed a plasmacytoma.

A “salmon patch” appearance is consistent with any kind of lymphoid tumour of the conjunctiva, including plasmacytoma, and can occur as a solitary lesion or in the context of systemic lymphoid malignancy. Further investigation in this patient found no evidence of other tumour sites.

Not all lesions in the conjunctiva or eyelid require urgent referral, but the presence of a salmon patch, although seemingly innocuous, should prompt a “two week wait” referral to an ophthalmologist for further investigation.

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Patient consent obtained.

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If you would like to write a Minerva picture case, please see our author guidelines at http://bit.ly/29HCBAL and submit online at http://bit.ly/29yyGSx

Early surgery for acute cord injury
A pooled analysis of data from more than 1000 patients explores how the outcomes of acute spinal cord injury vary with the timing of surgery. Recovery of sensorimotor function, evaluated one year after injury, was greatest in patients who underwent surgical decompression within 24 hours of the injury. After the first 24-36 hours, motor recovery plateaus and the benefits of early decompressive surgery are lost (Lancet Neurol doi:10.1016/S1474-4422(20)30406-3).

Placebo effects
A review of functional neuroimaging studies of healthy participants compared brain responses to painful stimuli under placebo and control conditions. Placebos induced small reductions in activity in multiple areas including the insula, thalamus, habenula, mid-cingulate gyrus, and supplementary motor area. But the findings aren’t consistent and the authors end up with the rather non-specific conclusion that placebo analgesia is a multi-faceted phenomenon involving multiple cerebral mechanisms that differ across studies (Nat Commun doi:10.1038/s41467-021-21179-3).

Dark nudges and sludge
“Nudges” are small environmental changes that make it easier to choose wisely. Putting calorie counts on menus, for example, helps people eat less. Designing buildings with fewer lifts encourages taking the stairs. Dark nudges do the opposite and facilitate the choice of harmful options. Examples include the way that the alcohol and gambling industries use advertisements to make heavy drinking appear normal and gambling seem innocent. Sludge, as the name suggests, is the deliberate muddying of the waters to create confusion about the likelihood of harm (Milbank Q doi:10.1111/1468-0009.12475).

Five a day is just right
The “five a day” promotion of fruit and vegetable consumption originated in California in the 1990s from a partnership between the state health department and the agricultural and supermarket industries (Am J Prev Med doi:10.1016/S0749-3797(18)30488-4).

Five seems to have been chosen pragmatically as a realistic target rather than being based on nutritional evidence. But analyses of the Nurses’ Health Study and Health Professionals Follow-Up Study suggest that they got it right. During 30 years of follow-up, the greatest mortality benefit was seen for five servings a day, and eating more didn’t give greater risk reductions (Circulation doi:10.1161/CIRCULATIONAHA.120.048996).

Motor neurone disease
Ageing of the population is one reason for the increasing incidence of neurodegenerative diseases in many developed countries. However, an analysis from the Netherlands finds that it’s only a partial explanation for increasing rates of motor neurone disease (Neurology doi:10.1212/WNL.0000000000011467). After adjustment for changing demographics, mortality from motor neurone disease rose by 14% over the last 20 years. Mapping showed some geographical variation of risk but identified no areas where rates were especially high or low.

A smartphone app for knee osteoarthritis exercises
A 6 week programme of daily exercises presented by a smartphone application reduced pain and improved function in people with knee osteoarthritis when compared with usual care (JAMA Netw Open doi:10.1001/jamanetworkopen.2021.0012). The intervention focused on strengthening and balance enhancement, using sit-to-stand and stair climbing exercises. Unfortunately, covid-19 hampered data collection and only around 70% of the people who were randomly assigned contributed to the final analysis.

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